Te Kaunihera-ā-Rohe o Ngāmotu
New Plymouth District Council

SUSTAINABILITY WORKING PARTY AGENDA

Tuesday 3 June 2025 at 1pm

Council Chamber, Liardet St

Chair	Cr	Anneka Carlson	Matthews
Deputy Chair	Cr	Amanda	Clinton-Gohdes
	Cr	David	Bublitz
	Cr	Harry	Duynhoven
	Cr	Bryan	Vickery
Community Representatives	Mr	Steve	Francis
	Mr	Jamie	Silk
Tangata Whenua	Mr	Tāne	Manukonga
Representatives	Ms	Emily Tuhi-Ao	Bailey

Purpose and Areas of responsibility

1. The Working Party's purpose and areas of responsibility are to:

    a) Provide strategic guidance and advice to the Council on sustainability matters, for integration into long-term planning in line with the Strategic Framework.

    b) Monitor council plans and activities relating to environmental and climate change matters and to advocate to the council on these issues.

    c) Provide advice, oversight and advocacy for the New Plymouth District's climate change response, zero waste goals, and work to increase biodiversity in the district.

    d) Draft strategies and policies, within the working party's purpose, for consideration by Council.

2. Working party members will:

    a) Work together with our communities, industries and key stakeholders to reduce emissions and become a more environmentally sustainable district.

    b) Raise public and organisational awareness of environmental and climate-related issues within our district.

OPENING KARAKIA

Whakataka te hau ki te uru,

Whakataka te hau ki te tonga.

Kia mākinakina ki uta,

Kia mātaratara ki tai.

E hī ake ana te atākura he tio,

he huka, he hauhunga.

Haumi e! Hui e! Tāiki e!

Tihei Mauri Ora

Translation:

Get ready for the westerly

and be prepared for the southerly.

It will be icy cold inland,

and icy cold on the shore.

May the dawn rise red-tipped on ice

on snow, on frost.

Join! Gather! Intertwine!

This is an ancient karakia that was used when you were out at sea and a storm was approaching. However, the storm is a metaphor for any life threatening force. It is now widely used at the start of the day or at the start of a meeting.

Te Kaunihera-ā-Rohe o Ngāmotu
New Plymouth District Council

Health and Safety Message / Te Whaiora me te Marutau

In the event of an emergency, please follow the instructions of Council staff.

Please exit through the main entrance.

Once you reach the footpath please turn right and walk towards Pukekura Park, congregating outside the Spark building. Please do not block the footpath for other users.

Staff will guide you to an alternative route if necessary.

If there is an earthquake – drop, cover and hold where possible. Please be mindful of the glass overhead.

Please remain where you are until further instruction is given.

APOLOGIES / NGĀ MATANGARO

Cr David Bublitz

CONFLICTS OF INTEREST / NGĀ ARA KŌNATUNATU

1. People who fill positions of authority must undertake their duties free from real or perceived bias. Elected members must maintain a clear separation between their personal interests and their duties as an elected member. Failure to do so could invalidate a Council decision and leave the elected member open to prosecution and ouster from office.

2. An elected member is entitled to interact with the Council as a private citizen. However, they cannot use their position as an elected member to gain an advantage not available to the general public.

3. Elected and appointed members will:

    - Declare any interest whether pecuniary or non-pecuniary at a meeting where the interest is relevant to an item on that agenda.

    - Exclude themselves from any informal discussions with elected members relating to a matter they have an interest in.

    - Seek guidance from the Chief Executive if they are unclear of the extent of any interest.

    - Seek guidance or exemption from the Office of the Auditor General if necessary.

ADDRESSING THE MEETING

Requests for public forum and deputations need to be made at least one day prior to the meeting. The Chairperson has authority to approve or decline public comments and deputations in line with the standing order requirements.

PRESENTATION

- Venture Taranaki Presentation (Energy) - Kelvin Wright (Chief Executive) and Anne Probert (Director Strategic and Sector Partnerships)

PUBLIC FORUM / ĀTEA Ā-WĀNANGA

Public Forums enable members of the public to bring matters to the attention of the committee which are not contained on the meeting agenda. The matters must relate to the meeting's terms of reference. Speakers can speak for up to 5 minutes, with no more than two speakers on behalf of one organisation.

DEPUTATIONS / MANUHIRI

Deputations enable a person, group or organisation to speak to the meeting on matters contained on the agenda. An individual speaker can speak for up to 10 minutes. Where there are multiple speakers for one organisation, a total time limit of 15 minutes, for the entire deputation, applies.

- None advised

PREVIOUS COMMITTEE MINUTES / NGĀ MENETI O MUA

Recommendation

That the minutes of the Sustainability Working Party dated 4 March 2025 (ECM 9457795), and the proceedings of the said meeting, as previously circulated, be taken as read and confirmed as a true and correct record.

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SUSTAINABILITY WORKING PARTY SUMMARY REPORT JUNE 2025

PURPOSE/ TE WHĀINGA

1. The purpose of this report is to provide an overview of the status of the Long-Term Plan (LTP) 2024-34 projects relevant to the Sustainability Working Party Terms of Reference.

RECOMMENDATION / NGĀ WHAIKUPU

That, having considered all matters raised in the report, the report be noted.

EXECUTIVE SUMMARY / WHAKARĀPOPOTOTANGA MATUA

2. This report updates on LTP 2024-34 projects and actions within the Sustainability Working Party Terms of Reference.

3. Detailed reporting on LTP projects is provided to various committees, but this report focuses on those projects with a sustainability aspect.

SIGNIFICANCE AND ENGAGEMENT / TOHUTOHU KAI WHAKAHAERE

4. This report is provided for information purposes only and has been assessed as being of some importance.

LTP Projects and Actions

Climate change planning

5. The LTP includes a permanent budget for climate change planning, with a staggered increase over two years. This will now be extended to over three years as part of the Annual Plan 2025/26.

6. Council Officers are developing the Climate Change Adaptation Plan and expect to present the Plan to Council to adopt in early 2026. Recent actions in developing the plan include:

    a) Contracting WSP for a community climate change risk assessment to prioritise community-based planning

    b) Launching a community survey on 14 April 2025 to understand concerns and prioritise actions.

    c) Meeting with Ngā Kaitiaki to incorporate mana whenua views into the plan.

d) Holding a Council workshop on 20 May. Working Party community and tangata whenua representatives were invited to the workshop.

e) Preparing a paper for the Sustainability Working Party's input in a future meeting round.

7. Council Officers will be revising the Emissions Reduction Plan in 2025/26. Preparatory work includes:

a) Attending a Local Government Funding Agency webinar on Climate Action Loans. These Loans offer discounted interest rates for Council borrowing. To be eligible Council must have an emissions reduction plan that meets certain criteria (including having science-based targets) and must continue to meet those targets. Creating an eligible plan is a key driver for revising the Emissions Reduction Plan.

b) Researching Council gas users without existing fuel switching projects to understand the asset condition, likely renewal timeframes, and costs for low/no emission alternatives.

c) Researching solar feasibility on some of the larger potential locations for solar generation on Council sites for Council use. These sites would require specific LTP project funding. Smaller opportunities are unlikely to require such intensive investigations or specific project funding approval.

8. A report was presented to the last Finance, Audit and Risk Committee "Climate Change Considerations from the Office of the Auditor-General". This report is attached to this report for SWP information (ECM 9457147).

Energy procurement

9. Officers recently completed the electricity procurement for Council for the next three years, selecting Ecotricity (New Zealand's only certified climate positive electricity supplier) as the sole provider of electricity for Council. This ensures all Council electricity comes from renewable sources, reducing emissions by approximately 1,000 tonnes per annum. Approximately 40 per cent of Council's electricity will be coming from the New Plymouth Airport Solar Farm.

10. Council's gas contract expires in late 2026. Council Officers anticipate a significant price increase as the market price has increased substantially since Council last renewed its gas contract. Notably, Whanganui District Council recently had an 80-90 per cent price increase that has meant some services (pools and crematorium) have had significant fee increases for their community. It should be noted that there are significant risks in this procurement, with the Government having struggled to receive contracted supply last year.

Climate-Related Disclosures

11. Council resolved to include climate-related disclosures in Annual Reports, acknowledging initial gaps but aiming for best practice over time.

12. A draft report is included elsewhere in this agenda.

Community Funding

13. Officers translated the Sustainability Working Party's recommendation on 27 November 2024 (SWP/2024/048) into the policy for the Community Climate Action Funding Scheme.

14. The Funding Scheme has been wrapped into the wider Community Funding Investment Policy review (completed on 13 May 2025). The budget for 2025/26 was reduced as part of the Annual Plan 2025/26 from $100,000 to $75,000. The reduction is a result of rates affordability considerations and ensuring that there is sufficient community demand for funding before committing it.

15. The policy schedule is below:

Community Climate Action Fund

Purpose

The purpose of the Community Climate Action Fund is to foster community action and transition to a sustainable, net zero emissions, climate resilient future.

Activities that will be considered for a grant include:

- Greenhouse emissions reduction initiatives, including:
  - Renewable energy, micro-grids, electrification and energy efficiency
  - Sustainable transport and travel, including electric vehicles, e-bikes and active transport
  - Low energy, sustainable homes
- Climate adaptation and resilience initiatives, including:
  - Community resilience and emergency preparedness
  - Resilient local food systems and climate-resilient agriculture
  - Water resilience
  - Natural ecosystem resilience
- Climate-related education initiatives, including behaviour change, upskilling and awareness
- Research and investigations into emissions reduction or adaptation and resilience related to New Plymouth District, including:
  - Feasibility studies or emissions reduction plans for significant emissions reduction
  - Climate change risk assessments
  - Citizen science projects for emissions reduction, climate adaptation or resilience

Projects will receive priority if they:

- Support mana whenua priorities relating to climate change
- Support rangatahi/youth priorities relating to climate change
- Support communities and demographic groups vulnerable to climate change impacts
- Provide for long-term benefits that accrue beyond the terms of the funding (for instance, catalysts for larger change, proof of concept, or permanently removes emission sources)
- Provide benefits to both reducing greenhouse gas emissions and climate adaptation and resilience
- Provide for benefits that accrue to the community rather than an organisation's internal operations

Council may also set annual priorities where, in the view of Council, greater focus is required to ensure a transition to a sustainable, net zero emission, climate resilient future.

Eligibility and exclusions

Applicants can be community groups, mana whenua trusts or schools based within the New Plymouth District, as well as research institutes.

The grant will not fund:

- Projects that fit within related community funding schemes operated by Council (Planting our Place – Te Korowai o Tāne, Natural Heritage Protection Fund Scheme and the Zero Waste Fund)
- Projects that duplicate existing Council services or programmes
- Projects that undermine other funding criteria (for instance, a climate adaptation and resilience project must not result in increasing greenhouse gas emissions)
- School building work
- Emergency preparedness initiatives for emergency centres that do not have a memorandum of understanding with Council's Emergency Management Team.

Conditions

- Eligible projects costs for the replacement of fossil fuel uses (e.g. replacing gas boilers with heat pumps or petrol/diesel cars with electric cars) are calculated as the cost difference between the preferred low/no carbon product and the equivalent fossil fuel product, as well as any supporting infrastructure changes (such as electricity supply).
- Council reserves the right to require co-funding or in-kind support for substantive projects where benefits accrue to community organisation's internal operations rather than the wider community.
- Council reserves the right to account for any greenhouse gas emission reductions as part of its emissions accounting.

Application

In addition to the general application requirements:

- the group or organisation must provide quotes where it is relevant to the project applied for.
- Where an application is seeking to replace a fossil fuel use with a low/no carbon product, a quote must be provided for the low/no carbon product and either a quote for the fossil fuel product or publicly available pricing information on a fossil fuel product. Council reserves the right to seek a comparison to an alternative fossil fuel product if, in the opinion of Council, the product is not an appropriate equivalent product.
- Applicants should, where relevant, provide a business plan for how a project will continue to provide benefits after the funding ends.
- Projects that reduce greenhouse gas emissions may, but are not required to, provide an estimate of emissions reductions.

16. The 2025/26 funding round will be undertaken early within the new financial year. SWP members are welcome to encourage community groups and organisations to apply.

Sustainability Accelerator Fund (SAF)

17. Council allocated $300,000 per annum in the LTP, with $100,000 dedicated to the high-frequency bus trial budget in Years 1, 2 and 3.

18. As previously indicated, there is $170,000 to distribute in 2025/26 due to flow-on impacts of the high frequency bus trial following the NZTA funding shortfall decisions.

19. The SAF Governance Team allocated the funding on 3 April focusing on Energy Efficiency and Electrification. Funded projects include:

Facility	Project	Cost allocation
TSB Showplace	Solar PV System	$48,737
Civic Centre	Low E-Film for windows	$29,000
Waitara Library	LED light conversion	$27,880
Puke Ariki	Project Dry Hands	$21,255
New Plymouth Water Treatment Plant	LED light conversion	$19,730
New Plymouth Wastewater Treatment Plant	LED light conversion	$18,037
Brooklands Zoo	Data loggers for animal habitats	$2,000
	Animal habitat thermal imaging cameras	$1,570
	UV lighting for reptile heating	$1,000
	Animal Habitat thermostats	$585

20. The SAF for 2025/26 will be set at $200,000, and Officers will consider setting a (as yet undetermined) priority focus area for 2025/26.

High frequency bus trial

21. Council allocated $200,000 per annum (in Years 1, 2 and 3) for the bus trial, subject to matching contributions from Taranaki Regional Council and NZTA/Waka Kotahi.

22. The NZTA funding shortfall delayed the initiation of work on the bus trial. As noted above, Council resolved to "proceed with the [bus] trial in year 2 to maximise the outcomes sought in the LTP resolution within the available budgets. The final route to be recommended by the newly formed Taranaki Passenger Transport Joint Committee and confirmed by the mayor, deputy mayor and chair of Finance, Audit and Risk. This Joint Committee has had its first meeting on 17 April 2025, and the agenda outlines that options are now being assessed for the bus trial.

New Whare Ora Loans Scheme

23. Council committed in principle to establishing a new voluntary targeted rates scheme for household sustainability purposes as part of Annual Plan 2025/26.

24. Consultation on the proposed Whare Ora Loans Scheme opened on 31 March and closed on 18 April. Council received 63 submissions. Council Officers are assessing submissions and will report directly to the Council meeting on 24 June 2025 for decision. Should Council resolve to proceed Officers intend to have the Scheme operational by the end of the calendar year.

Planting our Place

25. Council has allocated $200,000 per annum for the Planting our Place Programme.

26. Council Officers are currently are revising the implementation strategy and action plan to ensure long-term effectiveness

27. Recent work has focused on: continuing with delivering the programme, assessing existing council strategies, policies and plans, and those of other councils in New Zealand. This background research will help to inform the review process

28. Key large-scale programmes of work and other considerations will inform the strategy, including:

    a) Waiwhakaiho Wildlink

    b) Inglewood Hākuturi project,

    c) the Bell Block to Waitara Coastal Walkway Extension,

    d) major growth areas of the district,

    e) land asset data work (land acquisition and geospatial green-asset data),

    f) a review of polices around mowing, grazing and possible areas for planting in reserves,

    g) consideration of native and exotic carbon forestry, and

    h) other key catchment-based restoration work being progressed within the district.

29. Officers will also consider Council's approach to ongoing management of existing planted and remnant natural areas on Council administered lands such as:

    a) opportunities for site-specific management planning,

    b) building greater connectivity through Planting our Place,

    c) opportunities to improve ecological condition through pest management (in particular weeds),

    d) improved gauging of management inputs,

    e) harnessing conservation volunteer effort,

    f) Council resourcing, and

    g) outcomes monitoring.

30. Recent work has focused internal engagement to determine the scale of a strategy. At this stage, the intention is to undertake a discrete review of Planting our Place to update the strategic approach for identification of sites for planting. This will then be followed by a larger piece of work to consider a wider strategy around biodiversity.

31. Council Officers will work with the Sustainability Working Party to explore the aspirations for the programme and review new data and information that officers have received. This will inform the direction of the review.

Mowing and Tree Planting Policies and Activity Plans

32. Council instructed Officers to review current mowing levels of service, planting policies and activity plans to maximise low-mow or no-mow areas and increase biodiversity in reserves or other Council-owned land.

33. The Parks Team have collated the following list of current and potential additional low mow and no mow areas.

Area	**Low or no mow status**
Mangapouri cemetery extension (approx.11 hectares),	No mow
Sycamore subdivision esplanade reserves (approx. 1 hectare)	No mow
Reserves from Egmont Road to De Havilland Drive (approx. 1 hectare)	Add to no mow while transitioning to planting
Arboretum rear of Taranaki Crematorium (approx. 2 hectares).	Grass cut to establish trees and now considered to be no mow

Area	Low or no mow status
Meeting of the Waters (approx. 3 hectares)	Add to no mow while transitioning to planting
Coastal Walkway (Fitzroy to Waiwhakaiho River mouth and Te Rewa Rewa Bridge to Bell Block)	Low mow single strip either side of walkway mowed and some rest areas
Huatoki and Te Henui walkways, Barret Domain, Lake Mangamahoe, Lake Rotomanu	Low mow of single strip either side of walkway and some rest areas.
The Mangati, Mangaotuku, Waiwhakaiho River, Harekawe and Matetai park, Trimble Park, Inglewood walkways	Being assessed as additional low mow areas
Coastal Walkway extension to Waitara	Assessment will be needed with construction underway
Further reserves upon subdivision	New reserves will now be assessed as part of vesting process as to whether they are suitable to be low or no mow areas.
Note – all no/low mow areas will be cut if required by emergency services.	

34. Below are two pictures of low and no mow areas:



Bell Block, Hickford Park to Te Rewa Rewa Section of Coastal Walkway Low Mow area



Hydro Road No mow area

35. Council Officers are concurrently reviewing the District Tree Policy. This will provide a holistic approach and integrate all biodiversity, maintenance and planting considerations together, resulting in a better outcome.

Battiscombe Terrace, Waitara - Landfill

36. An in-depth report the Historic Landfills Project was presented to the Finance Audit and Risk Committee on 6 May 2025.

37. During LTP 2024-34 deliberations, the Waitara Community Board advocated for funding to be allocated to the investigation into the remediation of closed Waitara landfills. Council allocated $1m in year three to this project.

38. Council has identified 58 historical dump sites across the district, 28 of which are New Plymouth District Council (NPDC) responsibility. The Council allocated funding to investigate the risk of exposure and identify erosion protection options.

39. The initial investigation identified 14 high-priority sites, with 11 undergoing a high-level hazard assessment. Key findings include three critical risk landfills, being the Waitara Farm Dump, Waitara Golf Course and the Battiscombe Terrace/West Beach Landfill.

40. Budget was allocated to continue to assess the risk and needs of the individual sites in year one of the LTP 2024-34 for $0.5 million.

41. All potential remediation options are beyond the current LTP budgets of $1m in year three of the LTP 2024-34.

42. The next steps involve, investigating all remediation options with mana whenua, and preparing a strategic business case. This business case will include multi criteria analysis and more accurate cost estimates to drive a recommended options for all sites mentioned in this report.

Regional Organic Waste Processing Facility

43. South Taranaki District Council leads the Regional Organic Waste Processing Facility project. The project is being rescoped as negotiations with the shortlisted parties did not reach a solution. Officers will provide updated information when available.

Community Gardens

44. The Community and Economic Development team is collaborating with the Bishops Action Foundation to develop a community-led Food Security Strategy and Action Plan. Council Officers expect to review the Community Gardens Policy will commence, likely in the second half of 2025.

CLIMATE CHANGE IMPACT AND CONSIDERATIONS / HURINGA ĀHUARANGI

45. Any climate change impacts and considerations have been assessed as each of the projects proceeds.

NEXT STEPS / HĪKOI I MURI MAI

46. Officers will provide updates to the Sustainability Working Party on each agenda.

FINANCIAL AND RESOURCING IMPLICATIONS / NGĀ HĪRAUNGA Ā-PŪTEA, Ā-RAUEMI

47. There are no financial or resourcing implications in relation to this report, any implications will be reported on a project-by-project basis.

IMPLICATIONS ASSESSMENT / HĪRANGA AROMATAWAI

48. This report confirms that the matter concerned has no particular implications and has been dealt with in accordance with the Local Government Act 2002. Specifically:
    - Council staff have delegated authority for any decisions made;
    - Council staff have identified and assessed all reasonably practicable options for addressing the matter and considered the views and preferences of any interested or affected persons (including Māori), in proportion to the significance of the matter;
    - Council staff have considered how the matter will promote the social, economic, environmental, and cultural well-being of communities in the present and the future.
    - Unless stated above, any decisions made can be addressed through current funding under the Long-Term Plan and Annual Plan;
    - Any decisions made are consistent with the Council's plans and policies; and
    - No decisions have been made that would alter significantly the intended level of service provision for any significant activity undertaken by or on behalf of the Council or would transfer the ownership or control of a strategic asset to or from the Council.

APPENDICES

Appendix 1: Climate Change Considerations from the Office of the Auditor-General (ECM 9457147)

Report Details

Prepared By:	Jessica Stokes (Manager Delivery – Sustainability and Infrastructure) and Greg Stephens (Climate Change Response Lead)
Approved By:	Julie Straka (Manager Governance)
Team:	Sustainability and Behaviour Change
Ward/Community:	District Wide
Date:	28 April 2025
File Reference:	ECM 9486315

----------End of Report ----------

CLIMATE CHANGE CONSIDERATIONS FROM THE OFFICE OF THE AUDITOR-GENERAL

PURPOSE/ TE WHĀINGA

1. The purpose of this paper is to provide the Finance, Audit and Risk Committee with information on recent information, guidance and reports from the Office of the Auditor-General around climate change that may impact Council during future auditing processes.

RECOMMENDATION / NGĀ WHAIKUPU

That, having considered all matters raised in the report, the various information, guidance and reports from the Office of the Auditor-General around climate change be noted.

SIGNIFICANCE AND ENGAGEMENT / TOHUTOHU KAI WHAKAHAERE

2. This report is provided for information purposes only, and has been assessed as being of some importance.

EXECUTIVE SUMMARY / WHAKARĀPOPOTOTANGA MATUA

3. The Office of the Auditor-General (OAG) has been increasing its focus on climate change matters and has released several pieces of information, guidance and reports. These reports cover a wide range of issues across local government, ranging from greenwashing, asset accounting, performance management to strategy and collaboration. This report provides a summary of those reports and Council's current position so that Elected Members understand the potential implications for how Council will manage its assets and finances in the future.

4. Overall, Council has been increasingly mature in its climate change response and agreed to a permanent business-as-usual funding for climate change in the Long-Term Plan (LTP) 2024-2034. This means that Council is well placed to begin incorporating the wide range of climate change impacts as identified by OAG. The issues raised can be incorporated into work plans so that Council is well placed by for the next LTP auditing.

BACKGROUND / WHAKAPAPA

5. OAG has been increasing its focus on climate change matters in recent years. Climate change was an auditing focus during the most recent long-term plan round. An auditor issued a qualified audit opinion to at least one local authority for not considering climate change sufficiently (relating to flood protection schemes). Informal indications are that other local authorities received considerable scrutiny over their inclusion (or not) of climate change forecasts, particularly in the audit of infrastructure strategies.

6. While Council was able to satisfactorily demonstrate its inclusion of climate change forecasts and forward planning to its LTP auditors, Council will need to continue to focus on the impacts of climate change for future LTPs as expectations and focus increase. This may result in some financial implications, although this is unknown at this stage. This report provides a summary of recent information, guidance and reports from OAG and how they may relate to Council in the future. This enables Council to ensure all its work programmes are aware of these developments.

Greenwashing

7. The Office of the Auditor-General has issued guidance to its auditors about how to avoid 'greenwashing', building on a previous blog from the Auditor-General about the subject.

8. Greenwashing is where an organisation claims to be more sustainable than it is. There are several sources of greenwashing, including:

   a) Commitments that are vague, lack credibility, or are unfunded

   b) Making claims to be sustainable that are misleading and

   c) Over-emphasising successes in an unbalanced manner.

9. The OAG has outlined terms or statements which Auditors should not accept without the approval of the Auditor-General. These include being carbon neutral or positive. This increases the scrutiny for organisations making these types of claims.

10. The OAG guidance also put specific focus on whether organisations are on track to meet any stated goals, particularly around goals to reduce carbon emissions. Targets must be set clearly and outline what they do or do not cover. There is an expectation that there will be evidence supporting it. Claiming an organisation is 'on track' also needs to consider whether funding is in place for future initiatives.

11. Audit may assess whether or not Council is greenwashing because of the "*Sustainable Lifestyle Capital*" vision (emphasis added). This vision makes a long-term commitment towards sustainability, and there could be a risk of greenwashing if Council were not investing towards a more sustainable community or being a leader in sustainability. This risk is considered low because the Long-Term Plan 2024-2034 includes numerous projects and initiatives towards becoming more sustainable both as an organisation and for the community. These investments include the high-frequency bus trial, reducing gas use through fuel switching heating systems, waste minimisation initiatives, universal water metering and water conservation, climate change planning and Planting our Place. There are also a range of metrics Council can utilise to demonstrate improving sustainability both as an organisation and within the community, including annual Council emissions inventories, biodiversity levels, waste diversion rates and district-wide emissions data. However, the risk may increase if these projects or initiatives are delayed or removed in the future, or these data metrics show declining performance.

Climate-change impacts on financial statements

12. In May 2024 the Office of the Auditor-General released a guide to considering the implications of climate change in financial reporting. There are several implications for Council from this guidance.

Useful life of assets

13. The useful life of assets may need to be reassessed as climate change may alter these timeframes. The useful life of an asset is effectively an expected lifespan for when the asset may need to be renewed and is used for accounting depreciation. Assets may be renewed either before or after the useful life ends depending on actual condition and assessment.

14. OAG identified a range of potential ways that climate change may impact on expected asset lifespan:

OAG example	Officer comment
The capability and capacity of assets to cope with expected extreme weather events	This could be applicable to some of Council's existing stormwater, flood protection, coastal protection and property assets whereby an earlier-than-expected replacement of those assets are required to provide increased capacity or capability. For instance, existing stormwater infrastructure may require additional capacity that can only be achieved by replacing existing pipes with new, larger pipes. This reduces the existing life of the current assets.

OAG example	Officer comment
The likelihood of a managed retreat	If Council undertakes managed retreat for at-risk communities, then any Council asset would need to be assessed for whether it is a useful asset to remain in place. For instance, roading, and three water assets may be superfluous to requirements following a managed retreat of a residential community and would be exposed to the natural hazard. This would need to be assessed as part of any local adaptation plan considering managed retreat as an option.
Obsolescence due to the availability of a new, climate friendly, sustainable technology	Council has numerous assets that may become obsolete with new sustainable technology. This includes gas boilers and petrol/diesel vehicles and equipment (e.g. mowers). It would be up to Council to determine whether to replace these with newer technology early. If Council does decide to replace assets early, then this should impact on the depreciation of the existing asset so that it has no remaining life (from an accounting perspective) upon renewal. The present strategy is generally to seek to replace assets at end-of-life with more sustainable options. There is also potential risk that older obsolete assets become harder or more costly to maintain (because, for instance, parts become difficult to source) or operate (because, for instance, fossil fuel prices increase).
Legal restrictions	Council does not have any coal boilers which are already subject to legal phase-out. However, there is a risk that gas boilers may be subject to increasing regulation in the future (although unlikely under the current Government).
Government actions	Policy decisions from Government may change over years. This is unlikely under the current Government.

OAG example	Officer comment
Physical damage	This is likely to be a significant issue for Council moving forward with more extreme weather events forecast to occur. Highly exposed assets could be given a lower practical useful lifespan reflecting that they are unlikely to remain in place to their full lifespan if they were not highly exposed to risk. While this is difficult to forecast at an asset-by-asset level, a network-approach could be taken.
An organisation's long-term plan and carbon reduction strategies	If Council determines to replace assets before end-of-life in the LTP (whether via the Emissions Reduction Plan or not) then that asset has a lower useful life remaining.

15. The estimated useful lives of Council's infrastructure assets and library, museum and art gallery collections are considered and revised as part of the triennial asset revaluation cycle. In the years between revaluations, Officers perform a desktop valuation assessment to ensure that asset values have not materially changed in either value or useful life. This is a requirement under financial reporting standards and is considered by Audit New Zealand as part of their annual audit process.

16. Assets are generally depreciated on a 'straight-line' basis (i.e. evenly over their estimated useful life). A reduced useful life would mean that depreciation would need to accelerate to apportion the remaining 'book value' of the asset over the asset's revised useful life.

17. Council does not, however, currently directly fund depreciation. Instead, Council funds the renewal of assets. This means that the financial implications of recognising lower useful life of assets are minimal in tangible terms, however there maybe implications for Council's net asset value over time. Instead, the financial implications will be in a higher renewal profile, but this will be set by each LTP in line with the priorities of the day.

18. Expenditure for repairs or improvements to assets which may be impacted by climate change will also need to be carefully considered in the future. Where use of an asset may be restricted or cease prematurely due to climate change, consideration will need to be given to whether such expenditure should be reported as either capital improvements to the asset or else operating expenditure.

Intangible assets

19. OAG note that there are risks to intangible assets (such as patents, copyright, resource consents etc.) due to the quick evolution of technology around climate change.

20. Council has approximately $10m in intangible assets (as of Annual Report 2023/24), predominately in water network models ($6.7m) and resource consents ($2.6m). Officers do not expect that there will be material impact on Council's intangible assets from climate change technology changes.

Impairment of assets

21. OAG note that climate risks may create an impairment of assets. An impairment is where there are indications that the asset's recoverable amount is lower than the asset value. OAG note that this may occur due to either physical damage or more sustainable technologies being available.

22. Again, this is likely to become an issue in future years for Council, particularly with coastal, stormwater and other protective assets. There may also be instances where assets are impaired due to lack of demand for the asset following a managed retreat.

23. Currently, the Financial Accounting team contacts asset owners within Council at least annually to discuss and identify potential asset impairments. Asset owners are provided with a list of indicators (utilising guidance from accounting standards) which suggest that assets may be impaired. Where an impairment is identified, the accounting value of the asset is reduced accordingly. Any such changes are presented in quarterly financial reporting to Council and in Annual Reports.

24. If the impairment is determined to only be a temporary change, the impairment loss is reversed, and the accounting value of the asset restored once the asset is brought back to its previous condition. Any previous asset impairments are revisited as part of the discussions with asset owners to ensure that the impaired status of the asset is still applicable.

Provisions, contingent liabilities and contingent assets

25. OAG note that climate change may affect liabilities recognised, particularly with increasing regulatory requirements and stakeholder expectations. Not fulfilling climate change commitments may create legal or reputational risks.

26. Accounting standards require different treatments for actual or potential future costs, depending on their likelihood of occurrence. Provisions are recognised where past events have created an obligation for Council to resolve, but the specific timing or cost to resolve the liability are uncertain. Contingent liabilities are disclosed (but not accounted for) where either a possible (but not certain) obligation is identified, or an actual obligation exists but a reliable estimate cannot be made of the cost required to resolve the obligation.

Presentation of financial statements

27. OAG note that there are range of potential implications for estimations, judgements and expectations. Organisations are expected to disclose key assumptions and judgements when preparing financial statements. OAG also note that carbon offsets may be purchased by organisations and it is "debatable whether carbon offsets purchased to offset emissions are assets or expenses".

28. Council has not undertaken carbon offsetting yet. (The Planting our Place programme creates sequestration within the organisation boundaries, so is not offsetting.)

29. Local government entities are not currently subject to either the Carbon Neutral Government Programme (CNGP) announced in December 2020, or the Climate-related Disclosure (CRD) regime for private sector entities. Council is therefore not mandated to prepare climate-related reporting but is nevertheless voluntarily choosing to do so. A draft Climate-related Financial Disclosure 2024/25 is currently being prepared, and the intention is to provide a draft to the Finance, Audit and Risk Committee on 17 June.

Forecast financial statements

30. OAG note that public organisations should ensure that climate-related matters are appropriately estimated and considered in forecast financial statements (such as long-term and annual plans). This includes including financial implications and impacts of emissions targets, strategies and plans. OAG note that it is "essential that climate/sustainability teams interact frequently with the accounting and finance teams to ensure that information needed about climate-related matters is appropriately considered in the forecast financial statements".

31. The Long-Term Plan 2024-2034 includes an assumption around climate change and natural hazards. There is no specific forecast on emissions trading costs because Council does not currently have any direct emissions trading obligations. The Long-Term Plan includes most, but not all, projects identified in the District-Wide Emissions Reduction Plan.

32. The Climate Change Response Team has recently been moved into the Strategic Planning Group within Council. This can enable the frequent interaction into long-term and annual plan processes.

2022/23 Insights into local government report

33. OAG's Insights into local government 2023 noted the issues and challenges faced when disclosing greenhouse gas emissions in Annual Reports. Thirteen councils reported performance measures for greenhouse gas emissions in 2022/23. Of these, three received qualified audit reports.

34. While Council has not included a key performance indicator in its LTP around greenhouse gas emissions, it did resolve at the Long-Term Plan deliberations to "include climate related disclosures in Annual Reports, acknowledging that initially there may be some gaps in information but working towards best practice over time." These disclosures include greenhouse gas emissions. As such, Officers intend, if possible, to include greenhouse gas emissions into Council's Annual Report 2024/25.

35. The following table outlines the issues and challenges identified, and Council's current position.

Issue/challenge	NPDC current position
Incomplete reporting	NPDC's annual emissions inventories include all emission sources (scope 1, 2 and 3). No issue.
Timing issues and delays	Council has been accelerating the preparation of emissions inventories as it moves to regular annual inventories. However, there is risk that Officers are unable to provide a 2024/25 third-party verified emissions inventory on time for the Annual Report. The intention is to improve systems and reporting timeframes so that a key performance indicator can be included in Long-Term Plan 2027-2037 and subsequent Annual Reports.
Mistakes or lack of supporting evidence	Council is investing in a system to produce reliable data (and to speed up the process for annual emissions inventories). Many organisations report additional sources of emissions early on in their reporting processes, and Council is no different in this regard.

Issue/challenge	NPDC current position
Unrealistic targets	Council's emissions targets align to national targets. There are some risks for Council in meeting this, particularly for biogenic methane from the Wastewater Treatment Plant. Council's scope 3 target is also currently unmeasurable (outlined below).
Effect of severe weather events	There are always risks that external events create additional emissions that cannot be avoided, such as the impact of severe weather requiring pump stations to operate at a greater level. This is unavoidable. Greenhouse gas emissions reductions should focus on the trend, rather than these year-to-year fluctuations. This can, however, be problematic for annual key performance indicators. However, this is less likely to be a substantial issue for Council as there is only one stormwater pump station in the District.
Scope 3 emissions	Scope 3 emissions (those from buying goods and services and therefore including Council's capital expenditure) are difficult to accurately determine. At present Council is largely reliant on 'spend-based' emission factors. Spend-based emission factors are a relatively normal approach at present as not all suppliers are able to provide emissions data. Council's scope 3 emissions target is currently unmeasurable. The target is to reduce emissions per dollar of spend. The purpose of this target is to recognise that Council's capital expenditure may fluctuate over time. However, this requires actual data from suppliers rather than the spend-based approach. As such, there is no ability to determine whether this target is being met or not. Officers are seeking to collect scope 3 emissions data from suppliers moving forward, although spend-based emission factors may be required to supplement data (particularly for small-to-medium enterprise local suppliers). Officers will also assess other potential scope 3 emissions targets as part of the review of the Emissions Reduction Plan in 2025/26.

Issue/challenge	NPDC current position
Clear language and definitions	Council's Emissions Reduction Plan generally avoids terms that can be inadvertently misunderstood to be greenwashing. However, this requires ongoing vigilance, particularly in communicating the result of annual emissions inventories (such as by claiming success in reducing emissions where that is the result of natural variation).

Report into specific local authorities' climate change responses

36. OAG undertook a review into four local authorities around climate change and issued its "How well four councils are responding to a changing climate" report in November 2024. This work was undertaken because "councils are at the front line of a wider response to climate change. Councils are largely responsible for civil defence, regional and district land use, planning, and major community infrastructure. They are the owners of significant assets, some of which are at risk because of climate change. They also have a role in reducing greenhouse gas emissions." The four local authorities were Canterbury Regional Council, Christchurch City Council, Nelson City Council and Whanganui District Council. These four had all declared climate emergencies.[1]

37. OAG made five key recommendations to all local authorities within the report. These recommendations largely focus around governance, public accountability and transparency matters for climate change matters.

Take opportunities to collaborate with and assist each other to understand the current and likely impacts of a changing climate on their infrastructure and communities

38. OAG recommended that local authorities work together to be informed about climate-related impacts and risks. OAG cited the region-wide risk assessments done by regional councils in Canterbury and the Manawatu-Whanganui regions that have then been supplemented by more detailed risk assessments by Christchurch City Council and Whanganui District Council (respectively). OAG also noted that all four authorities have used national information and supplemented it where necessary. Both Christchurch and Nelson City Councils have also invested in interactive online risk mapping tools.

[1] All local authorities that declared climate emergencies have had more in-depth scrutiny of their climate change responses by OAG than those that did not. Council has not declared a climate emergency but instead recognised "that climate change world-wide requires we take urgency to respond to and address issues which will affect us all in the immediate future" (resolution at the 17 December 2019 Council meeting).

39. Taranaki Regional Council (TRC) consulted on improving its climate change programme as part of LTP, but did not progress with the option to fund a regional climate change risk assessment. TRC did, however, resolve to undertake a stronger role in coordinating climate change work across the region and has recently appointed a Climate Change Coordinator. This role includes assisting the coordination of climate change across local authorities in Taranaki, as well as TRC's climate change work programme. TRC are also leading a gap-analysis of natural hazard data and information in the region, including what natural hazard information lacks climate change forecasts.

40. The four local authorities in Taranaki have previously been collaborating on climate-related matters, although this has largely been informal and predominately around information-sharing or collaborating on specific issues (such as submissions). A more formalised Officer-level regional group has now been formed to establish greater connections and collaboration.

41. In short, local authorities in Taranaki are beginning to better explore opportunities to collaborate on climate change issues and natural hazard risk.

42. It should be noted that, alongside this regional work, Council is progressing with a community risk assessment for the New Plymouth District to compliment previous climate change risk assessment work done on asset classes (as key inputs into developing its Climate Change Adaptation Plan).

Make clear in climate strategies what their climate-related objectives are, how they intend to achieve those objectives, how they will use their strategies to set priorities, and how they will measure and report on progress in implementing their strategies

43. OAG recommended that councils have clearly identified climate strategies with performance monitoring frameworks. OAG recommended that councils clarify how climate change strategies drive prioritisation, and these strategies need to set the direction for councils' climate change action. OAG noted that one council needed to clarify how their strategy was reflected into their LTP.

44. Council's initial climate change response was through the Climate Action Framework (adopted by Council on 17 December 2019). That Framework identified developing two key plans – an emissions reduction plan and an adaptation plan. However, there is not an overarching vision or strategy to sit over top of these two plans and set high-level objectives, prioritisation and monitoring.

45. Council adopted the District-Wide Emissions Reduction Plan in September 2023. However, the District-Wide Emissions Reduction Plan was not fully implemented and funded in the LTP, with several initiatives not included. Council's current monitoring for the Emissions Reduction Plan is via an annual emissions inventory, and the Plan did not establish a separate implementation monitoring mechanism.

46. The Climate Change Adaptation Plan is now under development and the Emissions Reduction Plan will be reviewed in 2025/26. The recommendations from the OAG can be included within those processes. Officers will also consider whether an overarching climate change strategy is required for Council once those Plans are in place to provide a longer-term, cohesive vision for New Plymouth District.

Strengthen the use of performance measures that reflect climate-related strategic objectives and priorities

47. OAG noted that all four councils could make better use of performance monitoring and reporting frameworks. OAG noted that they expected councils to have frameworks in place to monitor and report on climate actions because the councils had identified climate change as a strategic priority. OAG noted that there was a lack of performance measures in the LTPs.

48. The District-Wide Emissions Reduction Plan includes several targets, including long-term and annual measures. However, none of these targets are included in the Long-Term Plan 2024-2034 as key performance indicators.

49. Officers considered including a greenhouse gas emissions target in the LTP 2024-2034. However, Council is still relatively new to formally and regularly undertaking annual greenhouse gas inventories, and previous inventories have taken significant time to develop. Officers are currently improving the process to develop inventories so that they can be completed within approximately one-to-two months from year-end to meet Annual Report deadlines.[2] This improvement process will enable Council to include a greenhouse gas emissions key performance indicator in the LTP 2027-2037. There may also be opportunities to provide service-specific key performance indicators as well.

50. The Climate Change Adaptation Plan will also need to consider what performance measures could be included. There are already some key performance indicators in the LTP that are relevant to climate adaptation, including for Water Supply (average water consumption) and Stormwater (the number of flood events in the district per year and number of habitable floors affected by flooding events).

[2] The Annual Report must be adopted within four months of the end of the financial year. However, that timeframe includes the collation of information, external auditing, document and agenda compilation and Council meeting processes. As such, most information in the Annual Report must be collated within one month of the financial year end by Officers to meet the statutory timeframes.

Clearly set out how climate-related activities will be governed and ensure that staff understand what information the relevant governance body needs to govern effectively

51. OAG noted that three of the four councils they assessed had clear structures in place for elected members to effectively govern their climate response. OAG noted though that some of these structures were not transparent to the public, or did not meet elected member expectations. OAG also noted that "effective governance requires governing bodies to be provided with information that helps governors compare progress to strategies, monitor risks, and understand financial implications."

52. This triennium of Council has seen the establishment of the Sustainability Working Party (the SWP). The SWP consists of five Elected Members, two community representatives and two tangata whenua representatives. The terms of reference for the SWP include to:

    a) Monitor council plans and activities relating to environmental and climate change matters and to advocate to the council on these issues.

    b) Provide advice, oversight and advocacy for the New Plymouth District's climate change response, zero waste goals, and work to increase biodiversity in the district.

53. The SWP have been provided with monitoring updates on key LTP decisions since late 2024. These updates do not monitor the implementation of key plans, but the Emissions Reduction Plan is not well set-up at present for such monitoring arrangements and the Waste Management and Minimisation Plan is already separately monitored through the regional Taranaki Solid Waste Management Committee (administered by TRC).

54. Council reports have a section "Climate Change Impact and Considerations / Huringa Āhuarangi" to enable Council to assess whether there are any climate change considerations relating to reports.

55. The effectiveness of these governance arrangements has not been assessed to determine whether they provide sufficient oversight, or whether alterations or alternative approaches may be more effective.

Report publicly on progress with their climate change strategies and work programmes, to support accountability and so communities are well-informed, engaged, and supportive

56. OAG note that community support is critical for climate actions to be successful, including through consultation and involvement in actions. This requires timely and meaningful updates for public accountability as well.

57. Council provides limited update to the community on progress, particularly given the lack of performance indicators. The inclusion of climate-related disclosures will go some way to providing greater information to the community, although the focus of these disclosures is not necessarily on the areas that would be of most interest to the community.

58. Officers will consider whether developing a single webpage with relevant reports, information and other documents may provide appropriate accountability to the community.

59. OAG also commented on iwi and hapū relationships, but did not provide any specific recommendations. OAG expected "councils to have enduring and meaningful relationships with iwi and hapū and to understand their values, interests, and aspirations so that all parties could work towards shared long-term goals for managing the impact of climate change." OAG noted that there are three dimensions to council-Māori relationships worth highlighting – personal connections, mutual respect and mutually beneficial.

60. Officers are working with the Ngā Kaitiaki rōpū in developing the Climate Change Adaptation Plan. This approach enables the development of connections, respect, and demonstrating how Council can support iwi and hapū climate change responses.

CLIMATE CHANGE IMPACT AND CONSIDERATIONS / HURINGA ĀHUARANGI

61. OAG's release of guidance, specific inquiries and overall focus on climate change issues shows how OAG view the significance of climate change to the local government sector. In this context, Council is maturing its climate change response. The establishment of a permanent Climate Change Response Team in 2023/24 and the permanent funding for climate change planning in Long-Term Plan 2024-2034 means that Council is well-placed to address the risks and issues being raised by OAG. However, climate change matters impact across the wider organisation, and there is risk that climate change matters are not factored in appropriately by some parts of the organisation due to competing priorities.

62. Council needs to be prepared for further scrutiny in the Long-Term Plan 2027-2037 audit process around climate change implications. This will provide assurance to Elected Members, management and the public that Council is responding appropriately to climate change matters.

63. There are emerging risks for Council if Council does not appropriately consider the impact of climate change across the organisation. These risks are likely to become more significant if Council does not fulfil its commitments to reduce emissions or to adapt to climate change.

NEXT STEPS / HĪKOI I MURI MAI

64. The immediate next step is to consider these issues in relevant climate change plans as they are developed or reviewed:

    a) Council is currently preparing its first Climate Change Adaptation Plan. This Plan will be setting the foundations for climate change adaptation within the District.

    b) The District-Wide Emissions Reduction Plan is scheduled to be reviewed in 2025/26.

65. The Long-Term Plan 2027-2037 will need to be developed considering these risks and issues as well. Officers anticipate increased audit requirements focusing on climate change during that Long-Term Plan. Building in considerations upfront will reduce auditing challenges.

66. Officers are now undertaking annual emissions inventories and reporting these to Council. Investment is being made into the process for these inventories to speed up the process. The intention is that the full process should be quick enough to fit within the Annual Report timeframes, and therefore enable Council to include an emissions key performance indicator in the next LTP.

67. Officers will continue to monitor Office of the Auditor-General guidance, reports and other material. These will be considered in future work planning as required. The OAG forward work programme includes:

    a) Insights in local government 2024 audits – this may raise issues from auditing the annual reports for 2023/24 and may or may not relate to climate change.

    b) Infrastructure resilience – this is expected to focus on central government provision of infrastructure, but may have lessons for local government infrastructure.

    c) Planning for flood protection – this will assess how two specified local authorities set service levels for flood protection and how they plan to achieve those service levels.

    d) OAG have recently outlined their findings from auditing long-term plans for 2024-2034. OAG intended to provide further analysis and commentary on climate change matters once those councils that deferred their long-term plan (under water reform transitional arrangement legislation) have adopted their long-term plan.

FINANCIAL AND RESOURCING IMPLICATIONS / NGĀ HĪRAUNGA Ā-PŪTEA, Ā-RAUEMI

68. The financial and resourcing implications will need greater consideration in the next Long-Term Plan, particularly the impacts on the useful life of assets. The Long-Term Plan 2024-2034 included funding for climate change planning.

IMPLICATIONS ASSESSMENT / HĪRANGA AROMATAWAI

69. This report confirms that the matter concerned has no particular implications and has been dealt with in accordance with the Local Government Act 2002. Specifically:
    - Council staff have delegated authority for any decisions made;
    - Council staff have identified and assessed all reasonably practicable options for addressing the matter and considered the views and preferences of any interested or affected persons (including Māori), in proportion to the significance of the matter;
    - Council staff have considered how the matter will promote the social, economic, environmental, and cultural well-being of communities in the present and the future.
    - Unless stated above, any decisions made can be addressed through current funding under the Long-Term Plan and Annual Plan;
    - Any decisions made are consistent with the Council's plans and policies; and
    - No decisions have been made that would alter significantly the intended level of service provision for any significant activity undertaken by or on behalf of the Council, or would transfer the ownership or control of a strategic asset to or from the Council.

Report Details

Prepared By:	Greg Stephens (Climate Change Response Lead)
Team:	Climate Change Response
Approved By:	Jessica Stokes A/Manager Sustainability and Behaviour Change
Ward/Community:	District-wide
Date:	21 February 2025
File Reference:	ECM 9457147

----------End of Report ----------

DRAFT CLIMATE-RELATED FINANCIAL DISCLOSURE STATEMENT 2024/2025

PURPOSE/ TE WHĀINGA

1. This report provides Council with a draft of the first Climate-related Financial Disclosure Statement for information before it is finalised after the financial year end.

RECOMMENDATION / NGĀ WHAIKUPU

That, having considered all matters raised in the report, Council:

a) Notes the draft Climate-related Financial Disclosure Statement 2024/25 (the Statement)

b) Notes that the draft Statement will be finalised after the financial year end and will be presented to Council for adoption, and that a summary of the Statement will be placed into the Annual Report 2024/25

c) Notes that the climate change scenarios used to develop the Statement will be separately published on Council's website immediately after the consideration of this report so that other organisations in Taranaki may use them

d) Notes that the annual Statements will be undertaken within existing resourcing and that a process of improvement to a full disclosure will take several years

e) Notes that any changes that mean Council is legally required to undertake climate-related financial disclosures would require increased resourcing

f) Recommends that, post-triennial election, the incoming Council considers clearly identifying a monitoring framework for reporting to Council on climate-related risks and opportunities

STRATEGY AND OPERATIONS COMMITTEE RECOMENDATION

2. The Strategy and Operations Committee endorsed the Officers recommendation.

SIGNIFICANCE AND ENGAGEMENT / TOHUTOHU KAI WHAKAHAERE

3. This report is provided for information purposes only, and has been assessed as being of some importance.

EXECUTIVE SUMMARY / WHAKARĀPOPOTOTANGA MATUA

4. This report presents a draft of Council's first Climate-related Financial Disclosure Statement (the Statement) for the 2024/25 financial year before it is finalised post-financial year end. The Statement is designed around international and national standards for climate-related disclosures.

5. The Statement highlights:

   a) Governance – Council has various governance and management functions for managing climate-related risks and opportunities, but lacks dedicated functions or monitoring regimes.

   b) Strategy - Council and the community face significant risks from climate change, including severe weather impacts and the transition to a low-emissions economy. There are also considerable opportunities for Council to lead and support the economic transition and early planning for a changed climate.

   c) Risk Management – Council has an overarching Strategic Risk for climate change, but needs to integrate wider climate changes risks into its Strategic Risk Register and Corporate Risk Register.

   d) Metrics and Targets – Council has several key performance indicators related to climate change in its Long-Term Plan 2024-2034, but these are not systematic or consistent across services

6. This disclosure will be undertaken annually within operational resources, with a three-year improvement cycle to fully meet the disclosure requirements.

BACKGROUND / WHAKAPAPA

7. Climate-related financial disclosures require organisations to consistently and clearly report how climate change affects them. These disclosures are increasing in their use globally. Though initially aimed at private companies for investment purposes, public sector organisations can use the same approach.

Council has considered climate-related financial disclosures over the past few years

8. The District-Wide Emissions Reduction Plan included an action to investigate implementing a governance framework for assessing and reporting on climate risks and opportunities (e.g. the TCFD framework). This was added to that Plan as a result of Council's consideration of community feedback.

9. Officers subsequently advised Council[1] that developing climate reporting "is an appropriate approach to better understanding and regularly reporting on climate risks and opportunities." While these reports "can be used as a compliance and reporting tool, there is also significant opportunity to use it as a strategic document in itself. The transitional and physical risks highlight by it can be used to help to determine the type of future preferred by Council and then to implement work programmes towards it. In this way it can then inform planning initiatives across Council."

10. Council resolved at the Long-Term Plan 2024-2034 deliberations (C/2024/041) to direct "officers to include climate related disclosures in Annual Reports, acknowledging that initially there may be some gaps in information but working towards best practice over time." The LTP allocated $50,000 in year 1 to develop the initial disclosure statement.

11. This report presents the draft of the first Climate-related Financial Disclosure Statement 2024/25 (Appendix 1) and scenarios (Appendix 2). The report includes commentary to help Elected Members understand the disclosures and the Statement. Elected Members may also wish to refer to the External Reporting Board (XRB) guidance document on Navigating climate statements readers' guide.

Why is Council undertaking these disclosures?

12. Climate change will significantly disrupt the community and Council in the coming years. Rapid social and economic changes to reduce emissions, the changing climate (particularly increased severe weather) will both create uncertainty and disruption. These changes will impact Council as it provides infrastructure and services to the community.

13. The disclosure regime (below) provides a clear and consistent way to show how climate change may affect Council and its planning. Council can compare itself to other local authorities, public sector entities, and private firms.

14. Disclosure is not the end point. It aims to inform the public, stakeholders, governance, and management to drive action and change to mitigate risks and embrace opportunities. Disclosures themselves do not require action but raise awareness, assure the public, improve funding allocation, and streamline external reporting.

[1] Deep dive into Council's climate change risks Finance, Audit and Risk Committee - March 2024

What does the climate-related financial disclosure regime include?

15. The Climate-related financial disclosure regime, developed by the Taskforce for Climate-related Financial Disclosures (TCFD), has been refined locally into the Aotearoa New Zealand Climate Standards (NZCS). While about 200 organisations must follow these disclosures, Council is not legally required to do so. However, alignment with NZCS allows for better comparison and future preparedness.

16. Disclosures focus on the climate risks and opportunities for the Council. The NZCS and TCFD disclosure regime includes four main parts:

a) Governance
b) Strategy
c) Risk Management
d) Metrics and Targets

17. The expectations of these parts, and how Council meets those expectations, is described later in this report.

18. The disclosure regime has been designed for large companies so investors can make informed decisions around climate risks. As a result, some disclosures do not fit local government. For instance, one of the disclosures is whether governance-level appointments are linked to climate-related risks and opportunities, but local democracy does not allow for this.

19. Many organisations (in New Zealand and globally) are making disclosures. Locally, PowerCo and TSB Bank have made their first disclosures. Port Taranaki is developing theirs. Within the local government sector, Auckland Council and Hamilton City Council have also disclosed theirs, with others in progress.

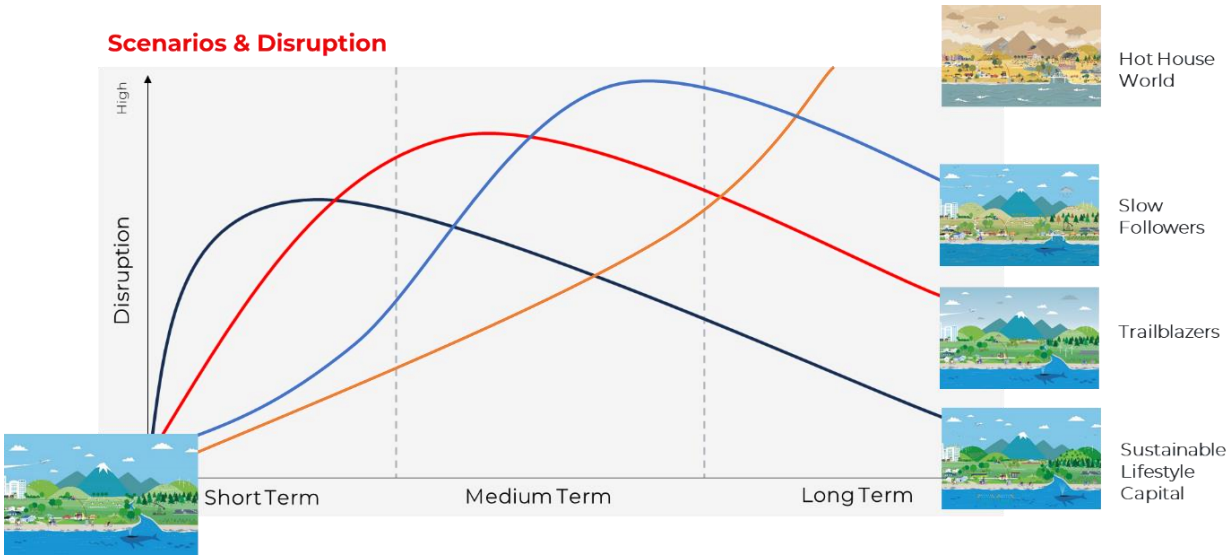
What was the process to develop the first Statement?

20. Three of the four Statement sections (Governance, Risk Management, Metrics and Targets) were completed using existing inhouse resources. The Strategy section required additional funding due to its complexity. The LTP provided funding for this work.

21. The Strategy section relies on the four scenarios set out in the Taranaki Future Scenarios (Appendix 2) to show how climate change might affect Taranaki and the New Plymouth District. These four scenarios are plausible, distinct and challenging; but are not predictions or forecasts. They have been developed not just the Council but also other regional organisations in climate planning, including Council-controlled organisation. These scenarios will be updated every three years (aligning with the LTP cycle).

22. The scenarios explore how climate change could plausibly impact Taranaki communities and New Plymouth District Council. They align with global and national scenarios for comparability and are tailored to the region and district. The scenarios align to nationally developed energy and agriculture sector scenarios given the importance of those sectors to the Taranaki economy.

23. These scenarios show different levels of global emissions reduction efforts, from rapid decarbonisation to significant temperature increases. All scenarios present significant and substantive disruption to society. Short-term disruption focuses on transitioning to a low-emissions economy, while long-term disruption centres on adapting to new climate conditions and severe weather events. The diagram illustrates how much disruption occurs under each scenario and when.



24. Council Officers tested risks and opportunities using these scenarios. Workshops included Te Rōpū Manawataki (management's leadership team), Ngā Kaitiaki, and Council Officers. Officers also reviewed climate change-related risks on Council's corporate risk register.

25. Council Officers identified over 300 risks and opportunities, narrowing them down to about 70. Officers then prioritised these based on the strategic framework (50 per cent weighting or 12.5 per cent weighting for each of the four goals) and a modified risk framework (50 per cent weighting). The Statement lists the top ten risks and top ten opportunities.

What does the first Statement tell us?

26. The draft Statement is written in accordance with the NZCS. The table below outlines key takeaways from each section of the Statement.

Section	Disclosure requirement	Council's current position
Governance	This section focuses on how the organisation governs climate-related risks and opportunities. It requires disclosure of the board's oversight and management's role in assessing and managing these risks and opportunities. It shows if climate-related issues are part of the organisation's overall governance framework.	Council has various committees and working parties with some responsibility to oversee climate-related risks and opportunities, but no single group holds overall responsibility. Within management, this responsibility is also diffused. There is no regular process for reporting or monitoring climate-related risks and opportunities to management or governance. This aligns to one of the findings in the report to the Finance, Audit and Risk Committee on 18 March 2025 that Council does not have any monitoring reporting on climate change matters overall.
Strategy	This section explains the actual and potential impacts of climate-related risks and opportunities on the organisation's strategy and financial planning. It includes identification of risks and opportunities in the short, medium, and long term. It also outlines the resilience of the organisation's strategy under various climate scenarios and its plan for transitioning to a low-emissions, climate-resilient future. This section should also outline a plan for how the organisation will transition as the global and domestic economy moves toward a low-emissions, climate-resilient future.	Taranaki and Council face significant risks and opportunities in transitioning to a low-emissions and climate-resilient future. Significant climate risks include failing to provide lifeline utilities, potential liability for death or injury, funding risks, worsening Te Tiriti relationships, and poor planning. There are some significant transitional risks, particularly around the future of Taranaki's economy Council has significant opportunities to help lead Taranaki's economic transition to a low-emissions future, through its Sustainable Lifestyle Capital and mana whenua Te Tiriti partnerships. There are also significant opportunities to plan well, utilise Council infrastructure and services. New Plymouth District has less significant climate change forecasts than other parts of the globe and country and may still thrive in a hotter world.

Section	Disclosure requirement	Council's current position
		While Council does not have a single transition plan setting out how Council will position itself in a low-emissions, climate-resilient future. However, many strategies and plans include elements of this transition.
Risk management	This section describes how the organisation identifies, assesses, and manages climate-related risks. It outlines the processes used and how these risks are integrated into the overall risk management framework, helping stakeholders understand the organisation's approach.	Council has identified climate change as a Strategic Risk. However, it needs to integrate climate-related risks into its risk management systems.
Metrics and Targets	This section highlights the metrics and targets for assessing and managing climate risks and opportunities. Organisations must disclose metrics, including greenhouse gas emissions, and targets for addressing these risks. This provides transparency on performance and progress in tackling climate issues.	The Long-Term Plan 2024-2034 includes key performance indicators related to climate change across a range of services, but lacks a systematic approach. It also does not track greenhouse gas emissions in the LTP KPIs. More information on the vulnerability of assets is needed.is required.

CLIMATE CHANGE IMPACT AND CONSIDERATIONS / HURINGA ĀHUARANGI

27. This report outlines the climate-related financial disclosures regime and the first draft Statement for 2024/25. These disclosures are designed to create transparency and public accountability for organisations on how they will position themselves in a low-emissions and climate-resilient economy through mitigating risks and embracing opportunities. These disclosures are not, however, a monitoring regime for the progress of Council's climate change actions, nor set out next steps for those actions or compel organisations to act in a specific manner.

NEXT STEPS / HĪKOI I MURI MAI

What are the immediate next steps?

28. The next step is to finalise the 2024/25 Statement. This includes year-end analysis and document finalisation (e.g. forward and introduction statements and formatting). There are also parts of the Statement that currently have figures missing that will be added in once the financial year is complete (for instance, the use of the Disaster Recovery Reserve in the 2024/25 financial year). The Annual Report 2024/25 will include a summary which will be audited as part of the Annual Report process.

29. Following Council's consideration of this report, Officers will publish the scenarios to enable other Taranaki organisations to use them.

How will the Statement be improved and mature?

30. Officers will establish a process to continual improve the Statement. Some disclosures, like financial risk quantification, are challenging for Council. It will take several years for Council to fully meet disclosure requirements. An independent assessment will help set priorities.

31. Establishing a three-year improvement cycle will align with the Long-Term Plan. In year one, Officers will review scenarios, risks and opportunities, and update them based on the new LTP. In years two and three Officers will focus on improving disclosures and respond to changes in the Annual Plan (aligning to the legal parameters on whether to consult on the Annual Plan under the Local Government Act 2002). The metrics and Targets section will be updated annually.

32. The disclosure regime overlaps with other ongoing work. For instance, the metrics and targets section disclosure includes the proportion of assets vulnerable to physical events (i.e. severe weather). This information is required for Council's adaptation planning.

33. Currently, the disclosures cover only New Plymouth District Council, rather than the wider group that includes the Council-Controlled Organisations (CCOs). Council has requested the three substantive CCOs (Te Puna Umanga – Venture Taranaki Trust, Papa Rererangi I Puketapu Ltd, and New Plymouth PIF Guardians Ltd) to investigate and, if possible, undertake disclosures as part of their Statements of Expectations (CCO/2024/18). Officers will include relevant CCO disclosures in Council's reports as appropriate.

What is the wider local government sector doing?

34. NPDC Officers are part of a nationwide local government sector scenario development process. Wellington City Council are leading this work for the Local Government Funding Agency (as an organisation legally required to undertake these disclosures). These scenarios will help other local authorities alongside more localised data, like the Taranaki Future Scenarios. The work also includes guidance material for local authorities which may help to create consistency to enable comparability (for instance, using the same measure for greenhouse gas emissions intensity).

Disclosures should lead to strategy, planning and investment decisions

35. Disclosure of information aims to inform the public, stakeholders, governance, and management to prompt action and change to mitigate risks and embrace opportunities. Council will need to consider these climate-related risks and opportunities in future plans, policies, and strategies, including the next Long-Term Plan. This report recommends that, post-triennial election, the incoming Council clearly identifies a monitoring framework for reporting to Council on climate-related risks and opportunities

FINANCIAL AND RESOURCING IMPLICATIONS / NGĀ HĪRAUNGA Ā-PŪTEA, Ā-RAUEMI

36. Council has drafted the Statement within existing resources and budgets, allocating $50,000 for the Strategy section. The ongoing improvement will also use existing resources and budgets from the Long-Term Plan 2024-2034, meaning full disclosure will take several years to complete.

Council would need to increase resourcing if it becomes subject to the mandatory disclosure regime

37. Voluntarily undertaking these disclosures does *not* subject the Council and its Elected Members to the legal risk associated with mandatory disclosures (under the Financial Markets Conduct Act 2013)[2].

[2] It is highly unlikely that Council would meet the current legal thresholds in the foreseeable future, particularly with the current approach to investing the Perpetual Investment Fund and utilising the Local Government Funding Agency for debt.

38. Because Council and its Elected Members are not legally required to make these disclosures, they do not need to heavily resource these statements. As a result, the voluntary disclosure statements may not be as detailed as those of mandatory organisations and it may take longer for Council to reach a complete and fully mature disclosure.

39. If mandatory requirements apply in the future due to a law change, then an increase in resourcing would likely be sought to meet requirements associated with mandatory requirements for Local Government. The level of resourcing would be explored at that time, however a law change is currently unlikely. Voluntary disclosures now position Council well if the disclosures become mandatory in the future.

IMPLICATIONS ASSESSMENT / HĪRANGA AROMATAWAI

40. This report confirms that the matter concerned has no particular implications and has been dealt with in accordance with the Local Government Act 2002. Specifically:
    - Council staff have delegated authority for any decisions made;
    - Council staff have identified and assessed all reasonably practicable options for addressing the matter and considered the views and preferences of any interested or affected persons (including Māori), in proportion to the significance of the matter;
    - Council staff have considered how the matter will promote the social, economic, environmental, and cultural well-being of communities in the present and the future.
    - Unless stated above, any decisions made can be addressed through current funding under the Long-Term Plan and Annual Plan;
    - Any decisions made are consistent with the Council's plans and policies; and
    - No decisions have been made that would alter significantly the intended level of service provision for any significant activity undertaken by or on behalf of the Council, or would transfer the ownership or control of a strategic asset to or from the Council.

APPENDICES / NGĀ ĀPITIHANGA

Appendix 1 Draft Climate-related Financial Disclosure Statement 2024/25 (ECM 9486113)

Appendix 2 Taranaki Future Scenarios (ECM 9486114)

Report Details

Prepared By:	Greg Stephens (Climate Change Response Lead)
Team:	Climate Change Response Team
Approved By:	Renee Davies (Manager Strategic Planning)
Ward/Community:	District-Wide
Date:	11 April 2025
File Reference:	ECM 9486112

----------End of Report ----------

DRAFT FOR ELECTED MEMBERS

SUBJECT TO FINALISATION POST-FINANCIAL YEAR END

NEW PLYMOUTH DISTRICT COUNCIL

CLIMATE-RELATED FINANCIAL DISCLOSURE 2024/25

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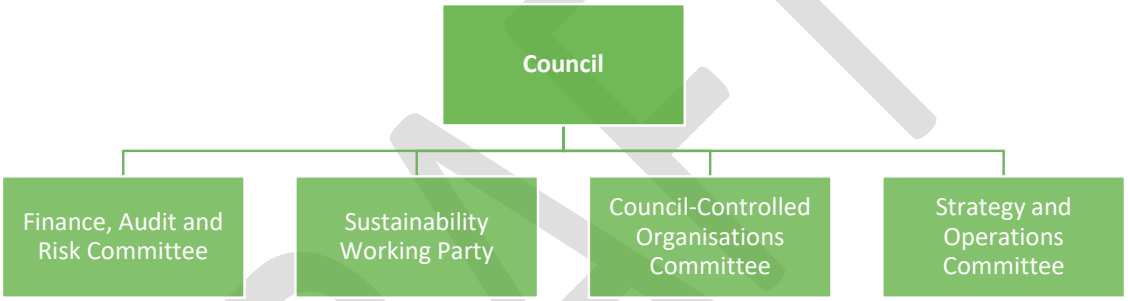
Governance

This section describes how New Plymouth District Council provides governance and management oversight of climate-related risks and opportunities.

For the purpose of this section, "Council" refers to the governing body and "NPDC" refers the overall organisation.

Governance

Council, and four subordinate governance bodies, have responsibility for oversight of climate-related risks and opportunities. Council retains overall responsibility for these subordinate governance bodies.



Council

Council is the main decision-making governance body of New Plymouth District Council.

Membership	Council comprises the Mayor and 14 Councillors.
Process and frequency to be informed about climate-related risks and opportunities	Council receives quarterly reports on NPDC's financial and operational performance. This may include climate-related risks and opportunities. Council may also receive ad hoc additional reports on climate-related risks and opportunities. This may include matters referred to, either for decision or for noting, from subordinate governance bodies. All reports are prepared by NPDC Officers and approved by the Chief Executive.
Skills and competencies to provide oversight of climate-related risks and opportunities	As a democratically elected body, Council membership is based on triennial elections from all New Plymouth District electors. Elections are undertaken in accordance

	with the Local Electoral Act 2001. The election process does not include ensuring the appropriate skills and competencies are available to provide oversight of climate-related risks and opportunities. Council cannot include any person not elected. There is therefore no ability to appoint any additional person to ensure the appropriate skills and competencies are available to provide oversight of climate-related risks and opportunities.
Ensuring climate-related risks and opportunities are considered in developing and overseeing strategy	All reports to Council include a section entitled Climate Change Impact and Considerations / Huringa Āhuarangi. Any climate-related risks or opportunities relating to the report manner would therefore be expected to be included in this section.
How the governance bodies sets and monitors metrics about climate-related risks and opportunities	Council adopts strategies, plans, policies and other documents that may include climate-related risks and opportunities. Council adopts the Long-Term Plan and Annual Plan. These Plans provide the basis for accountability to the community for NPDC. Council receives quarterly reports on NPDC's financial and operational performance in accordance with key performance indicators set in the Long-Term Plan and Annual Plan.
Whether climate-related risks and opportunities are considered in setting remuneration	Remuneration is set by the Remuneration Authority through annual determinations under the Local Government Act 2002 and Remuneration Authority Act 1977. There is no ability to consider performance metrics for climate-related targets or metrics within a remuneration policy.

Finance, Audit and Risk Committee

The Finance, Audit and Risk Committee maintains oversight of New Plymouth District Council finances and risks.

Membership	The Finance, Audit and Risk Committee comprises the Mayor, six councillors and two independent members.
Process and frequency to be informed about climate-related risks and opportunities	The Finance, Audit and Risk Committee receives quarterly reports on NPDC's financial and operational performance. This may include climate-related risks and opportunities.

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	The Finance, Audit and Risk Committee receives quarterly monitoring and updating of all NPDC risks. This includes NPDC's strategic risk relating to climate change: Environmental and Sustainability 1. Environmentally Damaging Event: An environmentally harmful incident occurs. 2. Emission Reduction Failure: Council fails to meet climate change emission reduction targets. 3. Climate Adaptation Failure: Council fails to adapt effectively to climate change. Root Causes: Council action or inaction, competing priorities, limited resources, or misaligned strategic focus. Impact: Reputational, financial, environmental, health, and safety consequences. The Finance, Audit and Risk Committee may also receive additional reports on climate-related risks and opportunities on an ad hoc basis. These reports may be initiated either from requests from the Committee or its Chair, or by NPDC Officers. All reports are prepared by NPDC Officers and approved by the Chief Executive.
Skills and competencies to provide oversight of climate-related risks and opportunities	The Mayor is a member by virtue of section 41A of the Local Government Act 2002.The Finance, Audit and Risk Committee has six Councillors appointed to it. The Mayor may determine membership based on a wide-range of factors, including skills, competencies and political matters. This may include consideration of skills and competencies to provide oversight of climate-related risks and opportunities, but there is no requirement to do so. The Finance, Audit and Risk Committee has two external members. These members were appointed on the basis of financial acumen, exposure to long-term and annual planning, experience in managing strategic risks for large organisations, governance experience and familiarity with local government. Climate-related risks and opportunities were not considered on their own, but form part of managing strategic risks for large organisations.

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Ensuring climate-related risks and opportunities are considered in developing and overseeing strategy	All reports to the Finance, Audit and Risk Committee include a section relating entitled Climate Change Impact and Considerations / Huringa Āhuarangi. Any climate-related risks or opportunities relating to the report manner would therefore be expected to be included in this section.
How the governance bodies sets and monitors metrics about climate-related risks and opportunities	The Finance, Audit and Risk Committee monitor progress against NPDC's metrics and targets as set in the Long-Term Plan. The Long-Term Plan 2024-2034 does not contain any metric or target relating to climate-related risks and opportunities.
Whether climate-related risks and opportunities are considered in setting remuneration	Remuneration of the Mayor and Councillors is set by the Remuneration Authority through annual determinations under the Local Government Act 2002 and Remuneration Authority Act 1977. There is no ability to consider performance metrics for climate-related targets or metrics within a remuneration policy. Remuneration of the two external members of the Finance, Audit and Risk Committee is set in accordance with the Remuneration and Reimbursement for External Appointments to Council Committees and Working Parties Policy (P21-006). This Policy does not include considering climate-related risks and opportunities in determining remuneration.

Sustainability Working Party

The Sustainability Working Party provides strategic guidance and advice to Council and NPDC on sustainability matters.

Membership	The Sustainability Working Party comprises four Councillors, two tangata whenua representatives and two community representatives.
Process and frequency to be informed about climate-related risks and opportunities	The Sustainability Working Party may receive reports relating to climate-related risks and opportunities on an ad hoc basis. The Sustainability Working Party's terms of reference include providing advice, oversight and advocacy for New Plymouth District's climate change response. The Sustainability Working Party may therefore provide advice and oversight of climate-related risks and opportunities that were not previously considered by NPDC.

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	All reports are prepared by NPDC Officers and approved by the Chief Executive.
Skills and competencies to provide oversight of climate-related risks and opportunities	The Sustainability Working Party has five Councillors appointed to it. The Mayor may determine membership based on a wide-range of factors, including skills, competencies and political matters. This may include consideration of skills and competencies to provide oversight of climate-related risks and opportunities, but there is no requirement to do so. The Sustainability Working Party has two tangata whenua and two community representatives. These members were appointed on the basis of knowledge on reporting and monitoring, sustainability, climate change, zero waste and biodiversity. Climate-related risks and opportunities were not considered on their own, but form part of reporting and monitoring and climate change knowledge.
Ensuring climate-related risks and opportunities are considered in developing and overseeing strategy	All reports to the Sustainability Working Party include a section entitled Climate Change Impact and Considerations / Huringa Āhuarangi. Any climate-related risks or opportunities relating to the report manner would therefore be expected to be included in this section.
How the governance bodies sets and monitors metrics about climate-related risks and opportunities	The Sustainability Working Party does not set any metrics about climate-related risks and opportunities as its function is to provide advice to other governing bodies and management.
Whether climate-related risks and opportunities are considered in setting remuneration	Remuneration of the Councillors is set by the Remuneration Authority through annual determinations under the Local Government Act 2002 and Remuneration Authority Act 1977. There is no ability to consider performance metrics for climate-related targets or metrics within a remuneration policy. Remuneration of the two tangata whenua and two community representatives of the Sustainability Working Party is set in accordance with the Remuneration and Reimbursement for External Appointments to Council Committees and Working Parties Policy (P21-006). This Policy does not include considering climate-related risks and opportunities in determining remuneration.

Council-Controlled Organisations Committee

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The Council-Controlled Organisations Committee maintains oversight of Council-Controlled Organisations. Council-Controlled Organisations are:

- New Plymouth PIF Guardians Limited – management of NPDC's Perpetual Investment Fund
- Papa Rererangi I Puketapu Limited – management of New Plymouth Airport
- Venture Taranaki Trust – regional economic development agency, and
- Two forestry joint ventures.

Membership	The Council-Controlled Organisations Committee comprises the Mayor and seven Councillors.
Process and frequency to be informed about climate-related risks and opportunities	The Council-Controlled Organisations Committee receives quarterly reports on Council-Controlled Organisations' financial and operational performance. This may include climate-related risks and opportunities. Quarterly reports are prepared and approved by each Council-Controlled Organisation in line with their own delegations and processes. These are accompanied by reports prepared by NPDC Officers and approved by the Chief Executive.
Skills and competencies to provide oversight of climate-related risks and opportunities	The Mayor is a member by virtue of section 41A of the Local Government Act 2002.The Council-Controlled Organisations Committee has six Councillors appointed to it. The Mayor may determine membership based on a wide-range of factors, including skills, competencies and political matters. This may include consideration of skills and competencies to provide oversight of climate-related risks and opportunities, but there is no requirement to do so.
Ensuring climate-related risks and opportunities are considered in developing and overseeing strategy	All reports to the Council-Controlled Organisations Committee include a section entitled Climate Change Impact and Considerations / Huringa Āhuarangi. Any climate-related risks or opportunities relating to the report manner would therefore be expected to be included in this section.
How the governance bodies sets and monitors metrics about climate-related risks and opportunities	The Council-Controlled Organisations Committee is involved in the process of setting metrics for Council-Controlled Organisations. The Committee issues annual statements of expectations and considers annual statements of intent for Council-Controlled Organisations. This may include metrics around climate-related risks and opportunities. The Council-Controlled Organisations Committee monitors the performance of Council-Controlled

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	Organisations against metrics. The Committee receives quarterly reporting. This may include metrics around climate-related risks and opportunities. The Council-Controlled Organisations Committee issued statements of expectations for Council-Controlled Organisations to undertake climate-related financial disclosures in future years.
Whether climate-related risks and opportunities are considered in setting remuneration	Remuneration of the Councillors is set by the Remuneration Authority through annual determinations under the Local Government Act 2002 and Remuneration Authority Act 1977. There is no ability to consider performance metrics for climate-related targets or metrics within a remuneration policy.

Strategy and Operations Committee

The Strategy and Operations Committee enables and effective conduct of business and has wide-ranging delegations.

Membership	The Strategy and Operations Committee comprises the Mayor, all Councillors and the Iwi Co-Chair of Te Huinga Taumatua (another governance body).
Process and frequency to be informed about climate-related risks and opportunities	All reports are prepared by NPDC Officers and approved by the Chief Executive.
Skills and competencies to provide oversight of climate-related risks and opportunities	The Strategy and Operations Committee is a 'Committee of the Whole', with the Mayor and all Councillors appointed. The Iwi Co-Chair of Te Huinga Taumatua is appointed ex officio. The appointment process to the Strategy and Operations Committee does not consider the skills and competencies to provide oversight of climate-related risks and opportunities.
Ensuring climate-related risks and opportunities are considered in developing and overseeing strategy	All reports to the Strategy and Operations Committee include a section entitled Climate Change Impact and Considerations / Huringa Āhuarangi. Any climate-related risks or opportunities relating to the report manner would therefore be expected to be included in this section.
How the governance bodies sets and monitors metrics about climate-related risks and opportunities	The Strategy and Operations Committee does not set any metrics about climate-related risks and opportunities as its function is to provides advice to other governing bodies and management.

Whether climate-related risks and opportunities are considered in setting remuneration	Remuneration of the Councillors is set by the Remuneration Authority through annual determinations under the Local Government Act 2002 and Remuneration Authority Act 1977. There is no ability to consider performance metrics for climate-related targets or metrics within a remuneration policy. Remuneration of the ex officio Iwi Co-Chair of Te Huinga Taumatua is set in accordance with the Remuneration and Reimbursement for External Appointments to Council Committees and Working Parties Policy (P21-006). This Policy does not include considering climate-related risks and opportunities in determining remuneration.

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Other governance bodies

Other governance bodies (Committees, Community Boards and Working Parties) may, from time to time, also have oversight of climate-related risks and opportunities that fall within their functions and delegated responsibilities. For instance, each Community Board may have oversight of climate-related risks and opportunities within their Community as part of their Community Board Plan.

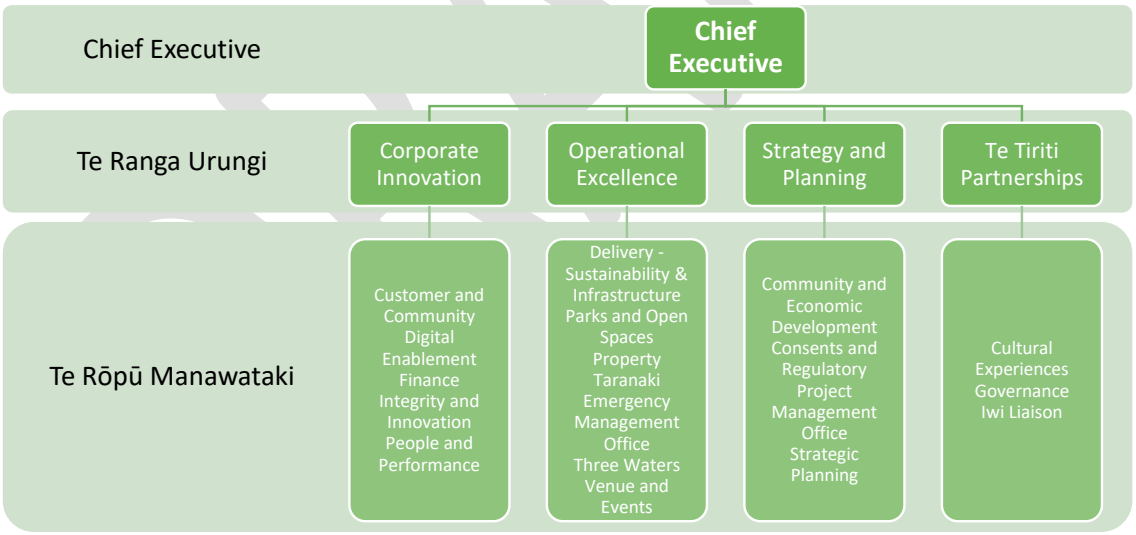
Information on other governance bodies is available within NPDC's Local Governance Statement.

These other governance bodies are not considered to materially consider climate-related risks and opportunities.

Management

Management responsibilities

The following diagram outlines Council's management structure.



The following table outlines key climate-related responsibilities across Council.

Area	Emissions risks and opportunities	Climate-related hazard risks and opportunities	Strategic and other functions
Corporate Innovation			
Customer and Community		LIMs	
Digital Enablement			
Finance	Perpetual Investment Fund financed emissions		Financing
Integrity and Innovation			Risk management Insurance
People and Performance			Upskilling
Operational Excellence			
Delivery – Sustainability and Infrastructure	Transport and waste emissions Sustainability behaviour change programmes	Transport and waste resilience	
Parks and Open Spaces	Crematorium and Fernery emissions Parks sequestration	Coastal structures, dune management Parks structures	
Property	Building heating emissions Forestry sequestration	Building resilience	
Taranaki Emergency Management Office		District and regional emergency management Business continuity planning	
Three Waters	Water and Wastewater Treatment Plants emissions	Water conservation Stormwater and Flood Protection assets	
Venues and Events	Pool heating systems emissions	Todd Energy Aquatic Centre Waitara Community Pool	
Strategy and Planning			
Community and Economic Development	Economic emissions	Economic resilience	

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Area	Emissions risks and opportunities	Climate-related hazard risks and opportunities	Strategic and other functions
Consents and Regulatory		Resource and building consents	
Project Management Office	Capital works programme emissions	Project natural hazard risk assessments	
Strategic Planning	Emissions reduction planning District Plan – urban form enabled emissions	Climate adaptation planning District Plan hazard zoning and controls	Climate change planning Management of climate-related disclosures
Te Tiriti Partnerships			
Cultural Experiences	Building heating emissions		
Governance			Elected Member support
Iwi Liaison			Mana whenua relationships

Internal management committees

Internal management committees responsible for climate-related risks and opportunities include Te Ranga Urungi and Te Rōpū Manawataki. Te Ranga Urungi meet fortnightly and Te Rōpū Manawataki meets monthly. Climate-related risks and opportunities may be brought to these groups on an ad hoc basis.

Council has an internal Carbon and Energy Management Team, consisting of representatives from larger energy and emission parts of Council. This virtual team meets on a 6-weekly basis, focusing on reducing energy consumption and associated emissions. This includes any related climate-related risks and opportunities.

Council has an internal advisory group to provide advice and leadership for the development of a Climate Change Adaptation Plan. That Plan may consider the most appropriate long-term arrangements for internal governance of climate-related hazard risks and opportunities.

Council is also a member of a Taranaki Climate Change Working Group that predominately consists of Council Officers from all four local authorities in Taranaki. This working group may discuss climate-related risks and opportunities that impact all of the Taranaki region.

There is no formal process by which management is informed about or monitors climate-related risks and opportunities.

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Strategy

This section describes how climate change is currently impacting New Plymouth District Council and how it may do so in the future.

Current impacts and financial impacts

New Plymouth District Council

Physical impacts

Council assets are regularly exposed to severe weather events, including those exacerbated by climate change.

Council has a Disaster Recovery Reserve to fund severe weather events (or other natural disasters) that require additional funding than within normal budgets, but before insurance thresholds are in place. The table below outlines the used of the Disaster Recovery Reserve and any insurance payouts received in the 2024/25 financial year.

Funding source	2024/25 funding
Disaster recovery reserve funding spent	$xxxxxxxx
Insurance payouts received for severe weather events	$xxxxxxxx

Transition impacts

Council provides economic development services through Venture Taranaki Trust (a Council-Controlled Organisation), including supporting economic transition to a low-carbon economy.

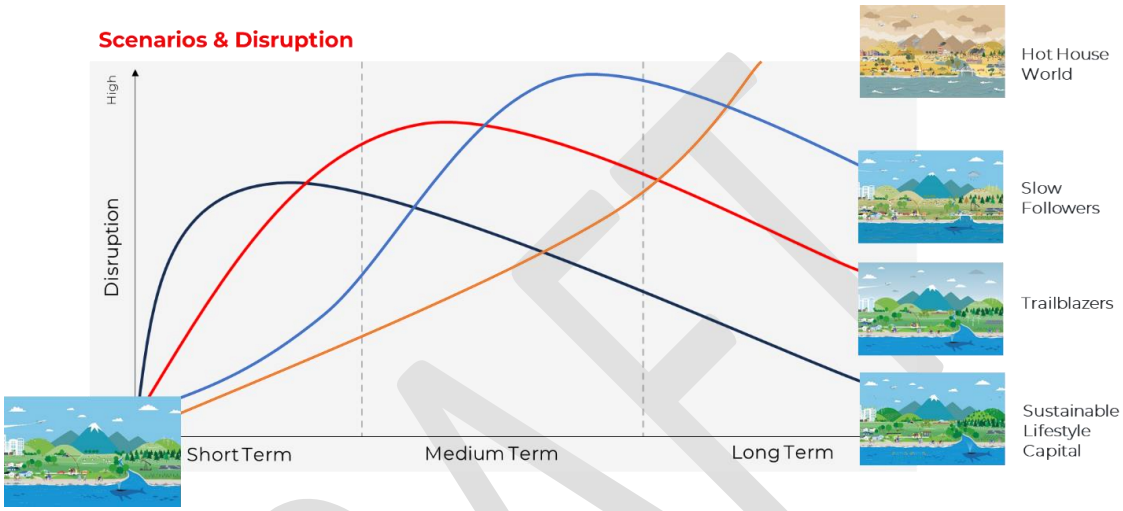
Council undertook addition funding to support enhanced economic development activities to support the economic transition to a low-carbon economy in 2024/25 for agriculture.

Funding provided	2024/25 funding
Venture Taranaki Trust (business-as-usual funding)	$5.1m
Branching Out Phase 3 (additional expenditure)	$0.4m

Scenario analysis undertaken

Council has developed four challenging and unique scenarios on how climate change may impact the future for Taranaki. These scenarios utilise global and national climate change scenarios, particularly sector scenarios developed for the energy and agricultural sectors.

These scenarios range from an immediate and comprehensive global push to rapidly reduce emissions through to a scenario with little global focus on emissions reduction and instead significant temperature increase. All scenarios present significant and substantive disruption to society, albeit with differing levels and reasons. Early disruption largely focuses on the transition to a low-emissions economy, whereas later disruption is largely focused on adapting to the new climate.



The four scenarios, and their alignment to global emissions and transition scenarios are detailed below.

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Sustainable Lifestyle Capital	
	
SSP1 RCP1.9	The Sustainable Lifestyle Capital is an orderly scenario, and represents a world defined by a rapid global push to decarbonise in the 2020s, achieving net zero emissions by 2050. This scenario assumes decarbonisation is achieved abruptly and immediately through a wide range of renewable energy sources and energy efficiency measures. Aotearoa New Zealand invests in strategic, transformational mitigation measures with innovation playing an important part. Global emissions peak in the 2020s and then decline, reaching net zero by the 2050s.

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Trailblazers	
	
SSP4 RCP3.4	The Trailblazers scenario is a world where the level of international cooperation has varied across countries, resulting in a fragmented response to climate change. Aotearoa New Zealand has moved with the leaders. Whilst the country is seen as an attractive place to invest, this scenario does not represent a socially just transition. Most businesses are not prepared. Global emissions peak in the 2030s, reaching net zero by the 2080s.

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Slow followers	
	
SSP2 RCP4.5	The Slow Followers scenario talks to a world where Aotearoa New Zealand has taken a 'bare minimum' approach towards achieving net zero, in comparison to the ambition of most other developed countries. This scenario assumes that nations around the world make efforts to decarbonise, but with varying levels of ambition. Global emissions peak around 2040, nearly reaching net zero by 2100.

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Hot House World	
	
SSP3 RCP7.0	Hot House represents a world where minimal and fragmented efforts towards climate change mitigation have resulted in severely increased physical impacts. Countries focus on their short term domestic best interests, resulting in persistent and worsening inequality and environmental degradation. There is a resurgence in the view that "Aotearoa New Zealand's emissions are insignificant" and that the country cannot afford to take the lead or act alone. Emissions continue to rise unabated throughout the century and there is continued reliance on fossil fuels across the energy sector.

The analysis of these scenarios was supported by WSP as external consultants. This included expert internal analysis, internal stakeholder workshops with Te Rōpū Manawataki and various Council staff, and an external workshop with Ngā Kaitiaki.

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Climate-related risks and opportunities

This section assesses the transitional and physical risks and opportunities to New Plymouth District Council being able to achieve its vision, mission and goals (community outcomes).

Council's strategic framework is:

Strategic Framework

Vision: Sustainable Lifestyle Capital

Mission: Ensuring Taranaki is a place of opportunity where people want to live, learn, work, play and invest now and into the future with a focus on kaitiakitanga.

Goals (community outcomes):

Trusted	• Strengthening Te Tiriti partnerships with hapū and iwi to improve well-being • Building trust and credibility with community, business, fellow councils and government • Demonstrating leadership and striving for operational excellence
Thriving Communities and Culture	• Connected and engaged communities • Safe and active communities • An equitable and inclusive approach to delivering for all our people and communities • Communities that embrace Te Ao Māori
Environmental Excellence	• Restoring our ecosystems • Mitigating further environmental impacts • Tackling the challenges of climate change • Delivering resilient infrastructure efficiently
Prosperity	• Developing and supporting initiatives to achieve a diversified high-performing economy • An equitable economy where people have access to quality employment and opportunities to build wealth • Contributing to NZ Inc's environmental sustainability and economic performance

Te anga kōkiri o Te Kaunihera ā-Rohe o Ngāmotu

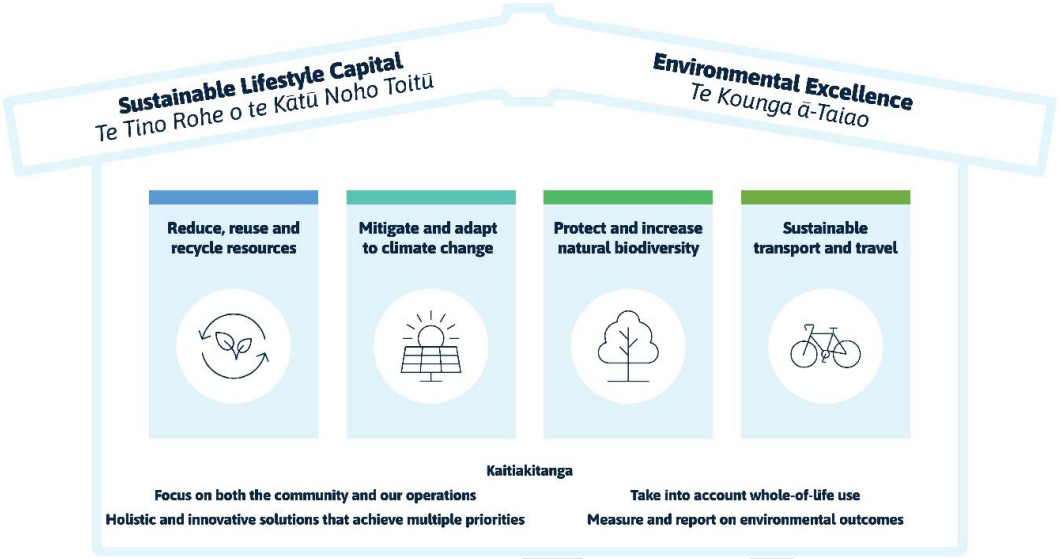
Moemoeā: Te Tino Rohe o te Kātū Noho Toitū

Te Whāinga: Kia whakaū ai, ko Taranaki te rohe e kaha pīrangitia ana e te tangata hei wāhi noho; kei reira te pito mata whai angitū kia pai ai te noho, ako, mahi, tākaro, haumi hoki i tēnei wā, ā, hei te āpōpō, kia arotahi atu ki te kaitiakitanga hoki.

Ngā putanga e whāia ana (e te hapori):

E whakaponotia ana	• E whakapakari ana i ngā patuitanga Tiriti ki te taha o ngā hapū me ngā iwi hei hāpai ake i te oranga • Te whakapakari i te whakapono mai, me te whakawhirinaki mai a te hapori, a ngā pakihi, kaunihera atu anō, kāwanatanga hoki • Te whakaatu i te hautūtanga me te whai i te kounga o te whakahaere
Ngā Hapori me te Ahurea Tōnui	• He hapori kua tuituia, kua whai wāhi • He hapori haumaru, ngākau hihiko anō hoki • He ara whai ōritetanga, kauawhi hoki mō te katoa, tangata mai, hapori mai • He hapori ka tauawhi i te ao Māori
Te Kounga ā-Taiao	• Te whakarauora i ō tātou pūnaha hauropi • Te whakamauru i ngā pānga whakakino taiao ka puta mai • Te whakamauru hoki i ngā uauatanga o te hurihanga āhuarangi • Te rato i te hanganga pakari, whaihua
Tōnuitanga	• Te whakawhanake, te tautoko hoki i ngā kaupapa kia puāwai mai ai te ōhanga kanorau, whaihua nui • He ōhanga whaiōritetanga, e taea ai e te tangata te mahi whaikounga, me te rapu ara whakatupu whairawa • Te kōkuhu ki te toitūtanga o tō Aotearoa taiao me te whai hua o tōna ōhanga

Council also a wide range of policies, strategies and plans. This includes an *Environmental Sustainability Policy*. This Policy provides Council's environmental priorities as four pou, based on a foundation of five principles. The diagram below summarises this Policy.



Risks

Council's top 10 climate-related risks to its *Sustainable Lifestyle Capital Te Tino Rohe o te Kātū Noho Toitū* vision are:

Rank	Risk	Timeframe	Scenarios	Financial implications	Source
1	NPDC is unable to provide critical lifeline utilities (water, wastewater, stormwater, transportation) to the community due to climate change impacts (such as drought or severe weather)	Short, medium and long-term	●●	Significant	Physical
2=	NPDC is found to be liable for the death and/or serious injury of residents, and/or significant loss of property, following a significant storm due to insufficient infrastructure and/or improper emergency preparation	Short, medium and long-term	●●	Moderate	Physical

Rank	Risk	Timeframe	Scenarios	Financial implications	Source
2=	NPDC faces significant financial cost and community disagreement due to relocating homes, businesses and assets built in areas vulnerable to severe weather events	Short, medium and long-term		Significant	Physical
2=	NPDC significantly uses the capital of the Perpetual Investment Fund following a climate change disaster, resulting in the loss of the direct and indirect benefits of the Perpetual Investment Fund for future generations	Short, medium and long-term		Significant	Physical
5	NPDC is unable to invest in climate change mitigation and adaptation due to cost of living issues, however this lack of investment results in higher long-term costs due to fossil fuel price increases and/or climate change event recovery	Short and medium term		Significant	Transitional
6	New Plymouth District enters into a long-term period of low economic activity due to poor economic transition	Medium and long-term		Significant	Transitional
7=	NPDC worsens Te Tiriti relationships with mana whenua through continual degradation of te taiao, including greenhouse gas emissions	Short, medium and long-term		Low	Physical
7=	New Plymouth District communities face insurance and financing retreat due to lack of adaptation and resilience work by NPDC	Medium and long-term		Low	Physical

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Rank	Risk	Timeframe	Scenarios	Financial implications	Source
7=	NPDC's planning does not get the settings correct due to poor decision-making, resulting in missing opportunities for a better economic transition and maladaptation to climate change	Medium and long-term		Significant	Transitional and physical
7=	NPDC rates increase significantly as a result of ongoing financial costs associated with continual severe weather whilst ratepayer ability to pay decreases significantly due to poor economic transition, resulting in a lack of investment in services	Medium and long-term		Significant	Physical and transitional

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Opportunities

Council's top 10 climate-related opportunities for achieving its *Sustainable Lifestyle Capital Te Tino Rohe o te Kātū Noho Toitū* vision are:

Rank	Opportunity	Timeframe	Scenario	Financial implications	Source
1=	New Plymouth District creates a low emissions economy due to NPDC's Sustainable Lifestyle Capital vision attracting momentum	Short, medium and long-term		Low	Transitional
1=	NPDC becomes a leader in the transition to a sustainable community through partnerships with mana whenua as kaitiaki	Short, medium and long-term		Low	Transitional
1=	NPDC collaborates with Government agencies, key private sector institutions (such as banks and industry groups) and the community to drive significant emissions reduction and economic transition	Short, medium and long-term		Low	Transitional
4=	NPDC takes a holistic approach to climate adaptation planning, resulting in improving social, cultural, economic and environmental wellbeing whilst making the community safer	Short, medium and long-term		Moderate	Physical
4=	NPDC achieves better outcomes and significant long-term cost savings from embedding long-term climate change and sustainability considerations into all planning decisions	Medium and long-term		Moderate	Physical and transitional
5=	New Plymouth District becomes a leader in economic transition for agriculture and energy through innovation resulting in a highly diversified economy	Medium and long-term		Low	Transitional

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Rank	Opportunity	Timeframe	Scenario	Financial implications	Source
5=	NPDC utilises green infrastructure to support the reduction of greenhouse gas emissions, improve te mana o te wai, reduce stormwater flooding risk, improve biodiversity and provide increased public green spaces	Short, medium and long-term	● ●	Low	Transitional
7=	NPDC is able to use its assets and services to generate renewable energy (including solar and biogas) resulting in supporting the economic transition and lowering costs of Council services	Short, medium and long-term	● ●	Low	Transitional
7=	New Plymouth District successfully retains being New Zealand's energy province through its energy transition, becoming a leader in renewable energy	Medium and long-term	● ●	Moderate	Transitional
7=	New Plymouth District becomes a more attractive place to live as it is more sheltered from extreme climate changes	Long-term	● ● ● ●	Low	Physical

Scenario legend:

● Sustainable Lifestyle Capital	● Trailblazers
● Slow Followers	● Hot House World

Council defines time horizons on the following basis:

Timeframe	Years	Strategic planning horizons and capital deployment plans alignment
Short-term	2024-2034	Long-Term Plan 2024-2034 planning horizon and capital deployment plan
Medium-term	2034-2054	Infrastructure Strategy 2024-2054 planning horizon
Long-term	2054-2100	Approximately 50 years (rounded) beyond current planning horizons and capital deployment plans.

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Anticipated impacts and financial impacts

Council anticipates significant impacts, including financial impacts, from climate-related risks and opportunities. Council has not undertaken any financial or other modelling on the anticipated impacts of climate-related risks and opportunities due to resourcing constraints, difficulty in modelling transitional risks and data limitations. Council intends to undertake a programme of work to better understand potential financial impacts, initially focused on physical risks.

Transition plan aspects of its strategy

Council does not have a transition plan on how Council will position itself as the global and domestic economy transitions towards a low-emissions, climate-resilient future state.

However, Council has several plans and strategies that already position Council for a low-emissions, climate-resilient future. Combined, these plans and strategies encompass many of the elements of a transition plan.

Existing plan or strategy	Transition plan-related elements
Strategic framework and community outcomes	Council's vision is Sustainable Lifestyle Capital To Tino Rohe o te Kātū Noho Toitū. Goals, or community outcomes under the Local Government Act 2002, include: • Environmental Excellence Te Kounga ā-Taiao. This includes a sub-goal of Tackling the challenges of climate change Te whakamauru hoki i ngā uauatanga o te huriganga āhuarangi • Prosperity Tōnutanga. This includes a sub-goal of Contributing to NZ Inc's environmental sustainability and economic performance Te kōkuhu ki to toitūtanga o tū Aotearoa Taiao me to whai hua o tōna ōhanga
Tapuae Roa Strategy and Updated Action Plan	Tapuae Roa Strategy and Action Plan includes focus on transitioning the Taranaki economy to a low-emissions and climate-resilient future. Energy Futures and Food Futures (renamed Food and Fibre Future in the Updated Action Plan) are both key focus areas for economic development. Both areas include transitioning these economic sectors to address climate change. There is also a focus on New Industry and Investment Future in the Updated Action Plan to reflect the need to diversify Taranaki's economy.

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Existing plan or strategy	Transition plan-related elements
District-Wide Emissions Reduction Plan	The District-Wide Emissions Reduction Plan sets out Council's greenhouse gas emission targets. This Plan sets out key initiatives to reduce Council emissions in the short-term to achieve the greenhouse gas emissions targets. This Plan also provides some support for initiatives to reduce emissions within the community.
Proposed District Plan	The Proposed District Plan • Enabling urban intensification through increased medium density zoning • Greater mapping of natural hazards, including bringing in climate change forecasts • Reduced consenting requirements for renewable energy • Enhancing protection of significant natural areas and waterbodies • Identification of priority public access corridors (e.g. for future extension of walking and cycling networks)
Long-Term Plan 2024-2034	The Long-Term Plan is Council's main strategic business planning document and capital deployment plan. The Long-Term Plan includes funding for: • Council's climate change response planning • Sustainability Accelerator Fund • Planting our Place • High frequency bus trial • Economic Development • Water Conservation • Stormwater Management • Flood Protection and Control Works • Disaster Recovery Reserve • Waste Management and Minimisation
Financial Strategy 2024-2034	The Financial Strategy 2024-2034, which forms part of the Long-Term Plan 2024-2034, includes an underlying principle of Resilience and Sustainability. The Financial Strategy includes investigating eligibility requirements for Climate Action Loans and Green, Social and Sustainability Loans from the Local Government Funding Agency.

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Existing plan or strategy	Transition plan-related elements
Infrastructure Strategy 2024-2054	The Infrastructure Strategy 2024-2054, which forms part of the Long-Term Plan 2024-2034, includes three key drivers for decision-making. These are: • Ensuring our existing assets remain fit for purpose. This includes mitigating our impact on climate change. • Resilience and adapting to climate change. This includes building in resilience to natural hazards and the forecast impacts of climate change. • Providing for sustainable growth and the changing needs of our community. This includes improving environmental outcomes.
Coastal Erosion Strategy	This Strategy outlines that Council will only protect significant public assets from coastal erosion.
Coastal Strategy	The Coastal Strategy sets out the vision for New Plymouth District's coastal environment to 2025. This includes avoiding natural hazard areas, protecting natural buffers and taking a sustainable approach to hazards and risks to create more informed, resilient and secure coastal communities.
Ngāmotu New Plymouth City Centre Strategy	The Ngāmotu New Plymouth City Centre Strategy identifies a principle of Hāpainga te ahuarangi Responding to Climate Change. Key moves respond to climate change issues, including: • Huatoki Corridor Master Plan • Huatoki Daylighting • Pedestrian and cyclist priority across SH45 • Coastal Boulevard • Pukekura link: Liardet Street • Pūkākā link: Queen St, Robe St and Robe St Park • Green initiatives • Promote and facility city living • Sustainability Initiatives
Stormwater Vision and Roadmap	The Stormwater Vision and Roadmap outlines Council's approach to improving stormwater management (with stormwater flooding being a physical climate change risk. The Stormwater roadmap utilises RCP8.5 to identify stormwater flooding hazards. It includes an aspiration for Resilience – Urban communities are resilient to flooding.

Council has begun to develop a Climate Change Adaptation Plan in 2024/25. This will be finalised in 2025/26. This Plan will address physical risk elements to transition to a climate-resilient future state.

Council will assess whether a formal transition plan is required in coming years, or to continue to embed transition planning aspects into Council plans, strategies and policies as they are reviewed.

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Risk management

This section describes how New Plymouth District Council identifies, assesses and managed climate-related risks, and how those processes are integrated into existing risk management processes.

Processes

Council undertook its approach to identifying its climate-related risks and opportunities through:

- Externally-facilitated workshops with Te Rōpū Manawataki, key internal stakeholders and Ngā Kaitaiki (representing mana whenua)
- A review of Council's Strategic Risk Register and Corporate Risk Register for risks relevant to climate change, natural hazard or environmental matters

Council has undertaken a high-level assessment of the scope, size, and impact of its identified climate-related risks. Risks were identified as potentially having a Significant, Moderate or Low financial risk. There has been no formal costing approach. Further, some of the risks intangible and will be unable to be quantified formally in a robust manner.

Council prioritised the risks and opportunities on the following methodology.

	Likelihood and consequence	**Strategic priority and alignment**
Process	A five-by-five matrix of likelihood and consequence into five category groups, modified from Council's Risk Management Framework	An assessment of how the risk or opportunity related to Council's four goals (community outcomes) of *Trusted E whakaponotia ana*; *Thriving Communities and Culture Ngā Hapori me to Ahurea Tōnui*; *Environmental Excellence Te Kounga-ā-Taiao*; and *Prosperity Tōnuitanga*
Scoring	Extreme – 5 High – 4 Medium – 3 Low – 2 Insignificant – 1	Critical – 5 Strong – 4 Medium – 3 Low – 2 Insignificant – 1
Weighting	50 per cent	50 per cent overall; or 12.5 per cent per community outcome

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Horizons for risks are:

Horizon	Timeframe	Alignment
Short-term	2024-2034	Long-Term Plan
Medium-term	2025-2054	Infrastructure Strategy
Long-term	2055-2100	Approximately 50 years beyond planning cycle
Likelihood assessment	50 years	

Council will assess risks and opportunities systematically on a three-yearly basis following adoption of each long-term plan. A review process may be undertaken in other years to reflect any significant or material changes to the long-term plan made by an intervening annual plan, and any updated information that may indicate new risks or opportunities or changes to existing risks or opportunities.

Council has undertaken this risk assessment primarily focused on Council and the services and relationships it has to the New Plymouth District community. There may be risks associated with Council-Controlled Organisations that are excluded from the value chain considered in this process.

Council maintains a Risk Management Framework for prioritising risks. Climate change is one factor within this Risk Management Framework.

Integration into overall risk management

Council has an overall strategic risk in its Strategic Risk Register of:

Environmental and Sustainability

2. Environmentally Damaging Event: An environmentally harmful incident occurs.
3. Emission Reduction Failure: Council fails to meet climate change emission reduction targets.
4. Climate Adaptation Failure: Council fails to adapt effectively to climate change.

Root Causes:

- Council action or inaction, competing priorities, limited resources, or misaligned strategic focus.

Impact:

- Reputational, financial, environmental, health, and safety consequences.

The purpose of strategic risks are to act as an overarching risk across various Council activities. Many of the risk identified within this Disclosure therefore fall underneath this strategic risk.

In 2025/26 Council intends to review risks identified by these Disclosures for the purpose of integration into Council's Strategic Risk Register or Corporate Risk Register (as appropriate). The risks may also be consolidated into wider risks as some of the risks may also have other sources of risk than just climate change-related sources.

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Metrics and targets

This section describes New Plymouth District Council's climate change metrics and targets.

Metrics

Greenhouse gas emission metrics

Metric	Result	Note
Total gross emissions	29,513 tCO2e	2023/24 result
Total net emissions	23,934 tCO2e	2023/24 result
Scope 1	5,042 tCO2e	2023/24 result
Scope 2	1,118 tCO2e	2023/24 result
Scope 3	23,353 tCO2e	2023/24 result
Removals	-5,578 tCO2e	2023/24 result
Emissions intensity	0.095 kgCO2e per dollar of total expenditure	2023/24 result. Emissions intensity is calculated based on total net greenhouse gas emissions divided by total expenditure (both operational and capital expenditure) and represented in kgCO2e/$

Greenhouse gas emissions have been calculated in accordance with the ISO14064:2018 using the operational control consolidated approach. Total gross emissions include biogenic emissions from landfill, grazing, and wastewater treatment. Emission factors are primarily taken from Ministry for the Environment, 2024. Exclusions include Council-controlled organisations, historic closed landfills, well to tank emissions, use of sold products (Bioboost), and downstream transportation emissions from kerbside waste collection. The inventory has been assured by Toitu with 'good' classification.

Other metrics

Metric	Result	Note
Assets or business activities vulnerable to transitional risks	This has not been assessed	
Assets or business activities vulnerable to physical risks	This has not been assessed	

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Metric	Result	Note
Assets or business activities aligned with climate-related opportunities	This has not been assessed	
Financing or investment deployed towards climate-related risks and opportunities	This has not been assessed	
Internal emissions price	Council does not have an internal emissions price	
Remuneration linked to climate-related risks and opportunities	No link.	Remuneration for Council Officers is set in accordance with the Remuneration of Council Employees Policy (P13-004). There is no systemic link for remuneration for the Chief Executive, Te Ranga Urungi or any Council Officer to climate-related risks or opportunities. Individual Council Officers may have performance measures that relate to climate-related risks and opportunities within their individual performance goals. The Chief Executive's key performance indicators do not include any explicit metric relating to the identified climate-related risks and opportunities.

Targets

Greenhouse gas emission targets

Council has set greenhouse gas emissions targets in its District-Wide Emissions Reduction Plan.

Target	Timeframe	Base year	Performance	Target type
49% reduction in greenhouse gas emissions	2030	2017/18	Not on track	Absolute
Minimum of 10% reduction in biogenic methane	2030	2017/18	On track	Absolute
All greenhouse gases, other than biogenic methane, to reach net zero	2050	2017/18	Not on track	Absolute

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24% to 47% reduction of biogenic methane	2050	2017/18	On track	Absolute

The targets align to the national targets set in section 5Q of the Climate Change Response Act 2002. The purpose of that Act is to contribute to the global effort to limiting global warming to 1.5°C above pre-industrial levels. The targets do not rely on offsets but do rely on sequestration within Council's organisational boundaries.

The Plan also includes two annual interim targets.

Interim Target	Timeframe	Base year	Performance	Target type
4.2% annual reduction in scope 1 and 2 emissions	Annual to 2030	2017/18	14% increase against baseline year	Absolute
2.5% annual reduction in scope 3 emissions measured by CO2e per dollar of spend	Annual to 2030	2022/23	Unmeasurable. This target cannot be measured due to the current reliance on spend-based emission factors.	Intensity

Council is intending to revise the District-Wide Emissions Reduction Plan in 2025/26. This will include considering revising the greenhouse gas emission targets in line with science-based target, including a revised scope 3 emissions target.

Other targets

Council's Long-Term Plan 2024-2034 sets a range of key performance indicators across Council services.

Service	Key performance indicator	Measure	Performance
Economic Development	Facilitate, promote, and support sustainable business growth, innovation, investment and employment opportunities in Taranaki.	Number of events, programmes or initiatives to drive change and support regional strategy objectives such as in Tapuae Roa and Taranaki 2050	XXXXX
Emergency Management and Business Continuance	Ensure NPDC is ready for, can respond to, and can recover from emergencies.	Emergency plans and processes are reviewed and updated annually as per review schedule.	XXXXX

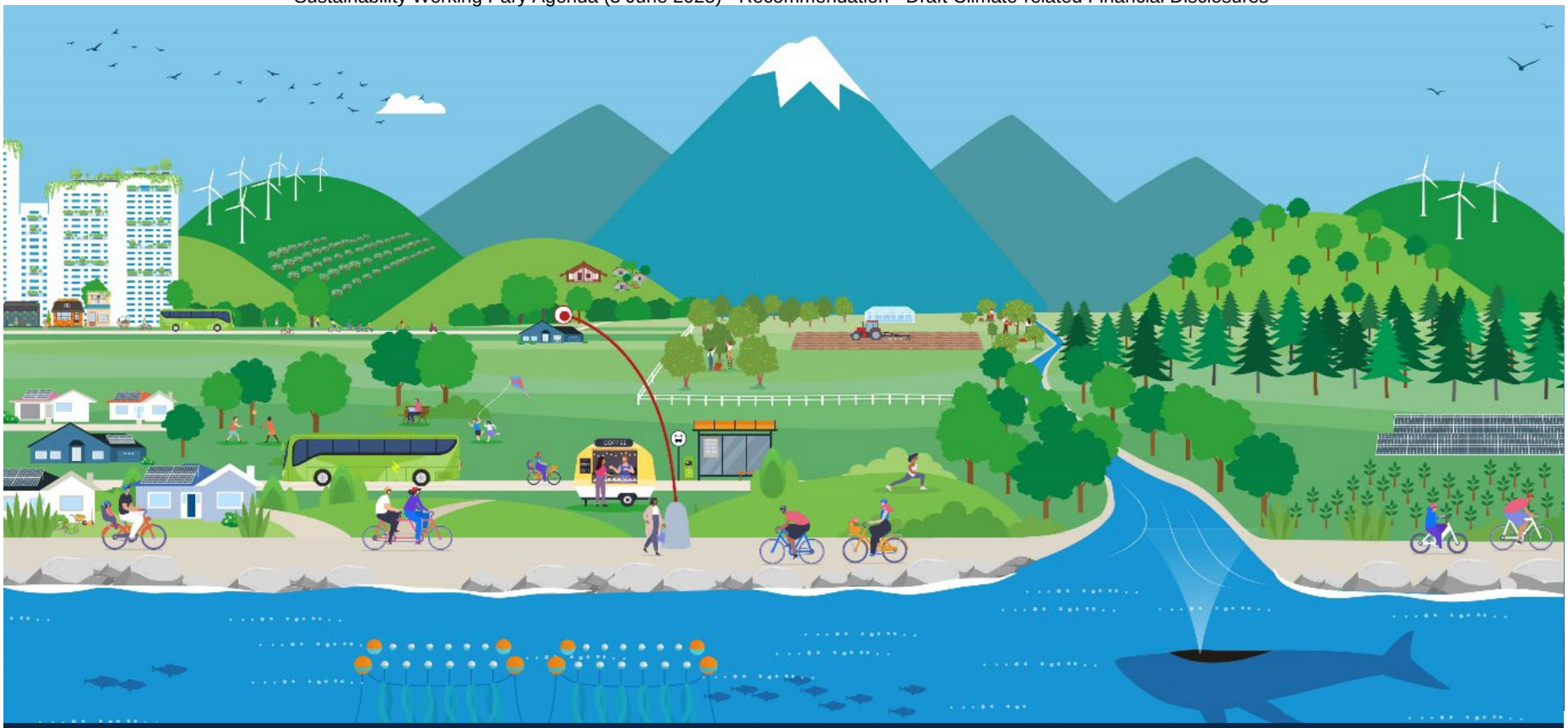
	Assist the New Plymouth community in becoming ready for, responding to, and recovering from emergencies.	Emergency centres are identified, assessed and formalised with Memorandum(s) of Understanding.	XXXXX
Flood Protection and Control Works	Major flood protection scheme assets and systems are maintained in accordance with asset management plans and annual works programme.	Assets to be maintained to full service potential in accordance with the Dam Safety Management System and Asset Management System (T1) scheduled maintenance.	XXXXX
Stormwater Management	Provide a stormwater management system that protects people and property	The number of flooding events in the district per financial year.	XXXXX
		The number of habitable floors affected in each flooding event (per 1,000 properties connected to NPDC's stormwater system)	XXXXX
	Ensure customers are satisfied with the performance of our stormwater system.	The number of complaints received about the performance of NPDC's stormwater system (per 1,000 properties connected).	XXXXX
	Provide a good quality and safe stormwater system.	The percentage of residents satisfied with the quality and safety of the district's stormwater supply (satisfaction survey*).	XXXXX
Transportation	Provide a quality and safe cycle network.	The percentage of residents satisfied with the quality and safety of the district's cycle network (satisfaction survey*).	XXXXX
Waste Management and Minimisation	Deliver waste services and education programmes to actively encourage our communities to continually minimise waste levels throughout the district	The reduction in total waste to landfill per capita in the district (measured as a year on year percentage).	XXXXX
		The reduction in waste to landfill per household (measured as a year on year percentage).	XXXXX
Water Supply	Manage demand to minimise the impact of	The average consumption of drinking water per day,	XXXXX

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	water supply activities on the environment.	per resident, within New Plymouth District.	

* All satisfaction survey targets are excluding ‘don’t know’ responses

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Taranaki Future Scenarios

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Te Kaunihera-ā-Rohe o Ngāmotu
New Plymouth District Council

An Introduction to the Future

As tangata whenua, iwi and their hapū exercise mana whenua over traditionally defined areas across the Taranaki region. This weaves across the lands, waters, taonga species, wāhi tapu, wāhi taonga, urupā and sites of significance within their rohe.

Iwi and hapū hold permanent ongoing historical, cultural and spiritual connections to these. Their environment is a part of who they are. In return, as kaitiaki, they have the responsibility of ensuring the mauri of the environment and its interdependent kinship relationship with ira tangata is protected and enhanced for future generations.

The future scenarios of the Taranaki region presented below are an attempt to walk backwards into the future, with our eyes fixed on the past. These futures exist only in the context of our shared past and when they are read through the eyes of the present it’s important this is acknowledged.

Taranaki & New Plymouth District Today

Taranaki is located on the west coast of Aotearoa New Zealand's North Island, and is centred around Taranaki Maunga. Taranaki was traditionally settled by Māori, with thriving populations throughout Taranaki. Following pressure from the Crown for land and the Taranaki Land Wars, almost all of Taranaki was confiscated by the Crown from Māori ownership in the 1860s. This was followed by development and the degradation of the environment, including the loss of indigenous plants and animals, and the pollution of waterways and important offshore fishing reefs.

Taranaki today has a population of 130,000, with 90,000 of those living in New Plymouth District, 10,000 in Stratford District and 30,000 in South Taranaki District. Taranaki is Aotearoa's energy province, being home to New Zealand's only operational oil and gas fields. Taranaki is also a significant dairying region. Combined, Taranaki is New Zealand's second highest emitting region per capita, with 44 tonnes of CO2-equivalents emitted in 2023 compared to the national average of 15 tonnes. These industries have also led to a prosperous region, with Taranaki having the second highest regional GDP per capita at $85,000 per person, above the national average of $78,000 per person.

Taranaki has around 300 kilometres of coastline, with significant long-term erosion trends for most of the coast. Numerous communities, including New Plymouth City (Taranaki's largest settlement), are located along the coast. Taranaki is also known for its heavy rainfalls and strong westerly winds. Taranaki has also taken out New Zealand's sunniest region several times recently and can experience drought conditions through summer. Wider environmental outcomes are mixed, with some improvements in recent years through increased riparian planting, farm management, pest eradication programmes and improving infrastructure standards.

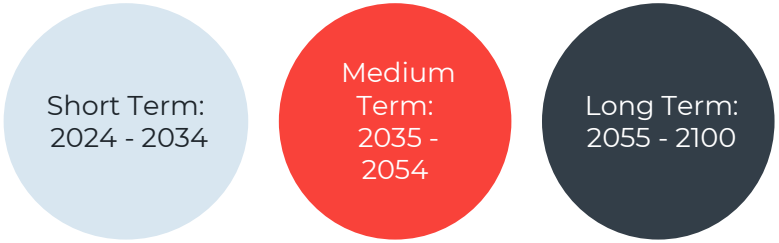


An Introduction to Future Scenarios

Climate change has many potential paths and futures. These paths and futures depend on policy decisions at local, national and global levels. The paths can be smooth and straight in a single direction, or they can weave with policies swinging and changing. The paths lead to different future temperature outcomes.

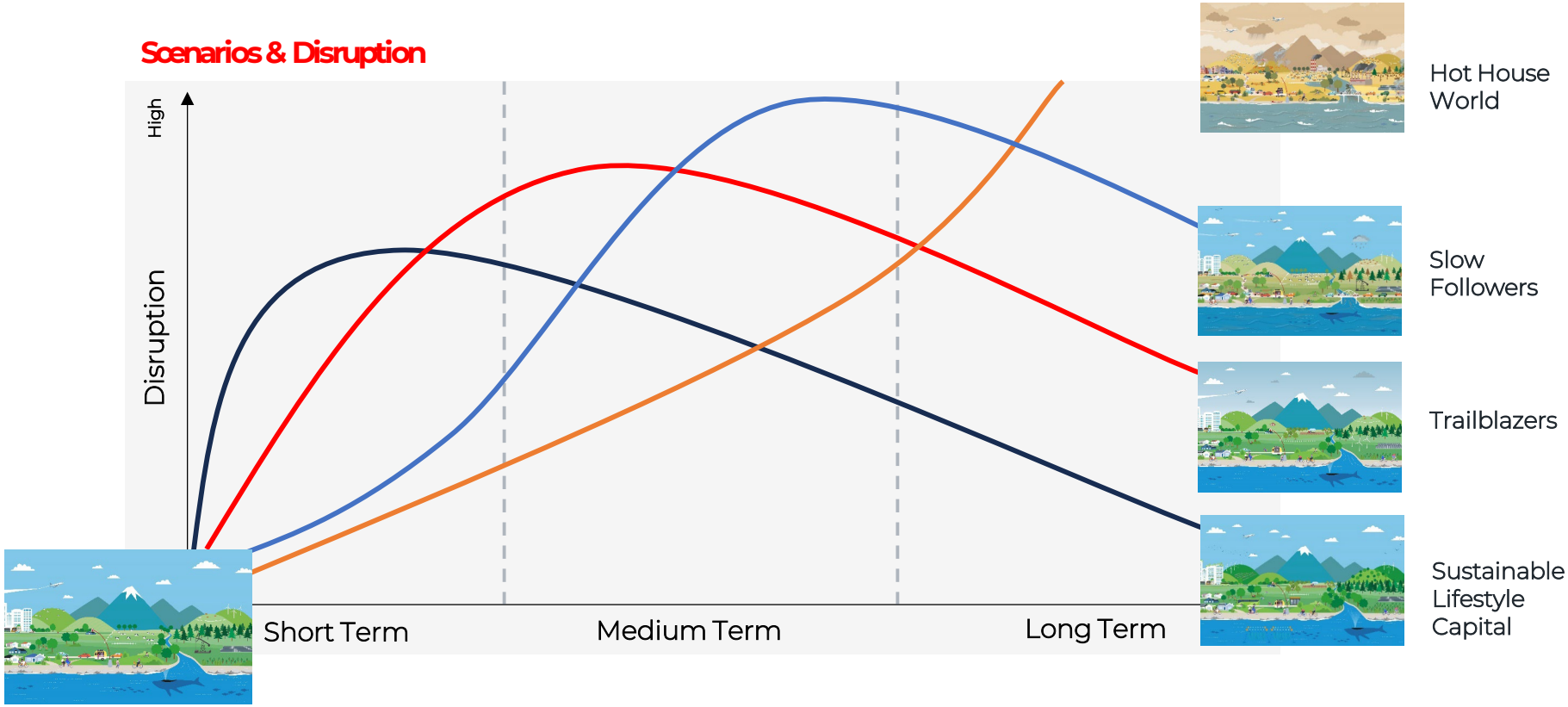
Four potential paths and futures are outlined for how climate change may impact Taranaki. They have been designed to help Taranaki to plan for the future by understanding what different futures may look like. These are plausible, distinct and challenging scenarios. They are not predictions of the future but are all still realistic possibilities at this stage. The scenarios are broad outlines of potential futures and are not a substitute for risk mapping and hazard identification. These future scenarios align to global scenarios and different temperature outcomes.

Future Scenarios	Sustainable Lifestyle Capital	Trailblazers	Slow Followers	Hot House World
Temperature outcomes	2050: +1.6°C 2100: +1.7°C	2050: +1.9°C 2100: +2.2°C	2050: +2.0°C 2100: +2.6°C	2050: +2.1°C 2100: +3.9°C
Scenario reference	SSP1-1.9	SSP4-3.4	SSP2-4.5	SSP3-7.0



These scenarios are written for New Plymouth District Council initially, but have been designed so that all Taranaki organisations are able to use them for thinking about climate change in future planning.

Each of these scenarios represents significant disruption to Taranaki. However, they different in when disruption occurs, how big the disruption is, and the cause of that disruption. The below graph provides an indication of the disruption each of these scenarios brings to Taranaki.



The four scenarios are outlined below. The Trailblazers and Slow Followers scenarios are more detailed reflecting that they have higher changes in policy over time.

Sustainable Lifestyle Capital

The Sustainable Lifestyle Capital scenario represents a world defined by a rapid global push to decarbonise in the 2020s, achieving net zero emissions by 2050. This scenario assumes decarbonisation is achieved abruptly and immediately through a wide range of renewable energy sources and energy efficiency measures. Aotearoa New Zealand invests in strategic, transformational mitigation measures with innovation playing an important part. Global emissions peak in the 2020s and then decline, reaching net zero by the 2050s.



Sustainable Lifestyle Capital

Short Term: 2024 - 2034

Throughout 2025 momentum builds in efforts towards climate action, and global economic and geopolitical stability show signs of improvement. Two pivotal milestones shape the trajectory of Western economies. First, a critical mass of public awareness about climate change and the loss of biodiversity drives an urgent demand for action. Second, a dramatic move of early actors triggers a vast retreat from insurance, indicating a highly inaccessible insurance environment in a world heated beyond 2°C.

Central government, NPDC, local iwi, businesses and the Taranaki community are largely clear about their roles and responsibilities in coordinating and responding to the climate crisis. There is bipartisan support for long term climate action driven through embracing co-governance models, as government recognises the importance of mana whenua views in tackling the degradation of the environment. Recognition of the limitations of relying solely on the ETS price signal to drive change. The level and speed of change is highly disruptive to all industries, especially energy, requiring a staggering rate of decarbonisation year-on-year. The energy sector prioritises development of resilient and flexible grid infrastructure; integration of more renewable energy sources, such as solar and onshore and offshore wind, to ensure a stable and reliable power supply.

Where organisations and industries fail to implement a just transition, widespread job losses become inevitable. With Taranaki heavily dependent on the oil and gas industry, this wave of deindustrialisation threatens significant social unrest and upheaval. Organisations seen as lagging face greenwashing or other reputational risks; only those that have developed robust transition plans can access affordable insurance and capital. Some businesses don't survive the revolutionary transformation required to reach net zero. This rapid pivot creates high socio-economic costs with high inflationary and cost of living pressures across the region.

Locally, the 2024 Tapaue Roa Action Plan, which brings in the Taranaki 2050 vision, starts significant conversations within the region around decarbonisation efforts and economic diversification. Increased investment in economic development by central and local government and iwi helps to reduce the disruption on the local economy, although many businesses face uncertainty and re-sizing while transitioning to lower emissions approaches. NPDC, iwi and hapū work together to embed te ao Māori and mātauranga Māori into council decisions, placing a higher value on the natural environment and sustainability.

By 2026, a levy is introduced on agricultural emissions, putting a price on biogenic methane and nitrous oxide emissions and leading to decreasing stock numbers for dairy, sheep and beef farmers. This rapid transition places financial and emotional stress on farmers throughout Taranaki. The Branching Out programme catalyses farmers to diversify their farms as a response, and farmers face low barriers to investing in horticulture due to easy access to finance for sustainability measures. Local Iwi support farmers to diversify their operations through community knowledge sharing around indigenous horticulture and food growing methods, further fostering an increase in papakāinga and improved food security.

Transport investment shifts away from increasing road capacity, with a stronger focus on building a fit-for-purpose public transport network both within New Plymouth City and linking communities around the Maunga. The successful completion of Te Pae o te Rangi, the Coastal Walkway extension to Waitara, results in increasing demand for more safe cycling and walking infrastructure between communities.

Sustainable Lifestyle Capital

Medium Term: 2035 - 2054

Government has helped to navigate tensions between decarbonisation, nature preservation policies and economic growth through a strong partnership model supporting iwi/Māori, the energy sector, and wider businesses. Taranaki continues advancing renewable energy efforts in wind, wave, biofuel and solar.

Physical climate change impacts still have significant effects. Droughts have worsened and intense rainfall and storm events occur multiple times every decade, damaging infrastructure. Sea level rise and storm surges also escalate the risk of flooding and landslides, disrupting supply chains, transportation networks, and communities across Taranaki. Central and local government work with banks and insurance sectors to collaboratively build community resilience and to relocate communities away from risk.

A market for Taranaki's leading premium, sustainable animal products still exists, but the broad shift in demand has continued farming diversification into high value, low emissions crop and horticulture products. Iwi/Māori as significant landowners were positioned as key figures in the transition; products grown using indigenous horticulture methods are in high demand.

Growing a collaborative community and developing a shared model for resources further supports de-risking land use changes and entry into the food industry. Farmers and communities opt into pay-as-you-generate solar panel models (e.g. a cents/kWh rate), which are possible through Power Purchase Agreements (PPAs). In 2035, a group of leading horticulture, transport and energy organisations sign a landmark deal on scaling biofuels by repurposing existing infrastructure in Taranaki.

By 2035, access to insurance and finance is almost impossible for high emitters. Petrol and diesel vehicles have been phased out and EVs are the norm, with charging infrastructure being well-developed across the country. Mode shift to active and public transport use also increases, reducing network load. Access to capital becomes linked to sustainability, and lenders incur financial penalties for missing sustainability targets. Net zero is achieved by 2050 through a highly ambitious and coordinated global effort to decarbonise during the late 2020s and early 2030s.

Long Term: 2055 - 2100

Tipping points in the earth system have largely been avoided, but the world still faces increased physical impacts of climate change. Transition to net zero has positively impacted regional GDP, resulting in a shift in economic activities away from consumerism, and driving tech-enabled efficiencies and health outcomes. Roads have been re-designed to support safety and enjoyment for active transport modes, like scooters and bikes. This has led to many co-benefits such as reduced spending required in healthcare with an overall improvement in mobility and mental health in the community. There are fewer vehicles and almost all are e-vehicles. As a result, there's less need for parking spaces, so many areas within New Plymouth have been repurposed into green and vibrant community places increasing biodiversity and reducing urban heat island effects. Companies that have not embraced the transition to a low-carbon energy system are no longer in business.

In the energy sector, decarbonisation is achieved through a wide range of renewable energy sources and energy efficiency measures, reducing energy demand and improving overall energy productivity. Biofuel is widely used, especially for operations for large scale energy users such as the Taranaki Port. Taranaki's leadership in renewable energy and environmental restoration solidifies its position as the sustainable lifestyle capital of New Zealand.

Nationwide resource management policy is fully integrated with te ao Māori values, enhancing native forest regeneration, biodiversity protection and climate resilience. Revenue generated from the agricultural emissions levy has supported Taranaki to restore its once thriving ecosystems through clean awa (rivers), a healthy whenua (land), providing abundant food and resources and a healthy moana (sea) full of kaimoana.

Trailblazers

The Trailblazers scenario is a world where the level of international cooperation has varied across countries, resulting in a fragmented response to climate change. Aotearoa New Zealand has moved with the leaders. Whilst the country is seen as an attractive place to invest, this scenario does not represent a socially just transition. Most businesses are not prepared. Global emissions peak in the 2030s, reaching net zero by the 2080s.



Short Term: 2024 - 2034

Trailblazers

Government priorities

Starting in 2025, international markets and trade partners, many of which have already adopted stringent climate policies, are starting to impose trade barriers on Aotearoa New Zealand's exports, citing non-compliance with ESG reporting standards and sustainability obligations. Government makes a bold push to decarbonise in alignment with global climate leaders, despite a fragmented international environment. Strict policies are implemented to drive rapid emissions reductions. Initially, these policies are primarily driven by efforts to support export industries overcome trade barriers. Poor coordination of these policies, ongoing politicisation, a lack of focus on domestically focused industries, and insufficient global support results in high costs for businesses and consumers. The focus on undertaking actions to avoid and reduce greenhouse gases leads to rapid regulatory changes, forcing companies and farmers to adapt quickly and creating financial strain across the region.

Iwi and hapū groups throughout the region support the shift from the Government, citing that they have been advocating for improved kaitiakitanga for decades as they have the responsibility to protect and care for their whenua and taiao.

In the financial sector, domestic banks, such as TSB, play a crucial role in facilitating Taranaki's transition to a low-carbon economy. Sustainability-linked loans and incentives become mainstream by 2027 providing businesses and homeowners with increased access to capital for decarbonisation efforts, such as solar panels. However, despite these opportunities, the lack of support for adaptation continues to leave many communities vulnerable to the immediate impacts of climate change. Rebuild funding echoes this, as infrastructure and homes are recovered but not improved or relocated to safer areas.

Society

Initially, the public are generally onboard with the goal of decarbonising. However, many are not prepared or able to make large lifestyle changes especially in rural communities. Taranaki takes a leading role in the rapid expansion of renewable energy for the country by 2027. The accelerated demand for skilled construction workers in wind and solar industries far outstrips supply, causing strain on projects. The labour shortage slows the pace of the energy transition, with businesses and NPDC having to compete for qualified workers from outside the region as wages and project costs increase.

The uncoordinated shift away from oil and gas production leaves many highly skilled workers redundant, many making the move to Australia. There is an opportunity for reskilling programmes, however, the uptake is slow as the urgent demand for skilled labour takes priority, leaving little time or resources for training.

Rural and Māori communities throughout the region who are in lower socioeconomic brackets are disproportionately impacted by rising travel costs. This is caused by the increasing carbon price placed on fuel, the high upfront costs of transitioning to low emission private vehicles and Taranaki's slow uptake of vehicle sharing schemes.

Port Taranaki must diversify its portfolio after the closure of key natural gas companies, the Port's largest customers. The population continues to grow, but there are annual fluctuations in growth rates, resulting in lower overall population growth.

Environment

Taranaki remains less affected to the physical impacts of climate change when compared to other regions in Aotearoa. However, the region continues to see more extreme weather events such as heavy rainfall and storms, leading to occasional flooding in low lying areas. Droughts become more frequent with some of the drier summers placing stress on the water availability in the region, placing financial strain on farmers.

Infrastructure, particularly coastal roads, bridges and drainage face increasing challenges. Early signs of strain appear in water management systems as the decrease in Mean Annual Low Flow (MALF) affects river levels and freshwater supplies. TRC develops water take limits in consultation with key stakeholders, iwi/hapū and the wider community, to restrict the amount of water being taken from rivers, streams and lakes to reduce the environmental effects of these drier times.

Following the final treaty settlement and the personification of the Taranaki Maunga, iwi and council pursue a more integrated co-governance structure. Collaborative strategies and initiatives, such as Planting our Place, Taranaki Taku Tūranga - Towards Predator-Free Taranaki and the Regional Biodiversity Strategy, help improve biodiversity and predator control. These initiatives create a strong sense of community collaboration.

Energy

Taranaki pushes forward as a key player in New Zealand's renewable energy transition. The region sees significant investments in expanding its generation capacity, with projects focusing on wind and solar energy generation and battery storage. Rising fossil fuel energy costs become a significant challenge and low-income households, who are slow to decarbonize, are particularly hard-hit across the region. Government and local financial support mechanisms, such as subsidies and sustainability-linked loans, are introduced to alleviate these pressures, but funding is insufficient to meet the growing demand.

Rapid uptake of electric public transport, EV's and the electrification of household appliances by 2028 adds additional strain to the region's electricity grid. Insufficient generation, battery storage infrastructure and lack of advanced demand-side management systems result in ineffective load balancing, leading to localised blackouts during peak demand periods. The region's energy resilience is repeatedly tested throughout the early stages of the transition.

Iwi, hapū and rural communities begin to work in the region to improve energy resilience, utilising solar generation technology and community scale microgrids.

Agriculture

The lack of a coordinated land use policy combined with changes in consumer demand and high food prices, creates an uncertain operating environment for farmers and growers. Promising innovations, such as methane inhibiting vaccinations, provide hope to farmers but are slow to reach commercial scale in New Zealand and fail to reduce emissions significantly.

By 2030, a levy is introduced on agricultural emissions, which puts a price on biogenic methane and nitrous oxide emissions, which leads to decreasing stock numbers for dairy, sheep and beef farmers.

An increasing cost of living creates the need for innovative and efficient food growing practices to build resilience and food security in the region. Iwi work with community groups to build out a network of Papakāinga and local food production throughout the region, supported by NPDC.

Investment into the agriculture sector slows, and difficulty accessing capital necessitates farmers across the region to diversify their land to avoid liquidation. The mental health of farmers in the region suffers during this transition increasing the need for support from local government and the community

Medium Term: 2035 - 2054

Trailblazers

Government priorities

Top-down policies focus on integrating both adaptation and mitigation into the national agenda, as Taranaki positions itself as a leader within the country, and Aotearoa as a global climate leader. Politicisation reduces, with fewer policy shifts between different governments. Co-governance between NPDC and iwi continues to strengthen, especially in critical decisions.

Accessible low cost, low emissions public transport is being utilised in the areas surrounding New Plymouth. However, rural communities still struggle with a lack of options. Water restrictions are implemented as part of a broader adaptation strategy. Government funding is directed towards enhancing water infrastructure, such as advanced water metering to encourage conservation and to cope with droughts and other climate impacts.

The levy placed on agricultural greenhouse gas emissions has contributed to reducing the sector's high emissions footprint, but it significantly raises costs for farmers, placing financial strain on many in the industry and rural communities. While this move strengthens Aotearoa's climate commitment and international reputation, the transition is challenging for the rural economy, with smaller farms and agribusinesses particularly vulnerable.

Consenting for renewable energy projects accelerates in the mid 2030s, particularly for offshore wind farms causing rising tension with iwi and environmental groups over effects on marine ecosystems.

Society

Economic and social impacts of climate change become more apparent across Taranaki. Isolated areas and rural Māori communities are disproportionately affected by high energy prices in the mid 2030s and increasingly severe weather events. This drives these communities to become early adopters of decentralised energy grids, reducing their reliance on the national grid and increasing local energy resilience.

Iwi and hapū intensify their collaboration with NPDC and local organisations to prioritise the restoration of Taranaki's natural environment. These efforts focus on restoring wetlands, native forests and waterways, driven by a shared vision of enhancing biodiversity, ecosystems and carbon sequestration.

By 2035, Taranaki's growing reputation as a leader in renewable energy attracts international investment, creating new economic opportunities. The region becomes recognised as a hub for clean energy innovation, with an influx of talent attracted to Taranaki's sustainable lifestyle making it a desirable place to live and work. The region's clean energy also attracts global communication and AI companies to build energy intensive operations such as data centers in Taranaki.

Population growth becomes stronger, returning to the growth rates seen in the 2000s and 2010s, which drives housing prices to increase.

Environment

Taranaki experiences intensified environmental challenges with warmer temperatures and more frequent intense weather events becoming normal. Severe droughts and reductions in annual rainfall strain inland water resources; the declining MALF amplifies the importance for water management. Consents authorising groundwater usage become more common, especially in rural areas where water sources such as streams and rivers are not easily accessible.

Increased intense rainfall has accelerated soil erosion in the Taranaki hill country with soft sediment causing downstream effects to the quality of rivers and streams throughout the region. Many flow directly from Taranaki Maunga and as the awa pass through the region to Te Tai-o-Rehua, the Tasman Sea, the increased rainfall runoff contributes contaminants to the waterways, including excess nutrients, sediment and bacteria.

Iwi support local government to combine traditional and indigenous water testing methods to improve the water quality of the awa in the region.

Energy

A cross-party political outlook within New Zealand has enabled long term decarbonisation planning in the energy sector. The strong buildout of renewable energy generation continues in 2035 throughout Taranaki as the region becomes a global leader in wind energy generation, both on and offshore, although at a relatively high cost.

By the 2040s, energy prices stabilise alleviating some of the cost-of-living pressures for rural and lower socioeconomic communities in the region.

Global economies of scale reduce the price of renewable energy technologies, seeing local distribution networks such as solar and small-scale hydro power stations become widely adopted across Taranaki, particularly in rural areas. Innovative technologies such as grid-scale flow batteries are used to store the clean energy being generated, which improves resilience to a dry-year problem.

A diverse range of energy sources are built throughout the country during this time fueling heavy freight transport and industry, such as hydrogen and bioenergy. However, this transition leaves stranded assets for companies or industries that lag behind without robust transition plans.

Agriculture

With the emissions levy now putting a price on biogenic methane and nitrous oxide emissions from farms, this has encouraged farmers to reduce their emissions by decreasing stock numbers, changing management practices, diversifying their farm system, and/or adopting new technologies. This rapid transition to reduce emissions has placed financial and emotional stress on farmers throughout the region. To alleviate this pressure, the government recycles revenue gained from the levy back to the catchment it came from, to be spent on actions to provide adaptation solutions, native forestry planting and biodiversity improvements.

Regenerative practices and innovative mixed farming systems, such as precision agriculture for food growing, has built resilience and food security in the region. Community food growing and sharing networks increase leading to benefits in social cohesion.

Taranaki, now seen as a proactive and sustainable hub, attracts environmentally pioneering start-ups such as producers of lab grown dairy; a product growing in use, feasibility and popularity overseas.

Long Term: 2055 - 2100

Trailblazers

Government priorities

In a final push towards net-zero, there is significant investment during the 2050s in nature-based solutions for carbon sequestration with increased investment in blue carbon as well as carbon capture and storage (CCS) technologies. While global emissions peaked in the 2030s and began declining, net zero is only achieved by the 2080s.

Co-governance between iwi, hapū and local government is seen as a key contributor to Taranaki fulfilling a socially just transition.

Climate issues stop being politicised, resulting in critical transition decisions being delivered without interference. High investment in decarbonising the public transport system in the medium term combined with strategic planning of space for active transport modes has reduced the need for private vehicle use in New Plymouth.

Taranaki is taking advantage of the benefits that have come from a disorderly but rapid transition towards decarbonisation. Growth in international and domestic investment for offshore wind sees the region as a global leader in wind energy generation, which makes it an attractive place to live and visit.

Society

A largely successful, albeit disruptive, transition to net zero has occurred by 2080. Taranaki's leadership in renewable energy and environmental restoration solidifies its position as the sustainable lifestyle capital of New Zealand. Success in attracting international investment drives higher than expected net migration to the region, leading to significant population growth in urban areas.

NPDC prioritises high-density, mixed-use developments that combine residential uses and commercial opportunities. The faster growing regional population places pressure on critical infrastructure such as water, wastewater and transport systems.

Resource management policies fully integrate Māori principles, emphasising the importance of conserving biodiversity and protecting natural resources. The shift has led to a more strategic approach to environmental restoration, with iwi and hapū taking an active role in shaping regional and national policies. By adopting a mātauranga Māori approach to decision-making, New Zealand shows how society can change its relationship with the natural world and incorporate kaitikitanga into private and public sector policy and procedures.

Environment

Global emissions have reached net zero by 2080 and global temperatures have increased by 2.2°C. Strong collaboration with iwi has led to impacts on nature and the environment being key considerations in the decision-making processes with local government. This has improved adaptation and resilience to the continually changing climate.

Despite New Zealand's relatively fast transition, a fragmented global response means Taranaki continues to face significant and permanent environmental challenges.

The region experiences more frequent and severe storms, floods and prolonged droughts. Coastal erosion has made some low-lying areas uninhabitable such as Waitara, and rivers and streams are often depleted.

Environmental and ecological changes have altered species migration and population, affecting communities such as Tongapōrutu where ecological concerns are of great significance to whitebaiting.

Energy

The transition to renewable energy has stabilised, and domestic energy prices have become more affordable. Government's financial aid has supported businesses and consumers in the adoption of renewable energy sources, seeing energy poverty decrease and supporting the economic viability of Taranaki's small businesses.

Demand for energy is still increasing with the electrification of public and private transport and the wide scale use of AI technologies. There is diverse mix of renewable energy sources in the country with wind, solar, and geothermal still dominating grid-scale generation with growing availability of wave energy technologies. The hydrogen pipeline has expanded allowing heavy transport and freight to reduce their footprint substantially, combined with the use of biofuels. Infrastructure throughout the region has been repurposed to be compatible with bioenergy which is commonly used in industry. Community and household energy is being generated by solar with battery storage technologies maturing, helping to decentralise and improve resilience especially during weather events.

Agriculture

The transition towards net zero has drastically disrupted the trajectory of the agriculture sector. Consumers are increasingly conscious of their food consumption, with plant-based diets continuing to grow in popularity due to their reduced environmental footprint. Locally grown produce and meat is the consumer preference; a saving grace for smaller farms who are restricted by newly implemented export barriers.

Revenue generated from the emissions levy has bolstered land use conversion to native forestry; improving biodiversity, creating thriving ecosystems and providing resilience for farms around the region.

Community food sharing and papkāinga is now common practice which has improved food security and reduced food waste.

Slow Followers

The Slow Followers scenario talks to a world where Aotearoa New Zealand has taken a 'bare minimum' approach towards achieving net zero, in comparison to the ambition of most other developed countries. This scenario assumes that nations around the world make efforts to decarbonise, but with varying levels of ambition. Global emissions peak around 2040, nearly reaching net zero by 2100.



Short Term: 2024 - 2034

Slow Followers

Government priorities

Aotearoa New Zealand is slow to address the urgency of climate change and there is a limited commitment to decarbonisation. Companies remain heavily reliant on fossil fuels without external pressure to mobilise transition plans to renewable energy. Repeal of the ban on oil and gas exploration leads to positive impacts on the Taranaki regional economy as a result of increased exploration and drilling activities. The decision, however, has severe consequences for not meeting obligations in several of Aotearoa New Zealand's free trade agreements. There is ongoing strong opposition from iwi and hapū who are deeply concerned about the damage to fragile coastal ecosystems and the potential affects on kaimoana throughout the region.

Frustration continues to build within iwi and hapū following inadequate consultation in decision-making processes in the region. The relationship with NPDC continues as BAU.

Government prioritises short term economic growth through rezoning and land use changes, accelerating urban sprawl and expanding the road network. This leads to worsening congestion getting in and out of New Plymouth. Policies on issues such as freshwater protection are frequently upheaved and reformed, leaving NPDC uncertain on how to invest in water infrastructure. The lack of investment into storm-, drinking- and waste-water infrastructure results in systems that are ill-equipped for heavy rainfall, droughts and serving increasing populations.

Society

As climate issues become increasingly politicised, a growing social divide emerges. Younger generations, along with those most vulnerable to climate impacts, feel that Aotearoa New Zealand's approach is not proactive enough for their futures. The lack of coordinated action leads to frustration, and a sense of abandonment from those who feel the brunt of climate-related disruptions.

Taranaki grows more divided accelerated by an aging population, with local innovation halted by inconsistent or insufficient support. Population growth slows as a result of the oil and gas sector insecurity.

Māori communities in Taranaki, frustrated by the government's slow response and insufficient action on climate change, begin to actively challenge inadequate policies.

The loss of mahinga kai and continual damage to vulnerable communities, including homes and marae, become a symbol of the wider struggles Māori communities are facing.

The cost of living continues to increase in the region, this is further exacerbated as NPDC is forced to raise rates to increase funding to rebuild and maintain infrastructure.

Environment

Physical effects of climate change, both acute and chronic, continue to impact Taranaki; this is becoming more noticeable in particularly vulnerable rural and coastal areas. Some roads and tourist hotspots such as the New Plymouth Coastal Walkway and the Pouākai Circuit on Taranaki Maunga are frequently damaged by storms and heavy rainfall.

Intense weather events impact sea and air freight, causing delays to imports and exports and a flow on effect on Taranaki's supply chain efficiency.

Roading infrastructure in the region is not equipped for heavy rainfall and repair funding is not strategically allocated, leading to critical roads remaining vulnerable to unpredictable weather. Some rural roads are almost perpetually in poor condition.

Stream and wetland reclamation, excess nutrient and sediment inputs from agricultural land use, deforestation and urbanisation have all contributed to loss and degradation of aquatic ecosystems.

Driven by kaitiakitanga, iwi and hapū take matters into their own hands, organising local efforts to restore biodiversity and rebuild once thriving ecosystems.

However, these grassroots movements are hampered by inadequate central or local government funding, making it difficult to scale up initiatives, resulting in maladaptation and missed opportunities for meaningful change.

Energy

Fossil fuel use remains widespread in the short term but changing international policies and reductions in production see prices increase over time. The reversal of the oil and gas exploration ban on the Taranaki coast creates jobs in the region. However, with no guarantee of finding new resources, this creates uncertainty in the sector. Little progress is made on transitioning to renewable energy as policies are politicised; pressing issues such as offshore wind projects and investments in renewable energy are frequently delayed due to 'flip flop' policies between government terms.

New Zealand is slow to reduce emissions per capita from a global perspective, and the country's 'clean, green' reputation suffers. Sustainable investors shift their focus to climate proactive countries and renewable energy projects in the Taranaki region struggle to access international capital as a result.

Continued reliance on imported fuel and coal becomes costly by 2030 as international carbon prices increase. These costs are passed on to consumers, which leads to greater energy poverty especially for lower socioeconomic communities in the region.

The lack of a national energy strategy hampers the Taranaki region's ability to prepare for a transition away from oil and gas. This leaves workers in the sector uncertain about future projects.

Agriculture

Taranaki's agricultural sector begins to feel the pressure as climate change brings more erratic weather patterns. Farmers face rising costs from increased insurance premiums, if they can secure coverage at all, and the growing unpredictability of seasons makes crop planning and livestock management increasingly difficult. Many farmers, especially on smaller farms, struggle to adapt to the changing climate which has severe impacts on their mental wellbeing, with flooding and droughts taking a toll on yields and livestock health.

In response to lower yields and degraded soil quality, many farmers increase their reliance on nitrates and synthetic fertilisers to maintain productivity. However, this only exacerbates environmental issues, as more frequent heavy rainfall events lead to greater nitrate runoff into waterways, further degrading freshwater ecosystems. While some farmers attempt to adopt regenerative, innovative or mixed farming practices, the broader sector lags.

Farmers begin to feel isolated, facing the impacts of climate change with little clear guidance or support. The insurance sector begins to retreat from providing farm coverage, with farmers often struggling to receive insurance to help recover from events.

Medium Term: 2035 - 2054

Slow Followers

Government priorities

Due to the Government's slow approach, Aotearoa starts to experience economic isolation. In the late 2030s, the physical impacts of climate change are unable to be ignored. However, the transition away from fossil fuels is driven ultimately by economics of international trade, triggering the government to commence a rapid climate response.

By 2035, international markets and trade partners, many of whom have already implemented strict climate policies, begin imposing trade barriers on Aotearoa New Zealand's exports, citing failure to meet ESG reporting requirements and sustainability targets.

This places further strain on Taranaki's economy that is heavily reliant on oil and gas along with the agricultural sector, which lacks maturity in measuring emissions. There is a disruptive policy shift away from oil and gas in favour of renewable energy with poor regulatory controls resulting in a fragmented approach of using highly productive land for energy generation.

Government focuses on complying with international standards for exports, however, this is uncoordinated and lacks strategic planning leaving key sectors without clear, long-term support. Some public and private sector projects fail to consider sustainability which results in ecological degradation, leading to push back from environmental advocacy groups, iwi and hapū over ecological and te taiao concerns being overlooked.

The relationship between iwi and local government is ad hoc due to a lacking partnership.

Society

Large areas of Taranaki are deemed high-risk and vulnerable to climate impacts; the cost and accessibility of insurance, combined with rising energy costs exacerbates social inequities. Damaged houses from weather-related events are selling below market rate tempting first home buyers into unsafe properties. Net migration to Taranaki remains moderate, leading to slow population growth, leaving the region unable to attract the skilled workers needed to transform the economy. Urban migration increases as infrastructure and accessibility challenges continue to occur for those living in rural communities.

Those in rural communities in Taranaki focus on creating their own renewable energy solutions, investing in small-scale solar projects and microgrids to enhance self-sufficiency. Community efforts to upskill local populations and embrace sustainable practices gain momentum; but progress is hampered by limited funding and government support.

Highly self-reliant papakāinga are set up to provide more sustainable living to reduce the impacts of supply chain disruption. Despite these initiatives, the cascading effects of climate change and economic challenges cause significant disruption for people living in Taranaki. Insurance retreat and affordability become a challenge as global reinsurance companies see Aotearoa as an increasingly risky location.

Environment

As the impacts of climate change intensify, various parts of Taranaki are more susceptible and prone to devastation than others. Frequent storm events have resulted in flooding and landslides consequently damaging infrastructure, impacting transportation networks, disrupting communities and national supply chains. Wetlands that once played a role in natural carbon sequestration and flood mitigation have shrunk, leaving larger areas of Taranaki exposed to flash flooding. The changing climate is starting to affect densities of pest plant and animal species around the region; leading to biosecurity risks and flow on effects to both native flora and fauna and to agricultural productivity.

Changes in government priorities in 2037 that aim to dramatically reduce emissions, leads to ecological concerns being overlooked. The use of fast-track consenting for large renewable energy projects and fast-growing exotic forestry plantations results in the loss of ecosystems and biodiversity degradation in these areas.

Energy

Taranaki remains heavily reliant on both imported and domestically produced natural gas, but global decarbonisation efforts lead to reduced availability and rising costs for imported gas. This dependence on imported fossil fuels makes Taranaki vulnerable to global supply chain disruptions, driving up energy prices and further straining the local economy. Households and businesses face higher energy prices; energy poverty and black outs become more prevalent, particularly among low-income communities. Businesses highly reliant on energy start to reduce their production and some close. Phase out dates for thermal assets continue to be pushed out due to a lack of incentives, leading to the increasing risk of stranded assets.

By the 2040s renewable energy technologies have become affordable (because of global economies of scale) and are increasingly adopted in Aotearoa New Zealand. Increasing demand for energy places stress on the national grid due to lack of energy storage and strategic planning.

Large renewable projects, such as hydro, commercial solar farms and offshore wind, are accepted through the consenting process with little time for consultation around wider environmental impacts. The private sector steps in, offering sustainable finance and incentives to build out rooftop and commercial solar for businesses and households to improve energy security and resilience. Micro-grids become common in rural and Māori communities, reducing the need to rely on the national energy grid.

Agriculture

Acute and chronic effects of climate change cause major disruptions to the agricultural industry; however, the impacts are less severe in Taranaki when compared to the rest of Aotearoa especially in terms of drought. New technologies emerge for those that can afford them, such as precision agriculture which improves efficiency and productivity for growers although the unpredictability of weather patterns still hampers total yield.

A policy shift occurs in 2037, focusing on emissions reduction. This shift introduces a levy on agricultural emissions that puts a price on biogenic methane and nitrous oxide emissions leading to decreasing stock numbers for dairy and sheep and beef farmers. There is a shift in land use on the ringplain to fast growing pine to remove significant quantities of carbon from the atmosphere, which is linked to the emissions trading scheme. However, when clear-felled, the exposed land is left particularly vulnerable to erosion during the period following harvest.

Severe droughts have had lasting effects on farmers and growers; some farmers lost access to irrigation and were forced to cut down production, diversify, or liquidate and abandon their farm.

Long Term: 2055 - 2100

Slow Followers

Government priorities

After years of lagging behind, Government has now made decisive actions on climate change. Facing increasing international pressure and escalating impacts from climate disasters, Government implements stringent emissions reductions targets and introduces policies aimed at adapting infrastructure to cope with ongoing climate challenges.

However, the delay in these measures means the costs of transitioning are higher, with significant investments required to overhaul outdated systems and rebuild resilient infrastructure. Some investments are simply unaffordable, resulting in infrastructure being left at high-risk.

In Taranaki, the slow start means much of the region's energy and agricultural sectors have been severely affected. The focus shifts towards adaptation as carbon emissions are now locked in and the physical impacts are a reality; there are major government-led projects in water management, coastal defence and energy infrastructure. While these efforts eventually lead to some stability, the lack of earlier action leaves rural communities, particularly Māori, struggling to recover.

Society

By the time government climate policies have firmed up, the public are receptive and onboard with Aotearoa New Zealand's progress toward reaching net zero in 2100. However, policies such as incentivised land use conversion from high emitting dairy, sheep and beef farms to crops and forestry creates economic disruption in Taranaki, and many are not prepared for the job losses and redundancies they face. As a result, Taranaki's population starts to stagnate and then decline.

Communities throughout the region are now largely decentralised from the national energy grid, which has improved resilience and ability to cope with the ongoing weather events.

Insufficient climate action has led many people throughout Aotearoa to lack trust in government agencies. This has a negative effect for those working for NPDC who face abuse, leading to health and safety issues and difficulty attracting staff to work at the council.

Environment

Native bush and forested areas, previously rich with diverse species, have slowly thinned out due to poor restoration efforts and delayed pest control. This leads to the loss of native flora and fauna. The increasing number of hot days and drought events in the region lead to wildfires becoming more common. Taranaki Maunga experiences reduced snowfall and ground water in summer months. Meanwhile, degraded agricultural land affects the rivers and streams that flow from the maunga, leaving them sluggish and polluted with excess sediment. Land that was converted to fast growing pine in the 2040s is left vulnerable to erosion during the period following harvest. This has a negative effect on soil health, biodiversity and the water quality in the streams and rivers in these catchments.

Sea level rise and associated storm surge has forced vulnerable coastal communities to retreat in some areas of the region. These retreats are often not proactive and instead occur after significant storms, with new inland replacement developments often created on an ad hoc basis with low quality urban planning.

Māori values of kaitiakitanga remain a constant theme in attempt to protect Taranaki's environment, with iwi continuing to lead local conservation initiatives. However, these efforts face ongoing uphill battles as climate impacts start to affect less obvious areas, such as soil health, and hinders efforts to regenerate native species. Some taonga species are no longer able to survive in Taranaki, particularly kaimoana and sub-alpine flora.

Energy

Aotearoa New Zealand transitions away from fossil fuel usage, driven by a combination of consumer choices, international pressure in the form of climate-targeted tariffs and trade barriers, and fossil fuels being out-competed on price. The limited availability of skilled workers within Aotearoa hampers the ability and speed of the sector to transition.

Taranaki leads the shift towards renewables, with offshore wind farms in the South Taranaki Bight, solar farms throughout the region and new hydro facilities contributing to the grid. However, years of political delays and regulatory hurdles mean much of the region's infrastructure is outdated, resulting in frequent maintenance issues and supply chain interruptions.

Those businesses and households that shifted to solar energy in the short term benefited from the ability to be self-sufficient during weather events.

Agriculture

Taranaki's agricultural sector has been forced to adapt to the realities of a changing climate. Sea level rise and associated storm surge is causing significant problems especially for low lying, productive, agricultural land that begins to suffer from salination around coastal areas, or soil loss and degradation.

The government introduced environmental levies to reduce emissions and implemented water restriction policies, meaning smaller farms struggled to survive the transition. Large agribusinesses now dominate Taranaki, focusing on low emissions production to meet international market demands for sustainable dairy and crops, but at the cost of smaller, family-run farms.

Rotational grazing and native forestry plantation have helped restore soil health and protect water quality, but the environmental damage from years of heavy nitrate use and flooding along rivers has been irreversible. While high-value and adaptable crops such as manuka honey and hemp have gained popularity, the region remains economically divided. Larger farms thrive on government incentives and international demand, while smaller farms continue to bear the brunt of climate impacts and inequity.

Hot House World

Hot House represents a world where minimal and fragmented efforts towards climate change mitigation have resulted in severely increased physical impacts. Countries focus on their short term domestic best interests, resulting in persistent and worsening inequality and environmental degradation. There is a resurgence in the view that "Aotearoa New Zealand's emissions are insignificant" and that the country cannot afford to take the lead or act alone. Emissions continue to rise unabated throughout the century and there is continued reliance on fossil fuels across the energy sector.



Hot House World

Short Term: 2024 - 2034

Throughout the 2020s, Taranaki feels the strain of the changing climate, particularly in coastal areas where sea-level rise and more frequent intense storms have begun to threaten homes and critical infrastructure. Minimal investment in mitigating the effects of climate change, combined with an ineffective emissions trading scheme (ETS), leaves Aotearoa New Zealand vulnerable to economic pressures in the future. Reliance on the ETS fails to incentivise significant reductions in emissions or drive adaptation efforts, leaving key industries like agriculture and infrastructure exposed to climate impacts.

Taranaki's major economic sectors continue with business as usual, although they face growing uncertainty. Energy continues to exploit the regions natural resources, such as natural gas and oil to maximise economic returns, with little ambition to progress toward supporting the renewable energy transition. Farmers struggle with frequent droughts and unpredictable weather, leading to reduced crop yields and water scarcity. Uncertainty about sector futures sees a lack of investment, resulting in difficulty attracting skilled labour and productivity issues that leave Taranaki more exposed to economic shocks.

Urban sprawl accelerates, amplified by uncertainty around population changes and a push to develop inland areas that are at less risk of sea-level rise and erosion. The rapid spread of housing and industry into areas not yet affected by climate change makes long-term planning more difficult. Policy priorities shift towards short-term, economically driven goals, such as building roading infrastructure to support urban sprawl. These priorities, along with population uncertainty, challenge NPDC and Government in forecasting and securing funding for climate resilience and adaptation.

Medium Term: 2035 - 2054

In the 2040s the impacts of climate change have intensified. The agriculture sector is hit particularly hard, with widespread crop failures due to frequent and prolonged droughts. This threatens the economic viability of farming but also contributes to the growing concerns about food security. A shift in rural land use to exotic, fast growing pine forests occurs as the government prioritises carbon sequestration over reducing emissions sources. This negatively affects soil health, biodiversity and water quality in the streams and rivers near to these catchments.

Ecosystems are severely stressed; native bird, plant and marine species struggle to adapt to the changes in temperature, rainfall and biodiversity. Some ecosystems appear to be approaching tipping points for collapse, significantly impacting the mauri and wellbeing of Māori. In rural areas where critical infrastructure is more vulnerable, power outages and road closures become common, cutting off access to essential services. Heatwaves and higher temperatures drive up energy demand for cooling, putting immense pressure on the energy grid. Taranaki experiences frequent power outages, with regular controlled shutdowns of supply to prevent total grid failure.

A growing number of communities in coastal and flood-prone areas are displaced by extreme weather events such as cyclones. NPDC is pressured to reprioritise funding as the changing climate forces continual rebuilding of critical infrastructure, such as transport connections and wastewater. Without government support, communities are forced to leave their homes without planning or infrastructure to support their relocation. New Plymouth, as the region's largest city, faces heightened demand on housing, utilities and public services, straining already stretched resources. The influx of people into urban areas also creates tension as competition for jobs and affordable housing increases.

There is insufficient funding for infrastructure and service investments to support the growing community, resulting in lower service levels ranging from water shortages in summer to poorly maintained roads, parks and facilities. Neither central or local government have sufficient finance to also tackle emissions reduction due to the ongoing costs of rebuilding infrastructure.

Tensions rise with iwi and hapū increasingly concerned about the degradation of te taiao and lack of action by central and local government to reduce emissions. As iwi have an obligation to protect their whenua, they develop networks throughout the region to advocate climate action and improve resilience. Papakāinga are developed as some Māori seek to protect their hapori whilst continuing to advocate for the mauri of ecosystems.

Hot House World

Long Term: 2055 - 2100

Extreme rainfall and drought are now occurring every year across Taranaki with temperatures frequently exceeding 30˚C in summer months, adding to wildfire risk. People, especially Māori, suffer from long-lasting psychological effects due to the impacts of extreme weather events and biodiversity loss. Rising sea levels and worsening river floods prompts a nationwide managed retreat policy. Wildfires reduce the effectiveness of pine forests for carbon sequestration.

Individuals, communities, and businesses have endured decades of financial and emotional stress due to environmental changes. NPDC are constantly being called upon to respond to the cascading problems arising from the effects of climate change, leaving insufficient time and funding for long term planning or effective emissions reduction. Without resilience planning in the 2020s and proactive government intervention, global climate tipping points have long been exceeded and years of ecological destruction have already been locked in. Infrastructure rebuilds are often fast and cheap options with little strategic thinking to improve resilience, sustainability or integrate iwi into the decision-making process. Taranaki is still seen as a relatively safe place by international standards, which helps in attracting skilled workers, but the growing amount of climate-induced migration globally means that immigration is a highly charged topic, politically and socially. This exacerbates stress within communities, particularly around housing and employment, with over-crowding and homelessness issues rising.

Technological advancements have soared during previous decades. By 2070, Taranaki has access to the technology needed to survive a new physical climate. Early warning systems, for example, provide localised warnings about events such as potential flood hazards and heatwaves, avoiding injury and death considerably. What technology has not been able to address, however, is the devastating social effects of a deteriorating climate and accompanying high costs of living. Taranaki suffers from widespread social unrest, worsened social cohesion and a highly politically and economically divided population. Socio-economic disparities exacerbate tensions, with poorer communities still exposed to frequent severe weather while wealthier communities have invested in private infrastructure to protect themselves. Iwi and hapū continue to advocate for te taiao whilst experiencing ongoing loss of cultural connection. Papakāinga are increasingly self-sufficient with iwi increasingly required to support the wider community post weather events with housing and food. The public are increasingly concerned about food and water security issues, and safe places to live.


wsp
Te Kaunihera-a-Rohe o Ngamotu
New Plymouth
District Council

NPDC GREENHOUSE GAS EMISSION INVENTORY 2023/2024

PURPOSE/ TE WHĀINGA

1. This report outlines the results of Council's Financial Year 2023/2024 (FY24) Greenhouse Gas (GHG) emissions inventory and the next steps for emission reduction planning.

RECOMMENDATION / NGĀ WHAIKUPU

That, having considered all matters raised in the report, the Greenhouse Gas Emissions Inventory for 2023/24 be noted.

STRATEGY AND OPERATIONS COMMITTEE RECOMMENDATION

2. The Strategy and Operations Committee endorsed the Officers recommendation.

SIGNIFICANCE AND ENGAGEMENT / TOHUTOHU KAI WHAKAHAERE

3. This report is provided for information purposes only, and has been assessed as being of some importance.

EXECUTIVE SUMMARY / WHAKARĀPOPOTOTANGA MATUA

4. This report outlines the results of NPDC's Financial Year 2023/2024 (FY24) greenhouse gas (GHG) emissions inventory, NPDC's performance against emission reduction targets and next steps for emission reduction planning and implementation.

5. GHG emission inventories are summarised into scope 1, 2, and 3 emissions, with:

    a) Scope 1 being direct emissions from NPDC's operations (e.g. fuel use);

    b) Scope 2 being indirect emissions from purchased energy (e.g. electricity); and

    c) Scope 3 emissions covering all other indirect emissions in the value chain (e.g. purchased goods and services).

6. The following table summarises FY24 results, excluding biogenic emissions, against FY18 and FY22, measured in tonnes of carbon dioxide-equivalents (tCO2e):

GHG by scope, excluding biogenic emissions	FY 18 tCO2e	FY 22 tCO2e	FY24 tCO2e
Scope 1	3,088	2,670	2,978
Scope 2	1,602	988	1,118
Scope 3	18,709	23,629	19,959
Total	23,394	27,287	24,055

7. NPDC's emission reduction target aligns with the national target to reduce total GHG emissions (excluding biogenic methane) by 49 per cent and a minimum 10 per cent reduction in biogenic methane emissions by 2030. This gives NPDC the following three targets:

NPDC 2030 targets	Performance
1) All emissions (other than biogenic emissions) to reduce by 49 per cent	Off track – due to unmeasurable Scope 3 target.
2) Scope 1 and 2 emissions, excluding biogenic emissions, to reduce by 50%	On track
3) Scope 3 emissions, measured by emissions intensity (CO2e per dollar of spend) to reduce by 20%	Currently unmeasurable – this target will be updated in the next Emission Reduction Plan
4) Biogenic emissions to reduce by 10%	On track

8. Despite Council achieving overall reductions, the impact of scope 3 emissions being off track, means that Council is not on target for the overall emissions reduction target. Council is on track to achieve its scope 1 & 2 emission reduction target and biogenic emission reduction target.

BACKGROUND / WHAKAPAPA

9. This report is being presented to the Council to communicate the results of the latest FY24 GHG Emission Inventory, with the purpose of:

   a) Reporting GHG emissions and progress towards Council's emission reduction target

   b) Providing the Council and the community transparent information on Council's GHG emissions

c) Upholding our commitment to report annual GHG emissions in compliance with Council's Climate Action Framework and Emission Reduction Plan.

d) Provide update on emission reduction planning and action.

10. In 2023, Council adopted its first District-Wide Emission Reduction Plan (the Plan). The Plan set a target, aligning with the national target, to reduce total GHG emissions (excluding biogenic methane) by 49 per cent and a minimum 10 per cent reduction in biogenic methane emissions by 2030. This requires:

a) Scope 1 and 2 emissions, excluding biogenic emissions, to reduce by 50 per cent

b) Scope 3 emissions, measured by emissions intensity (CO2e per dollar of spend) to reduce by 20 per cent

c) Biogenic emissions to reduce by 10 per cent

11. GHG emissions are categorised into scope 1, 2, and 3 emissions.

a) Scope 1 being direct emissions from Council's operations (e.g. fuel use);

b) Scope 2 being indirect emissions from purchased energy (e.g. electricity); and

c) Scope 3 emissions covering all other indirect emissions in the value chain (e.g. purchased goods and services).

12. Biogenic emissions are those produced from biological processes, such as emissions produced from decomposition of organic material in landfills and wastewater treatment processes.

13. Tables 1 and 2 summarise the FY24 GHG inventory results against the FY18 and FY22 GHG inventories, with and without biogenic emissions.

Table 1: GHG emissions *including* biogenic emissions, in tonnes of carbon dioxide equivalent (tCO2e)

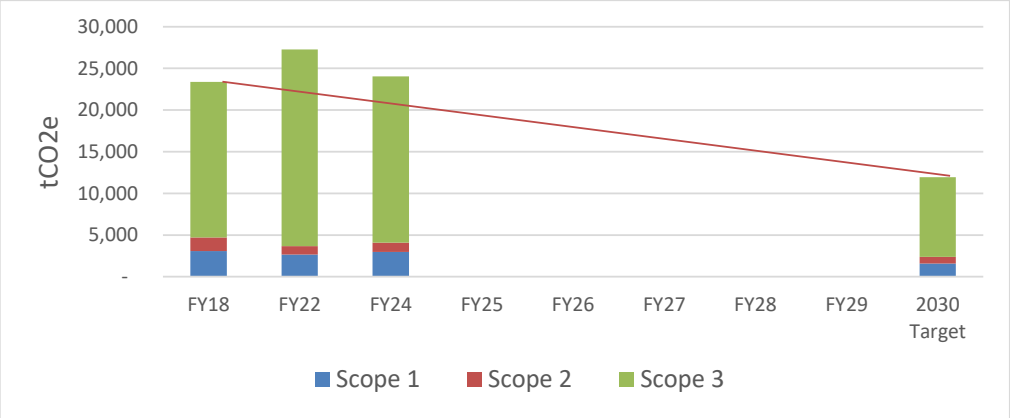
GHG by scope, including biogenic emissions	FY18 tCO2e	FY22 tCO2e	FY24 tCO2e	Reasoning
Scope 1	58,301	74,012	5,042	Reduction due to installation of Colson Road landfill gas capture system and use of metered gas data
Scope 2	1,602	988	1,118	30% reduction in electricity emissions against FY18 due to energy management initiatives. FY22 effected by COVID-19 impacts
Scope 3	18,709	29,912	23,353	25% increase in supply chain emissions against FY18 due to increased spend.
Total	78,611	104,913	29,513	

Table 2: GHG emissions *excluding* biogenic emissions, in tonnes of carbon dioxide equivalent (tCO2e)

GHG by scope, excluding biogenic emissions	FY 18 tCO2e	FY 22 tCO2e	FY24 tCO2e
Scope 1	3,088	2,670	2,978
Scope 2	1,602	988	1,118
Scope 3	18,709	23,629	19,959
Total	23,394	27,287	24,055

14. Figures 1, 2, and 3 track total emissions excluding biogenic emissions, scope 1 & 2 emissions excluding biogenic emissions, and biogenic emissions against the 2030 emission reduction targets.

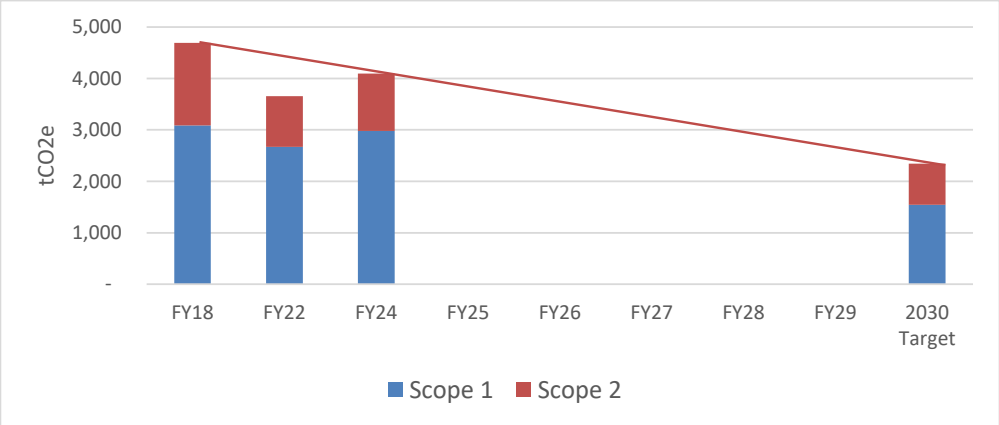
Figure 1: Tracking scope 1,2, and 3 emissions, excluding biogenic emissions, against overall 2030 emission reduction target



Notes:

- Scope 3 emissions have a limited level of assurance due to large assumptions and poor-quality data. The majority of scope 3 emissions are calculated from vendor spend data and spend-based emission factors. This target will be updated to a supplier engagement target in the next emission reduction plan. Scope 3 emissions have increased due to the significant increase in capital expenditure since FY18.
- Several additional emission sources have been included in the inventories over time, for instance the FY18 Scope 1 inventory excluded emissions from the Crematorium (Council's second largest gas user) and emissions from PIF investments.

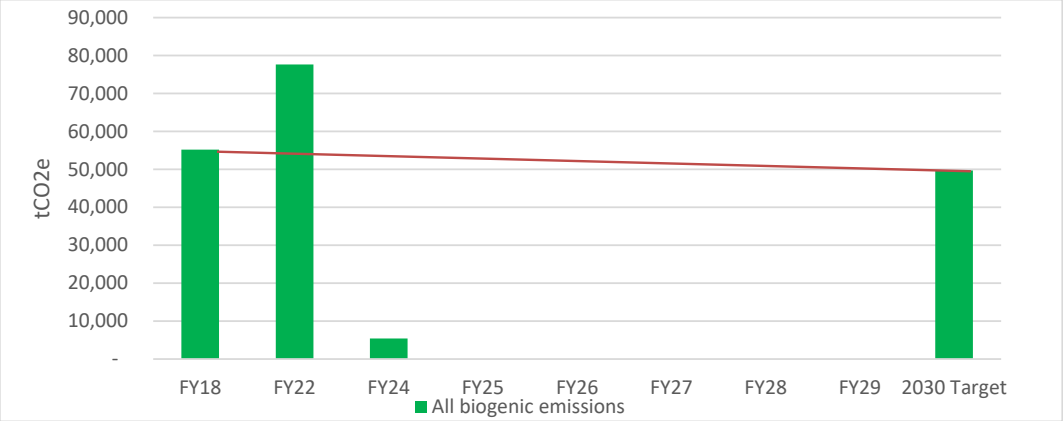
Figure 2: Tracking scope 1 & 2 emission, excluding biogenic emissions, against the 2030 emission reduction target.



Notes:

- Scope 1 emission have reduced by 4% against FY18 and scope 2 emissions (electricity) have reduced by 30% against FY18. This is largely due to energy management initiatives and an uptake of electric vehicles causing a reduction in natural gas, electricity and transport fuel across the organisation. The 2025/26 and 2026/27 inventories are expected to further decrease as initiatives funded in the Long-Term Plan come to fruition and reduce emissions.
- The decrease in FY22 emissions was due to the impacts of the Covid-19 lockdowns.

Figure 3: Tracking biogenic emissions against the 10% reduction by 2030 emission target



Notes:

- The large quantity of biogenic emission reported in FY18 and FY22 is due to modelled Colson Road Landfill gas emissions.
- The large reduction of biogenic emissions in FY24 is due to the installation of the Colson Road Landfill gas capture and flare system and the use of metered landfill gas capture data.
- The Colson Road Landfill gas capture system had a significant impact on biogenic emissions, enabling NPDC to achieve it's 10% biogenic emission reduction target

15. Tracking the scope 3 emission intensity (kgCO2e/$ spent) target is excluded from this report due to limited data quality assurance and the difficulty in obtaining data from suppliers. Officers propose changes to the scope 3 target, as outlined in the next section of this report.

NEXT STEPS / HĪKOI I MURI MAI

16. Annual emissions inventories are funded in the Long-Term Plan 2024-34. Council and are investing in improving processes and systems to support these annual inventories to reduce the resources and time to complete each inventory. Additional emission sources or changes to the baseline year may continue as data quality and methodology improve over time.

17. Officers will soon start working on the second Emissions Reduction Plan:

    a) The 2nd Emissions Reduction Plan will be completed in FY26. As part of this work, the targets will be reset to align with Science-Based Target methodology, the baseline year will change to FY22, and CCO's will be included in the scope 3 emissions category. This will give NPDC access to LGFA's Climate Action Loan and enable borrowing at a 0.02% discount on the standard LGFA rate. These new targets can also reduce complexity in reporting on emissions against targets.

    b) The 2nd Emission Reduction Plan will include details on:

        i) Council's gas asset transition plan: Outlining the priority gas boiler assets for replacement and the most suitable systems for replacement.

        ii) Council Solar PV generation plan: Outlining the options for solar PV generation across the NPDC portfolio, including the Wastewater Treatment Plant, the Water Treatment Plant, Tūparikino Active Community Hub and the Archives Building.

        iii) Infrastructure Sustainability Programme: Outlining the approach to reduce scope 3 emissions and achieve broader outcomes through infrastructure planning and delivery.

18. Council Officers continue to work on other initiatives to reduce Council emissions:

    a) Electricity supply: Council's electricity contract expires in November 2025. Officers have secured an arrangement to source 6.2 GWh/year of solar generated electricity from the PRIP Airport Solar Farm and have recently awarded Council's electricity contract to Ecotricity which will supply 100% renewable electricity to the remaining electricity load. This will reduce scope 2 emissions to zero for three years.

    b) Natural gas supply: The Civic Centre, Puke Ariki, and Govett Brewster Art Gallery/Len Lye Centre have gas boiler replacement projects in the LTP. The Climate Change Response Team is working with the Facilities and Project Management Office teams to replace these gas boilers with alternative systems. This will reduce scope 1 emission by 270 tCO2e per year. Similarly, the Climate Change Response Team is working with the Aquatics and Project Management Office teams to replace the gas boilers with pellet boilers at the Waitara Pool and Inglewood Pool.

    c) Sustainability Accelerator Fund (SAF): 10 projects from across the organisation were award SAF funding in FY25. These projects are focused on energy efficiency and electrification and will deliver further reductions to emissions.

FINANCIAL AND RESOURCING IMPLICATIONS / NGĀ HĪRAUNGA Ā-PŪTEA, Ā-RAUEMI

19. The emissions inventory was undertaken by Council Officers. It has been externally audited by Toitū within the climate change planning budget set in the Long-Term Plan 2024-34.

20. The Long-Term Plan 2024-34 included many of the initiatives outlined in the Emissions Reduction Plan.

IMPLICATIONS ASSESSMENT / HĪRANGA AROMATAWAI

21. This report confirms that the matter concerned has no particular implications and has been dealt with in accordance with the Local Government Act 2002. Specifically:
    - Council staff have delegated authority for any decisions made;
    - Council staff have identified and assessed all reasonably practicable options for addressing the matter and considered the views and preferences of any interested or affected persons (including Māori), in proportion to the significance of the matter;
    - Council staff have considered how the matter will promote the social, economic, environmental, and cultural well-being of communities in the present and the future.
    - Unless stated above, any decisions made can be addressed through current funding under the Long-Term Plan and Annual Plan;
    - Any decisions made are consistent with the Council's plans and policies; and
    - No decisions have been made that would alter significantly the intended level of service provision for any significant activity undertaken by or on behalf of the Council, or would transfer the ownership or control of a strategic asset to or from the Council.

APPENDICES / NGĀ ĀPITIHANGA

Appendix 1 Greenhouse Gas Emissions Inventory 2023/24 (ECM 9486136)

Appendix 2 Toitū verification certificate (ECM 9486146)

Report Details

Prepared By:	Mat Sycamore (Climate Change Mitigation Advisor)
Team:	Climate Change Response Team
Approved By:	Renee Davies (Manager Strategic Planning)
Ward/Community:	District-wide
Date:	28 April 2025
File Reference:	ECM 9486128

----------End of Report ----------

New Plymouth District Council Greenhouse Gas Emissions Inventory

Financial Year: 2023/2024

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Introduction

This GHG Inventory reports New Plymouth District Council's (NPDC) GHG emissions for financial year 2023 / 2024 (FY24), a from 1st July 2023 to 30th June 2024.

The FY24 GHG Inventory was prepared in accordance with ISO 14064-1 (2018) and the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard.

NPDC use the operational control approach for developing the annual GHG Inventories. This includes all NPDC corporate operations and excludes all council-controlled organisations, as these organisations are outside of operational control.

The purpose of this GHG emission inventory is to:

- Provide NPDC and the New Plymouth District community information on the GHG emissions produced within operational control.
- Track NPDC's annual GHG emissions to measure and monitor progress against the FY22 baseline year and Emission Reduction Plan.
- Report annual GHG emissions as part of NPDC's Climate Action Framework and responsibility to measure and manage GHG emissions.
- Document and report a standard methodology for use in future years
- Demonstrate to key stakeholders NPDC is actively involved in managing and reducing GHG emissions in line with NPDC's Emission Reduction Plan and New Zealand's net zero by 2050 target.

Statement of Intent

This inventory is prepared as a management tool for NPDC to:

- Assist NPDC in tracking and managing its GHG emissions.
- Complying with NPDC's Climate Action Framework and Emissions Reduction Plan.
- Provide verified information for all interested parties and stakeholders on NPDC's GHG emissions.
- Demonstrate integrity and transparency with respect to GHG emissions for NPDC rate payers.

Stakeholders and interested parties include NPDC Management, Executive Leadership Team, Community members, IWI / Hapu, external suppliers, central government and regulatory bodies.

Organisation Profile

New Plymouth District Council is responsible for a wide range of activities in the New Plymouth District. The 2023 population of New Plymouth District was 88,900 (StatsNZ, 2024) and covers a land area of 2,324 square kilometres.



Figure 1: New Plymouth District Council location

NPDC operate in the following key areas:

- Infrastructure and Planning
- External Relations and Communications
- Corporate Services
- Community
- People & Capability
- Information Technology
- Community and Customer Services

The operational revenue was $251.859 million in FY24, with average employment of 656 FTEs.

Boundary

Organisational Boundary

The organisational boundary defines the method used to consolidate GHG emissions and the NPDC facilities or subsidiaries included and excluded from the GHG inventory. Consolidation is done using one of the following methods:

- Control, whereby all emissions over which the organisation has either financial or operational control are included in the inventory
- Equity share, whereby the organisation only includes emissions for the portion of the facilities and business that the organisation owns.

NPDC uses the operational control method to consolidate GHG emissions. The NPDC operational control boundary is outlined in Figure 2. NPDC business units within operational control and coloured blue, while council-controlled organisations (CCO) coloured grey are outside of NPDC operational control and excluded from the GHG inventory. Note, operational emissions from New Plymouth PIF Guardians are excluded, however GHG emissions associated with the investments managed by PIF Guardians are included, as NPDC are direct beneficiaries of the revenue generated from the investments.

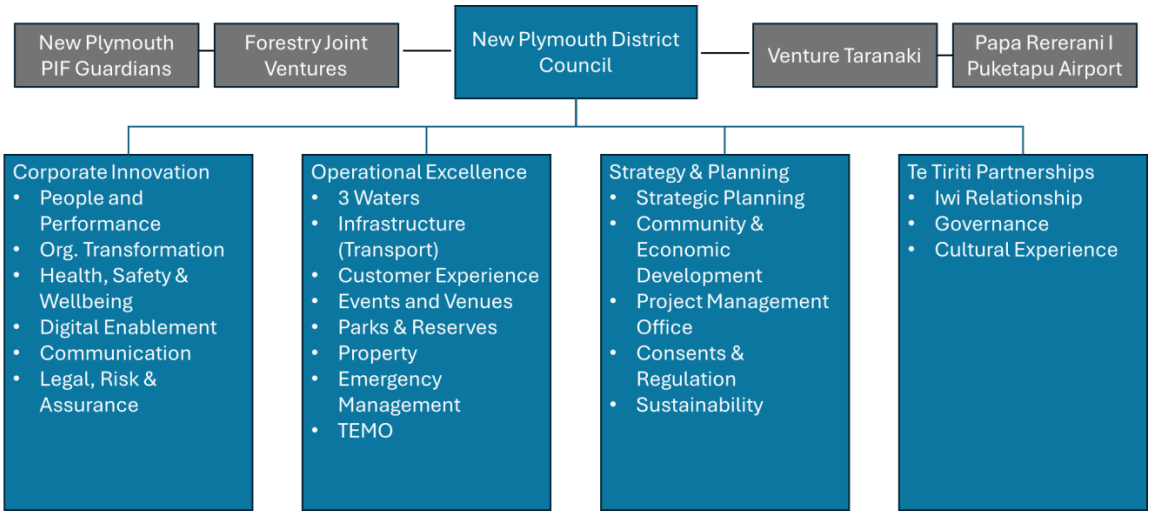


Figure 2: NPDC operational control boundary.

NPDC does not have the ability to determine activities within the CCOs. The two main levers in which NPDC can influence CCOs are 1) appointment of directors and 2) the statement of intent – neither enable NPDC to direct policies or control operational activities, hence CCO's remain outside the scope of NPDC's GHG consolidation and reporting.

Table 1 NPDC's CCO Functions

CCO	Function
Venture Taranaki	Partially funded by NPDC, Venture Taranaki (VT) are the regional economic development agency. The agency offers professional services. VT has its own independent board of directors and CEO. VT has its own GHG inventory by Toitu.
PIF Guardians	The New Plymouth PIF Guardians Limited was set up in 2017 and is a council-controlled organisation. Since 2017, the PIF has been managed at arm's length by independent investment firm Mercer. Release payments / annual revenue from PIF are used to offset rates and keep rate rises minimised. The New Plymouth District Council (Perpetual Investment Fund) Act 2023 sets out requirements for investment decisions for the PIF to be made independently of elected members. NPDC does not have operational control of PIF Guardians or Mercer.
Papa Rererangi i Puketapu Ltd (PRIP)	New Plymouth Airport services the regional flights. PRIP has its own independent board of directors and CEO. PRIP has its own GHG inventory and is part of the international Airport Carbon Accreditation Programme. PRIP is currently working on a sustainability strategy to define and prioritise sustainability action and investment.
Forestry JV	NPDC and Multiple Land Owners. The JV's set out that the landowners provide the land and the Council plants the trees and undertakes the silviculture (pruning) of the trees. When they are harvested, the profits are split between the landowner and council. The landowner's return is a form of rental for the land, and the council gets back money to reflect that spent growing the forest. NPDC has already used and cancelled its Carbon credits from its pre 1990 Forests.

Operational Boundary

The operational boundary defines the scope of direct and indirect emissions within the organisational boundary. The GHG emission sources and sinks were determined based on its materiality. An emission source or sink's materiality is determined on a significance criterion, which includes the quantum of emissions, stakeholder interest, reduction potential, and accuracy or reliability of the measurement.

The majority of emission sources within NPDCs operational boundary have been included in the GHG Inventory. However, not all emissions sources were captured. Table 2 summarises the inclusions in this year's reporting year, and Table 3 summarises the known exclusions for the FY24 reporting period.

Table 2: Inclusions

GHG Protocol Classification	ISO Classification	Activity Type	Activity/ Emission source

Scope 1	Category 1	Stationary combustion	Natural gas
			LPG
			Stationary diesel
		Transport combustion	Fleet diesel
			Fleet petrol
		Fugitive emissions	Refrigerants
			Colson Road gas flare
		Biogenic emissions	NPDC Wastewater Treatment Plant
Scope 2	Category 2	Electricity	Electricity
Scope 3	Category 3	Upstream transportation and distribution	Freight and postal
			Business travel - Air travel
			Staff mileage claims
			Business travel – rental vehicle
			Business travel – accommodation
			Employee commuting
		Downstream freight	Waste transportation.
		Working from home	Working from home
	Category 4	Purchased Goods and Services	Purchased Goods and Services
		Capital goods	Capital Goods
		Waste generated in operations	Rural transfer stations
			Kerbside collection - organics
			Kerbside collection - general waste
			Kerbside collection - recycling rejects (MRF)
			Illegal dumping and litter
			Wastewater treatment plant waste – sludge and screening waste
			Organisation waste - organics
			Organisation waste - waste to landfill
		Transmission and distribution	Electricity T&D
			Natural gas T&D
	Category 5	Downstream leased assets	Grazing animals
		Investments	PIF investment fund

Table 3: Exclusions

GHG Protocol Classification	Activity Type	Reason for exclusion

Scope 1	Historic closed landfill emissions (other than the Colson Road closed landfill)	Old historic landfills such as Okato, Inglewood, Okoki Road, Oakura, Waitara, Marfell Park, Waiwhakaiho, Tongaporutu were excluded from this inventory. These landfills have been closed and capped for over 17 years. Based on the Scholl Canynon LFG generation curve, these landfills have negligible LFG emissions with low certainty in the calculation method, so were deemed an exclusion.
	Well to tank emissions	Emissions associated with the production and transportation of fuel from 'well to tank' were excluded.
Scope 3	Kerbside waste collection – transportation emissions	No data was available from the contractor for kerbside collection transportation emissions. Estimation of these emissions were considered low quality. This emission source will be included in the FY25 emission inventory.
	Emissions associated from diverted / recovered materials	Downstream emission associated with diversion of waste were excluded from this inventory, including the processing and remanufacturing of kerbside recyclables and waste to energy (e.g. burning tyres at Golden Bay Cement). Emissions from reprocessing and remanufacturing recyclables and waste to energy are considered part of the diverted materials next lifecycle so are deemed outside of scope and excluded from this inventory.
	New Plymouth Transfer Station	The New Plymouth Transfer Station is owned and operated by Enviro NZ. NPDC has no operational control of this facility. Therefore, emissions associated with waste processing at the New Plymouth Transfer Station, except for kerbside collection, MRF rejects, the Junction and the Sorting Depot, are excluded from this inventory. Note, rural transfer stations are owned by NPDC and are included in this inventory.
	Use of sold products - emissions from using Bioboost fertiliser	NPDC sell bioboost to a contractor who bags, sells and distributes bioboost. There is no available data on the use of sold product.

Data Collection, uncertainties and assumptions

Data Collection

Data collection was coordinated by the NPDC Climate Change Mitigation Advisor.

The following approaches were used for data collection:

- Direct supplier data – direct engagement with suppliers to provide measured data for the organisation, such as electricity, natural gas, waste to landfill, or transport fuel.
- Indirect employee data – data collection via employees at NPDC who provide measured or estimated data from specific activities, such as refrigerant use, forestry land, closed landfill methane emissions, or general ledger data.

Emission calculation

Emissions were calculated by multiplying activity data with appropriate emissions factors. Three main methods were used for calculating emissions in this GHG inventory:

- Applying MfE emission factors to NPDC activity data
- Applying custom emission factors to NPDC activity data
- Applying Thinkstep spend-based emission factors to NPDC spend data.

Most emission factors are sourced from the Te ine tukunga: He tohutohu pakihi – Measuring emissions: A guide for organisations (MfE, 2024). Custom emission factors were created or derived when certain emission factors were not available from the MfE guide or when more suitable, industry approved emission factors or methods were available, such as the Water New Zealand guidance for calculating wastewater treatment plant emissions.

Spend-based emission factors were used when activity data was poor quality or unavailable, such as emissions from purchased goods and services and capital goods. In these cases, spend-based emission factors were sourced from Thinkstep (Thinkstep, 2024) and applied to general ledger spend.

Table 4 outlines the custom emission factors used in this report, i.e. the emission factors used other than MfE 2024:

Table 4 Custom emission factors

Activity / Emission source	Unit	Methodology
Biogenic wastewater treatment plant emission	Kg TOW (total organics in wastewater)	Combination of CH4 effluent COD, CH4 WWTP COD, WWTP N2O and effluent N2O emissions calculated, based on Water New Zealand: Carbon accounting guidelines for wastewater treatment: CH4 and N2O
Closed landfill burnt methane emissions	Kg burnt methane and kg unburnt methane	Metered gas data with stoichiometry to estimate CO_2 emissions from burnt methane. CO_2e emissions from unburnt methane estimated using GWP of 28 (AR5).

Domestic air travel emissions	Passenger kilometres travelled	Orbit Travel provide flight specific emission factors based on the type of plane used for travel. Domestic air travel emissions are taken directly from the Orbit reports.
Time of Use Electricity emissions	kWh	Simply Energy provides bespoke electricity emission factors based on half hour Transpower grid energy data. Emission data is sourced from Simply Energy directly.
Staff mileage claim	$	FY24 average fuel price per litre ($/L) applied to emission factor of petrol ($kgCO_2e$ / L) to estimate emissions from staff mileage claims
Forestry	Hectares	Ministry for Primary Industries carbon stock value data used to calculate total removals and liabilities.

Global Warming Potential

Global Warming Potential (GWP) is an index to translate the level of emissions of various gases into a common measure to compare the relative radiative forcing of different gases. GWPs are calculated as the ratio of the radiative forcing that would result from the emissions of one kilogram (kg) of a greenhouse gas to that from the emission of one kg of CO2 over a period of time (usually 100 years).

This FY24 GHG Inventory was prepared using AR5 values. Figure 3 shows the GWPs in the latest AR5, compared to AR4 for N_2O, CH_4, and CO_2.

Figure 3 GWP factors

Greenhouse gases	Chemical formula	GWP (AR4)	GWP (AR5)
Nitrous oxide	N_2O	298	265
Methane	CH_4	25	28
Carbon dioxide	CO_2	1	1

Uncertainty

A description of the data quality indicators, with explanations of the terms used in the table, is provided below.

Figure 4: Uncertainty summary key

Data management	Data collection		
	Measured	Derived	Estimated
Robust	M1	D1	E1
Satisfactory	M2	D2	E2
Questionable	M3	D3	E3

Measured = Data directly provided by a service provider, contractor or directly obtained from a monitoring device. For example, electricity invoices, contractor receipts, emissions monitoring equipment, incident reports, consultant reports etc.

Derived = Data obtained from calculations, mass balances, use of physical/chemical properties, use of coefficients and emission factors etc., for example converting cubic meters of waste into tonnes.

Estimated = Usually, where there is no other available method for obtaining the data. Such data could be pro-rated on previous results, use precedents or historical data, or even be based on a calculated guess.

Robust = Evidence from a sound, mature and correct reporting system, where room for error is negligible. Examples would include well-kept spreadsheets, databases and on-line reporting.

Satisfactory = Examples would include manual, but structured keeping of records, files and results. Some potential for error or loss of data.

Questionable = No logical or structured approach to data or record keeping. High potential for error &/or loss of data. Data may appear to differ from those initially reported.

Table 5: Emission sources, data collection and uncertainty

GHG Protocol / ISO reporting categories	Activity/ Emission source	Unit	Data Collection	Data quality	Emission factor name
Scope 1					
Category 1 - Direct GHG emissions and removals - Emissions	Natural Gas	GJ	Activity data provided by Nova Energy	M1	MfE - Natural gas - Industrial use
	LPG	kg	Activity data provided by Ongas	M1	MfE - LPG - Industrial use
	Stationary Diesel	litres	Activity data obtained by McFuel Invoices and prorated for FY24	E1	MfE - Diesel - Commercial
	Fleet diesel	litres	Activity data obtained by BP fuel cards	M1	MfE - Diesel
	Fleet Petrol - regular	litres	Activity data obtained by BP fuel cards	M1	MfE - Regular petrol
	Fleet Petrol – premium	litres	Activity data obtained by BP fuel cards	M1	MfE - Premium petrol
	Refrigerants	kg	Refrigerant liability (total refrigerant stock) determined by Excel maintenance schedule. FY 24 leakage determined by refrigerant purchases in reporting period.	E1	MfE - Refrigerant emission factors
	Colson Road gas flare	m3	Burnt methane data obtained from gas meter data and extracted from Water Outlook (Scada system).	D1	Stoichiometric conversion for the combustion of methane and GWP of methane emissions (AR5)
	Fertilisers	kg	Fertiliser activity data provided by Parks team, and nitrogen content	D1	MfE - Nitrogen content of non-

			determined from product descriptions.		urea nitrogen fertiliser
	Biogenic Waste Water Treatment Plant emissions	CH4 and N2O	Activity data sourced from WWTP measured data. Water NZ guidelines used to determine CH4 and N2O emissions.	D2	Water NZ methodology
Category 1 - Direct GHG emissions and removals - Removals	Forestry carbon sequestration	Ha	Forestry hectare data determined by aerial surveying and sourced from forestry valuations.	D1	MPI - carbon stock data
Scope 2					
Category 2 - Indirect GHG emissions from imported energy - Electricity	Electricity	kWh	Activity data sourced from Simply Energy and Meridian Energy	M1	MfE - Electricity 2023 / Simply Energy calculation
Scope 3					
Category 3 - Indirect emissions from transportation	Freight and postage	$	Spend data sourced from internal general ledger	E3	Inflation adjusted Thinkstep spend-based emission factors
	Air travel	passenger km travelled	Activity data sourced from Orbit	M1	MfE - Air travel emission factors
	Mileage claims - accounts payable	$	Spend data sourced from internal general ledger	E3	Inflation adjusted Thinkstep spend-based emission factors
	Waste transportation	tonnes kilometer travelled	Distance travelled estimated from maps, total tonnage provided by EnviroNZ	E1	MfE - Road haulage factor
	Taxi	$	Spend data sourced from internal general ledger	E3	MfE - Taxi ($)
	Rental vehicle	$	Spend data sourced from internal general ledger	E3	Inflation adjusted Thinkstep spend-based emission factors
	Accommodations - Orbit data	employee nights	Activity data sourced from Orbit	M1	MfE - Accomodation
	Employee commuting	vkt	Internal staff survey (2024) to estimated passenger kilometers travelled	E2	MfE - travel emission factors
Category 4 - Indirect GHG	NPDC Purchased	$	Spend data sourced from internal general ledger	E3	Inflation adjusted Thinkstep spend-

emissions from products an organisation uses	Goods and Services				based emission factors
	NPDC Capital Goods	$	Spend data sourced from internal general ledger	E3	Inflation adjusted Thinkstep spend-based emission factors
	Electricity T&D losses	kWh	Activity data sourced Simply Energy and Meridian Energy	M1	MfE - Electricity T&D losses
	Natural Gas T&D losses	Gj	Activity data sourced from Nova	M1	MfE - Natural gas - T&D losses
	Rural transfer stations	tonnes	Activity data provided by EnviroNZ	M1	MfE - Waste to landfill with gas capture
	Kerbside collection - Organics	tonnes	Activity data provided by EnviroNZ	M1	MfE - Organics with gas capture
	Kerbside collection - general waste	tonnes	Activity data provided by EnviroNZ	M1	MfE - Waste to landfill with gas capture
	Kerbside collection - recycling rejects	tonnes	Activity data provided by EnviroNZ	M1	MfE - Waste to landfill with gas capture
	Waste water treatment waste	tonnes	Activity data provided by WWTP team	M1	MfE - Sludge with gas capture
	Organisation waste - Organics	tonnes	Activity data provided by Waste Management NZ	M1	MfE - Organics with gas capture
	Organisation waste - waste to landfill	tonnes	Activity data provided by Waste Management NZ	M1	MfE - Waste To Landfill with gas capture
	Working from home	employee days	Internal staff survey (2024) to estimated passenger kilometers travelled	E1	MfE - working from home
Category 6 - Indirect GHG emissions from other source	Grazing lands	head count	Activity data estimated from agricultural leased land and stock number per hectare assumptions	E3	MfE - agricultural emissions
	Investments	$	PIF emissions determined by respective fund emission estimations	E1	Mercer fund emission inventories

Biogenic emissions

Biogenic GHGs are made up of carbon dioxide, methane and nitrous oxide emissions and a produced because of the absorption of emissions by the feedstock during its lifetime, from

biogas / biomass combustion, or microbial processes. The main forms of biogenic emissions in the organisation for this reporting period include:

- N_2O and CH_4 emissions from the wastewater treatment
- CO_2 and CH_4 emissions from the Colson Road Landfill (landfill gas capture flare and unburnt methane emissions)
- N_2O and CH_4 emissions from agricultural grazing, including manure management, livestock enteric fermentation.
- CO_2 removals from the NPDC forestry portfolio.
- CH_4 emissions from waste to landfill.

All biogenic emission sources are quantified, however biogenic CO_2 removals from forestry are reported separately in the inventory. This is because biogenic CO_2 removals from forestry are part of the short carbon cycle and outside of the reporting scope. This differs from biogenic N_2O and CH_4 which are produced from decaying organic matter or combustion of biomass and are within the reporting scope.

NPDC have received 15,420 NZU Carbon Credits for pre -1990 forest land that have been claimed previous to this inventory and are excluded from reporting.

The method of calculating these emissions are outlined in the table below

Biogenic GHG source	Description	Method
Closed landfill gas capture flare	Colson Road is the most recent and largest landfill which closed in 2019 and contains just under 1 million Tonnes of waste. The final capping on Colson Road was completed in FY24.	Gas flow data is metered and recorded in NPDC's SCADA system. Daily Burnt Methane data is applied a 90% burnt rate, based on a conservative assumption the quantity of methane destroyed in combustion. Stoichiometry is used to convert burnt methane into carbon dioxide emissions. The remaining 10% of unburnt methane is applied a GWP (AR5) factor of 28 to estimate the carbon dioxide equivalent impact of methane.
Wastewater treatment plant emissions	NPDC operates the NP wastewater treatment plant (WWTP) which is a large producer of N20 and CH4 emissions due to the processing of wastewater. NPDCs WWTP is an aerobic process.	WWTP GHG emissions were calculated based on Water NZ, Carbon Accounting Guidelines for Wastewater Treatment Aug. 2021. The BOD methodology was chosen as it was the most conservative (highest GHG emissions).
Grazing	Emissions associated with NPDCs leased grazing land is a Scope 3 emissions source based on Downstream leased assets. NPDC leased out approximately	To estimate the emissions associated with these grazing leases, NPDC used stock unit estimates for small blocks and large blocks and stock type information provided by the NPDC

	185 ha of grazing land across 39 different grazing leases.	Property team to estimate the head count per ha for the different stock type. MfE emission factors for enteric fermentation, manure management and agricultural soils were used to estimate annual emissions from grazing.
Forestry	NPDC has 217.8 ha of post -1990 forestry, as reported in the 2024 Forestry Valuation. NPDC also has the Planting our Place Programme which has planted a total area of 5.42 ha of natural plantings since 2021 / 2022. There are other natural planted areas within NPDC portfolio, however these have been excluded due to poor data on land area.	Removals from forestry were estimated using the Toitu calculator tool, which is based on the MPI lookup tables for carbon stock change. Total area and age of forestry were applied carbon stock change value assumptions to estimate total removals in the reporting year and total liabilities from forestry.

Liabilities

Liabilities are the potential GHGs that could result in emissions if released. NPDC have GHG liabilities in the form of refrigerants, forestry and stationary fuel. Refrigerants, such as HFCs, PFCs and SF6, have high global warming potentials if leaked. Forestry biomass is stored carbon, and stationary fuel is held in one 2000 litre fuel tank. Forestry and stationary fuel could result in GHG emissions if they were accidentally released in a fire. The GHG stock holdings are presented in the table below:

Table 6 Liabilities

Liability type	**Type**	**Potential liability (tCO2e)**
Refrigerant	R22	208.0
Refrigerant	R32	11.6
Refrigerant	R410A	531.6
Refrigerant	R404A	14.9
Refrigerant	R134A	6.4
Refrigerant	R407C	4.6
Refrigerant	R600A	0.0003
Refrigerant	R290	0.0003
Refrigerant	R12	2.1
Refrigerant	R448A	2.3
Forestry	Total carbon stock	110,704
Stationary fuel	Diesel	5.4
Total liabilities		**111,491**

Base year

The baseline year for NPDC is financial year 2021 / 2022 (FY22). The estimated FY22 GHG footprint was 105,014 tCO_2e including closed landfill emissions, or 35,223 tCO_2e excluding closed landfill emissions. Figure 5 & 6 summarise the FY22 baseline GHG inventory.

Figure 5: Base year emissions, by scope

GHG by scope	Total excluding closed landfill	% TOTAL (excl closed landfill)
Scope 1	4,220	12%
Scope 2	988	3%
Scope 3	30,014	85%
Total	**35,223**	**100%**
Emissions per FTE (tCO2e)	56	

Figure 6: Base year emissions, by ISO category

ISO Cat	Source	Te CO_2e	% of total	% of Total (LFG removed)	CO2 (Te CO2-e)	CH4 (Te CO2-e)	N2O (Te CO2-e)
	Scope 1	**74,012**		**4,220**	**2,338**	**70,194**	**1,436**
Cat 1	Refrigerants	44	0.0%	0.1%	-	-	-
Cat 1	Natural (reticulated) Gas	2,060	2.0%	5.8%	2,055	5	1
Cat 1	Fleet Petrol	167	0.2%	0.5%	281	0	4
Cat 1	Fleet Diesel	285	0.3%	0.8%	-	-	167
Cat 1	Colson Road Landfill Gas	69,792	66.5%	NA	-	69,792	-
Cat 1	LPG	106	0.1%	0.3%	-	106	-
Cat 1	Fertiliser	8	0.0%	0.0%	3		5
Cat 1	Waste Water Treatment Plant (WWTP)	1,551	1.5%	4.4%	0	292	1,259
	Scope 2	**988**		**988**	**960**	**26**	**2**
Cat 2	Electricity	988	0.9%	2.8%	960	26	2
	Scope 3	**30,014**		**30,014**	**815**	**6,257**	**109**
Cat 6	Community Waste to landfill	5,916	5.6%	16.8%		5,989	
Cat 4	Organisational Waste to landfill	90	0.1%	0.3%	-	90	
Cat 6	Community Food Composting	256	0.2%	0.7%	256	163	93
Cat 4	Organisational Food Composting	22	0.0%	0.1%	22	14	8
Cat 6	Community Mixed recycling	99	0.1%	0.3%	-		-
Cat 4	Organisational Mixed recycling	3	0.0%	0.0%			
Cat 4	Purchased Goods & Services	14,695	14.0%	41.7%	-	-	-
Cat 4	Capital Goods	6,549	6.2%	18.6%	-	-	-
Cat 4	T&D Loss Electricity & Gas	191	0.2%	0.5%			
Cat 4	Upstream Leased Assets	78	0.1%	0.2%	-	-	-
Cat 3	Business Travel (airtravel, taxis and accom)	19	0.0%	0.1%			
Cat 3	Employee Commuting	193	0.2%	0.5%			
Cat 5	Downstream Leased Assets	1,313	1.3%	3.7%			
Cat 3	Upstream trasportation and distribution	592	0.6%	1.7%	537	1	9
	Total	**105,014**	**100%**	**100%**	**4,113**	**76,477**	**1,547**
	Total excluding closed landfill	**35,223**			**4,113**	**6,686**	**1,547**

Base year data is revised when material changes occur and have an impact on calculated emissions. When changes to the organisational boundary, operational boundary or calculation methodology are estimated to represent more than 5% of Scope 1, 2 or 3 emissions, a recalculation of base year data will be completed with explanation.

Changes to the FY2021 / 2022 baseline that result in more than a 5% change to the organisational emissions are listed below:

- Closed landfill emissions: In the FY2021 / 2022 baseline year, closed landfill emissions were calculated using the Scholl Canyon landfill gas (LFG) method for calculating the emissions from the Colson Road landfill gas capture flare. This method used modelling provided by WSP and had a low level of certainty. The method has been updated due to higher quality, measured data from the Colson Road gas meters. The volume of burnt methane is calculated using gas flow meters. Methane burnt is assumed at 90% combustion to estimate the total portion of methane combusted during the flaring process. Stoichiometry is used to covert the mass of burnt methane to carbon dioxide.
- Investments: The FY2021 / 2022 baseline year excluded emissions from investments due to PIF Guardians being a CCO and outside of the organisational boundary using the operational control method. Investments are included in the FY 2023 / 2024 inventory as NPDC use the PIF investment fund for operational revenue.

NPDC will reset the baseline for the FY25 inventory

Disclosure statement

This GHG inventory has been third-party verified by Toitū according to the Greenhouse Gas Protocol: A Corporate Accounting and Standard (2004) and ISO 14064-1:2018.

The level of assurance is “reasonable” for categories 1 & 2 and “limited” for other categories.

From the analysis conducted, the inventory is classified as good.

As part of NPDC’s Climate Action Framework and Emission Reduction Plan, NPDC will report the results of this FY24 GHG Inventory to Council and disclose the results publicly.

Results

Total gross GHG emissions for the FY24 GHG Inventory are 29,513 tCO_2e (including landfill gas emissions). Total category 1 removals from the forestry portfolio and Planting our Place programme are -5,578 tCO_2e. Figure 7 outlines the GHG emissions by category, Figure 8 outlines GHG emissions by source, and Figure 9 outlines GHG emissions by gas contribution (in tCO_2e).

Figure 7: GHG emissions by category

Emissions summary by categories	All verified emissions LOCATION BASED	Units
Category 1 total	5,041.62	tCO_2e
Category 2 total	1,117.57	tCO_2e
Category 3 total	1,325.14	tCO_2e
Category 4 total	20,161.45	tCO_2e
Category 5 total	1,837.68	tCO_2e
Category 6 total	29.08	tCO_2e
Total gross inventory:	**29,512.54**	**tCO_2e**
Category 1 Removals	**-5,578.09**	**tCO2e**
Total Net Inventory:	**23,934.45**	**[% or tCO_2e]**

Figure 8: GHG emissions by source

Source	tCO_2e	%of Scope	% of Total
Scope 1	**5,042**		
Refrigerants	133	2.6%	0.5%
Natural Gas	2,172	43.1%	7.4%
Fleet Petrol (transport)	151	3.0%	0.5%
Fleet Premium Petrol (transport)	23	0.5%	0.1%
Fleet Diesel (transport)	300	5.9%	1.0%
Colson Road Landfill Gas	589	11.7%	2.0%
LPG	191	3.8%	0.6%
Bulk Diesel (stationary)	4	0.1%	0.0%
Fertiliser	5	0.1%	0.0%
Waste Water Treatment Plant (WWTP)	1,475	29.3%	5.0%
Scope 2	**1,118**		
Electricity	1,118	100.0%	3.8%
Scope 3	**23,353**		
Upstream transport and distribution	112	0.5%	0.4%
Business travel - other (spend based)	50	0.2%	0.2%
Business Travel - airtravel	86	0.4%	0.3%
Business Travel - accomodation	9	0.0%	0.0%
Employee Commuting	556	2.4%	1.9%

Working from home	4	0.0%	0.0%
Waste transportation	508	2.2%	1.7%
Rural Transfer Station: Waste to landfill	95	0.4%	0.3%
Rural Transfer Station: Green Waste	196	0.8%	0.7%
Kerbside collection: Waste to landfill	2,081	8.9%	7.1%
NPDC Organisation: Waste to landfill	17	0.1%	0.1%
Kerbside collection: organics	251	1.1%	0.9%
The Sorting Depot	518	2.2%	1.8%
Illegal waste dumping: Waste to landfill	82	0.4%	0.3%
Illegal waste dumping: Green Waste	0	0.0%	0.0%
NPDC Organisation: Organics	9	0.0%	0.0%
WWTP waste	145	0.6%	0.5%
Purchased Goods & Services	6,657	28.5%	22.6%
Capital Goods	9,965	42.7%	33.8%
T&D Loss Electricity	66	0.3%	0.2%
T&D Loss Gas	81	0.3%	0.3%
Downstream Leased assets - Grazing	1,836	7.9%	6.2%
Investments	29	0.1%	0.1%
Removals	**-5,578**		
Total Gross	**29,513**		
Total Gross excluding closed landfill	**28,924**		
Total Net	**23,934**		
Total net excluding closed landfill	**23,346**		

Figure 9: GHG emissions by gas contribution, in tCO_2e

	CO_2 (tCO_2)	CH_4 (tCO_2-e)	N_2O (tCO_2-e)	Remaining tCO_2e
Total Gross	**2,981**	**5,657**	**1,648**	**19,226**
Total Gross excluding closed landfill	**2,700**	**5,350**	**1,648**	**19,226**

Appendix 1 – Emissions factors

References

MfE. (2024). *Te ine tukunga: He tohutohu Measuring emission: A guide for organisations.* New Zealand Government.

StatsNZ. (2024, May 29). *2023 Census population counts*. Retrieved from StatsNZ: https://www.stats.govt.nz/information-releases/2023-census-population-counts-by-ethnic-group-age-and-maori-descent-and-dwelling-counts/

Thinkstep. (2024). *Emission factors for New Zealand Industries and Commodities.* Thinkstep.

Water New Zealand. (2021). *Carbon accounting guidelines for wastewater treatment: CH4 and N2O.* Water New Zealand.

TOITŪ ASSESSMENT REPORT

ISO 14064-1 Verification

Organisation:
New Plymouth District Council

Lead Auditor	Natalie Clee
Team members	Emma Martin, Emelene Remoroza
Verification firm	Enviro-Mark Solutions Limited (trading as Toitū Envirocare)
Contact details	natalie.clee@toitu.co.nz +64 21 0844 6285 Level 11, 11 Britomart Place, Auckland, 1010, NZ
Client Contact	Mat Sycamore
Contact details	mat.sycamore@npdc.govt.nz +64 6 759 6060
Report date	2 December 2024
Report reviewed by	Ana Tatana, Toitū Envirocare, 28 January 2025

TOITŪ ENVIROCARE

AUDIT OBJECTIVES

The objective of the audit was to determine if:

- the organisation's GHG measurement (emissions data and calculations) meet(s) the criteria and requirements of ISO 14064-1:2018.

AUDIT CRITERIA AND SCOPE

The audit criteria and scope are detailed in the following table:

Audit criteria	Greenhouse Gas Protocol: A Corporate Accounting and Standard (2004) ISO 14064-3:2019 Audit & Certification Technical Requirements 3.0
Audit date	22-23/10/2024
Reporting year	01/07/2023 - 30/06/2024
Base year	01/07/2021 - 30/06/2022
Consolidation methodology	Operational control
Materiality threshold	5%
GHG statement	New Plymouth District Council has measured its greenhouse gas emissions in accordance with ISO 14064-1:2018 in respect of the operational emissions of its organisation.
Intended users	Stakeholders and interested parties.
Registered office address	Liardet Street, New Plymouth, 4310, New Zealand
Locations visited	Waste Water Treatment Centre – 12 December 2024
Audit Type	Verification only
Activities undertaken remotely	Stage 1 & 2: Planning, execution and reporting remote. Separate onsite visit performed.

CONCLUSION

The following total emissions have been verified:

Emissions summary by categories	**All verified emissions LOCATION BASED**	**Units**
Category 1 total	5,041.62	tCO_2e
Category 2 total	1,117.57	tCO_2e
Category 3 total	1,325.14	tCO_2e
Category 4 total	20,161.45	tCO_2e
Category 5 total	1,837.68	tCO_2e
Category 6 total	29.08	tCO_2e
Total gross inventory:	**29,512.54**	**tCO_2e**
Category 1 Removals	**-5,578.09**	**tCO2e**
Total Net Inventory:	**23,934.45**	**[% or tCO_2e]**

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Emissions summary by categories	All verified emissions LOCATION BASED	Units
Emissions intensity (gross):	117.18	$tCO_2e/\$M$[1]

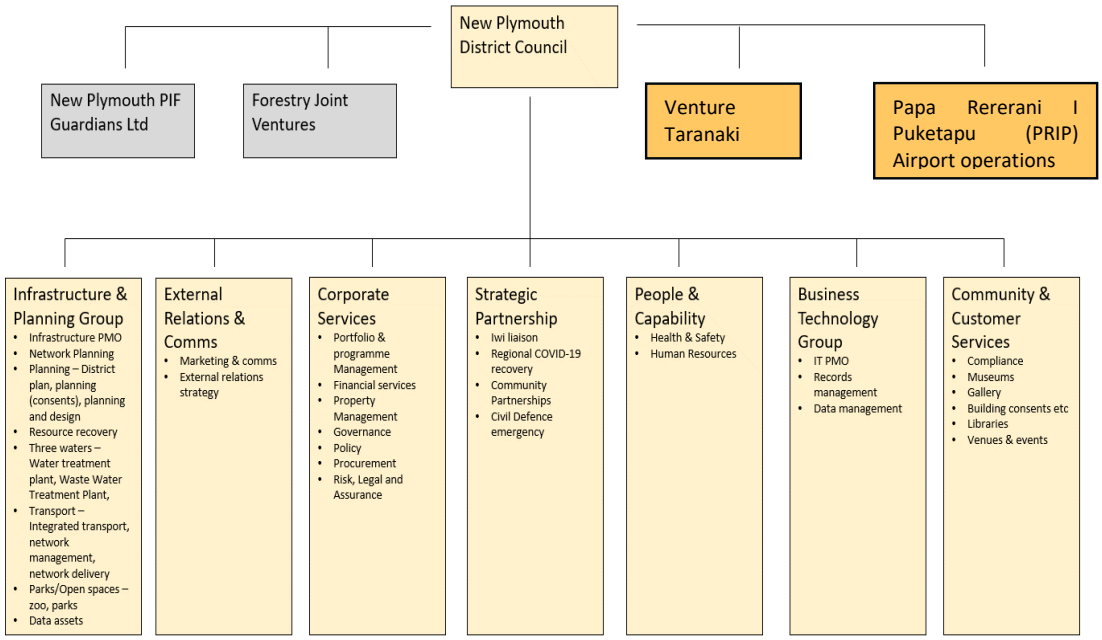
[1] Not adjusted for inflation. Adjusted values available upon request.

An assessment of materiality was made against the defined threshold. From this analysis it is concluded that the stated emissions are free from material error.

AUDIT SUMMARY

SCOPE AND BOUNDARIES

The scope of the emissions inventory includes all activities within the operational boundaries of New Plymouth District Council. In Figure 2 below, Business units in yellow colour are within operational control and are included in this inventory, while council-controlled organisations (CCO) in grey colour are outside of NPDC operational control and excluded from the GHG inventory.



Historic closed landfill emissions (other than the Colson Road closed landfill)	Old historic landfills such as Okato, Inglewood, Okoki Road, Oakura, Waitara, Marfell Park, Waiwhakaiho, Tongaporutu are excluded from this inventory. These landfills have been closed and capped for over 17 years. Based on the Scholl Canynon LFG generation curve these

	landfills have negligible LFG emissions with low certainty in the calculation method, so were deemed an exclusion.
Kerbside waste collection – transportation emissions	No data was available from the contractor for kerbside collection transportation emissions. Estimation of these emissions were considered low quality. This emission source will be included in the FY25 emission inventory.
Emissions associated from diverted / recovered materials	Downstream emission associated with diversion of waste is excluded from this inventory, including the processing and remanufacturing of kerbside recyclables and waste to energy (e.g. burning tyres at Golden Bay Cement). Emissions from reprocessing and remanufacturing recyclables and waste to energy are considered part of the diverted materials next lifecycle so are deemed outside of scope and excluded from this inventory.
New Plymouth Transfer Station	The New Plymouth Transfer Station is owned and operated by Enviro NZ. NPDC has no operational control of this facility. Therefore, emissions associated with waste processing at the New Plymouth Transfer Station, except for kerbside collection, MRF rejects, the Junction and the Sorting Depot, are excluded from this inventory. Note, rural transfer stations are owned by NPDC and are included in this inventory.
Use of sold products - emissions from using Bioboost fertiliser	NPDC sell bioboost to a contractor who bags, sells and distributes bioboost. There is no available data on the use of sold product.

EMISSIONS FACTORS

The emissions factors were checked for all emission sources and were found to align with the following sources:

- Ministry for the Environment. 2024. Measuring emissions: A guide for organisations: 2024 detailed guide. Wellington: Ministry for the Environment. Data and methods for the 2022 calendar year.
- Custom emission factors are created or derived when certain emission factors are not available in the MfE guide or when there are more suitable industry approved emission factors or methods (these are listed below).
- Spend-based emission factors are used when activity data is poor quality or unavailable, such as emissions from purchased goods and services and capital goods. In these cases, spend-based emission factors sourced from Thinkstep are applied to general ledger spend.

Activity / Emission source	**Unit**	**Methodology**
Biogenic wastewater treatment plant emission	Kg TOW (total organics in wastewater)	Combination of CH4 effluent COD, CH4 WWTP COD, WWTP N2O and effluent N2O emissions calculated, based on Water New Zealand: Carbon accounting guidelines for wastewater treatment: CH4 and N2O
Closed landfill burnt methane emissions	Kg burnt methane and kg unburnt methane	Metered gas data with stoichiometry to estimate CO_2 emissions from burnt methane. CO_2e emissions from unburnt methane estimated using GWP of 28 (AR5).

Domestic air travel emissions	Passenger kilometres travelled	Orbit travel provide flight specific emission factors based on the type of plane used for travel. Domestic air travel emissions are taken directly from the Orbit reports.
Time of Use Electricity emissions	kWh	Simply Energy provides bespoke electricity emission factors based on half hour Transpower grid energy contributions. Emissions are taken directly from the Simply Energy portal for improved data quality
Staff mileage claim	$	FY24 average fuel price per litre ($/L) applied to emission factor of petrol ($kgCO_2e$ / L) to estimate emissions from staff mileage claims
Forestry	Hectares	Ministry for Primary Industries carbon stock value data used to calculate total removals and liabilities.

VERIFICATION PROCEDURES

Verification evidence-gathering procedures for the stated emission sources are as follows:

Verification Level	Emissions sources
Detailed review: Verification from reported emissions back to actual source data in accordance with the appropriate data sampling protocols (checking supplier or other source data, calculations, scope and boundaries of data, date ranges, emissions factors and key assumptions). The extent to which the verification was conducted varied depending on level of controls noted at the emission source level.	Natural Gas Waste Water Treatment Plant (WWTP) Electricity Community Transfer Station: Waste to landfill Community Kerbside collection: Waste to landfill Purchased Goods & Services Capital Goods Downstream Leased Assets Land Use
Limited review (Sense checks): Professional judgment that the reported emissions are of the correct order of magnitude; that all emissions factors are correct; that stated *de minimis* sources are appropriately justified. The extent to which the verification was conducted varied depending on level of controls noted at the emission source level.	All other reported emissions sources.

As part of the audit, the below criteria/documents were reviewed:

Criteria/documents	Status
Organisational boundaries	Meets requirements.
The Greenhouse Gas Emissions Inventory report	Meets requirements.
Application of the accounting principles	Meets requirements.

A total of 6 non-conformances, 2 minor non-conformances and 6 observations were raised during this visit. Full details of the findings are given in the findings log below.

Using our Data Quality Assessment tool for analysing data against completeness and assumed uncertainty an inventory “quality” can be classified as follows:

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- High
- Good
- Fair
- Poor

From the analysis conducted your inventory is classified as: Good.

This is not subject to any further client actions.

ADDITIONAL NOTES

The organisation needs to ensure that any claims relating to their GHG emissions do not indicate that New Plymouth District Council has gained Toitū carbonreduce or net carbonzero certification.

The base year inventory of 1/07/2021 to 30/06/2022 has not been verified by Toitū as part of this verification.

CONCLUSION

Please refer to the separate Audit Opinion document for further information.

Level of Assurance	Reasonable for categories 1 & 2 and Limited for other categories.
Qualifications/Limitations	Sequestration of carbon in managed forests was determined using the Ministry of Primary Industries guidance and lookup tables to measure changes in carbon stocks. The model includes several inherent assumptions. Changes in assumptions could significantly impact the measurement of these emissions. Category 4 emission sources for purchased goods & services and capital goods are heavily assumptions based, using dollar spend data and an industry average emission factors to estimate emissions.

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FINDINGS LOG

Date issued:	13 November 2024
Verifier:	Natalie Clee, Emma Martin
Company issued to:	New Plymouth District Council

A finding marked **NCR** must be corrected before audit can be closed out, unless otherwise approved by the Certification Manager
A finding marked **mNCR** is not required to be corrected for this verification, but may need to be addressed/checked for your next inventory, or it may become a NCR. You may voluntarily correct a mNCR for completeness
A finding marked **Obs** is an observation or recommendation from the verifier that may be helpful to you
--- corrective actions are expected to be closed out within 15 days of the date raised---

Ref #	Issue	Status	Type	Comments / Agreed Corrective Actions	Date closed	Evidence sighted to close out the issue where corrective action required.
NCR 1	Grazing Emission - Category 5-Downstream Leased Assets. These should still be broken into enteric fermentation, agricultural soils and manure management. These have different emission factors but utilise the same head count.	Closed	NCR	Please add these categories to your inventory.	02/12/2024	Total grazing emissions calculated from the various grazing emission components. Better assumptions on head number and stock types were applied based on additional information provided by Property team. See grazing summary. Details on methodology included in Inventory report
NCR 2	GHG Inventory Narrative Report - Please complete and ensure all mandatory disclosures are included as emailed.	Closed	NCR	List of outstanding items emailed to NPDC.	02/12/2024	
NCR 3	Site Visit to WWTP to be arranged.	Closed	NCR	Held for December 10th.	02/12/2024	Arranged for December 10th
NCR 4	Investment - Category 15. The PIF and Equity Investment should be included as Category 15 as this is for the benefit of the Council. This has currently been excluded	Closed	NCR	Please include this figure in the inventory and provide evidence of total value of PIF and a copy of the Mercer annual report.	02/12/2024	Mercer Annual report 2023 extract for the ESG Fund for NPDC.

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Ref #	Issue	Status	Type	Comments / Agreed Corrective Actions	Date closed	Evidence sighted to close out the issue where corrective action required.
	from the inventory. We recommend obtaining the year end investment report from Mercer to use in the calculation.					
NCR 5	LandUse Forestry - A figure for landuse liabilities should be included.	Closed	NCR	Remove the Forestry figure from the main inventory and report under GHG Liabilities.	02/12/2024	Agreed to revise the workings using the MPI calculation method as this will provide annual removal and the liability figure
NCR 6	Refrigerant Liabilities - please list these as an exclusion for the current year due to lack of data.	Closed	NCR	Add into exclusions table.	02/12/2024	Liabilities added into the GHG Inventory report.
mNCR 1	Natural Gas from Methane Burnt - the current assumption is that 100% of the solid waste is burnt. NPDC consulted Tonkin & Taylor who stated that for that system a 90% assumption burn rate was more appropriate.	Closed	mNCR	We recommend that the calculation is amended to account for a 90% burnt rate and the remaining 10% to be treated as methane and the relevant emission factor assigned to this biogenic source.	02/12/2024	Revised figures input into inventory.
mNCR 2	Envirowaste - to ask about line 8 and 16 in the report	Closed	mNCR	To confirm inclusion/ exclusion	02/12/2024	Updated inventory and sighted evidence
OBS 1	Land Use - Grazing. We recommend that NPDC gathers better data on its herd numbers across the lease agreements with farmers. This will enable better tracking of grazing emissions which are likely to be material. We further recommend contact some peers within NZ Councils to ascertain their best practice.	Open	Obs	Connect with contact at GWRC to review work undertaken there on grazing land.		
OBS 2	Standard qualification will be issued around the purchased goods and services and capital goods due to the inherent assumptions in the emission factors for spend based emissions.	Open	Obs			
OBS 3	NPDC is considering obtaining supplier specific emissions data from its top suppliers, particularly in the capital goods	Open	Obs			

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Ref #	Issue	Status	Type	Comments / Agreed Corrective Actions	Date closed	Evidence sighted to close out the issue where corrective action required.
	area. This will improve the accuracy of the data in Scope 3.					
OBS 4	We recommend engaging with Finance or another person to provide a high-level logic check on figures. This is a best practice segregation of control when all data is being managed by one individual.	Open	Obs			
OBS 5	Refrigerant Liabilities - we recommend that work is undertaken to capture all data on types of refrigerants across the Council. This could be done with the contractor, Excel, or with the Property team. This figure can be reported from FY25.	Open	Obs			
OBS 6	Documentation presented for Audit contained a clear audit trail with all supporting information readily available.	Open	Obs			

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NOTES

1. The detailed audit findings and calculations are given in the Verification Plan and Working Papers associated with this audit. These contain proprietary verification methodologies and remain confidential to Toitū Envirocare.
2. The audit is based upon sampling and as such nonconformities may exist that have not yet been identified.
3. We have reviewed the company's GHG emissions inventory for the period. The inventory is based on historical information which is stated in accordance with the requirements of ISO 14064-1:2018.
4. The scope of the review was limited to personnel interview, analytical review procedures applied to GHG emissions data, and review of the input of data into the emissions inventory. Based on our review the inventory is compliant with the requirements of ISO 14064-1:2018.
5. A **non-conformance (NCR)** indicates that the auditor has found a non-conformance with scheme Technical Requirements (audit criteria) and requires you to take the appropriate corrective action and provide evidence of this correction within two weeks. This may require resubmission of an updated Emissions Inventory Report and Emissions Management and Reduction Plan.
6. A **minor non-conformance (mNCR)** which the auditor has found which is not material to the outcome of the inventory, but to which a failure to address in the preparation of future inventories could lead to a major Non-Conformance (NCR).
7. **Observations** made by your auditor are strongly advised but the actions are not required for the organisation to be recommended for certification.
8. Neither Toitū Envirocare nor the auditor has any interest in the organisation, other than in our capacity as assurance providers. We have not carried out any work with this business prior to this review.
9. This report has been prepared solely for the use of the organisation and Toitū Envirocare as part of a GHG verification in accordance with relevant international standards as outlined in the audit criteria above. It may be relied on solely by the organisation and Toitū Envirocare for that purpose only. Toitū Envirocare does not accept or assume any responsibility to any person other than the organisation in relation to the statements or findings expressed or implied in this report.
10. Any correspondence regarding this audit report should be directed to your Lead Auditor.
11. A copy of this report has been provided to the nominated client contact.
12. A copy of this report may be made available to intended users upon request.
13. **Confidentiality:** All information obtained during this assessment will remain confidential to New Plymouth District Council , the verifier and Enviro-Mark Solutions Limited (trading as Toitū Envirocare). No information will be released to any other party without your express permission except as required by law or Toitū's accreditation body JASANZ, or if it is in aggregate and/or de-identified form. This report must not be copied except in full without the permission of the Responsible Party and Toitū Envirocare.

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Te Kaunihera-ā-Rohe o Ngāmotu
New Plymouth District Council

4

File ref: ECM_9487557

Date: 26 May 2025

To: **Sustainability Working Party**

From: Lucy Rock (Three Waters Lead), Rachelle McBeth (District Planning & Growth Lead), Yvette Kinsella (Senior Planning Advisor)

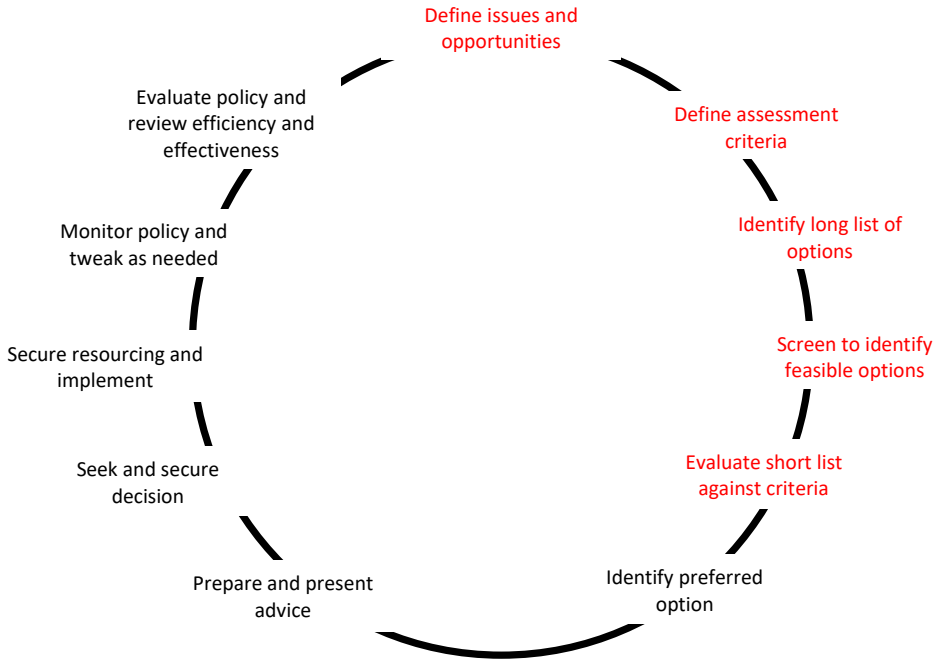
SUBJECT: **RAINWATER TANK POLICY**

Background

1. In developing the 2024-34 Long Term Plan, the elected members of the New Plymouth District Council (the Council) issued several directives to staff including:

   "Directs officers to investigate options for incentivising, enabling and/or regulating the installation of water tanks and grey water systems at residential properties, including through the omnibus plan change for the PDP, consenting fees, or the next Development Contribution policy review, and reporting back to council within 12 months."

2. Officers have initiated a policy process in response. The diagram below illustrates this process.



3. The red text shows the steps we have worked through so far:

    a) The definition of the issues and opportunities

    b) The definition of assessment criteria

    c) The identification of a long list of options

    d) The screening to identify feasible options (a short list of options)

    e) The evaluation of the short list of options against agreed assessment criteria.

4. Attached is a draft policy paper outlining the work to date.

5. We are seeking your feedback on our thinking so far and next steps. The engagement will involve small group discussions.



DRAFT POLICY PAPER

for Sustainability Working Party

Incentivising rainwater tanks

draft

3 JUNE 2025

Te Kaunihera-ā-Rohe o Ngāmotu
New Plymouth District Council



Executive summary

The purpose of this draft policy paper is to outline policy options to incentivise the installation and use of rainwater tanks in New Plymouth district.

Several issues are creating challenges for our future drinking water security: demand for potable water is growing as we face a potential shrinking of supply. Importantly, we are wasting a lot of water through network leakage and high rates of household water consumption.

There are a number of policy tools that can be used to incentivise rainwater tanks. Each of them has different applications for different audiences and reasons.

Our analysis of a range of different tools has highlighted that:

- Infrastructure charges based on water use are considered to be the cornerstone of Council's water conservation strategy, which may result in greater uptake of rainwater tanks
- The policy tools are more likely to be effective when packaged together as each adds different value.

There is a bigger question to be addressed. Are rainwater tanks going to be an effective tool to address the challenges we are facing with water?

In short, the evidence shows that rainwater tanks are unlikely to be effective on their own at reducing household water consumption.

Furthermore, section sizes in existing urban areas are unlikely to have capacity to hold rainwater tanks big enough to sustain a household for longer than 30 days.

The biggest benefit of rainwater tanks lies in their ability to provide for household water needs during an emergency where reticulated supply is disrupted. There are water quality risks that need to be managed.

draft



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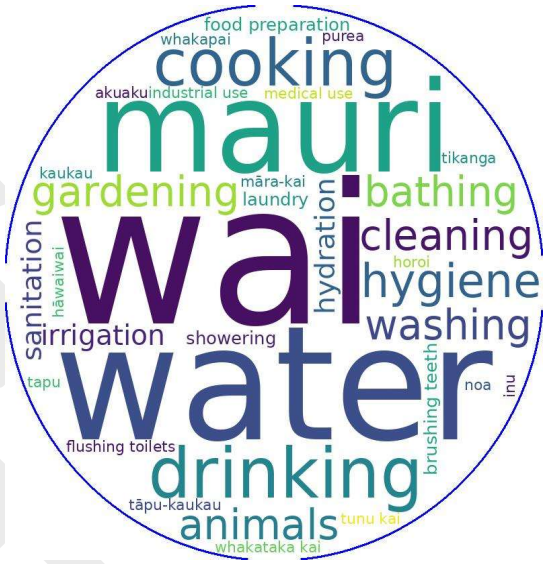
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draft



Introduction

1. Water embodies profound social, cultural, natural, and intrinsic values that are woven through the fabric of human existence. It is a cornerstone of public health and community wellbeing. Te mana o te wai holds deep cultural significance for Māori and many cultures have rituals and traditions centred around water. Healthy water supports flood regulation, nutrient cycling, and climate moderation, which are crucial for environmental balance.



2. Water is essential for life, and we need it to survive.

3. The World Health Organisation suggests the minimum amount of water needed to meet very basic human needs (drinking, cooking, personal hygiene, washing clothes and home, growing food, waste disposal) is about 70 litres per person per day.

4. Territorial authorities, like New Plymouth District Council (Council) play an important role in providing critical drinking water services to communities in Aotearoa / New Zealand (Aotearoa).

5. In developing the 2024-34 Long Term Plan, the elected members of Council indicated they wanted to see “options for incentivising, enabling and/or regulating the installation of water tanks and grey water systems at residential properties”.

6. The purpose of this Draft Policy Paper (the Paper) is to provide policy advice that outlines the context and the relative merits of different options, including some beyond incentivising rainwater tanks. It is important to note that this is a very early draft. We offer it as an opportunity to test our process and our thinking and to strengthen it.

7. This Paper has three core parts:

Part One:	**Defining the issues**	This section outlines the key issue to be addressed and the rationale for the policy development.
Part Two:	**Options and analysis**	This section identifies options and analyses them against a range of criteria.
Part Three:	**Discussion**	This section provides a summary discussion

8. We have been following a standard policy process model as per the diagram below. It is important to note that this cycle is iterative, meaning feedback from later stages often requires revisiting earlier stages to adjust and reset thinking. It is not a linear process and is intended to be dynamic and responsive.

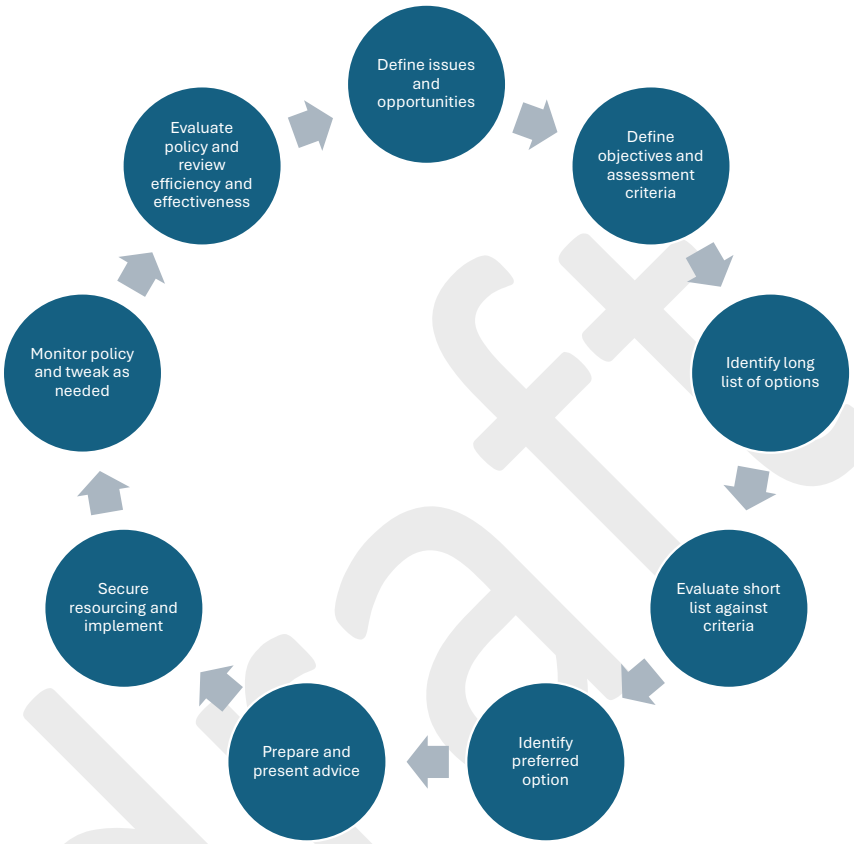


Figure 1: Standardised policy process

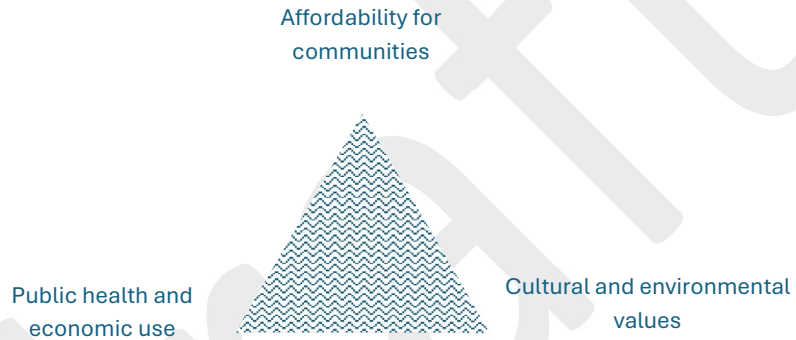
9. The Paper walks the reader through the process and thinking that has happened to date.



Part One: Defining the issues

10. Councils in Aotearoa / New Zealand play an important role in providing critical drinking water services to communities.

11. Councils face many challenges in the provision of the service. There is a balance to be struck between providing sufficient water that is safe to drink to support public health and economic activity, ensuring water services are affordable for communities, and minimising the cultural and environmental impacts of removing freshwater from natural systems.



Our drinking water services

12. The majority of our community relies on reticulated water supply to meet their current potable water needs. Through its reticulated water supply network, the Council supplies around 30 million litres per day of drinkable water to 83% of the district's households (74,000 people). There are around 30,000 households and businesses connected to the reticulated water network.

13. Water supply is a significant Council activity. The water supply network has a gross replacement cost of $418.8 million or 10% of council's asset replacement value. The Council is projected to spend $385 million over the next 10 years to maintain, upgrade and operate the water supply network – this represents 10% of council's projected expenditure over the life of the 2024-34 Long Term Plan.

14. The table below outlines key metrics for the four separate water supply facilities of New Plymouth (including Omata, Bell Block, Waitara and Urenui), Inglewood, Oakura and Okato (township and surrounds.

Table 1: Fast facts on Council water supply services

	New Plymouth	Inglewood	Oakura	Okato
Raw water source	Waiwhakaiho River (Mangamahoe storage)	Ngatoro Stream (2 abstraction points)	Confined aquifer (2 bores)	Mangatete Stream (gravity-fed)
Capacity	65 million litres/day	4.8 million litres/day	2.8 million litres/day	1.2 million litres /day
Population served (residential v other)	66, 562 (26,976 v 2,316)	4,399 (1,683 v 140)	2,008 (778 v 33)	802 (282 v 45)

Statement of issues

15. There are a number of challenges in providing safe, affordable water services. Critical amongst these is that we are wasting a significant proportion of water due to:
    - the high rate of water consumption in the district - estimated at 304 litres per person per day (2023) which is up to 60% higher than similar places
    - our water supply network is experiencing leakage – we are losing about 7 million litres per day of water from the network through leakage – about 19% of production.
16. There are several specific (inter-related) issues with this high level of water waste:
    - It is inconsistent with the Council's commitment to the principles of He Puna Wai around the protection of the mauri of water.
    - It is an inefficient use of water that is difficult to justify and creates challenges for securing future resource consents for water abstraction.
    - It is not cost-effective to treat water to a standard sufficient for drinking to have it used for purposes that do not require that level of treatment such as washing buildings and cars, irrigating lawns and flower gardens, washing clothing and flushing toilets.
    - Our population is projected to grow by around 20% to 110,400 people by 2054, which may drive up total water use in the district.
    - If we continue to consume water at current rates, with population growth, we will need additional investment in water sources for New Plymouth, Okato, and Inglewood and upgraded infrastructure.
    - Increasing water consumption rates increases pressure on reticulated wastewater networks with potentially significant additional investment to increase the capacity of wastewater systems.
    - With increasing capital investment, comes increasing costs of debt and maintenance costs of the additional plant.
    - The Local Government Cost Index (LGCI) shows the inflationary pressures over the past five years are likely to continue and the annual cost of Council services will continue to increase at 2% per annum meaning increased budgets and/or reduced levels of service.

Draft

- Operational costs and a large portion of capital costs are passed on to current ratepayers, which may pose affordability challenges. Our population continues to age with 25% expected to be over 65 by 2054. Retirees are more likely to be on smaller fixed incomes making them more vulnerable to financial shocks such as increases in costs of living (e.g. if rates rise).
- Climate change is projected to reduce mean annual low flows in surface water bodies (where most of our drinking water is sourced) by as much as 50% by 2100 with a 12% reduction in flows expected within the next 30 years.
- We have lack of resilience or redundancy in critical assets that are vulnerable to natural events. Increasing severe weather events due to changing climate are already starting to manifest and major parts of the water supply network are vulnerable to disruption and failure as a result.

Current response

17. As part of the 2021-31 Long Term Plan, the Council committed $23 million (2021-31) towards implementing a number of policy tools aimed at achieving a 25% reduction in per capita water consumption by 2030:
    - Universal water metering to monitor water use, aid in detecting water loss, and eventually, to introduce volumetric charges for water use ($18 million)
    - Increased annual budget targeted to reducing the water pipe renewals backlog along with additional proactive maintenance of water pipes to reduce water leakage
    - Operational measures such as reducing water pressure to minimise use and leakage and
    - Community education promoting efficient household and business water use.
18. Collectively these initiatives were projected to save 25-30% of current water consumption with a net overall savings of $121 million.

Progress to date

19. Council has rolled out the Wai Warrior programme to educate the community about water conservation.
20. Council has recently completed consultation on reviving its programme of loans to ratepayers for household sustainability improvements (repaid via a voluntary targeted rate). If progressed, the Whare Ora scheme could include rainwater tanks.
21. Importantly, about 82% of the water network had water meters installed as of 30 April 2025 (23,276 out of about 28,500). While infrastructure charging based on water use has not started, the data being captured from metering has enabled identification of where water is being lost from the network through leakage. More than 893 leaks have been identified and fixed to date.

    "In New Plymouth, their current water meter rollout has already allowed the indefinite deferral of an anticipated $4m pump station and pipeline upgrade"[1].

[1] New Zealand Infrastructure Commission (2024). *Valuing water: Sustainable water services and the role of volumetric charging.* Wellington: New Zealand Infrastructure Commission/Te Waihanga.

22. The water metering data has provided information to assist the Council to prioritise renewals. The additional investment in water pipe renewals has seen the proportion of the water pipe assets that are in poor or very poor condition reduced down from 35% of the network to 26%.

23. The current measures will need some time to bed in and to take full effect.

24. Despite this we are already seeing water savings. As of April 2025, the Council was seeing savings of 1.75 million litres of water per day due to fixing leakages detected by water metering. This represents a more than 6% reduction in water use already.

25. This is without the implementation of infrastructure charging based on water use, which it is projected will be a significant cornerstone for district water conservation in the short to medium term.

26. The graph below shows the strong link between residential water consumption and whether residential connections are metered[2].



27. This is borne out in the work of Te Waihanga / Infrastructure Commission where one of their key goals is to see pricing for infrastructure services, such as drinking water, increasingly based on usage[3].

[2] Water NZ. (2022).) National Performance Review Publication 2021/2022. National Performance Review : Water New Zealand.

[3] New Zealand Infrastructure Commission (2024). *Valuing water: Sustainable water services and the role of volumetric charging.* Wellington: New Zealand Infrastructure Commission/Te Waihanga.



Part Two: Options and analysis

28. While Council is making good progress towards reducing water use, it is only using some of the tools available to it. Elected representatives would like further exploration of other tools.

Options

29. The following is a 'long list' of policy tools that could be used for water conservation. Some were included in the 2020 water conservation business case and others are new. Appendix 1 outlines the advantages, disadvantages and the appropriate applications of these tools.

Type of tool	Initiative
Advocacy	• Green plumber to advise property owners on water use and conservation measures • My Council app to provide property owners with information on water use • Encourage water conservation infrastructure in building/resource consent processes • Council leadership on water conservation on Council properties – renewals retrofits
Financial Incentives/ Disincentives	• Grants for installation of water conservation infrastructure • No or low interest loans (0-2%) for water conservation measures • Reduced charges for development contributions • Free building and/or resource consents for installing water conservation measures • Volumetric charging per unit of water used • Provision of household equipment kits and/or equipment exchanges
Voluntary agreements	• Developer agreements to install water conserving infrastructure in new builds • Industry agreements to install and use water conservation infrastructure
Regulation	• Technical guidelines for the installation and use of water conservation infrastructure • Development standards in District Plan for water conservation infrastructure • More permissive rules in the District Plan for rainwater tanks • Water Supply Bylaw restrictions on water flow and use
Centralised control	• Large-scale water recycling plants • Water re-use eg use of stormwater / treated wastewater for irrigation or public spaces – parks, gardens or for commercial/industrial use • Desalinisation plant(s)

Screening for shortlist

30. This long list of 19 options is too unwieldy for a detailed assessment, so the options were put through a high-level feasibility screen to produce a shortlist.

31. For any option to be feasible it must be effective at reducing water consumption on a broad scale and efficient, i.e. take into account the fiscally constrained position that Council and many ratepayers are in.

32. In the table below, the long list of options identified above are rated against two criteria to create a list of feasible options:

- Cost: The cost to implement and operate including the impact on the rates take needed
- Effectiveness: The likelihood of successfully incentivising uptake of rainwater tanks.

33. The screening was done using information from a combination of sources including research publications, interviews with councils leading in the water conservation space, and desktop review of council water conservation management reports. Both criteria are rated on a scale of 10 (excellent) to 0 (very poor). The rationale for the screening ratings is in Appendix 2.

	Options	Screening criteria		
		Excellent 10		Very poor 0
		Cost	Effect	Total
Advocacy	• Green plumber	9	6	15
	• My Council app	0	0	Discarded
	• Promote water conservation through consent processes	9	0	Discarded
	• Council leading – water conservation renewals retrofits	5	4	9
Incentives / Disincentives	• Grants to install water conservation infrastructure	1	9	Discarded
	• No or low-interest loans (0-2%)	7	8	15
	• Reduced development contributions	5	5	10
	• Free consents for water conservation measures	7	3	10
	• Infrastructure charges based on water use (excl. meter install)	8	10	18
	• Water conservation household equipment kits/exchanges	6	7	13
Voluntary	• Developer agreements for water conservation in new builds	8	1	Discarded
	• Industry agreements for water conservation infrastructure	8	1	Discarded
Regulation	• Technical guidelines for water conservation infrastructure	9	4	13
	• Development standards in District Plan	5	5	10
	• Permissive rules in the District Plan for rainwater tanks	8	5	13
	• Bylaw restrictions on water flow and use	7	4	11
Central control	• Large-scale water recycling plants	0	8	Discarded
	• Water re-use eg for irrigation at community scale	1	6	Discarded
	• Desalinisation plant	0	8	Discarded

34. The six options that rated the highest against the screening criteria were:

- Infrastructure charges based on water use
- No or low interest loans (0-2%)
- Green plumber
- More permissive rules in the District Plan for rainwater tanks
- Water conservation household equipment kits/exchanges
- Technical standards/guidelines for water conservation infrastructure.

35. Eight options were discarded as they rated as a 0 or 1 against at least one of the two criteria meaning they were either currently grossly unaffordable and/or ineffective at reducing water consumption.

Analysis

36. The six options that rated the highest are discussed in detail below, in terms of the following criteria:
    - Cost-effectiveness
    - Effectiveness of encouraging uptake of rainwater harvesting and storage systems
    - Ease of implementation
    - Equity
    - Manageability of risks.

Infrastructure charges based on water use

Cost-effectiveness	Moderate to High	There is an initial cost for meter installation, but the majority of installation has already happened in New Plymouth District. Ongoing operational costs are moderate.
Effectiveness	High	Effective in reducing water consumption as users pay for the amount they use, encouraging conservation. There is direct accountability at household level.
Ease of Implementation	Moderate	Requires infrastructure for metering and billing, but much of this is already in progress.
Equity	Moderate to High	Users pay part of the charges based on their consumption. However, it may disproportionately affect larger households or those with higher water needs.
Manageability of risks	Moderate	Significant change for the District and Council may get pushback from the community. This can be managed with clear and compelling communications to a degree.
Discussion: There is consensus among other councils that water metering is by far the most effective tool to reduce water consumption at a household level. However there is limited incentive for landlords to fix leaking pipes or install water conservation measures as they will not be paying the per unit charges. Under the Local Government Act, Council can have a bylaw to ensure the integrity and safety of its supply network. This may be an avenue to regulate the private side of the water supply network and require landowners to fix leaking pipes. However this would need to be carefully considered in terms of the potential to increase rental costs.		

No and low-interest loans

Cost-effectiveness	Moderate	Council is consulting on re-establishing a programme offering 6% interest rate loans for sustainable home improvements. If dropped to 2% and Council covers admin costs, cost to ratepayers for 300 properties = c $150,000 p/a. (1% interest rate = c $200,000 p/a and a 0% interest rate = c $250,000 p/a.[4]) May need a cap on properties.
Effectiveness	High	Effective in encouraging installation of water-saving devices and infrastructure, particularly for lower-income whanau and whanau who do not have access to low-interest bank loans.
Ease of Implementation	Moderate to High	Council has experience in delivering a system. Would need consultation under LGA due to the cost borne by general ratepayer. Benefit to ratepayer of slight delay in need for major infrastructure upgrades but would depend on uptake and tanks size etc.
Equity	Moderate	Provides financial support to those who may not afford upfront costs. May incentivise hard to move landlords. But would need to make a case for why general ratepayer should cover the interest and admin charges.
Manageability of risks	Moderate	May get pushback from community. Issues with how to deal with non-payment and with being able to offer an attractive interest rate.
Discussion: If Council decides to progress the Whare Ora loan scheme, consider reducing the interest rate from 6% to 2% to ensure uptake. However, it is important to note that it is not a core function of councils to act as lending institutions and there are constraints on powers. Preference would be for third party delivery by organisations with the mandate and statutory powers needed and at a scale that would enable a lower interest rate to be offered.		

Green plumber

Cost-effectiveness	High	Costs associated with employing green plumber.
Effectiveness	Moderate	Provides tailored advice and support to households. Will not drive large scale change on its own, but as part of a package.
Ease of Implementation	High	Can leverage existing plumbing services and integrate with community education programmes.
Equity	High	Accessible to all. Tailored support regardless of income. General ratepayers cover the cost, however, a case can be made that there is a general benefit of the service.
Manageability of risks	High	Preserves social licence of Council as not seen as heavy-handed regulatory approach but more facilitative.
Discussion: There would be a limit as to how many properties could be serviced per annum by a Green Plumber and the service could get over-subscribed quickly with the upshot being the service is unable to provide enough level of detail to homeowners to be helpful – spread too thinly. This would need to be monitored and regularly evaluated.		

[4] Please note that these costs need to be confirmed through proper financial modelling.

More permissive regulatory system

Cost-effectiveness	High	Less likely to draw strong reactions and appeals than mandatory installation rules. Should be accompanied by technical guidelines and promotional materials.
Effectiveness	Moderate	Those who choose to install tanks are more likely to use them to conserve water as intended. Voluntary, so uptake depends on promotion and other supporting financial incentives.
Ease of Implementation	High	May require updates to District Plan as per process in the RMA. Already hooks in the District Plan that can be expanded, and Taranaki Regional Council has a supporting policy.
Equity	Moderate to High	Does not raise cost of development in same way that a mandatory installation rule might in the short term. Does not help low income whanau who cannot afford systems.
Manageability of risks	High	Preserves social licence of Council as not seen as heavy-handed regulatory approach but more facilitative.
Discussion: Consents are important tools to ensure quality development and manage risks. Successful rainwater tank installation requires design custom to the location and nature of the property. Consents likely still required to ensure overflow is managed, amenity is not unreasonably compromised, and backflow prevention protects the mains water supply.		

Household equipment kits and exchanges

Cost-effectiveness	Moderate	Requires capital investment (could be capped per annum) for purchase of equipment. Estimated cost p/a could be around $1,000 per property. May require storage facilities.
Effectiveness	Moderate to High	Provides tailored advice and support to households. Will not drive large scale change alone, but good as part of a package.
Ease of Implementation	High	Can leverage existing plumbing services and integrate with community education programmes.
Equity	High	Accessible to all households, providing personalised support regardless of income. General ratepayers covering the cost, however, a case can be made that there is a general benefit.
Manageability of risks	High	There are options for managing the risks particularly around costs (see Discussion below).
Discussion: This could include a range of household water conservation equipment (from rainwater tanks to water use monitors, to low-flow shower heads etc). Council does not need to do this itself. There are other parties within the community with better outreach who are better positioned e.g. Sustainable Taranaki. Also, instead of providing free equipment to people, there may be an opportunity to purchase equipment in bulk for on-supply (though storage may be a challenge) or get discounted rates for equipment from preferred suppliers. This would reduce cost to general ratepayers, though likely less appealing to landowners.		

Technical standards and guidelines

Cost-effectiveness	High	Primarily involves the development and dissemination of standards. There are several in production that could be used with some tweaks to account for local consenting processes.
Effectiveness	Moderate	Voluntary measure that will support those who are already interested. Will not shift the dial on its own. However, potentially an important addendum to any regulations and communications packages.
Ease of Implementation	High	Can be integrated into existing building codes and regulations.
Equity	High	Accessible to all households, providing personalised support regardless of income. General ratepayers covering the cost however a case can be made that there is a general benefit.
Manageability of risks	High	Risk of practice evolving and guidelines becoming obsolete quickly. This is manageable with regular review and maintaining the advice as current on the web.
Discussion: The variability between land parcels may make it difficult to provide advice on rainwater harvesting system design at a level of detail that is helpful to homeowners. Bespoke solutions may be required for some sites, e.g. if they are compact or have difficult terrain. Instead of ongoing costs to maintain guidelines, could advocate for national body to be responsible eg New Zealand Standards, Taumata Arowai and/or BRANZ.		

37. It is important to note that the analysis has only looked at each policy tool on its own merits and not as part of a broader package of tools. Combining policy tools has the potential to achieve even greater outcomes than any single tool can.

draft



Part Three: Discussion

Effectiveness of tanks

38. Rainwater tanks are not the most effective or affordable way to achieve water conservation goals or to reduce stormwater. It would not be wise to conflate installing a rainwater tank on a property with that household reducing its water consumption.

39. Tanks have the potential to have a small impact on water consumption. However, there is the real risk that in times of low rainfall, people may fill their water tanks with potable water undermining any water savings made. Staff of other councils estimate that "monkeywrenching" occurs on more than 30% of rainwater tanks but it is too expensive to carry out compliance monitoring as it would be like playing 'whack-a-mole'.

40. There is also the issue that households are paying twice for water services. They pay for the reticulated network (in urban areas) and the rainwater tank would be in addition to this. They would also have ongoing maintenance and replacement costs for tanks. They need to be cleaned at least every two years (more regularly in more-vegetated areas) which costs <$500. Tanks are warrantied for a maximum of about 10 years and would need replacing within 20 years.

41. Going completely 'off the grid' is not going to be an option for many households due to:

    - the size of the tank and land area needed for full water supply is beyond capacity of many existing properties
    - the expense of additional treatment required for on-site potable water is out of reach for many
    - the current Water Supply Bylaw requires anyone within 100m of water connection to pay a part charge regardless of connection.

42. The Beca 2020 study of the effectiveness of rainwater tanks for augmenting existing reticulated supply states:

> "… rainwater tanks do not generally hold more than 30 days of water, and this makes it difficult to provide water for an entire drought. We have estimated that a rainwater tank would need to be between 10,000 and 30,000 L to augment water supply during a sample drought. We conclude that new water supply sources and storage will be more cost effective than rainwater tank installations …
>
> As climate change is increasing the frequency of short duration, high intensity rainfall events, rainwater tanks can reduce flooding and the need to expand stormwater infrastructure. However, New Plymouth District uses on-site soakage for most stormwater, so rainwater tanks for stormwater peak reduction are unlikely to be beneficial to any meaningful extent.
>
> Rainwater tanks also provide a source of emergency water during a natural disaster such as an earthquake. However, New Plymouth District's primary natural disaster risk would be an eruption of Mount Taranaki. Again, rainwater tanks would be of limited benefit in New Plymouth, as volcanic ash can contaminate roofs and thus the rainwater tank supply."

43. From all of these points we draw the conclusion that the 'business case' for incentivising rainwater tanks lies largely in supporting household resilience. There are water quality risks as outlined in the next section. These would need to be carefully managed. Also, while

volcanic ash can contaminate roofs, if harvesting systems are installed with the ability to easily disconnect tanks from feeder downpipes, this can be avoided.

Non-potable water only

44. There are multiple examples from around Aotearoa / New Zealand of where drinking water services are failing communities. Taumata Arowai data indicates that 22% of the population is serviced by drinking water that does not meet quality standards. In 2022, 36 councils (50.7% of territorial authorities) issued consumer advisories for 87 supplies throughout Aotearoa. Recent research points to 100 cases of bowel cancer potentially being caused by nitrate contamination per annum and 41 deaths per annum[5].

45. Drinking water supply systems are vulnerable in countless ways to contamination and a single vulnerability has the potential to cause widespread illness, injury, or death. Taumata Arowai evidence shows that smaller sized water supply systems are, statistically, more at risk of contamination. While Council drinking water systems are compliant with drinking water standards and rules, some smaller registered community supplies around the country have had intermittent and/or ongoing difficulties with meeting standards for safe drinking water. Taumata Arowai does not regulate individual domestic supplies – whatever comes off the roof will get into the supply unless there is a treatment system on site.

46. Even larger drinking water supply systems are vulnerable during extreme circumstances like disaster events. For instance, during the immediate aftermath of Cyclone Gabrielle, for a short period of 36 hours, the supply from the Waipaoa augementation plant in Gisborne did not meet all of the drinking water standards. While this was an extreme load on the system and quickly rectified, it does highlight the need for continued planning and investment into water infrastructure.

47. These risks can be managed by promoting rainwater tanks only for non-drinking water supplies.

48. Where tank water is intended to be used for drinking only in emergency situations, information on maintaining and treating water quality needs to be provided to households as part of emergency management readiness work.

Package of options

49. It is important to note that to truly shift the dial will require a range of instruments that are targeted at different parts of the population eg households, businesses, developers, landlords, public sector organisations (such as schools).

50. Each policy instrument considered in this paper has its place, and the choice depends on the specific context, goals, and constraints of the situation. Combining multiple instruments can often provide a more comprehensive and effective approach.

51. Based on the detailed analysis, a package of mutually reinforcing options would be the most effective (alongside current community education campaigns) to achieve significant water conservation.

[5] Richards J, Chambers T, Hales S, Joy M, Radu T, Woodward A, Humphrey A, Randal E, Baker MG. Nitrate contamination in drinking water and colorectal cancer: Exposure assessment and estimated health burden in New Zealand. Environ Res. 2022 Mar;204(Pt C):112322. doi: 10.1016/j.envres.2021.112322. Epub 2021 Nov 2. PMID: 34740625.

52. Based on the experience of other territorial authorities who have been grappling with this matter for years, any package of policy tools needs to include infrastructure charges based on water use to be effective.

53. Our recommendation is that Council, through its next Long Term Plan, consider, complementing its regime for infrastructure charges based on water use with:

- Low-interest loans for water conservation measures: Consider establishing the Whare Ora programme with a lower interest rate of <2%. Alternatively, negotiate third party delivery of low interest loans (<2%) over a reasonable payment timeframe to enable household sustainability improvements.
- More permissive regulatory environment: Undertake analysis of the District Plan to look at options for reducing regulations around rainwater tank installation and the potential for requiring rainwater tanks in 'greenfields' development. Combine this with a facilitative approach to resource and building consents for rainwater tanks i.e. no fees for consents and inspections but with an increase in funding within LTP to cover operational costs.
- Green plumber programme: Launch the Green Plumber programme to provide personalised technical advice and support to households to reduce water waste and water consumption, including installation of rainwater tanks (and greywater systems).
- Technical guidelines for rainwater harvesting infrastructure: Advocate with the appropriate bodies (BRANZ and/or Taumata Arowai) for the development of publicly available and free technical guidelines for rainwater tank installation in new developments and renovations.

Implementation

Immediate priorities (2025 – 2026)

- Continue community education and engagement to promote water conservation.
- Finalise and implement infrastructure charging based on water use.
- Scope a 'green plumber' programme.
- Develop and disseminate technical standards for water conservation infrastructure.

Medium-term priorities (2027- 2029)

- Continue community education and engagement to promote water conservation.
- Implement a 'green plumber' programme.
- Establish a low-interest loans programme, either through a third party or within Council.
- Update the District Plan to include permissive rules for rainwater tanks and consider associated financial incentives eg free consents and/or building inspections.

Longer-term priorities (2030)

- Continue community education and engagement to promote water conservation.
- Monitor and evaluate the effectiveness of implemented measures.
- Review policy settings based on performance data.



Appendix 1: Policy instruments

Increasing degree of intervention and coercion

Instrument	Advantages and disadvantages	Application
Advocacy Social marketing, education, inquiries, labelling. (eg drink driving ads)	• Can educate about important issues. • Generally, less expensive. • Voluntary behaviour change can be slow and uncertain. • Depends on reach/clarity of message.	Where public awareness can drive change. Can help establish social licence. Precursor to other tools or combined with other tools.
Incentives Subsidies, grants, low/no interest loans, tax breaks. (eg insulation scheme)	• Can promote beneficial activities. • Helps emerging industries or vulnerable populations. • Can be expensive to maintain. • May lead to inefficiency/ dependency.	Promoting new technologies or supporting sectors that need a boost. Particularly useful in encouraging sustainable practices.
Voluntary agreements Public-private partnerships, industry standards (eg accords, networks)	• Enable flexible and tailored solutions. • Fosters public/private collaboration. • Can be less costly to implement. • Not all parties may engage or commit. • Difficult to enforce. • May favour those with more resources and disadvantage others.	When cooperation of multiple parties is needed. Where adaptable solutions are needed, driven by participants. To fill gaps in regulations quickly.
Disincentives Fees, charges, activity tax, tariffs. (eg fines, carbon/excise tax)	• Provides funds to mitigate impacts. • Can reduce harmful activities. • Can disproportionately affect lower-income individuals unless mitigated. • Unpopular and difficult to implement.	Effective for addressing widespread issues where financial incentives can drive behaviour change. Useful to correct market failure.
Regulation Laws, zoning rules, standards, licencing, prohibition. (eg District Plan, bylaws)	• Clear regulations provide certainty. • Can limit harmful behaviours or promote beneficial ones. • Can be expensive to comply with and for regulator to administer. • May not adapt well to change. • One-size-fits-all may not work well.	Best to use when addressing clear, well-defined problems where specific behaviour needs to be controlled or promoted. Need to be able to monitor and enforce.
Centralised control Public provision (eg state highways, 2021 health reforms, COVID response, NESs)	• Quick decisions by single entity. • Uniformity of policy and regulation reducing regional disparity. • Limits duplication of effort. • No local autonomy and risk of authoritarianism.	In crisis, for coordinated response. When uniformity is needed for cohesion and fairness. When it is more cost-effective than delivery at finer scale.



Appendix 2: Screening rationale

Options	Rationale			
	Cost		Effectiveness	
Green plumber (scope TBC)	9	Cost of an FTE $100k per annum is small compared to other options.	6	Beyond generic info to technical advice on site-specific matters. Could extend to cover advice on funding options and consent processes.
My Council app	0	Not possible with current meters. Very costly fix to replace meters. App creation (and upgrade) can be high-cost initially and when upgrading.	0	May help with social licence for more intense interventions. Unlikely to drive behaviour change in isolation – needs other tools.
Promote water conservation through consent processes	9	Minimal direct cost in creating communications collateral ($10k). Small indirect cost in staff time in advising applicants.	0	Late in development process to have effect if design already done. Not in isolation – needs comms campaign and social licence.
Council leading – water conservation renewals retrofits	5	Retrofits can be expensive. Costs may be reduced if done at time of renewal of infrastructure but would need to understand costs more	4	Walking the talk. But Council is not the main water user.
Grants to install water conservation infrastructure	1	Does not recognise private benefit accrued to households. General ratepayers cover whole amounts. Likely to be significant amount eg 300 properties x $15,000 = $4.5m.	9	Highly effective for those who want to adopt as is free money.
No or low-interest loans (0-2%)	7	Cost of covering administration and part of interest costs estimated at about $150k-$300k per annum.	8	More likely to be effective the lower the interest rate as would generate more uptake.
Reduced development contributions	5	High cost to general ratepayer – growth will not pay for growth. Main reticulated supply still needed.	5	May not be significant portion of overall cost of development. Won't shift the dial on its own. Depending on discount rate, almost symbolic gesture in some cases.
Free consents for water conservation measures	7	Cost to process consents remain but fall on general ratepayer. May still need to increase staff resource to maintain efficient consents system.	3	May be too late in process. Alone ineffective. Could combine well with permissible district plan and technical guidelines.
Infrastructure charging based on water use (with meter installation completed)	8	Ongoing maintenance costs of meters and administration of charging system. Majority of meters installed so up-front cost is less.	10	Creates direct household accountability for water use. However, lack of incentive in tenanted properties where landlord does not pay volumetric charges.

Options	Rationale			
	Cost		Effectiveness	
Water conservation household equipment kits/exchanges	6	Depends on uptake. Could negotiate supplier arrangements for low-cost equipment as an alternative, reducing cost to general ratepayer.	7	Water-saving technology reducing overall amount being used by households. Voluntary take-up.
Developer agreements for water conservation in new builds	8	Staff time in negotiating agreements and opportunity cost.	1	Little incentive. Not legally binding.
Industry agreements for water conservation infrastructure	8	Staff time in negotiating agreements and opportunity cost.	1	Little incentive. Not legally binding.
Technical guidelines for water conservation infrastructure	9	These already exist for many districts and can be used with content added about local consenting matters.	4	Provide more value than community messaging as support on 'how-to' action. Not effective on its own.
Development standards in District Plan	5	Likely to be contested by developers through RMA plan change process. Current plan changes being prepared to reduce development constraints and delays could be undermined. May struggle to meet RMA tests.	5	Presence of rainwater tank does not mean it will be used as intended. Some councils report high rate of monkey-wrenching and use of mains supply to fill water tanks only mitigated with infrastructure charging based on water use.
Permissive rules in the District Plan for rainwater tanks	8	Permissive standards less likely to be contested through RMA plan change process provided issues around safety, overflow, and amenity can be addressed.	5	If voluntary, those who install tanks are more likely to use them as intended. Would still get some people filling tanks from the potable supply without infrastructure charging based on water use.
Bylaw restrictions on water flow and use	7	Consultation required using Special Consultative Procedure under Local Government Act.	4	Limited range of powers. Legal requirement to provide water to households. Useful only for temporary water restrictions. High test to meet.
Large-scale water recycling plants	0	High tech solution needing large capital investment and additional pipework. May be more economically viable in long term.	8	Commonly used in large cities overseas. Cultural concerns around not mixing wai could be a show-stopper.
Water re-use eg for irrigation at community scale	1	High tech solution requiring significant capital investment including additional pipework. May prove to be more economically viable in long term.	6	Could be used for major water users. Health risks may limit end use of irrigation.
Desalinisation plant	0	High tech solution requiring significant capital investment including additional pipework. May prove to be more economically viable in long term.	8	Used in water-starved areas overseas. Cultural concerns around not mixing wai could be a show-stopper.

Te Kaunihera-ā-Rohe o Ngāmotu
New Plymouth District Council

draft

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CLOSING KARAKIA

Kia tau tō rangimārie

Ki runga e ngā iwi o te ao

Haumi e, hui e, tāiki e

Translation:
Let your peace reign on all the people of the world