



Climate-related Disclosures Report

FY2025



Introduction



This report is prepared in accordance with the Aotearoa New Zealand Climate Standards (NZ CS1, CS2 and CS3). These mandatory climate standards are designed to encourage companies to proactively manage climate-related risks and opportunities, demonstrate how they are doing so, and support capital allocation to activities consistent with the transition to a low emissions, climate-resilient future.

This is the second Climate-related Disclosures report produced by Port of Tauranga Limited (the Port). The previous report, for FY2024, is available on the Port's [website](#).

The Port is taking advantage of the adoption provisions in the legislation to ensure that the information presented in the report is not only thorough, but meaningful and robust. This year, we have added more detailed descriptions of our climate-related risks and opportunities, as well as a summary of our Transition Plan.

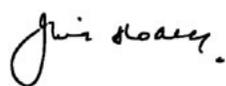
Statement of compliance

Port of Tauranga Limited is a Climate Reporting Entity under the Financial Markets Conduct Act 2013. This report constitutes our Climate Statements in accordance with the Act and covers the reporting period 1 July 2024 to 30 June 2025. The statements are compliant with the Aotearoa New Zealand Climate Standards (NZ CS1, CS2 and CS3) issued by the External Reporting Board (XRB).

Of the adoption provisions provided within the standards (CS2), the Board of Directors has chosen to apply the following exemptions:

- **Adoption provision 2:** Anticipated financial impacts. Port of Tauranga remains in the process of quantifying the current and anticipated financial impacts of climate-related risks and opportunities.
- **Adoption provision 4:** Scope 3 greenhouse gas emissions: The full scope of its Scope 3 emissions and comparatives. While Port of Tauranga has been measuring some Scope 3 emissions since 2017 (e.g. the emissions relating to chartered freight trains), the Port will not be reporting Scope 3 emissions in this report. The Port is continuing to undertake further work (in collaboration with other sector participants) to define appropriate and sensible Scope 3 boundaries. Port of Tauranga intends to report its Scope 3 emissions in FY2026.
- **Adoption provisions 5 and 6:** Comparatives. Port of Tauranga has not disclosed comparatives for Scope 3 greenhouse gas emissions but provides one year of comparative information for each metric disclosed in FY2024.
- **Adoption provision 7:** Analysis of trends. Port of Tauranga has not disclosed an analysis of trends for metrics reported in the current year. FY2023 will be set as Port of Tauranga's base year for metrics.

Approved on behalf of the Board of Directors on 30 October 2025.



Julia Hoare
Chair



Sir Robert McLeod KNZM
Chair, Audit Committee

This report sets out Port of Tauranga Limited's mandatory Climate-related Disclosures (CRD) for the financial year ending 30 June 2025, in accordance with the Aotearoa New Zealand Climate Standards (also referred to as NZ CS1, CS2 and CS3).

Pursuant to the requirements of NZ CS1-3, this report includes a range of forward-looking statements (including but not limited to climate-related scenarios, assumptions, and projections, forecasts, estimates and judgements regarding climate-related risks, opportunities, impacts and related matters, as well as statements of the Port's future intentions, and metrics and targets). These statements are often based on early and evolving assessments of current and future data, which may be incomplete and estimated, particularly in areas such as climate change projections and socio-economic anticipated outcomes/forecasts. These are inherently uncertain as they are driven by numerous dynamic factors, many of which are interconnected, complex, non-linear and unpredictable especially over the medium to long-term. Accordingly, all forward-looking statements set out in this CRD report (whether they relate to climate-related risks and opportunities or otherwise):

- Are not facts, nor are they intended to constitute capital growth, earnings guidance, and/or any other type of advice or guidance (legal, financial, tax or otherwise)
- Pertain to outcomes that may arise under stipulated climate change scenarios set out within, which, as noted in NZ CS1, "...are not intended to be probabilistic or predictive, or to identify the 'most likely' outcome(s) of climate change. They are intended to provide an opportunity for entities to develop their internal capacity to better understand and prepare for the uncertain future impacts of climate change"
- Are inherently uncertain and subject to limitations, particularly as to inputs, available data and information (including that which the Port has derived from relevant sector climate change scenarios), all of which are likely to change and evolve
- May not eventuate (in full or in part), and where they do eventuate, may be materially more or less significant than is anticipated or otherwise indicated in this report
- May have omitted to identify and include (in full or in part) material climate-related risks, opportunities and impacts that do eventuate.

Owing to the above, all climate-related forward-looking statements in this CRD report may be less reliable than statements contained in the Port's non-climate-related annual reporting.

Notwithstanding the above, this CRD report represents the Port's best estimate and current understanding of future climate-related eventualities at the date of publication. Subject to the various practical challenges and limitations, the Port has used all reasonable endeavours to ensure the accuracy and completeness of this report (subject to specified omissions in reliance of the adoption provision in NZ CS2, and the "Amendments to Adoption of Aotearoa New Zealand Climate Standards 2024" issued 27 November 2024), but strongly cautions against undue reliance being placed on representations within.

To the maximum extent permitted by law, the Port and its directors, officers, employees and contractors shall not be liable for any loss or damage arising in any way from or in connection with any information provided or omitted as part of this report.

Climate-related Disclosures Report

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Executive summary



This year's report updates Port of Tauranga's climate context and deepens its assessment of climate-related risks and opportunities. It summarises the Port's inaugural transition planning and outlines near-term actions and objectives that guide the Port's response to its evolving strategic landscape under a changing climate.

Current position

The Port's climate-related risk and opportunities (CRR/Os) assessment found it has inherent resilience to both physical climate risks and the transition to a low-emissions economy. This has emerged as an ancillary benefit of the Port's national network, infrastructure and commercial strategy, which is anchored in diversification of cargo, geography, operations, and revenue streams.

As New Zealand's largest port, Port of Tauranga has an important role to play in decarbonising the country's international supply chain. The Port has prioritised rail over road transport and advocated for coastal shipping, and has become the first New Zealand port able to accommodate larger container vessels (currently up to 11,000 TEU). Current estimates indicate emissions per tonne of cargo transported are approximately 20% lower with ships of this size, compared to the average vessel calling at other large New Zealand ports. The Port continues to plan for future growth in larger, more efficient vessels, alongside its wider initiatives to reduce operational emissions and support New Zealand exporters with the lowest-emissions supply chain possible.

Key changes

Climate-related risks and opportunities

This year's CRR/O analysis included a detailed assessment of the Port's Joint Venture sites Northport Group, PrimePort Timaru, and Ruakura, and a deeper analysis of containerised cargo. The Port's climate scenarios were updated with the latest downscaled Shared Socioeconomic Pathways (SSPs), and new transition driver developments relevant to the Port, such as emission-based trading rules, changes in the political landscape, and key sector updates. Transition planning also led to updated adaptive capacity and vulnerability findings. This led to changes to some impact ratings in FY2025 compared with FY2024, noting:

Type	Summary of change
Direct physical risks	Medium to long-term minor increases in risk of damage/wear to Port sites and assets, and increase in risk to harbour access, wharves and loading/unloading capability.
Indirect physical risks	Long-term dairy export supply risks increased under Hothouse. No change across forestry and kiwifruit export supply risks, as adaptive capacity offset any additional exposure.
Direct transition opportunities	Opportunity from structural changes to New Zealand's freight system increased over the medium and long-term.
Indirect transition risks and opportunities	Risk of reduced demand for dairy export commodities increasing under medium-term Disorderly, then decreasing under long-term Disorderly scenario, due to revised precision fermentation outlook. Demand for forestry exports increasing under Orderly and decreasing under Hothouse scenarios. CBAM and climate regulation impacts on commodity exports increased under short-term Orderly, and medium-term Orderly and Disorderly scenarios. Indirect opportunity for impacts on demand for imported goods decreased in Orderly medium-term scenario.

Transition planning

The Port's transition planning, aligned with the XRB and Transition Plan Taskforce guidance, reviewed and strengthened the Port's management response to climate-related risks and opportunities. The Port's transition plan and objectives are structured around three impact channels:

- **Responding to climate-related risks and opportunities** – by integrating the Port's evolving understanding of climate-related physical and transition risks and opportunities into its business strategy, infrastructure planning, customer engagement, and asset development programme.
- **Contributing to the real-economy transition** – by leveraging the Port's unique national and international position to support decarbonisation across New Zealand's freight and logistics sector.
- **Decarbonising the Port Group** – by progressively reducing direct and indirect emissions across the Port's operations and infrastructure, while recognising that the Port is part of a wider ecosystem, and accounting for relevant dependencies and opportunities.

The Port's vision, key aspirations, and strategy are well-positioned to deliver under these channels. The Port reviewed all existing initiatives and strategy against its transition plan objectives and CRR/Os, and identified two new focus areas in particular:

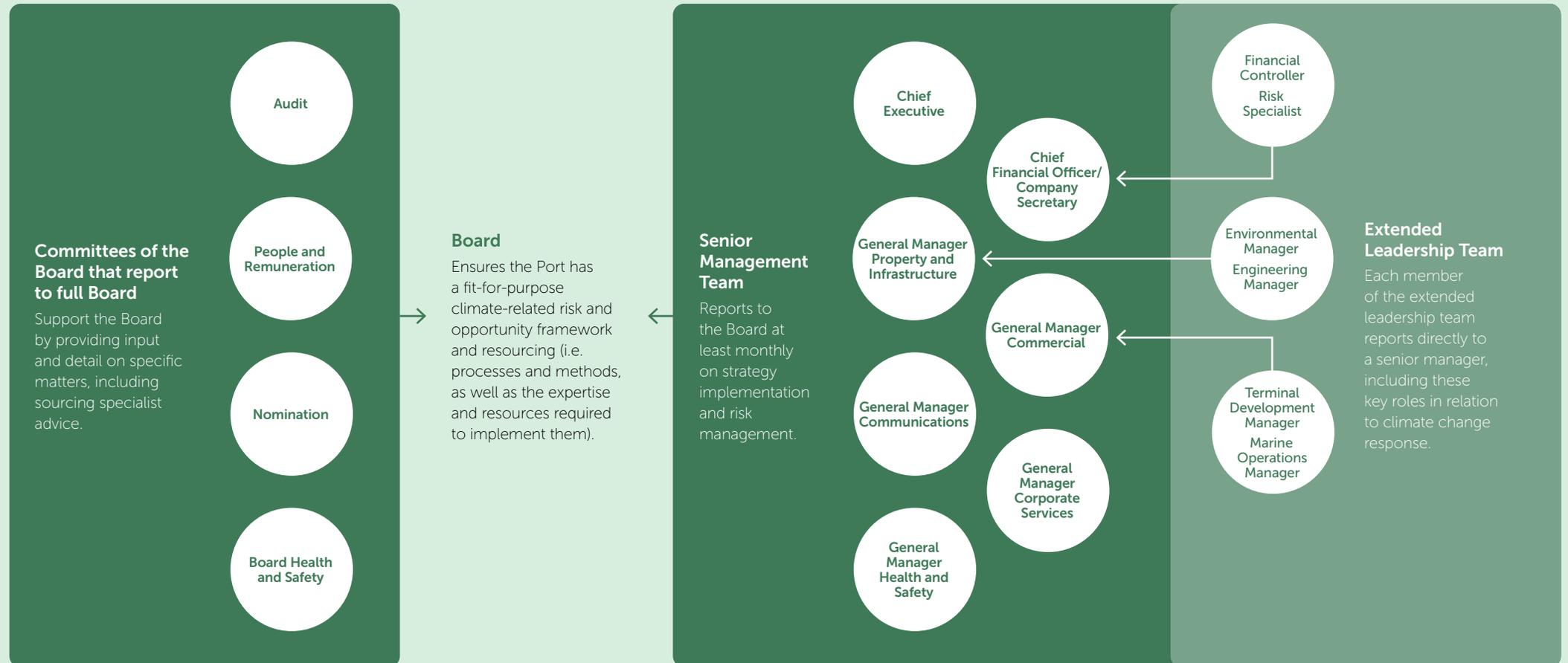
1. Ensuring climate-related risk and opportunities are well-integrated in the Port's strategic and risk management practice. This is critical to enhance existing response, such as monitoring and responding to cargo and customer trends which will be increasingly influenced by the changing climate.
2. Engaging the wider Group and set expectations to align with objectives and ensure resilient, future-ready infrastructure and a low-emissions supply chain.

The transition plan will continue to inform decision-making and drive accountability, and ensure the Port progressively refines its implementation strategy over time.

Governance



Port of Tauranga Limited is listed on the New Zealand Stock Exchange (NZX) and adheres to the NZX Main Board Listing Rules and guidance, including the NZX Corporate Governance Code.



Board oversight of climate-related risks and opportunities

Port of Tauranga’s Board of Directors ensures the company adheres to NZX governance requirements and maintains high ethical standards in serving the interests of Port of Tauranga stakeholders, including shareholders, employees, customers and the wider community.

The Board approves the company’s strategic direction and oversees management of long-term value drivers such as asset investment, employee engagement, iwi and community engagement, customer satisfaction, enhanced environmental performance and reputation protection. Key Port strategies are formally reviewed at least once per year.

All risks, including climate-related risks, are also reviewed annually by the Board, with “deep dives” into specific risks on a quarterly basis.

The Board has overall responsibility for the Port’s climate change response.

The Audit Committee is specifically responsible for ensuring the Port complies with climate-related reporting requirements. Other committees of the Board have specific responsibilities related to risk management, outlined below. All committees report to the full Board.

Board skills and competence

The Board requires Directors to have competencies across a range of disciplines, including sustainability and risk management, to operate effectively and meet its responsibilities. Directors’ skills are self-assessed annually, moderated by the Board as a whole, and provided to shareholders in a matrix published annually in the Corporate Governance Statement. The statement and other governance-related documents, including the charters of the Board and its committees, are available on the Port’s [website](#).

Monitoring progress

The Board approves and monitors progress against the metrics and targets used to measure the Port’s climate-related risks and opportunities. For example, management reports to the Board annually on greenhouse gas emissions and progress in relation to achieving the Board’s long-term objective of net zero emissions by 2050, and its short-term goal of a reduction in carbon intensity annually (t CO₂e per cargo tonne). Additional metrics and targets, including for the senior management team, have been developed in alignment with the Port’s new climate Transition Plan, which is approved and will be monitored by the Board. Specific decarbonisation projects requiring capital expenditure are also reported to the Board for approval as required by delegation of authority policies.

The Board considers the identification, understanding, control and monitoring of core risks (including climate-related risks and opportunities) to be a whole-of-Board function.

Audit Committee	People and Remuneration Committee
<p>Assists the Board with the financial reporting process, internal controls and management of financial risks, and the audit process (including assurance on regulatory requirements such as Climate-related Disclosures).</p> <p>The committee holds at least three meetings annually and reviews all climate change risk and opportunity-related work, including approving the publication of the company’s Climate-related Disclosures.</p>	<p>Oversees remuneration policies and practices, including executive packages that include performance targets for sustainability-related measures such as greenhouse gas emissions, health and safety, and employee and community engagement.</p> <p>The committee has incorporated specific climate-related metrics into executive remuneration.</p>
Board Health and Safety Committee	Nomination Committee
<p>Assesses health and safety risks and controls relating to the impacts of climate change.</p>	<p>Reviews the Board’s composition, performance and succession planning to ensure it has skills in sustainability, as well as regulatory compliance, risk management, stakeholder liaison and other competencies.</p> <p>The committee, of which all Directors are members, meets at least twice per year.</p>



Management's role in assessing and managing climate-related risks and opportunities

All members of the senior management team have responsibilities related to the company's strategy and risk management. They ensure that risks to the business, including climate-related risks, are identified and evaluated, and that effective and practicable responses and control activities are developed.

The senior management team reports monthly to the Board and attends all Board meetings. The Chief Executive and Chief Financial Officer attend the Audit Committee meetings. The Chief Executive and General Manager Corporate Services attend the People and Remuneration Committee meetings, and the Chief Executive and General Manager Health and Safety attend the Board Health and Safety Committee meetings.

Risks to Port of Tauranga's ability to create value are regularly discussed in-depth by the senior management team, which meets weekly. The team identifies risks and their materiality, evaluates mitigation options and ensures they are feasible.

Sustainability measures are incorporated into the remuneration of members of the senior management team as well as their relevant direct reports.

The individual responsibilities laid out in this table have been agreed over time through consultation, job descriptions, strategic planning processes and directives of the Board. Performance is monitored by the Chief Executive and incentivised through remuneration policies, including a short-term incentive component measured through mutually agreed Key Performance Indicators (KPIs) and approved by the Board's People and Remuneration Committee. The Board is responsible for the performance of the Chief Executive.

Previously, specific climate-related risk KPIs have only been applicable to the at-risk, short-term incentive component of the remuneration of the Chief Executive and General Manager Property and Infrastructure. In FY2025, all of the senior management team had a specific climate-related KPI, requiring the development of the climate Transition Plan and associated metrics and targets – 5% of the managers' short-term incentive was allocated to this KPI.

Day-to-day risk management is undertaken by an empowered and coordinated extended leadership team, with centralised oversight by the senior management team. The senior management team is required to establish formal and/or informal processes with their teams to demonstrate a positive risk culture by actively monitoring and discussing risk.

All teams have some responsibility to identify, assess and monitor critical risks, including those related to climate change, relevant to their areas of the business.

Members of the extended leadership team report directly to a senior management team member. Those with specific climate-related responsibilities include:

- Environmental Manager
- Financial Controller
- Terminal Development Manager
- Engineering Manager
- Risk Specialist
- Marine Operations Manager.

Chief Executive	Chief Financial Officer/Company Secretary
<p>Manages and delivers the company's strategy and performance.</p> <p>Responsible for promoting proactive risk management, including risks and opportunities associated with climate change, and reporting it to the Board.</p> <p>Incorporates climate-related risks and opportunities into the company's strategic planning process.</p> <p>Maintains relationships with local and central government and regulators.</p>	<p>Ensures timely release of information to the market and adherence to the relevant rules and regulations, including NZX, accounting and Climate-related Disclosure standards.</p> <p>Assesses the financial impacts of climate-related risks and opportunities in financial planning, capital allocation, insurance and financial reporting.</p> <p>Responsible for an effective risk management framework that identifies, assesses, monitors and manages risk.</p>
General Manager Property and Infrastructure	General Manager Commercial
<p>Overall responsibility for the development and implementation of Port of Tauranga's decarbonisation strategy and greenhouse gas emissions inventory report.</p> <p>Ensures port infrastructure is resilient to climate change, including the provision of new infrastructure to meet increased demand (e.g. power equipment for electrification).</p> <p>Prioritises the purchase of more fuel-efficient vehicles and equipment whenever possible (e.g. hybrid straddles).</p>	<p>Jointly responsible (with the General Manager Corporate Services) for business continuity and crisis management planning.</p> <p>Ensures the business plan has inherent flexibility and resilience.</p> <p>Oversees significant operational initiatives, such as container handling automation and marine fleet purchases, with a material impact on greenhouse gas emissions.</p>
General Manager Communications	General Manager Corporate Services
<p>Publishes Port of Tauranga's announcements via website, broadcast emails and media releases.</p> <p>Publishes comprehensive financial and non-financial disclosures in the company's Integrated Annual Report, including material exposure to environmental, economic and social sustainability risks.</p>	<p>Overall responsibility for employee engagement and implementation of the Port's people-related strategies and policies.</p> <p>Develops and recommends climate-related KPIs for the senior management team to the People and Remuneration Committee.</p>
General Manager Health and Safety	
<p>Assesses the health and safety impacts of climate change.</p> <p>Promotes proactive employee and contractor engagement in the Port Users' Health, Safety and Environment Forum.</p> <p>Membership of the Port Industry Association Leadership Group.</p>	

Risk management



Port of Tauranga operates in a complex environment with a wide range of strategic, operational, commercial and safety risks that must be effectively managed to protect the company's employees, the environment, company assets and reputation.

Risk management approach

Our risk policy and risk management framework guides our approach to managing all business risk, including climate change, and our framework is aligned to the Australian/New Zealand Risk Management Standard *AS/NZS ISO 31000:18 Risk management – Principles and Guidelines*.

Known risks are identified and recorded in Port of Tauranga's risk register and any material risks are incorporated into our enterprise risk management system. Risks are assessed on their likelihood and impact and are rated pre and post-mitigation.

Port of Tauranga's comprehensive risk management programme is overseen and reviewed annually by the senior management team and Board to establish an integrated and forward-looking perspective of the company's risk landscape including the internal and external environment, changes in likelihood and consequence ratings, and the business unit risk profiles. Both specific risks and any broader linkages are considered.

Following a thorough review of Port of Tauranga's Risk Management Policy and Framework in FY2024, a Risk Specialist role was created. The Risk Specialist is responsible for preparing quarterly enterprise risk reports for the senior management team and Board, detailing:

- Risks outside the acceptable tolerance levels (the "risk appetite" set by the Board)
- Details of any escalating or emerging risks
- Any significant project risks
- The status of top strategic risks, and any emerging strategic risks.

As part of these responsibilities, the Risk Specialist will review the updated risks and opportunities from the FY2025 scenario analysis and ensure these are appropriately integrated into the Port's risk management frameworks and practices.

During FY2024 and FY2025, Port of Tauranga enlisted specialist consultants Onepointfive and Tonkin + Taylor to assist with the identification and assessment of climate-related risks and opportunities. Onepointfive has also assisted the Port to develop its Transition Plan.

The focus in FY2025 was to establish a long-term blueprint to ensure transition activity is integrated, monitored, and continuously improved over time and that the Port's systems are set up to identify and respond to climate-related risks and opportunities. It involves regular review through usual business and strategic planning cycles and ensuring integration with existing risk management frameworks.

Identification and assessment of climate-related risks and opportunities

Over the past two years, Port of Tauranga has carefully considered how its climate-related risks and opportunities are best identified, assessed, managed and reported within the context of the new reporting framework, as well as the Port’s existing risk management framework to ensure integration.

Port of Tauranga has adopted a five stage approach, summarised in Figure 1 and based on international risk management practices and standards. The steps and methods employed at each of the five stages are based on the Port’s existing risk management systems, although several specific adjustments take into account both the unique nature of climate-related risks and the need for compliance, including:

- Compliance with all aspects of NZ CS1 and NZ CS3
- Understanding and managing climate-related risks and opportunities in a judicious and responsible manner
- Compliance with any applicable Director duties as a result of the Port’s exposure to climate-related risks and opportunities.

We have based these adjustments on a number of existing international and New Zealand climate change-related standards and guidelines.

XRB guidance

We also ensured the XRB’s “Staff Guidance, Entity Level Scenario Development” requirements were integrated into the Port’s five stage process, including:

- Project setup
- Climate context assessment – identifying and mapping value chains, identifying climate hazards and transition drivers
- Objectives and settings – ensuring the process and scope were tailored to suit the Port’s climate context
- Stakeholders and data – briefing, engaging and upskilling stakeholders.

In identifying current and anticipated climate-related risks and opportunities, the Port:

- Used traditional assessment methods to identify past, current and potential anticipated climate-related risks and opportunities in a comprehensive and detailed way
- Identified sector scenarios relevant to the Port’s business model (e.g. Aotearoa Circle transport, agriculture and energy scenarios)
- Defined parameters including global references, emission trajectories, temperature outcomes and other assumptions.

A long list of drivers was assessed and ranked by influence and uncertainty. Various methods were used to unpack, rationalise and map how each driver might play out under each scenario, including understanding interactions and dependencies between one or several drivers. The scenarios were then used to identify anticipated climate-related risks and opportunities not already identified, followed by a qualitative assessment of the Port’s exposure and vulnerability to each. Further details are provided under “key risk parameters” listed for each climate-related risk and opportunity in the Strategy section of this report.



Identification

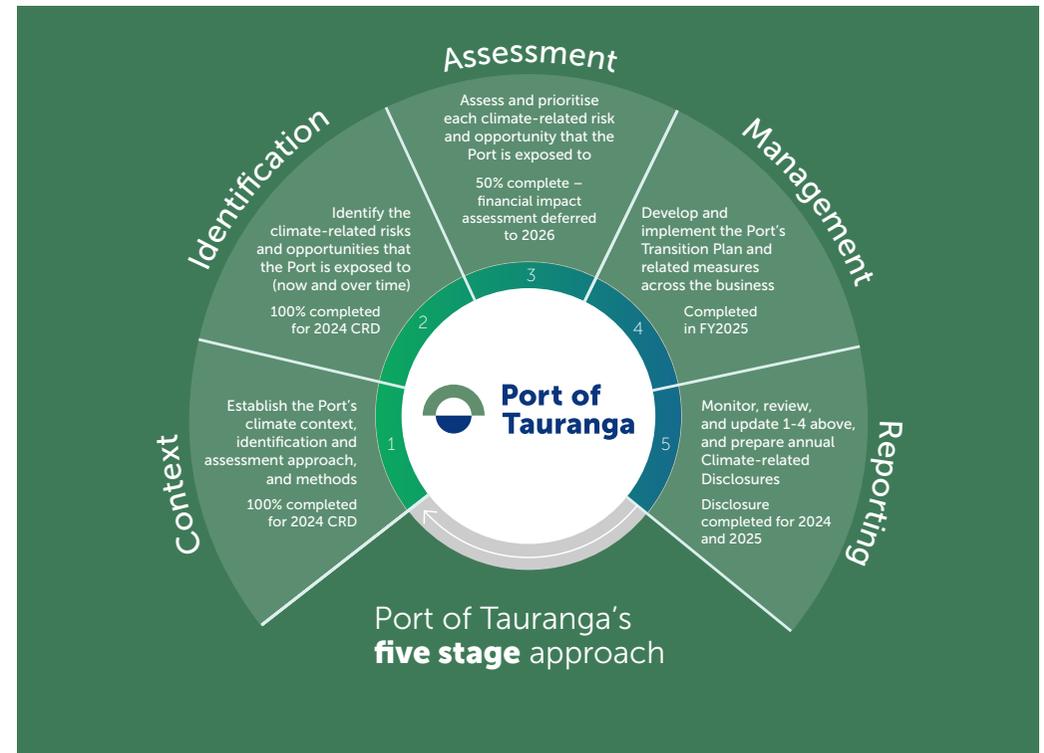
A comprehensive assessment of potential indirect climate risks and opportunities was carried out across key value chains – dairy, logs and other forestry, kiwifruit, liquid fuel and stock feed.

A detailed assessment of current and anticipated knock-on impacts of each potential risk and opportunity was carried out to establish materiality.

Containerised goods, lower volume commodities and break bulk imports and exports were also addressed. However, because of the practical limitations, this entailed a much higher-level assessment of upstream (supply chain) and downstream (market access and demand) risks and opportunities.

Key operations and material assets such as buildings, infrastructure, plant and equipment were assessed for exposure to physical and transition risks. This was carried out at the individual asset level for all building and infrastructure assets, as well as for key operations.

Figure 1:



Staged approach to reporting

In the first mandatory reporting cycle, our focus was on building robust foundational Climate-related Disclosure systems, capability and knowledge. In FY2025, our focus shifted to building on the foundational identification and assessment work, extending it to the broader national network.

2024 (complete)	Stage 1: Context	Establish Port of Tauranga's climate context and develop a fit-for-purpose Climate Risk Framework (i.e. suite of processes, methods and tools) to enable the Port to identify, assess, manage and report on its climate-related risks and opportunities.
	Stage 2: Identification	Use traditional risk screening methods to identify existing and emergent climate-related risks and opportunities that: <ul style="list-style-type: none"> • The Port's operations, buildings, infrastructure and other key assets are directly exposed to • The business model and strategy are indirectly exposed to, as a result of knock-on impacts across the value chain for the Port's five key import and export commodities. Undertake a high level identification and assessment of joint venture companies' material risks and opportunities. Develop and apply three Port climate scenarios by: <ul style="list-style-type: none"> • Identifying three relevant standard sector climate scenarios • Developing scenario "archetypes" and a shortlist of key drivers aligned with the relevant sector scenarios (in particular the agricultural and transport sector scenarios) • Building out the detail with Port-relevant outcomes for each key driver • Identifying climate-related risks and opportunities that may arise under each scenario.
	Stage 3: Assessment	Qualitative assessment of the Port's exposure and vulnerability to each climate-related risk and opportunity identified at stage 2. Derivation of an impact/risk rating based on the assessments. Prioritisation of risks and opportunities to help determine significance, urgency, and availability/feasibility of response options.
2025 (complete)	Stage 2 (continued): Identification	Update and refresh the Port's identified climate-related risks and opportunities across the value chain based on: <ul style="list-style-type: none"> • Any material changes to the Port's strategy, risk management framework or external climate context • New insights gained from sector peers and commodity customers • New or updated standard sector scenarios (e.g. energy sector).
	Stage 3 (continued): Assessment	Update the detailed assessment findings and undertake a detailed assessment of joint ventures' climate-related risks and opportunities.
	Stage 4: Management	Prepare a detailed Transition Plan outlining a comprehensive, effective and coherent response to the Port's priority short and medium-term risks and opportunities. Form the foundation of a phased and dynamic adaptive approach to achieve Transition Plan objectives.
2026	Stage 3 (continued): Assessment	Establish a robust means of assessing the financial impact of the Port's current and anticipated climate-related risks and opportunities, ensuring the findings are reliable, valuable and not unduly speculative.
	Stage 4 (continued): Management	Update and refine FY2025 Transition Plan, taking into account the performance of any initiatives implemented. Ensure integration with core operational areas and that supporting actions are mapped and monitored across business operations, services, policies and financial planning. Identify and select preferred action and pathways, with corresponding metrics and targets, for longer term risks and opportunities.

Time horizons

Time horizons have been based on Port of Tauranga’s business planning cycles, infrastructure asset life planning, and long-term strategies.

Time horizons	
Short-term	Risk over the next 0-5 years, in line with Port of Tauranga’s budget and business planning cycle.
Medium-term	Risk within the time horizon 5-25 years, in line with Port of Tauranga’s long-term strategy, including our net zero emissions ambition.
Long-term	Risk within the time horizon 25-50 years, in line with long-term infrastructure asset life planning and strategic outlook for Port of Tauranga.

Port of Tauranga value chain

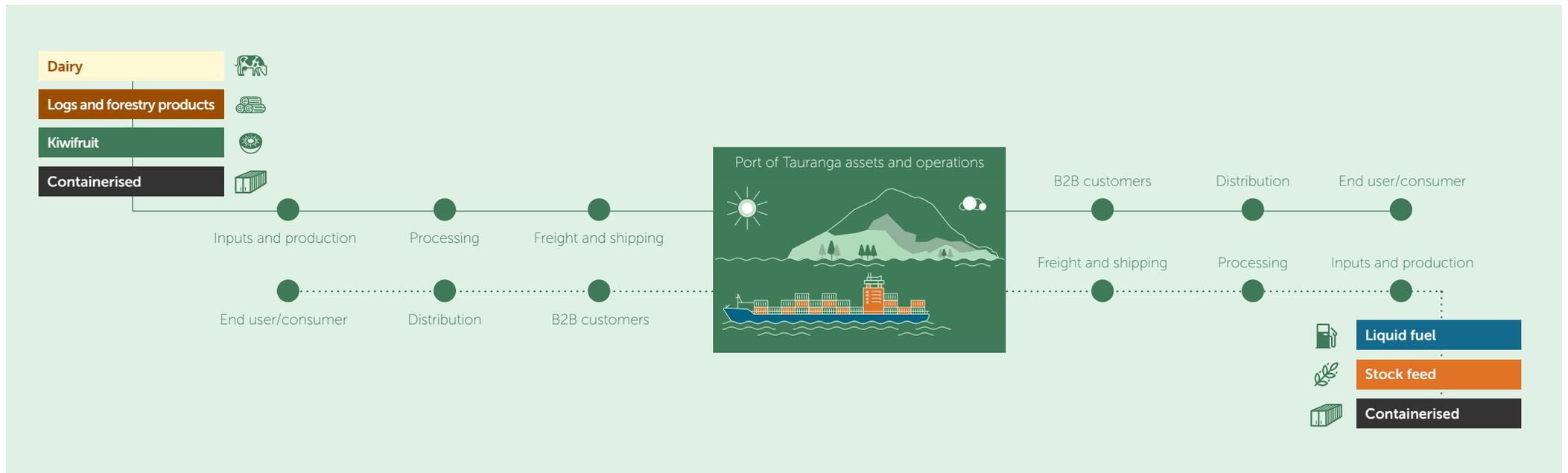
Context

As New Zealand’s largest sea port, Port of Tauranga (together with its inland ports and wider Group sea port operations), manages import and export commodities and goods that belong to an indeterminate number of value chains.

For this reason, it is not feasible to carry out a full value chain analysis of everyone, especially in the case of containerised freight, as accurately identifying the specific value chain of every container’s contents is not practically possible.

Accordingly, guided by the fair presentation, value chain and materiality requirements of NZ CS3, the Port focused on identifying and mapping the value chain for its:

- Four largest export commodities, i.e. dairy, logs, other forest products and kiwifruit, which comprise approximately 77% of total exports by volume
- Two largest import commodities, i.e. liquid fuels and stock feed, which account for 32% of total imports by volume.



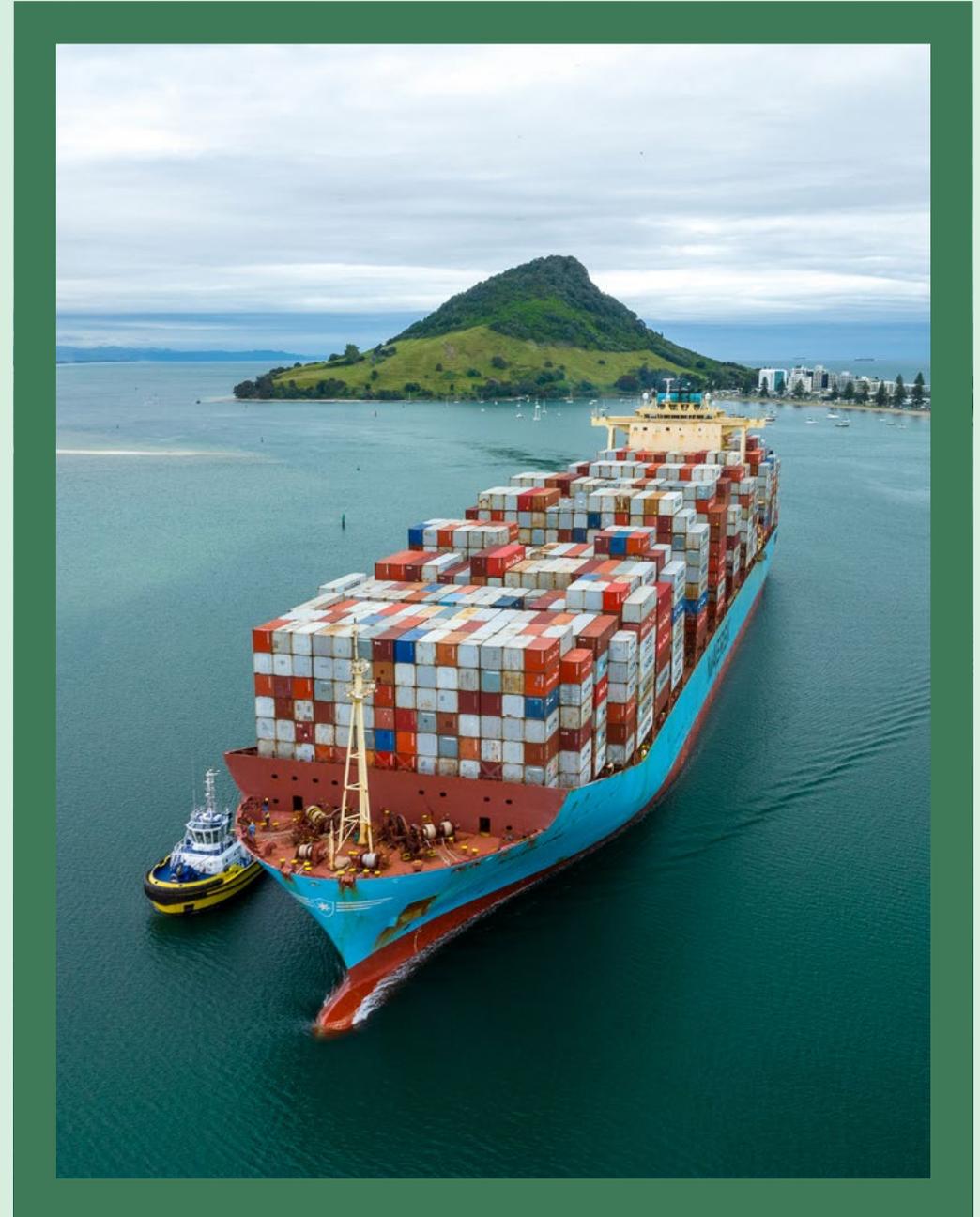
Strategy

Port of Tauranga has examined how the company might perform under a range of potential futures. The Port's operating environment will be influenced by social, technological, economic, environmental and political drivers. We have made some assumptions and logical conclusions to help identify potential impacts and their severity on our operations, strategy and finances. Because of Port of Tauranga's unique position within the supply chain, we have drawn from the scenarios developed by the agricultural, transport and energy sectors.

In this section we summarise the climate-related risks and opportunities identified as impacting, or likely to impact, Port of Tauranga's business as well as the Port's response.

Port of Tauranga has developed a Transition Plan, a summary of which is also included in this report. The strategic intent of the Transition Plan is to ensure the Port can continue to deliver on its core objectives by providing and championing robust, low emission and resilient infrastructure for the benefit of New Zealand.

By embedding climate resilience and emissions reduction in operational and investment decisions, the Port can maintain reliable and sustainable services to customers, and safeguard the resilience and long-term value of assets and infrastructure, operations and stakeholder relationships in a changing climate.





Port of Tauranga's business model and strategy

Port of Tauranga is New Zealand's largest and most efficient port. It has grown to become the key international freight gateway for the country's imports and exports, and the only port able to accommodate the largest container vessels that visit New Zealand.

According to Ministry of Transport and Statistics New Zealand data, Port of Tauranga handles 33% of all New Zealand cargo by volume, 40% of all shipping containers and 40% of all New Zealand exports by volume¹.

Purpose and vision

The Port's purpose of "connecting New Zealand and the world" is underpinned by seven key aspirations that go beyond profit:

- Drive national prosperity
- Improve community wellbeing
- Protect our natural environment
- Respect mana whenua
- Nurture our people
- Provide superior customer service
- Deliver long-term value.

The Port's approach to the challenges and opportunities presented by climate change is approached through this lens. The Port's assessment and prioritisation of climate-related risks and opportunities is also informed by this purpose and vision.

Business model

Port of Tauranga works with key import and export partners to develop and deliver efficient, integrated logistics solutions. Over the past two decades, the Port has developed a national freight and logistics strategic network supported by subsidiaries and joint ventures.

Port of Tauranga operates three multi-modal (connected by road and rail) inland ports: Ruakura (central Hamilton), MetroPort Auckland (South Auckland) and MetroPort Christchurch (Rolleston).

It has also partnered with local owners in two regional feeder ports – Northport (a deepwater commercial port near Whangārei in Northland) and PrimePort Timaru (a multi-cargo port serving the primary producing regions of Mid and South Canterbury). At PrimePort Timaru, Port of Tauranga owns the Timaru Container Terminal, which is operated by the Port's wholly-owned subsidiary, Quality Marshalling.

Quality Marshalling also operates the container rail exchange at Port of Tauranga and the Ruakura Inland Port.

Port of Tauranga also has joint ownership in Coda Group, a freight logistics group, and PortConnect, an online cargo management system.

The network described here is central to the Port's value proposition – its ability to provide customers with highly efficient, integrated supply chains. Maintaining this network is integral to not only the Port's commercial competitiveness, but also its long-term climate resilience.

Key import and export commodities

Port of Tauranga's business model has been shaped in large part by its focus on servicing a range of key commodities responsible for the majority of annual cargo volumes and revenue. Export cargoes, responsible for around 65% of all Port volumes, include:

- Logs and other forest products (approximately 52% of total export volumes)
- Dairy exports, including milk powder (approximately 13% of total export volumes)
- Kiwifruit (approximately 12% of total export volumes)
- Other, mostly containerised, cargo (approximately 23% of total export volumes).

Imports fluctuate year-to-year, but typically make up around a third of Port cargo volumes. Key import commodities include:

- Liquid fuel imports (approximately 17% of total import volumes)
- Stock feed imports (around 15% of total import volumes)
- Other, mostly containerised, cargo (nearly 68% of total import volumes).

Port of Tauranga's climate change strategy

Port of Tauranga has developed a diverse and resilient portfolio of cargoes, operations, assets and revenue sources that will help ensure it is protected from the physical effect of climate change.

The Port monitors and responds to cargo trends, which will be increasingly influenced by the changing climate. It is preparing to accommodate increased numbers of larger vessels.

Port of Tauranga has pursued a long-term strategy to become New Zealand's international hub port.

It is currently the only port able to accommodate the largest container vessels to visit the country. The Port has invested and continues to build capacity to cater for this trend to larger vessels, which have greater fuel efficiency and lower greenhouse gas emissions per cargo tonne. In FY2026, the Port will commence the second stage of its shipping channel deepening to cater for even larger vessels (in excess of 12,000 TEU*) that are expected to cascade into the Oceania cargo network.

Port of Tauranga has developed a national network of inland freight hubs and regional ports connected by road, rail and coastal shipping to the hub port, offering importers and exporters access to a lower carbon pathway to and from international markets. The Port is also preparing to further decarbonise its operations through the introduction of electrification and automation in its container terminal, and the purchase of lower emission marine vessels. The Port has ordered New Zealand's first fully-electric straddle carrier, to be trialled in FY2027, and has ordered a hybrid tug boat.

In accordance with the Climate-related Disclosures framework, Port of Tauranga has prepared a detailed Transition Plan describing its influence on the Port's business model and strategy. The Port's management response to specific climate-related risks and opportunities is outlined later in this report, and a summary of the Transition Plan is detailed on page 38.

* TEU = twenty foot equivalent units, a standard measure of shipping containers

Port of Tauranga-specific climate scenarios

Port of Tauranga has developed three climate scenarios to identify and assess its climate-related risks and opportunities across short, medium and long-term time horizons.

Climate-related risks and opportunities have been categorised as being driven by either physical impacts (acute and chronic) or impacts from the transition to a lower-carbon future.

As outlined on page 12, Port of Tauranga's time horizons reflect its business model and planning cycles:

- Short-term: 0-5 years
- Medium-term: 5-25 years
- Long-term: 25-50 years.

Port of Tauranga's chosen three scenarios are not predictive or probabilistic forecasts but aim to provide plausible futures to enable the Port to identify climate-related risks and opportunities and test the resilience of its business model and strategy.

Scenario development

The Port's three climate scenarios were developed with assistance from external experts and input from external stakeholders to challenge and test the assumptions and findings of each scenario.

The Port has sourced data and information from the New Zealand Climate Change Commission (CCC), the National Institute of Water and Atmospheric Research (NIWA), Representative Concentration Pathway (RCP) scenarios, the Network for Greening the Financial System (NGFS), the Intergovernmental Panel on Climate Change Shared Socioeconomic Pathways (SSP) and other sources.

The three scenarios are:

- Orderly: global warming is kept to 1.4 degrees Celsius by 2100
- Disorderly: global warming is kept to 2.6 degrees Celsius by 2100
- Hothouse: global warming reaches 3.9 degrees Celsius by 2100.

They draw on the Aotearoa Circle sector scenarios most relevant to the Port, namely:

- [Transport sector](#), applicable to the Port's broader freight and logistics operations as well as liquid fuel imports
- [Agricultural sector](#), applicable to all of the Port's key export commodities (logs and other forestry, dairy, kiwifruit) as well as stock feed imports
- [Energy sector](#), applicable to the future of freight and shipping energy (e.g. alternative fuels), shore power, and liquid fuel imports.

A comparative analysis enabled the downscaling of the relevant elements, such as emissions trajectories, to the Port level in a coherent and internally consistent way. Various methods were used to unpack and rationalise how each scenario might play out.



Port of Tauranga climate scenarios: defining features and characteristics

Scenario	Orderly – 1.4°C at 2100			Disorderly – 2.6°C at 2100			Hothouse – 3.9°C at 2100		
Macro context Globally New Zealand	Ambitious and coordinated international action leads to the world promptly and decisively shifting to a more sustainable, low emission, and inclusive path, which prioritises ensuring global and domestic economies respect planetary boundaries.			Action is delayed until 2032, when a spate of severe weather events and missed Paris Agreement targets push many countries to rapidly implement stringent policies aligned with reducing emissions to net zero as soon as possible. Not all countries take equal action.			Conflict and economic disruption in the 2020s and 2030s lead to geopolitical division that stalls effective climate action and drives prioritisation of energy and food security. Global mitigation action falters and fossil fuel use continues as a result. Some abatement occurs as a by-product of energy security and resilience concerns.		
	New Zealand’s transition is coordinated and immediate. Emission reduction occurs across all sectors, driven by clearly signalled policy changes and proactive sector-led initiatives aligned with achieving net zero emissions by 2050. Initial transition momentum is catalysed by ambitious policies that are implemented immediately and become gradually more stringent in the lead up to 2050.			New Zealand follows suit to keep up with and retain access to export markets. Stringent and blunt mitigation policies are introduced over a shorter timeframe, often in poorly coordinated fashion. Prioritisation of emissions reduction is required to achieve revised targets. The resulting transition comes at a higher level of cost, disruption, and inequity across society, and between sectors and regions.			New Zealand joins the rest of the world in prioritising food and energy security. As a result, no additional mitigation policies are implemented from the late 2020s onwards. Faced with high costs and disrupted global markets, the focus shifts to adaptation and ensuring food production remains high despite increasingly severe physical climate impacts.		
Reference scenarios and data sources	NGFS: Net Zero 2050 SSP1-1.9 <i>Tū-ā-pae (Orderly) Agriculture Sector Scenario and the Fully Charged Transport Sector Scenarios are both aligned with the above. For the reasons outlined at endnote 2 the Port also elected to base its orderly scenario on the above.</i>	CCC Tailwinds		NGFS: Delayed Transition SSP2-4.5 <i>Tū-ā-hopo (Disorderly) Agriculture Sector Scenario aligns with the above in full. The selected SSP deviates from the Short Detour Transport Sector Scenario (which uses SSP2-2.6 projections) – see endnote 2.</i>	CCC Headwinds		NGFS: Current Policies SSP3-7.0 <i>The Bypass to Breakdown Transport Sector Scenario aligns with the above in full. The selected SSP reference scenario deviates from the Tū-ā-tapape (Hothouse) Agriculture Sector Scenario (which is based on SSP5-8.5) – see endnote 2.</i>	CCC Current policy reference	
Policy ambition and response	Ambition: 1.5°C aligned (highly ambitious) Response: Immediate, becoming gradually more stringent; smooth; coordinated and well signalled (international and domestically).			Ambition: 2°C aligned (low ambition to 2032, then highly ambitious) Response: Delayed until 2032; then swift and stringent but disorderly; variable/differentiated between nations.			Ambition: ≥ 3.0°C (low ambition) Response: No further mitigation policy; adaptation focused policy response becomes stringent over time.		
Temperature outcomes	Global mean annual change: 1.6°C at 2050 1.4°C at 2100	NZ mean annual change: 2031–2050: 0.7°C 2081–2100: 0.7°C–1°C		Global mean annual change: 2.0°C at 2050 2.6°C at 2100	NZ mean annual change: 2031–2050: 0.7–0.9°C 2081–2100: 1.3–1.4°C		Global mean annual change: 2.5°C at 2050 3.9°C at 2100	NZ mean annual change: 2031–2050: 0.9–1.1°C 2081–2100: 2.8–3.1°C	
Market response and behaviour changes	GDP: moderate to high impacts short-term then eases. Lower household consumption offset by significant and sustained transition capital investments.	High pressure to decarbonise: rapidly mainstreams across customer, investor, lender, and insurer preferences (particularly in developed economies).		GDP: High impact medium-term. Consumer consumption reduction is greater. Transition capital investment softer due to capital and resource constraints.	Orderly analogous but delayed and more stringent/abrupt: due to the shorter timeframe sectors, investors, lenders and insurers have to decarbonise.		GDP: relatively unaffected short-term. Medium to long-term impacts high to extreme due to the physical effects and adaptation related transition..	Slow and delayed: mitigation over the long-term. Access to capital and insurance becomes increasingly difficult over time due to physical impacts.	
Impact severity	Short-term: Low	Medium-term: Low/Moderate	Long-term: Moderate	Short-term: Low	Medium-term: Moderate	Long-term: High	Short-term: Low	Medium-term: Moderate/High	Long-term: High/Extreme
Physical impacts	Low	Low/Moderate	Moderate	Low	Moderate	High	Low	Moderate/High	High/Extreme
Transition impacts	Moderate/High	Moderate	Low	Low/Moderate	High/Extreme	Low/Moderate	Low	Moderate <i>(adaptation only)</i>	High <i>(adaptation only)</i>

Climate-related risks and opportunities for Port of Tauranga

In accordance with the reporting requirements in NZ CS1 and NZ CS3, the Port has (subject to practical limitations), identified and assessed a detailed list of climate-related risks and opportunities arising along the full value chain (in this case “chains” plural) that the Port forms part of.



The depth and specificity with which climate-related risks and opportunities have been identified and assessed, including at each Port of Tauranga site and across the value chains of key export and import commodities, were guided by the following considerations:

- The assessed level of materiality on capital or revenue value at risk basis (as applicable), and/or strategic importance basis
- The availability of information and data (i.e. as the lack of data can inhibit a more detailed assessment)
- Other practical limitations (e.g. it is not possible to assess every import and export on a value chain basis).

Direct climate-related risks and opportunities

The Port elected to identify and assess current and anticipated climate-related risks and opportunities that its assets and operations are directly exposed to (i.e. as a result of their direct exposure to a given climate hazard or transition driver):

- At the individual asset level for those with a capital value of \$5 million or more, and/or critical to operations
- At the asset category level (e.g. for plant and equipment, lower value assets, and underground infrastructure)
- On a site and category basis for key Port operations.

Indirect climate-related risks and opportunities

Climate-related risks and opportunities arising across a given value chain can generate knock-on impacts that materially affect the Port. These indirect climate-related risks and opportunities were identified and assessed at a relatively granular level by:

- Identifying and mapping the key segments of each value chain
- Identifying the climate hazards and transition drivers that key segments of each value chain are exposed to now and will/may be exposed to over the relevant time horizons
- Deriving a long-list of potential climate-related risks and opportunities to be considered as part of the Port’s scenario analysis.

Containerised goods, lower volume commodities and bulk imports and exports were also addressed. However, because of the practical limitations, this entailed a much higher level assessment of upstream (supply chain) and downstream (market access and demand) climate-related risks and opportunities.

Joint ventures

In FY2025, Port of Tauranga carried out a climate-related risk and opportunity assessment for its joint ventures at the same level of granularity

applied to wholly-owned Port assets in FY2024. This provided a detailed understanding of how broadly comparable risk and opportunity profiles vary across JV sites, capturing site-specific physical and transition nuances for PrimePort Timaru and Northport Group.

The analysis also expanded the scope of existing risks and opportunities identified last year, ensuring a more complete and consistent view of climate exposure and resilience across the national Port network, even though joint ventures collectively represent less than 9.3% of total Group asset value. The largest individual investment in a joint venture company, Northport Group, comprises 5.1% of the Group’s total asset base.

Envisioning success under different climate futures

Envisioning success under each of the Port’s climate-related scenarios was a critical step in transition planning (as outlined in the XRB’s guidance for strategy formulation under deep uncertainty). Scenarios are not intended to predict the future, but to stress-test the Port Group’s strategy under plausible conditions, defining what “good outcomes” look like in each case.

Insights from the Port’s FY2024 and FY2025 climate risk assessment and scenario analysis have been used to explore how key climate-related risks and opportunities may manifest across future climate

contexts. These insights were structured around three high impact areas:

- Infrastructure – the Port’s directly owned assets and sites
- National and international network – the flow of goods through the broader freight system and potential disruption points
- Import and export commodity trends – potential shifts in trade volumes, patterns and resilience.

Within each of these areas, the Port sought to understand and test:

- How well the Port’s current strategies support medium to long-term value delivery across multiple scenarios
- Where any shifts in the Port’s strategic direction and/or risk management may be needed (responding to one, multiple or the cumulative effects of risks and opportunities)
- Where investments in physical and/or transition-related adaptive capacity or resilience-building can play a pivotal role in protecting and enhancing the Port Group’s ability to continue delivering value under each climate scenario.

This process supported the development of the Port’s transition objectives and response to climate-related risks and opportunities, detailed in the following tables.

Port assessment methodology

In FY2024 and FY2025, the Port has applied the Exposure–Vulnerability–Impact method when assessing each climate-related risk and opportunity set out in this disclosure (under Stage 3 of its five stage approach).

In line with best practice (e.g. ISO 14091 and XRB guidance), Port climate-related risks were assessed as a function of the following:

- **A given hazard/driver:** the underlying physical or transition external force, which can vary in severity, frequency, duration, and extent (e.g. sea level rise, carbon pricing, consumer preference shifts).
- **Exposure (E),** the proportion of a given element at risk that lies in the path of the relevant hazard/driver. For example, the number of Port sites and assets (individually and on a value at risk basis) that are physically exposed to a given acute or chronic climate hazard, or specific key exports that stand to be affected by one or more transition drivers.
- **Vulnerability (V),** the degree to which an exposed element is likely to be affected by a hazard/driver, based on its inherent:
 - a. **Sensitivity:** how strongly the exposed element is likely to be affected when exposed to the hazard/driver; and
 - b. **Adaptive capacity:** extent of the exposed element’s ability to absorb, offset, or adjust to the relevant hazard/driver, reducing overall vulnerability. Higher sensitivity increases vulnerability, while higher adaptive capacity reduces it.

- **Impact (I):** the resulting evaluative outcome that combines assessed levels of E, V, and Hazard/Driver intensity (i.e. $Impact = f(Hazard/Driver\ severity, E, V)$ — expressed as a qualitative rating (Low, Moderate, High, Extreme) across short, medium, and long-term horizons.

The potential benefit that each Port climate-related opportunity may generate, were also assessed on a similar basis, where:

- **Enabler/driver:** refers to the transition driver or physical shift that could create value.
- **Exposure/alignment:** how well the opportunity aligns with an element of the Port’s strategy and/or key operations, thereby putting the Port in a position to capture or leverage the given opportunity.
- **Benefit potential:** size and scale of the potential upside (e.g. efficiency gains, avoided losses, new revenue).
- **Feasibility/adaptive capacity:** extent of the Port’s ability to readily capture the benefit (e.g. investment and capital availability, skills, partnerships, timing).

Approach to rating exposure, vulnerability and impact

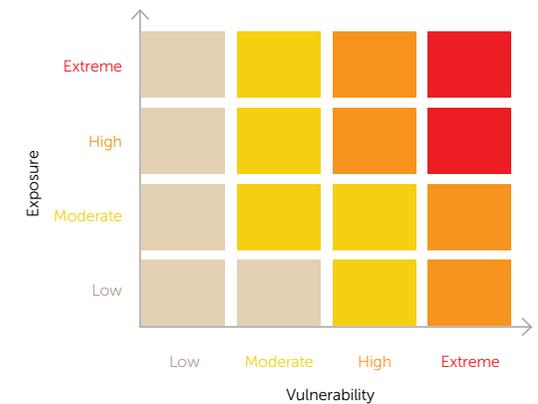
Stage 3 ratings were applied for each climate-related risk and opportunity as applicable to each of the relevant assets, key operations, and import/export categories, accounting for anticipated conditions under each scenario pathway over the applicable time horizons.

Exposure ratings were based on the proportion of assets or operations in harm’s way and the share of value at risk (capital or revenue). Vulnerability combines sensitivity and adaptive capacity, where higher sensitivity increases and stronger adaptive capacity reduces vulnerability.

Impact ratings are derived from the E x V matrix and adjusted for hazard severity, likelihood, and compounding or mitigated effects.

Opportunities are assessed using the same logic, considering alignment, benefit potential, and feasibility. This approach follows ISO 14091 guidelines and the Port’s Exposure–Vulnerability–Impact (EVI) method, ensuring transparent and consistent evaluation across all scenarios, horizons, and asset classes.

Exposure, vulnerability, impact rating:



For indirect climate-related risks and opportunities, the impact ratings reflect the magnitude of the anticipated impact on the relevant import or export commodity or freight category, rather than on the Port’s overall performance. Each rating therefore represents the degree to which climate-related drivers are expected to influence the volumes, demand, or value of the affected trade flows that move through the Port, not the Port’s total revenue or financial results.

Snapshot of key climate-related risks and opportunities for Port of Tauranga

KEY Impact rating: Climate-related risks
 Low Moderate High Extreme

Risk/opportunity summary	Time horizon	Orderly	Disorderly	Hothouse
Direct Risks ("DR") – Physical				
DR1: Increased wear and tear and risk of acute damage to Port sites and assets.	Medium – Long-term <i>(Long-term impact ratings depicted only)</i>			
DR2: Increasing instances of disruption to Port operations (non-flood related).	Medium – Long-term <i>(Long-term impact ratings depicted only)</i>			
DR3: Heightened risk of flood related damage and disruption.	Long-term			
DR4: Increasing risk of disruption to road and rail access.	Long-term			
DR5: Risk to harbour access, wharves and loading/unloading capability.	Long-term			
Indirect Risks ("IDR") – Physical				
IDR1.A: Increasing seasonal variability and gradual decline in dairy export commodity supply.	Medium – Long-term <i>(Long-term impact ratings depicted only)</i>			
IDR1.B: Increasing seasonal variability and gradual decline in forestry and related forest product export commodity supply.	Medium – Long-term <i>(Long-term impact ratings depicted only)</i>			
IDR1.C: Increasing seasonal variability and gradual decline in kiwifruit export commodity supply.	Medium – Long-term <i>(Long-term impact ratings depicted only)</i>			
IDR2: Reduced availability and/or increased cost of imported stock feed.	Medium – Long-term <i>(Long-term impact ratings depicted only)</i>			

KEY Impact rating: Climate-related opportunities
 Material High Very high

Risk/opportunity summary	Time horizon	Orderly	Disorderly	Hothouse
Direct Opportunities ("DO") – Transition				
DO1: Structural changes to New Zealand's national freight system (road to multi-modal).	Medium – Long-term <i>(Long-term impact ratings depicted only)</i>			
DO2: Introduction of larger low carbon shipping vessels.	Short – Medium-term <i>(Medium-term impact ratings depicted only)</i>			
Indirect Risks and Opportunities ("IDR/IDO") – Transition				
IDR3: Reduced demand for dairy export commodities.	Medium – Long-term <i>(Long-term risk ratings depicted only)</i>			
IDR4: CBAM and climate regulation impacts on commodity exports.	Short – Medium-term <i>(Medium-term risk ratings depicted only)</i>			
IDR5: Decarbonisation of New Zealand's transport system and broader energy systems.	Medium – Long-term <i>(Long-term risk ratings depicted only)</i>			
IDO1: Increased demand for logs and other forestry export commodities.	Medium – Long-term <i>(Long-term impact ratings depicted only)</i>			
IDO2: Impacts of climate migration and transition on demand for imported goods.	Short – Long-term <i>(Medium-term impact ratings depicted only)</i>			

Direct physical risk skews across Port Group sites

This page outlines how site-specific exposure, vulnerability, and anticipated impacts are assessed to vary across the Port Group's national network of wholly-owned and JV-owned sites. While no additional material physical risks have been identified beyond those captured under DR1-DR5, site-specific idiosyncrasies result in a relative skew in how these risks manifest across the network. These differences – driven by factors such as geographic setting, asset composition, and operational sensitivity – affect the assessed level of exposure, vulnerability, and potential impact at each site. This informs disclosure materiality and supports prioritisation of site-specific management responses.

Northport Group

Northport Group consists of Northport and Marsden Maritime Marina and Business Park. Northport is a deep water commercial port near Whangārei, and is located proximate to Marsden Marina and Business Park, the latter of which has significant future development potential. Northport Group is 50% owned by Port of Tauranga with Northland Regional Council owning 43% and Tupu Tonu (Ngāpuhi Investment Fund) owning 7%.

MetroPort Auckland

Operated by KiwiRail, MetroPort Auckland is an inland port in the heart of Auckland's commercial and industrial area. Currently New Zealand's fourth largest container terminal, MetroPort Auckland is connected by rail to Tauranga and Hamilton, providing a critical link for containerised import and export volumes moving to and from New Zealand's largest city and economic centre.

Timaru Container Terminal

Containerised regional terminal. Timaru Container Terminal, within PrimePort Timaru, has direct shipping links to the international hub port at Tauranga and is operated by Port of Tauranga's subsidiary Quality Marshalling.

PrimePort Timaru

Port of Tauranga has a 50% shareholding in PrimePort Timaru. PrimePort handles bulk cargoes and is home to a major cement facility and oil terminal. PrimePort benefits from key rail and state highway links along the east coast of the South Island.

Port of Tauranga

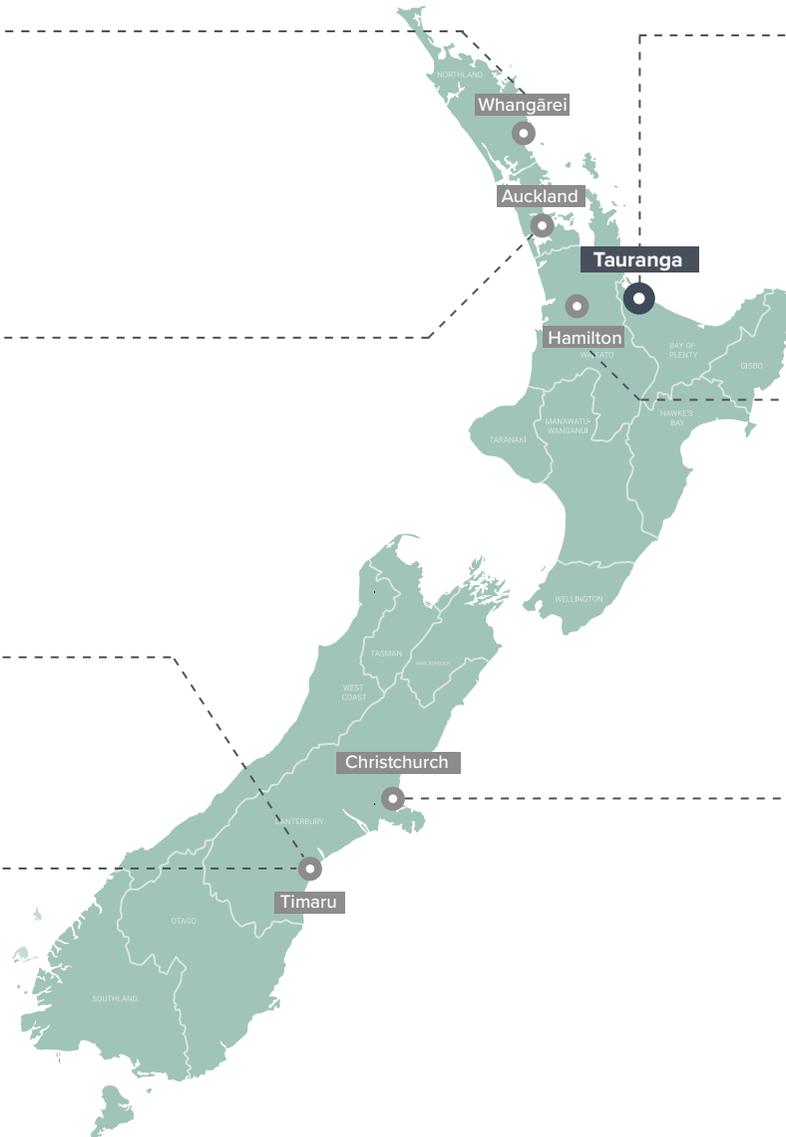
New Zealand's largest port and international freight hub. Container terminal, bulk/breakbulk cargo wharves and bunkering/bulk liquids facilities. Extensive cargo storage and handling facilities. Rail connections to Hamilton, Auckland and the central North Island. Extensive road networks (State Highways 2 and 29) and coastal shipping connections.

Ruakura Inland Port

Inland port connected by rail to Tauranga and Auckland. Part of the Ruakura Superhub logistics and industrial precinct. Its location provides efficient and strong connectivity to both Tauranga and Auckland and creates an integrated, cost-effective supply chain solution for both importers and exporters. Ruakura Inland Port is a joint venture between Port of Tauranga and Tainui Group Holdings and is managed by Port of Tauranga's subsidiary Quality Marshalling.

MetroPort Christchurch

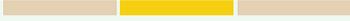
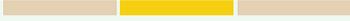
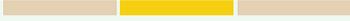
MetroPort Christchurch is an intermodal freight hub at Rolleston. Operated by Timaru Container Terminal, it has rail connections to the terminal and the rest of the South Island, as well as links to State Highways. It is also home to a large warehouse.



DR1: Increased wear and tear and risk of acute damage to Port sites and assets

Exposure to projected increases in heavy and extreme acute weather events – such as rainfall, wind, and compound storm system events, which are expected to intensify in severity, frequency, duration, and spatial extent – is likely to place growing physical stress on most Port Group sites and assets. Elevated wind loading, moisture ingress, corrosion, and prolonged humidity exposure are expected to accelerate wear and tear on vulnerable structures. In more severe cases, there could be acute damage to one or more critical Port assets.



Key risk parameters	Elements at risk Sites/assets/operations (as applicable)	Current and anticipated impacts Prior to management response and by scenario	Response and outcomes Transition measures (existing and planned)						
<p>Hazard type: Acute climate hazards Time horizon: Medium to long-term Risk type: Physical</p> <p>Materiality: Asset loss or impairment (particularly at Tauranga sites, where most capital value is concentrated) could materially affect the Group’s financial position through reinstatement capex, write-offs, accelerated depreciation, and valuation impacts. High-value asset concentration at a few sites heightens the potential for a single event to have a disproportionate effect.</p> <p>Basis and methods:</p> <ul style="list-style-type: none"> • NIWA downscaled CMIP6 datasets for SSP1-2.6, SSP2-4.5, SSP3-7.0. • Site level historical observations and records (as applicable). • Spatial exposure mapping carried out for assets at each Port site, using hazard layers from NIWA’s CMIP6 projections. <p>Confidence level:</p> <ul style="list-style-type: none"> • <i>Exposure mapping:</i> High • <i>Impact assessment:</i> Medium <p>Notable linkages and amplifiers:</p> <ul style="list-style-type: none"> • Chronic risks currently assessed as immaterial (e.g. wetter winters, drier summers, temperature and groundwater rise; see p. 21 of the Port’s FY2024 disclosure) may amplify DR1 impacts by increasing compound-hazard exposure, reducing building resilience, and raising loss severity and cumulative costs. • Insurance retreat, also currently assessed as immaterial (see p. 23 of FY2024 disclosure), may also shift a larger share of DR1 acute loss and recovery costs to the Port. 	<p>Across all Port Group sites – as well as all JV-owned sites:</p> <ul style="list-style-type: none"> • Buildings (e.g. wharf sheds, office, coldstore, prefab amongst others). • Wharves and structures. • Pavements, hardstand areas, and other ground improvements. • Utilities and services. • Plant and equipment (e.g. cranes, straddle carriers, marine fleet). <p>Port Group sites include: Port of Tauranga (Sulphur Point, Mount Maunganui Wharf), Gateside Auckland, MetroPort Christchurch and Timaru Container Terminal.</p> <p>JV-owned sites include: Northport Group (Marsden Point), Ruakura Inland Port and PrimePort Timaru.*</p> <p><i>*Aggregate asset capital values are low relative to the Port Group sites, with most value concentrated in resilient hardstanding and wharf infrastructure. Building values are immaterial. Most Northport buildings are moveable prefabricated structures.</i></p>	<p>Current impacts: No material change since FY2024. Historical exposure to heavy and extreme acute climate events has shown that assets and infrastructure across all Port Group and JV-owned sites retain a high level of inherent resilience. Cyclone Gabrielle caused no notable acute damage, while a rare tornado event within the past decade caused only minor roof damage to two sheds. Extreme events remain infrequent.</p> <p>Anticipated impacts: Across all Port scenarios projected increases in the severity, frequency, duration, and spatial extent of acute climate hazard events (e.g. heavy and extreme wind, rain, flooding, and storm events) are expected to expose Port assets and infrastructure to greater levels of physical stress. In the absence of risk-informed adaptation planning and management, potential impacts arising from exposure to the above may include:</p> <ul style="list-style-type: none"> • Accelerated wear and tear (especially to roof systems, façades, and external plant from more frequent and intense environmental loading), which may reduce the expected useful life of affected assets and infrastructure. • Higher likelihood of acute asset damage, particularly for large-span or wind-sensitive buildings. • Longer duration events, which can increase severity and extent of damage incurred. <p>Based on the rate at which physical impacts are projected to increase under the NIWA downscaled CMIP6 datasets (“NIWA Modelling”), material impacts arising from DR1 are not anticipated until after 2040 (i.e. late medium to long-term) across all Port climate scenarios³. In addition, the potential impacts outlined above are only expected to reach levels that could materially affect the Port under its Hothouse (SSP3-7.0) scenario, and possibly under its Disorderly (SSP2-4.5) scenario over these longer time horizons.</p> <p>In each case, the assessed levels of potential risk under each Port climate scenario rely on the greater rates at which the severity, frequency, and duration of the relevant acute events are projected to intensify, potentially exceeding the resilience that available adaptive measures can provide⁴.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px 5px;">Orderly (SSP1-2.6)</td> <td style="text-align: center;">  </td> </tr> <tr> <td style="padding: 2px 5px;">Disorderly (SSP2-4.5)</td> <td style="text-align: center;">  </td> </tr> <tr> <td style="padding: 2px 5px;">Hothouse (SSP3-7.0)</td> <td style="text-align: center;">  </td> </tr> </table> </div>	Orderly (SSP1-2.6)		Disorderly (SSP2-4.5)		Hothouse (SSP3-7.0)		<p>Current response: Over the past five years the Port has been assessing and building the evidence base for its asset and site resilience (with regard to sea-level rise, stormwater and servicing infrastructure and/or flooding).</p> <p>Development decisions pre-1990s established a good baseline of inherent resilience in current assets, and the Port continues to assess, plan and invest accordingly for future resilience.</p> <p>Transition objectives: Robust and resilient infrastructure fit for a changing climate.</p> <p>Near-term priorities:</p> <ul style="list-style-type: none"> • All future infrastructure developments are designed to take into account the impacts from expected climate change and ensure long-term resilience. • Continue to build the Port’s evidence-base and monitoring, including identifying and addressing any further gaps in impact and risk monitoring and research. This is part of and is supported by ensuring CRROs and transition activities are well-integrated with risk and strategic management frameworks and practice. • Outline consistent expectations for subsidiaries to align with objectives for resilient, future-ready infrastructure. <p>Short to medium-term goals:</p> <ul style="list-style-type: none"> • The Port’s infrastructure vision, investment and planning ensures climate resilience.
Orderly (SSP1-2.6)									
Disorderly (SSP2-4.5)									
Hothouse (SSP3-7.0)									

DR3: Heightened risk of flood-related damage and disruption

Exposure to projected sea level rise (SLR), combined with projected increases in heavy and extreme rainfall, wind, and compound storm systems (in terms of severity, frequency, duration, and spatial extent), is expected to increase the severity, footprint, frequency, and duration of pluvial and coastal flooding at relevant Port sites. These secondary flood hazards can damage pavements, buildings, utilities, and other infrastructure, and cause temporary loss of operational areas until clean-up, inspection, and repairs are completed.

KEY | **Impact rating:** Climate-related risks

■ Low
 ■ Moderate
 ■ High
 ■ Extreme

Key risk parameters	Elements at risk Sites/assets/operations (as applicable)	Current and anticipated impacts Prior to management response and by scenario	Response and outcomes Transition measures (existing and planned)						
<p>Hazard type: Acute climate hazards Time horizon: Long-term Risk type: Physical</p> <p>Materiality: Flood-related asset damage or operational outages – especially at Tauranga, where most capital value and revenue are concentrated – could materially affect financial performance through write-downs, reinstatement capex, or sustained throughput loss. Sustained outages at these sites could also raise cost-to-serve and degrade service levels, while outages at other Group or JV-owned sites could still be material through network effects and customer commitments.</p> <p>Basis and methods: As per DR1 for asset exposure and vulnerability assessment, and as per DR2 for mapping and qualitatively modelling direct and indirect operational impacts. Assessment included consideration of known operational response and adaptation measures when identifying and evaluating anticipated outcomes.</p> <p>Confidence level:</p> <ul style="list-style-type: none"> Exposure mapping: High Impact assessment: Medium <p>Notable linkages and amplifiers:</p> <ul style="list-style-type: none"> Disruptions under DR2 (“Increasing disruption to Port operations”) and DR4 (“Road/rail access disruption”) may compound DR3 impacts if events coincide or cluster. DR1 Increased wear and tear may also render some assets more vulnerable to impacts under DR3. 	<p>All Port Group sites – as well as all JV-owned sites⁵:</p> <ul style="list-style-type: none"> Buildings (e.g. wharf sheds, office, coldstore, prefab amongst others). Pavements, hardstand areas, and other ground improvements. Utilities and services. Plant and equipment (e.g. cranes, straddle carriers, marine fleet). <p>Operations: All operations that depend on access to and use of materially-affected Port Group, JV and part-owned assets and sites.</p> <p>Exposed Port Group sites include: Port of Tauranga (Sulphur Point and Mount Maunganui Wharf); Timaru Container Terminal.</p> <p>Based on current flood maps, Gateside Auckland is not materially exposed over the relevant timeframes (i.e. out to 2080).</p> <p>Exposed JV-owned sites include: Northport Group (Marsden Point); and PrimePort Timaru.</p>	<p>Current impacts: No material change since FY2024. Extreme rain events have produced occasional, localised surface ponding that clears quickly via site drainage. There are no recorded instances to date of pluvial or coastal flooding causing material damage or operational outages across all listed sites.</p> <p>Anticipated impacts: Exposure to projected increases in pluvial flooding (when rainfall exceeds site and network drainage capacity and/or high storm-tide levels restrict stormwater outfall); and coastal flooding (when elevated sea levels from sea level rise, storm surge, and wind-driven waves push water onto land) is generally limited to discrete low-lying areas across exposed sites:</p> <ul style="list-style-type: none"> Port of Tauranga: Exposure is limited to small low-lying pockets at the southern end of Sulphur Point, where a few older flood-resilient buildings that are likely to be removed/replaced within the relevant timeframe are located, as well as parts of the Mount Maunganui Wharf log storage apron. Coastal inundation in these areas is only plausible from the mid to late-century under Hothouse (SSP3-7.0) and late-century under Disorderly (SSP2-4.5). Northport: Limited peripheral fringes with no notable assets or operational usage (coastal flooding) and small sections of log, woodchip, and container storage areas (pluvial flooding), are projected to be exposed under all three emissions pathways, particularly in the long-term. Timaru (Timaru Container Terminal and PrimePort): Material exposure exists under current conditions at both sites, with climate change projected to increase flood frequency and depth rather than the exposed footprint. <p>Port of Tauranga impacts are expected to be confined to instances of comparatively minor damage, clean up, and additional maintenance. Due to the more exposed nature of PrimePort, there is greater potential for more significant impacts, depending on the severity of the event. At Northport, impacts are expected to be confined to minor pavement and hardstand damage of the kind noted above, and limited operational disruption that is not expected to generate meaningful knock-on effects⁶.</p> <div style="background-color: #e8f5e9; padding: 10px; margin-top: 10px;"> <table border="0"> <tr> <td style="padding-right: 10px;">Orderly (SSP1-2.6)</td> <td style="text-align: center;">  </td> </tr> <tr> <td style="padding-right: 10px;">Disorderly (SSP2-4.5)</td> <td style="text-align: center;">  </td> </tr> <tr> <td style="padding-right: 10px;">Hothouse (SSP3-7.0)</td> <td style="text-align: center;">  </td> </tr> </table> </div>	Orderly (SSP1-2.6)		Disorderly (SSP2-4.5)		Hothouse (SSP3-7.0)		<p>Current response: The Port has demonstrated good capacity to manage potential operational disruptions, and has mitigation strategies and controls in place. This enables it to deploy a range of adaptation measures and additional hazard controls identified under all Port scenarios.</p> <p>Transition objectives: Ensure robust and resilient infrastructure fit for a changing climate, and:</p> <ul style="list-style-type: none"> Support our workforce, stakeholders and communities. Remain adaptive and responsive as the transition unfolds. <p>Near-term priorities:</p> <ul style="list-style-type: none"> Priorities include future infrastructure developments, evidence-base and monitoring, and climate-related risk and transition activity integration across business continuity, emergency response and workforce planning. <p>Regarding servicing infrastructure:</p> <ul style="list-style-type: none"> A detailed examination of the impact sea level rise may have on the Tauranga and Auckland site’s stormwater systems. Continuing to monitor stormwater system performance, as and when heavy and extreme rainfall events arise. Review and monitor the effect of sea level rise on the harbour and work with key stakeholders when planning and executing future harbour access maintenance. <p>Subsidiaries and JVs:</p> <ul style="list-style-type: none"> Outline consistent expectations for subsidiaries to align with objectives for resilient, future-ready infrastructure. Engage the wider Group on ambition and objectives, and expectations that they align their own organisations with the Port. <p>Short to medium-term goals:</p> <ul style="list-style-type: none"> The Port’s infrastructure vision, investment and planning ensures climate resilience. Group-wide commitment to managing and responding to climate-related risks and opportunities. Deliver long-term value and provide superior customer service.
Orderly (SSP1-2.6)									
Disorderly (SSP2-4.5)									
Hothouse (SSP3-7.0)									

DR4: Increasing risk of disruption to road and rail access

Projected sea level rise (SLR), together with projected increases in heavy and extreme rainfall, wind, and compound storm systems (in terms of severity, frequency, duration, and spatial extent), is expected to increase the severity, footprint, frequency, and duration of pluvial, fluvial, and coastal flooding, coastal erosion and slopes/land instability (as applicable) across key port landside access corridors. These secondary hazards may result in more frequent and prolonged interruptions to landside access where key road or rail links are temporarily rendered impassable by damage.

KEY | **Impact rating:** Climate-related risks

■ Low ■ Moderate ■ High ■ Extreme

Key risk parameters	Elements at risk Sites/assets/operations (as applicable)	Current and anticipated impacts Prior to management response and by scenario	Response and outcomes Transition measures (existing and planned)								
<p>Hazard type: Acute climate hazards Time horizon: Medium to long-term Risk type: Physical</p> <p>Materiality: Loss of road or rail access, particularly to Tauranga sites (which handle most Group revenue), could restrict cargo movements, potentially reducing throughput, increasing costs, and lowering service reliability. Repeated and/or sustained outages at these sites may have the greatest impact, while extended access disruption at other Group, JV, or third party sites used by the Group could still be commercially material through network effects and impacts on customer commitments.</p> <p>Basis and methods: As per DR1 for mapping road and rail access corridor exposure to flood hazards, and as per DR2 for qualitatively modelling direct and indirect operational impacts, focusing on how access disruptions could affect dependent or critical-path operations. Known adaptation measures, including alternative routing and scheduling adjustments, were also considered when evaluating anticipated outcomes.</p> <p>Confidence level:</p> <ul style="list-style-type: none"> • <i>Exposure mapping:</i> High • <i>Impact assessment:</i> High <p>Notable linkages and amplifiers: Disruptions under DR2 ("Increasing disruption to Port operations") and DR3 ("Flood-related damage") may compound DR4 impacts if events coincide or cluster.</p>	<p>The following operations are critical functions and their disruption could affect other dependent, critical-path operations at affected sites (listed below):</p> <ul style="list-style-type: none"> • Primary operations at risk: Rail and road freight ingress and egress at each relevant Port site; and • Secondary operations at risk: Other port operations dependent on timely landside access, including receiving, dispatching, marshalling, and loading/unloading vessels, particularly where disruption occurs during critical timing windows for intermodal transfers. <p>Port Group sites include: Port of Tauranga (Sulphur Point and Mount Maunganui Wharf); and Timaru Container Terminal.</p> <p>JV-owned sites include: PrimePort, Timaru; Northport Group (Marsden Point) and the Ruakura Inland Port.</p> <p>Other site of note: MetroPort Auckland. Although not owned or operated by the Port Group, MetroPort is a key inland port and intermodal hub that enables large volumes of containerised freight from the Auckland area to enter and exit New Zealand via Tauranga. Disruption to this site or its rail connection with Tauranga could significantly affect the efficiency and capacity of these flows.</p>	<p>Current impacts: Acute hazards such as heavy rain, flooding, and landslides occasionally disrupt road and rail access (e.g. 2023 Te Puke derailment and SH1 Brynderwyn Hills closure during Cyclone Gabrielle, 2021 closures of the main rail line south of Timaru), but have not materially impacted the Port to date.</p> <p>Anticipated impacts: Across all Port scenarios, key road and rail corridors are expected to face greater exposure to pluvial, fluvial, and coastal flooding, coastal erosion and landslides. This is likely to increase the frequency and duration of landside access disruptions. Depending on event severity and the effectiveness of the Port's adaptation response, such disruptions may delay or interrupt downstream activities such as vessel loading/unloading, marshalling, yard clearance, and intermodal transfers, with flow-on effects for customers possible.</p> <p>Exposure to DR4 varies across Port sites – e.g. rail links servicing Tauranga and Timaru sites include sections that are highly exposed or vulnerable to one or more of the acute hazards above, increasing the potential for disruption. In particular:</p> <ul style="list-style-type: none"> • Tauranga: sections of the East Coast (EC) and North Island (NI) main trunk lines, the latter linking MetroPort Auckland to Ruakura and the EC line at Hamilton. • Timaru: serviced by the Main South (Rail) Line and port spur, with KiwiRail mapping identifying vulnerable stretches north and south of Port sites. <p>Port-adjacent roads are exposed to pluvial flooding at all sites; coastal flooding at Sulphur Point, Mount Maunganui Wharf, and Timaru (see DR3); and at Northport Group the Marsden Point Highway is exposed to fluvial flooding while the Brynderwyns corridor is prone to closure during extreme events.</p> <p>Across all Port scenarios, operational disruptions are expected to remain manageable in the short-term, consistent with NIWA hazard trajectories outlined at DR1. Post-2040, however, Hothouse and, to a lesser extent, Disorderly scenarios may see accelerating acute events drive more frequent, severe, and prolonged disruptions, making it more difficult to recover before customers are materially affected (e.g. in a manner that could see freight volumes re-directed to another port). This risk increases if road and rail access are simultaneously compromised – a dual outcome more likely under these higher-emission scenarios.</p> <div data-bbox="842 1238 1447 1385"> <table border="1"> <thead> <tr> <th>Scenario</th> <th>Impact Rating</th> </tr> </thead> <tbody> <tr> <td>Orderly (SSP1-2.6)</td> <td>Low</td> </tr> <tr> <td>Disorderly (SSP2-4.5)</td> <td>Moderate</td> </tr> <tr> <td>Hothouse (SSP3-7.0)</td> <td>High</td> </tr> </tbody> </table> </div>	Scenario	Impact Rating	Orderly (SSP1-2.6)	Low	Disorderly (SSP2-4.5)	Moderate	Hothouse (SSP3-7.0)	High	<p>Current response: The Port has inherent resilience to physical risks in current assets and operational capacity to manage disruptions. It continues to assess, plan and invest accordingly for future resilience, and develop disruption mitigation strategies and controls.</p> <p>Corridor re-routing options and redundancies, and the Port's strategic network position, further supports short-term management of road and rail disruption.</p> <p>Transition objectives: Ensure robust and resilient infrastructure fit for a changing climate, and:</p> <ul style="list-style-type: none"> • Support our workforce, stakeholders and communities. • Remain adaptive and responsive as the transition unfolds. <p>The Port also endeavours to provide New Zealand shippers with the lowest emissions supply chain, including the use of rail over road and accommodating larger, lower emission ships.</p> <p>Near-term priorities:</p> <ul style="list-style-type: none"> • Future infrastructure developments, evidence-base and monitoring, and climate-related risk and transition activity integration across business continuity, emergency response and workforce planning. <p>Regarding the wider network:</p> <ul style="list-style-type: none"> • Complete the Stella Passage project as part of the Port's vision for an integrated, efficient, cost-effective and resilient Upper North Island supply chain involving the region's existing three sea ports – Tauranga, Auckland and Northport. • Champion investment in resilient transport networks, particularly rail, supported by development of evidence-base with key stakeholders. <p>Servicing infrastructure:</p> <ul style="list-style-type: none"> • Continue to engage with key decision-makers on the strategic importance of the Port as a lifeline utility. Share knowledge and insights on climate-related risk where relevant, to drive awareness and enhance the importance of adequate investment. <p>Short to medium-term goals:</p> <ul style="list-style-type: none"> • Integrated, efficient, cost-effective and resilient supply chains for New Zealand. • Targeted and timely investment in key infrastructure to support a low-emissions and climate resilient supply chain.
Scenario	Impact Rating										
Orderly (SSP1-2.6)	Low										
Disorderly (SSP2-4.5)	Moderate										
Hothouse (SSP3-7.0)	High										

DR5: Risk to harbour access, wharves, and loading/unloading capability

Exposure of Port Group and JV-owned coastal sites to projected sea level rise (SLR) and any resulting permanent tidal inundation it causes, could compromise vessel access to wharves and/or navigation through applicable harbour entry points and channels (e.g. due to silt build-up linked to altered tidal flows and sedimentation caused by SLR). The extent and timing of these impacts will also be influenced by location-specific vertical land movement (VLM), which can amplify or offset relative SLR outcomes at each site.

KEY | **Impact rating:** Climate-related risks
■ Low ■ Moderate ■ High ■ Extreme

Key risk parameters	Elements at risk Sites/assets/operations (as applicable)	Current and anticipated impacts Prior to management response and by scenario	Response and outcomes Transition measures (existing and planned)						
<p>Hazard type: Acute climate hazards Time horizon: Medium to long-term Risk type: Physical</p> <p>Materiality: Seal-level rise (SLR) and permanent tidal inundation at each coastal site could require major adaptation during scheduled renewals to maintain full operability (e.g. wharf height increases, additional dredging, and seawall protection upgrades). While existing freeboard and renewal cycles make this risk manageable, the cost of DR5-related adaptation works would likely be significant.</p> <p>Basis and methods: As per DR3 for mapping exposure of coastal sites to SLR and resulting permanent tidal inundation, excluding temporary coastal flooding. VLM was factored in as a potential amplifier or offset to relative SLR. Operational impacts were evaluated in terms of potential constraints on berthing, loading/unloading windows, and navigation.</p> <p>Confidence level:</p> <ul style="list-style-type: none"> Exposure mapping: High Impact assessment: Moderate – no site-specific assessment of potential sedimentation and scouring impacts under each Port scenario to rely on. <p>Notable linkages and amplifiers: More frequent and intense rainfall, wind, and storm events may amplify sedimentation, especially where channels are also exposed to fluvial inputs.</p>	<p>All coastal Port Group and JV-owned sites: Most buildings, infrastructure and other improvements to land assets at each of the coastal sites listed below are exposed to full or partial stranding if wharf and/or harbour access is materially compromised and full capacity cannot be restored (e.g. via investment in relevant adaptation measures).</p> <p>Port Group sites include: Port of Tauranga (Sulphur Point, Mount Maunganui Wharf); and Timaru Container Terminal.</p> <p>JV-owned sites include: Northport Group (Marsden Point) and PrimePort Timaru.</p>	<p>Current impacts: No change since FY2024. All listed sites have more than adequate wharf freeboard and no current constraints on vessel access. Tauranga and Timaru have stable approach channels and no access issues, with routine maintenance dredging in Tauranga and scheduled dredging at Timaru maintaining safe depths. Northport’s naturally deep approach supports current operations.</p> <p>Anticipated impacts: As noted in FY2024, wharf freeboard is not expected to create operational constraints, as projected levels at all sites remain well above thresholds for vessel access and safe loading/unloading, even under Hothouse (SSP3-7.0) long-term. On this basis, potential material impacts that could arise as a result of Port coastal site exposure to DR5 are expected to be confined to:</p> <ul style="list-style-type: none"> Reduced channel/harbour navigability: SLR-driven changes in tidal dynamics and increased fluvial sediment delivery during heavy and extreme rainfall events may raise the chance of sediment build-up in port approaches and channels, potentially reducing effective depth/width. Improved channel/harbour navigability: SLR lifts mean water levels, increasing under-keel clearance and, by enlarging the tidal water volume, can in some settings (e.g. constricted harbour entrances) increase current velocities and promote scouring, maintaining or increasing effective depth/width. <p>Compromised channel navigability could cause secondary impacts, such as the need for increased dredging frequency and/or volumes to maintain access. Expanded dredging typically requires resource consent. Consent refusal could constrain future capability and capacity (e.g. by requiring tidal window changes or draught restrictions), while approval would primarily result in pass-through costs.</p> <p>Modelling of SLR-driven tidal dynamics and sediment mobilisation at each site is challenging and beyond the scope of this disclosure. Accordingly, scenario impacts are framed using projected site-level SLR medians only and the general rule of thumb that the likelihood of change beyond baseline increases with the magnitude of SLR. On this basis, there is a lower indicative prospect of material impacts under Orderly, given the much smaller projected rise. By contrast, under Disorderly and Hothouse longer term, higher projected SLR volumes create a greater potential for altered sedimentation and/or scouring at some or all sites⁷, which may increase or decrease navigability depending on local conditions and the effectiveness of future maintenance/dredging. However, further site-specific assessment is required to establish the likely direction of impacts for each Port site⁸.</p> <div style="background-color: #e0f2f1; padding: 10px; margin-top: 10px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;">Orderly (SSP1-2.6)</td> <td style="text-align: center; padding: 5px;">  </td> </tr> <tr> <td style="padding: 5px;">Disorderly (SSP2-4.5)</td> <td style="text-align: center; padding: 5px;">  </td> </tr> <tr> <td style="padding: 5px;">Hothouse (SSP3-7.0)</td> <td style="text-align: center; padding: 5px;">  </td> </tr> </table> </div>	Orderly (SSP1-2.6)		Disorderly (SSP2-4.5)		Hothouse (SSP3-7.0)		<p>Current response: Assessment and planning for all potential eventualities, with further site-specific studies to be commissioned as required (e.g. a trigger event makes this prudent). This enables adjustments to existing maintenance dredging programmes as required.</p> <p>Transition objectives: Robust and resilient infrastructure fit for a changing climate.</p> <p>Near-term priorities:</p> <ul style="list-style-type: none"> The Port will continue to review and monitor the effect of sea level rise on the harbour and work with key stakeholders when planning and executing future harbour access maintenance. All future infrastructure developments are designed to take into account the impacts from expected climate change and ensure long-term resilience. While the likelihood of sea level rise impacting ship access to Port wharves is low, this issue will be given careful consideration when planning future wharf upgrades to ensure any prudent adaptation measures are incorporated into wharf extension and upgrades. Both the above are part of and supported by, ensuring CRROs and transition activities are well-integrated with risk and strategic management frameworks and practice. <p>Short to medium-term goals:</p> <ul style="list-style-type: none"> The Port’s infrastructure vision, investment and planning ensures climate resilience.
Orderly (SSP1-2.6)									
Disorderly (SSP2-4.5)									
Hothouse (SSP3-7.0)									

DO1: Structural changes to New Zealand’s national freight system (road to multi-modal)

Exposure of Port Group and JV-owned coastal sites, assets and operations to a range of transition drivers focused on decarbonising heavy transport and strengthening network resilience, is expected to result in: an increasing share of inter-regional freight mode-shifting from road freight to rail and coastal shipping (i.e. integrated multi-modal freight system); and increasing movement towards a hub-and-spoke port network model, driven in part by the above mode-shift and potentially by DO2 (“Introduction of larger low-carbon shipping vessels”).

KEY | **Impact rating:** Climate-related opportunities
■ Material ■ High ■ Very high

Key risk parameters	Elements at risk Sites/assets/operations (as applicable)	Current and anticipated impacts Prior to management response and by scenario	Response and outcomes Transition measures (existing and planned)									
<p>Transition drivers: Cumulative effect of various policy, market, technology and public sentiment-based transition drivers likely to inform the relevant changes to the national freight system.</p> <p>Time horizon: Medium to long-term</p> <p>Risk type: Physical</p> <p>Materiality: Outcomes described in DO1 would materially reshape the Port’s role in New Zealand’s freight system, influencing both the scale and mix of cargo handled across Port Group and JV-owned sites, with flow-on implications for asset utilisation, infrastructure investment, and long-term revenue.</p> <p>Basis and methods: Anticipated impacts are derived from structured scenario analysis using SSP-RCP archetypes (Orderly SSP1-2.6, Disorderly SSP2-4.5 and Hothouse SSP3-7.0), aligned with NIWA climate projections, and sector scenarios. Analysis applies ISO 14091/14090 methods to assess directional shifts. Outcomes are qualitative and indicative, reflecting plausible variations in exposure, as well as market conditions and responses, rather than deterministic forecasts.</p> <p>Confidence level:</p> <ul style="list-style-type: none"> <i>Exposure mapping:</i> High (all sites likely to be exposed if the anticipated drivers materialise as projected under each climate scenario pathway). <i>Impact assessment:</i> Moderate (outcomes described are a product of complex systems and subject to a high degree of uncertainty). <p>Notable linkages and amplifiers: Outcomes under DO2 are also expected to catalyse/drive outcomes under DO1.</p>	<p>All assets and operations across the Port Group and JV network, which includes:</p> <ul style="list-style-type: none"> Port of Tauranga (rail links to Hamilton, Auckland and central North Island) Northport Group (deep water port) Gateside and MetroPort Auckland (inland port with rail links to Tauranga and Hamilton) Ruakura Inland Port (rail link to Tauranga and Auckland) MetroPort Christchurch (freight hub with rail links to Timaru Container Terminal and rest of South Island) Timaru Container Terminal, and PrimePort Timaru (road and rail links). <p>Port Group sites include: Port of Tauranga (Sulphur Point, Mount Maunganui Wharf); Gateside Auckland; MetroPort Christchurch; and Timaru Container Terminal.</p> <p>JV-owned sites include: Northport Group (Marsden Point); Ruakura Inland Port; and PrimePort Timaru.</p> <p>Other site of note: MetroPort Auckland. Although not owned or operated by the Port Group, MetroPort is a key inland port and intermodal hub that enables large volumes of containerised Auckland freight to enter and exit New Zealand via Tauranga.</p>	<p>Current impacts: Largely as outlined in the Port’s FY2024 disclosure, with some additional transition drivers (primarily new or adjusted policy measures) also emerging in the intervening period. Still no material impacts observed to date.</p> <p>Anticipated impacts: Varying rates of freight mode shift are expected across all three of the Port climate scenarios, driven mainly by carbon-reduction priorities under its Orderly and Disorderly pathways over the short to medium-term, and by mostly adaptation/resilience-focused priorities under Hothouse in the medium to long-term (with some adaptation influence also present under Disorderly).</p> <p>As outlined in the Port’s FY2024 climate-related disclosure, the resulting shifts from road to an integrated multi-modal rail/coastal shipping/road system anticipated under each scenario are expected to increase export and import freight volumes handled by Port sites, due to⁹:</p> <ul style="list-style-type: none"> Tauranga’s role as New Zealand’s main international hub port, a strategic position that the Port expects to maintain and strengthen over time. Its strategic network of inland ports and multi-modal freight hubs across New Zealand, which provide a high level of existing connectivity to key rail and road corridors; and Its strategic links to part-owned regional ports such as Northport, PrimePort and Timaru Container Terminal. <p>As the national freight system becomes increasingly multi-modal, efficiencies of scale (e.g. lower emissions per TEU and lower transport infrastructure resilience costs) are expected to drive consolidation towards a hub-and-spoke national port network, with major hubs such as Port of Tauranga handling more international trade and regional ports pivoting towards a feeder role.</p> <p>While precise rates of mode shift and progression towards a hub-and-spoke model are difficult to forecast, the SSP transition pathways underpinning each Port scenario (which informed the timing, pace, and drivers of change outlined above) together with Transport Sector Scenario mode-shift projections, provide the best available guide. On this basis, the timing and extent of anticipated changes are expected to be greatest and earliest under the Orderly pathway, more uneven, delayed and possibly more muted under Disorderly, as well as slower and largely resilience-driven under Hothouse⁹.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Orderly (SSP1-2.6)</td> <td style="padding: 2px;">No impact</td> <td style="padding: 2px;"><div style="width: 100%; height: 10px; background: linear-gradient(to right, #92D050, #2E8B57, #006400);"></div></td> </tr> <tr> <td style="padding: 2px;">Disorderly (SSP2-4.5)</td> <td style="padding: 2px;">No impact</td> <td style="padding: 2px;"><div style="width: 100%; height: 10px; background: linear-gradient(to right, #2E8B57, #006400);"></div></td> </tr> <tr> <td style="padding: 2px;">Hothouse (SSP3-7.0)</td> <td style="padding: 2px;">No impact</td> <td style="padding: 2px;"><div style="width: 100%; height: 10px; background: linear-gradient(to right, #92D050, #2E8B57, #006400);"></div></td> </tr> </table> </div>	Orderly (SSP1-2.6)	No impact	<div style="width: 100%; height: 10px; background: linear-gradient(to right, #92D050, #2E8B57, #006400);"></div>	Disorderly (SSP2-4.5)	No impact	<div style="width: 100%; height: 10px; background: linear-gradient(to right, #2E8B57, #006400);"></div>	Hothouse (SSP3-7.0)	No impact	<div style="width: 100%; height: 10px; background: linear-gradient(to right, #92D050, #2E8B57, #006400);"></div>	<p>Current response: Assessment and planning for all potential eventualities, with further site-specific studies to be commissioned as required (e.g. a trigger event makes this prudent). This enables adjustments to existing maintenance dredging programmes as required.</p> <p>Transition objectives: Robust and resilient infrastructure fit for a changing climate, and providing New Zealand exporters with the lowest emissions supply chain.</p> <p>Near-term priorities: The Port will continue to invest in the capability to accommodate larger vessels as the hub-and-spoke model emerges, including:</p> <ul style="list-style-type: none"> Complete the planned Sulphur Point wharf extension project, which will provide the container terminal with additional berth capacity to cater for the expected growth in coastal shipping and vessels larger than 12,000 TEU. Complete the second stage of capital dredging to cater for the larger vessels expected to cascade into the Oceania shipping network. <p>All future infrastructure developments are designed to take into account the impacts from expected climate change and ensure long-term resilience.</p> <p>Short to medium-term goals:</p> <ul style="list-style-type: none"> The Port’s infrastructure vision, investment and planning ensures climate resilience.
Orderly (SSP1-2.6)	No impact	<div style="width: 100%; height: 10px; background: linear-gradient(to right, #92D050, #2E8B57, #006400);"></div>										
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DO2: Introduction of larger low-carbon shipping vessels

Exposure of the global shipping sector to transition drivers aimed at decarbonising international shipping (e.g. EU ETS carbon pricing, the potential International Maritime Organisation Net-Zero Framework, uptake of alternative fuel technologies, and growing supply chain pressure to cut embodied emissions) are expected to drive deployment of larger, lower-emission vessels to New Zealand, which the Port is able to readily accommodate. As other ports currently face certain constraints which may limit their ability to do the same, greater freight volumes may be channelled through the Port of Tauranga as a result.

KEY | **Impact rating:** Climate-related opportunities

■ Material ■ High ■ Very high

Key risk parameters	Elements at risk Sites/assets/operations (as applicable)	Current and anticipated impacts Prior to management response and by scenario	Response and outcomes Transition measures (existing and planned)								
<p>Transition drivers: Cumulative effect of various policy, market, technology and public sentiment-based transition drivers that are expected to directly and indirectly mandate and incentivise the decarbonisation of international shipping.</p> <p>Time horizon: Medium to long-term</p> <p>Risk type: Physical</p> <p>Materiality: Interacting outcomes with potential structural changes to New Zealand’s national freight system (road to multi-modal) impact DO2 and would materially reshape the role and cargo handled across the Port Group.</p> <p>Basis and methods: Anticipated impacts are derived from structured scenario analysis using SSP-RCP archetypes (SSP1-2.6 for Orderly, SSP2-4.5 Disorderly, and SSP3-7.0 Hothouse), aligned with NIWA climate projections, and sector scenarios. Analysis applies ISO 14091/14090 methods to assess directional shifts. Outcomes are qualitative and indicative, reflecting plausible variations in exposure, as well as market conditions and responses, rather than deterministic forecasts.</p> <p>Confidence level:</p> <ul style="list-style-type: none"> <i>Exposure mapping:</i> High (all sites likely to be exposed if the anticipated drivers materialise as projected under each climate scenario pathway). <i>Impact assessment:</i> Moderate (outcomes described are a product of complex systems and subject to a high degree of uncertainty). <p>Notable linkages and amplifiers:</p> <ul style="list-style-type: none"> Changes anticipated under DO1 may strengthen the business case for earlier or faster deployment of larger low-emission vessels on Oceania shipping routes. Their lower average emissions per TEU, combined with rising pressure on importers and exporters to cut supply chain emissions, may accelerate freight volumes through Tauranga as a hub port. Outcomes under IDR3 (reduced dairy demand) and drivers under IDR4 (CBAM and climate regulation impacts) could further reinforce this shift, as exports increasingly face financial consequences for shipping emissions. 	<p>All operations across the Port Group and broader JV network, especially those associated with:</p> <ul style="list-style-type: none"> International cargo handling: e.g. loading and unloading of imports and exports via larger vessels. Transshipping: coastal shipping to and from regional ports unable to accommodate larger international vessels (e.g. due to ship access/draught and/or other access or wharfside constraints). Wider business operations: benefits from increased freight flows across all coastal and inland Port sites. <p>Port Group sites include: Port of Tauranga (Sulphur Point, Mount Maunganui Wharf); Gateside Auckland; MetroPort Christchurch; and Timaru Container Terminal.</p> <p>JV-owned sites include: Northport Group (Marsden Point); Ruakura Inland Port; and PrimePort Timaru.</p> <p>Other site of note: MetroPort Auckland. Although not owned or operated by the Port Group, MetroPort is a key inland port and intermodal hub that enables large volumes of containerised Auckland freight to enter or exit New Zealand via Tauranga.</p>	<p>Current impacts: Largely as outlined in the Port’s FY2024 report. The majority of new vessels entering service are larger and lower emission ships. However, such vessels are yet to be deployed to routes servicing the Port of Tauranga.</p> <p>Anticipated impacts: Eventual deployment of larger and lower emission vessels to routes servicing the Port of Tauranga is expected across all three of the Port climate scenarios. As with DO1, this is driven mainly by:</p> <ul style="list-style-type: none"> Carbon-reduction priorities under the Port’s Orderly and Disorderly pathways in the short to medium-term, especially if recent policy changes that impose carbon pricing measures on shipping emissions become common place across more trading partners. Adaptation/resilience-focused priorities under its Hothouse pathway in the medium to long-term (e.g. motivated by energy security and cost pressures, including increased supply chain disruptions from physical climate impacts and rising geopolitical tensions). <p>As outlined in the Port’s FY2024 report, this is expected to:</p> <ul style="list-style-type: none"> Increase the volume of international freight moved via the Port of Tauranga and its broader strategic network, due to its current and future capability to accommodate large vessels. Increase the rate of mode shift to coastal shipping (i.e. as regional ports unable to accommodate larger vessels become feeder ports). <p>While precise rates of larger and lower emission vessel deployment to New Zealand routes is difficult to forecast, SSP transition pathways underpinning each Port scenario (which informed the timing, pace, and drivers of change outlined above³), alongside the Aotearoa Circle Transport Sector Scenarios², broader sector insights³, and real-time data on commissioned builds, provide the best available guide. On this basis, the timing and extent of larger, lower-emission vessels’ deployment to New Zealand routes is expected to be greatest and earliest under the Orderly pathway, more uneven, delayed and possibly more muted under Disorderly, as well as slower and largely resilience-driven under Hothouse^{3d}.</p> <div data-bbox="958 1262 1559 1406"> <table border="1"> <thead> <tr> <th>Scenario</th> <th>Impact Rating</th> </tr> </thead> <tbody> <tr> <td>Orderly (SSP1-2.6)</td> <td>High</td> </tr> <tr> <td>Disorderly (SSP2-4.5)</td> <td>Very High</td> </tr> <tr> <td>Hothouse (SSP3-7.0)</td> <td>Very High</td> </tr> </tbody> </table> </div>	Scenario	Impact Rating	Orderly (SSP1-2.6)	High	Disorderly (SSP2-4.5)	Very High	Hothouse (SSP3-7.0)	Very High	<p>Current response: Assessment and planning for all potential eventualities, with further site-specific studies to be commissioned as required (e.g. a trigger event makes this prudent). This enables adjustments to existing maintenance dredging programmes as required.</p> <p>Transition objectives: Robust and resilient infrastructure fit for a changing climate and providing New Zealand exporters with the lowest emissions supply chain.</p> <p>Near-term priorities:</p> <ul style="list-style-type: none"> The Port will continue to review and monitor the effect of sea level rise on the harbour and work with key stakeholders when planning and executing future harbour access maintenance. Complete the planned Sulphur Point wharf extension project, which will provide the container terminal with additional berth capacity to cater for the expected growth in coastal shipping and vessels larger than 12,000 TEU. Complete the second stage of capital dredging to cater for the larger vessels expected to cascade into the Oceania shipping network. <p>All future infrastructure developments are designed to take into account the impacts from expected climate change and ensure long-term resilience.</p> <p>Short to medium-term goals:</p> <ul style="list-style-type: none"> The Port’s infrastructure vision, investment and planning ensures climate resilience.
Scenario	Impact Rating										
Orderly (SSP1-2.6)	High										
Disorderly (SSP2-4.5)	Very High										
Hothouse (SSP3-7.0)	Very High										

IDR1 (continued): Forestry-specific impacts

KEY | **Impact rating:** Climate-related risks
■ Low ■ Moderate ■ High ■ Extreme

Key risk parameters	Exposure and amplifiers Elements at risk; notable links and amplifiers	Current and anticipated impacts Prior to management response and by scenario	Response and outcomes Transition measures (existing and planned)						
<p>Confidence level:</p> <ul style="list-style-type: none"> <i>Exposure mapping:</i> High – all observations are based on NIWA’s most recent downscaled climate hazard projections, supplemented by sector-specific studies and reports (e.g. MPI, Zespri, Scion, AgFirst) and other peer-reviewed research. <i>Impact assessment:</i> Moderate – all conclusions are grounded in authoritative sources (including those noted under exposure mapping). However, the complexity of biophysical and economic systems limits the precision of third-party modelling. In addition, while some sources (e.g. NIWA) align directly with the SSPs underpinning the Port’s scenarios, others (e.g. MPI, sector reports) do not, requiring extrapolation to map outcomes into each scenario. Consistent with the Port’s basis and methods, outcomes are therefore qualitative and indicative, intended to reflect plausible variations rather than deterministic forecasts – limiting the level of confidence that can reasonably be placed in their accuracy. 	<p>Elements at risk (upstream):</p> <p>IDR1.B: Plantation forestry and other forest product elements at risk include:</p> <ul style="list-style-type: none"> Seedlings and maturing stands Land, soil quality, and stability Water courses and access to water Infrastructure, plant and equipment Roads and site access. <p>Notable linkages and amplifiers:</p> <ul style="list-style-type: none"> As outlined under IDO1: Increased demand for logs and other forestry export commodities and decarbonisation may drive global uptake of value-added timber uses (e.g. biofuels, mass timber, biochemicals), lifting log demand and prices (‘Transition Demand’) and encouraging afforestation that replaces some capacity lost to structural constraints (see IDO1). New Zealand’s Relative Climate Advantage outlined at IDR1.A may also create a similar competitive advantage for forestry, firming demand for New Zealand timber and incentivising continued replanting and afforestation. Increased slash and sediment events may trigger tighter regulation, including retirement of high-risk land from forestry use. Strong mitigation or energy-security drivers could divert residues and lower-grade logs to domestic use, with some output re-exported as processed commodities. This would likely be gradual and affect mix rather than total volume. 	<p>Current impacts: No material change since FY2024. Cyclone Gabrielle demonstrated how extreme weather events can damage plantation trees and trigger early harvesting, which temporarily lifted export volumes. Damage caused by mobilised slash and silt has led to legal, financial and regulatory change outcomes which may affect re-planting and afforestation decisions over longer time horizons.</p> <p>Anticipated impacts: Exposure of the forestry supply chain to projected increases in the listed acute, chronic, and related climate hazards also has the potential to impact export volumes via similar pathways to IDR1.A^B:</p> <ul style="list-style-type: none"> Increasing seasonal volatility: Projected increases in the frequency, intensity, and spatial extent of rain, wind, storm, and wildfire hazards, increasing the potential for damaged trees, slope destabilisation, and disrupted access. However, weather impacts tend to trigger salvage and early harvesting, which in the past has led to temporary post-event pulses/increases in log export volumes. Declining structural capacity: Longer-term increases across all climate hazard types are expected to intensify pressures on slopes, soils, water availability, and pest/disease risks. These stressors may limit growth, raise management costs, and drive land-use change in high-risk sites. Some regions may experience offsetting gains where warmer conditions ease cold limits, moisture remains adequate, and higher CO₂ extends growing seasons, though the scale of these benefits remains uncertain. <p>Adaptation measures such as species and site changes, and stronger controls for erosion, fire, and biosecurity, are expected to mitigate structural impacts, though uptake will vary by terrain, access to capital, and local planning rules.</p> <p>Consistent with climate hazard trajectories outlined in DR1 and IDR1.A, physical impacts on forestry export volumes are expected to remain immaterial over the short to early medium-term across all scenarios, and long-term under the Port’s Orderly scenario. By contrast, sharper projected escalation of acute and chronic hazards post-2040 under the Disorderly and Hothouse scenarios has greater potential to reduce productive capacity to levels where exports may experience material decline. Increases in the severity and frequency of acute events under these scenarios are also expected to drive greater seasonal volatility, potentially leading to more pronounced and frequent post-event pulses in export volumes.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Orderly (SSP1-2.6)</td> <td style="padding: 2px;"> </td> </tr> <tr> <td style="padding: 2px;">Disorderly (SSP2-4.5)</td> <td style="padding: 2px;"> </td> </tr> <tr> <td style="padding: 2px;">Hothouse (SSP3-7.0)</td> <td style="padding: 2px;"> </td> </tr> </table> </div>	Orderly (SSP1-2.6)	 	Disorderly (SSP2-4.5)	 	Hothouse (SSP3-7.0)	 	<p>Current response: Port of Tauranga has a long-term strategy of diversifying cargoes and income streams to increase business resilience. The Port regularly consults with its customers and continuously seeks opportunities to innovate to serve existing customers’ changing needs as well as secure new customers and/or cargoes.</p> <p>The Port has good capacity and mitigation strategies in place to manage current and future operational disruptions. The innovation and adaptive capacity of the primary production sector is also acknowledged as a risk mitigant.</p> <p>Transition objectives: Robust and resilient infrastructure fit for a changing climate.</p> <p>Near-term priorities:</p> <ul style="list-style-type: none"> Continue to regularly consult with key customers regarding forecasts and long-term trends in order to understand, manage and mitigate any impacts on the business. Monitor climate-related changes affecting global trade and domestic production to ensure ongoing proactive and agile response to evolving cargo patterns, and further strengthen the Port’s strategic positioning. <p>Short to medium-term goals:</p> <ul style="list-style-type: none"> New Zealand’s primary hub port providing lower carbon supply chain for importers and exporters, to and from international markets, serviced by extensive inland port and rail networks. The Port’s infrastructure vision, investment and planning ensures climate resilience.
Orderly (SSP1-2.6)	 								
Disorderly (SSP2-4.5)	 								
Hothouse (SSP3-7.0)	 								

IDR2: Reduced availability and/or increased cost of imported stock feed

Exposure of key overseas stock feed cultivation systems to projected increases in a range of acute and chronic climate hazards (see list below) may create seasonal shocks and long-term structural constraints that reduce supply and increase costs. Rising global demand from competing uses, particularly the biofuels sector, may also create additional sustained price increases. Together, these physical and transition pressures may price out a proportion of New Zealand agricultural end users over time, materially reducing imported volumes of some or all stock feed categories via the Port.

KEY | **Impact rating:** Climate-related risks

■ Low ■ Moderate ■ High ■ Extreme

Key risk parameters	Elements at risk Upstream supply chain cultivation systems	Current and anticipated impacts Prior to management response and by scenario	Response and outcomes Transition measures (existing and planned)						
<p>Hazard type: See acute, chronic, and related natural hazards outlined at IDR1 on page 28.</p> <p>Time horizon: Medium to long-term</p> <p>Risk type: Physical</p> <p>Materiality: Imported stock feed accounts for a material proportion of annual imports and is supported by dedicated port-side infrastructure.</p> <p>Basis and methods: As per IDR1, with reliance on offshore data and projections.</p> <p>Confidence level:</p> <ul style="list-style-type: none"> <i>Exposure mapping:</i> Medium – data is inconsistent across producing regions <i>Impact assessment:</i> Medium – as per IDR1, authoritative sources provide direction, but system complexity and scenario extrapolation limit precision. <p>Notable linkages and amplifiers:</p> <ul style="list-style-type: none"> Palm kernel expeller (PKE) differs from other stock feeds as its concentrated production base (Malaysia/Indonesia) increases vulnerability to physical climate impacts, while sustainability issues heighten transition restrictions, creating greater supply risks. Its large import share amplifies potential impacts from supply and price pressures. IDR1.A pasture decline may increase import reliance seasonally and/or longer-term. Under the Port’s Hothouse scenario, regional rivalry and food-security pressures may restrict New Zealand’s access to imported feed, amplifying physical impacts and aggravating price pressures, subject to international trade policies and agreements. 	<p>Key stock feed imports including:</p> <ul style="list-style-type: none"> PKE: the largest single stock feed import, making up around 54% of total annual imports, sourced predominantly from Malaysia and Indonesia. Grains and oilseeds: Typically the second-largest category, together accounting for roughly one-third of total imports. This includes wheat and barley (mainly from Australia, with some volumes from North America), maize and maize products (Australia, USA, South America), and soybean meal (Argentina, Brazil, USA). By-products and residuals: Smaller share (generally under 10% of imports), comprising distillers’ dried grains (USA), bran/pollard and milling by-products (Australia), canola meal (Australia), citrus pulp pellets (USA/Brazil), molasses (Australia/Pacific), and fish meal (Peru/Chile). 	<p>Current impacts: No material change since FY2024: 60% of stock feed consumed domestically is still imported. Dairy consumes ~75% of imported feed, poultry ~12%, and other livestock ~4%. Physical and transition impacts on stock feed prices are yet to generate a detectable impact on import volumes.</p> <p>Anticipated impacts: The volume of stock feed imports is heavily influenced by global supply and prices, both of which may be increasingly shaped by²:</p> <ul style="list-style-type: none"> Physical climate impacts that limit production/supply: Offshore cultivation systems that produce most imported stock feed (e.g. crops, land) are expected to face more frequent and intense acute hazards (e.g. droughts, floods, heatwaves, storms), increasing the prospect of seasonal production dips and associated price spikes. Rising chronic hazards may reduce climatic suitability, eroding productive capacity and driving gradual cost increases. Transition-driven demand from competing sectors: rising demand from first-generation biofuel producers may also out the price of oilseeds, maize, and palm kernel under increasing price pressure. However, this may ease as advanced/non-food feedstocks displace food-crop-based biofuel production. <p>On-farm adaptation, origin and feed substitution, ration reformulation, and buffer stocks, among other measures, are expected to moderate these risks so that supply is broadly maintained. However, resulting price increases may still erode affordability, particularly for more price-sensitive poultry and pig producers.</p> <p>While the combined effects of supply constraints, biofuel competition, and adaptation potential are difficult to assess with certainty, material impacts on imported volumes are only considered plausible under the Port’s Disorderly and Hothouse scenarios in the long-term, as these are the only pathways where:</p> <ul style="list-style-type: none"> For the reasons outlined at DR1 and again at IDR1.A–C, projected climate hazard escalation post-2040 has the potential to exceed the buffering capacity of adaptation measures and constrain supply to levels that materially affect import volumes (e.g. where a large enough share of imports becomes unaffordable for a sufficient share of domestic end users); and Reliance on first-generation biofuels is expected to persist for longer, extending and intensifying competing price pressures on oilseeds, maize, and palm kernel to levels that may also materially affect imported volumes. <div data-bbox="949 1283 1552 1430"> <table border="1"> <tr> <td>Orderly (SSP1-2.6)</td> <td>Low</td> </tr> <tr> <td>Disorderly (SSP2-4.5)</td> <td>Moderate</td> </tr> <tr> <td>Hothouse (SSP3-7.0)</td> <td>High</td> </tr> </table> </div>	Orderly (SSP1-2.6)	Low	Disorderly (SSP2-4.5)	Moderate	Hothouse (SSP3-7.0)	High	<p>Current response: Response to seasonal variability and gradual decline in export commodity supply also applicable to reduced import demand. This includes diversifying cargoes and income streams, regular customers consultation, and responding to existing customers’ changing needs as well as securing new customers and/or cargoes.</p> <p>Also relevant are measures to ensure ongoing operational capacity and efficiency, while acknowledging innovation and adaptive capacity of the primary production sector as a risk mitigant.</p> <p>Transition objectives: Robust and resilient infrastructure fit for a changing climate.</p> <p>Near-term priorities:</p> <ul style="list-style-type: none"> Continue to regularly consult with its key customers regarding forecasts and long-term trends in order to understand, manage and mitigate any impacts on the business. Monitoring climate-related changes affecting global trade and domestic production to ensure on-going proactive and agile response to evolving cargo patterns, and further strengthen the Port’s strategic positioning. <p>Short to medium-term goals:</p> <ul style="list-style-type: none"> New Zealand’s primary hub port providing lower carbon supply chain for importers and exporters, to and from international markets, serviced by extensive inland port and rail networks. The Port’s infrastructure vision, investment and planning ensures climate resilience.
Orderly (SSP1-2.6)	Low								
Disorderly (SSP2-4.5)	Moderate								
Hothouse (SSP3-7.0)	High								

IDR3: Reduced demand for dairy export commodities

Exposure of key dairy exports to transition-driven shifts in consumer and commercial customer preferences/buyer behaviour, together with the emergence of low-emission dairy alternatives, has the potential to progressively erode demand in both established and emerging markets, particularly in advanced economies. These pressures, potentially amplified by other related transition drivers (see indicative list below), may reduce market demand and price, materially lowering dairy export volumes moving through the Port.

KEY | **Impact rating:** Climate-related risks
■ Low ■ Moderate ■ High ■ Extreme

Key risk parameters	Elements at risk Global demand for key dairy exports	Current and anticipated impacts Prior to management response and by scenario	Response and outcomes Transition measures (existing and planned)						
<p>Transition drivers:</p> <ol style="list-style-type: none"> Consumer focus on embodied emissions and environmental impacts Increasing consumer preference for low-carbon alternatives Increasing supply chain emission reduction pressure (from customers, lenders, investors, insurers) Improving availability and performance of low-emission alternatives through technological advances (e.g. like precision fermentation). <p>Time horizon: Medium to long-term Risk type: Transition</p> <p>Materiality: As per reasoning at IDR1.</p> <p>Basis and methods: Anticipated impacts are derived from structured scenario analysis of transition pathways under each SSP-RCP archetype (Orderly SSP1-2.6, Disorderly SSP2-4.5, Hothouse SSP3-7.0). Pathways were established using a range of credible sources combining qualitative and quantitative analysis of expected outcomes from relevant drivers. Methods otherwise follow those described at IDR1.</p> <p>Confidence level:</p> <ul style="list-style-type: none"> Exposure mapping: Medium Impact assessment: Medium <p>Notable linkages and amplifiers:</p> <ul style="list-style-type: none"> Relative Climate Advantage, which may result in competing dairy export nations experiencing greater seasonal volatility and productive capacity declines and higher on-farm costs (see IDR1.A). 	<p>IDR3: Reduced demand across existing and emerging markets for New Zealand’s main dairy exports, which include²²:</p> <ul style="list-style-type: none"> Whole milk powder (32.1%) Butter, anhydrous milk fat, and cream (17.8%) Skim milk and butter milk powder (8.9%) Casein and protein products (12.7%) Cheese (11.2%) Infant formula (7.8%) Other dairy products (9.4%)* <p>Top New Zealand dairy export markets:</p> <ul style="list-style-type: none"> China (35%) Indonesia (5%) Australia (5%) United States (5%) Malaysia (4%) Japan (4%) Saudi Arabia (4%) Thailand (3%) United Arab Emirates (3%) Algeria (3%) All other (30%) <p>Southeast Asia represents approximately 16% of New Zealand’s dairy exports. In recent years more than half of total exports are to developing/emerging economies.</p> <p><small>*Includes liquid milk and cream, UHT milk, yoghurt, and ice cream. Above are 2024 financial year percentages based on proportion of total export value. Source: Stats NZ and MPI.</small></p>	<p>Current impacts: No material change since FY2024. Consumer shifts to plant-based and other alternatives remain concentrated in advanced markets (e.g. EU, North America). Business to business (“B2B”) customer practice of including mitigation targets in procurement criteria is increasing as well.</p> <p>Anticipated impacts: Dairy exports are exposed to a range of consumer, market, and technology-based transition drivers that may erode demand. Countervailing forces that could cushion or offset demand erosion include New Zealand dairy’s²³:</p> <ul style="list-style-type: none"> Focus in developing markets, where demand growth is strongest and consumer-based transition impacts expected to be delayed and less intensive, especially under the Port’s Disorderly and Hothouse scenarios. On this basis, developing markets are also expected to anchor demand if transition-based demand erosion ramps up in advanced markets. Position as one of the most GHG-efficient and sustainable dairy producers, reinforced by measures to retain this advantage, including leading innovation in on-farm mitigation. This may delay and dilute demand loss, as higher-emission producers are expected to be displaced first under Orderly and Disorderly scenarios. Expanded market access through recent EU and UK trade agreements, improving New Zealand’s competitive position in advanced markets where transition pressures are usually strongest, and expected to bite earlier under the Port’s Orderly and Disorderly scenarios. <p>Broader global drivers that may also cushion demand erosion include population growth; land, water, herd, and regulatory constraints, which are expected to limit future supply growth across most dairy export nations to productivity gains; and, dairy’s nutrient density relative to many substitutes. Precision fermentation is also considered a contingent risk only, as its ability to achieve cost/taste parity at scale (beyond high-value, lower-volume niches) is thought to be unlikely under current technology and feedstock cost trajectories, especially under a Disorderly pathway.</p> <p>Based on the above, the listed transition drivers were only assessed as having the potential to generate material impacts on dairy exports under the Port’s Orderly and Disorderly scenarios, with the greatest potential impacts expected over the short to medium-term, especially under the Port’s Orderly scenario pathway.</p> <div style="margin-top: 10px;"> <table border="1" style="margin-top: 5px;"> <tr> <td>Orderly (SSP1-2.6)</td> <td style="background-color: #c8e6c9; width: 100px;"></td> </tr> <tr> <td>Disorderly (SSP2-4.5)</td> <td style="background-color: #ffcdd2; width: 100px;"></td> </tr> <tr> <td>Hothouse (SSP3-7.0)</td> <td style="background-color: #ffe0b2; width: 100px;"></td> </tr> </table> </div>	Orderly (SSP1-2.6)		Disorderly (SSP2-4.5)		Hothouse (SSP3-7.0)		<p>Current response: Existing strategies related to diversifying cargoes and income streams, regular customers consultation, and responding to existing customers’ changing needs as well as securing new customers and/or cargoes.</p> <p>Climate change initiatives to decarbonise Port operations and support New Zealand exporters with the lowest emissions supply chain.</p> <p>Transition objectives: Robust and resilient infrastructure fit for a changing climate and providing New Zealand exporters with the lowest emissions supply chain.</p> <p>Near-term priorities:</p> <ul style="list-style-type: none"> Priorities including consulting with key customers regarding forecasts and long-term trends, and monitoring climate-related changes affecting global trade and domestic production to ensure proactive and agile response to evolving cargo patterns. <p>Regarding a low emissions supply chain:</p> <ul style="list-style-type: none"> Further development of the hub-and-spoke model to enable coastal shipping where Port of Tauranga is the hub port that is big ship capable and transships cargo to other spoke ports through coastal shipping. Advocating for rail transport and coastal shipping as an alternative to road transport for moving large volume and heavy cargo Planning and implementation of the necessary works to accommodate larger vessels, including berth extensions and dredging, will be coordinated and aligned with introduction of larger vessels to New Zealand routes. <p>Short to medium-term goals:</p> <ul style="list-style-type: none"> New Zealand’s primary hub port providing lower carbon supply chain for importers and exporters, to and from international markets, serviced by extensive inland port and rail networks. The Port’s infrastructure vision, investment and planning ensures climate resilience.
Orderly (SSP1-2.6)									
Disorderly (SSP2-4.5)									
Hothouse (SSP3-7.0)									

IDR4: CBAM and climate regulation impacts on commodity exports

Exposure of all key export commodities (i.e. dairy, logs, other forest products, and kiwifruit) to the anticipated introduction of carbon border adjustment mechanisms (“CBAMs”) and other climate change related regulations which have the potential to directly or indirectly influence market access, and/or demand in applicable offshore markets. Examples include existing European Union (EU) CBAM obligations on carbon-intensive inputs and developing market requirements for climate reporting that incentivise purchasers to reduce high-emission supply amongst other existing and planned regulations.



Key risk parameters	Elements at risk Global demand for key export commodities	Current and anticipated impacts Prior to management response and by scenario	Response and outcomes Transition measures (existing and planned)								
<p>Transition drivers: Existing and planned:</p> <ul style="list-style-type: none"> CBAMS, which are expected to become mainstream, are in place in the EU, proposed in the United Kingdom, and under consideration by other trade partners. Behind-the-border rules like the EU’s deforestation regulation, mandatory climate disclosures, and product labelling embodied emission information requirements which can sway demand. Carbon pricing frameworks, like the EU ETS, which now applies to emissions from certain ships calling at EU ports. International Maritime Organisation (IMO) Net-Zero Framework also has the potential to increase the cost of New Zealand exports if approved. <p>Time horizon: Short to medium-term</p> <p>Risk type: Transition opportunity</p> <p>Basis and methods: Anticipated impacts are derived from structured scenario analysis of transition pathways under each SSP-RCP archetype (Orderly SSP1-2.6, Disorderly SSP2-4.5, Hothouse SSP3-7.0). Pathways were established using a range of credible sources combining qualitative and quantitative analysis of expected outcomes from relevant drivers. Methods otherwise follow those described at IDR1.</p> <p>Confidence level:</p> <ul style="list-style-type: none"> Exposure mapping: Medium Impact assessment: Medium <p>Notable linkages and amplifiers:</p> <ul style="list-style-type: none"> Many exporters have already established GHG measurement, reporting, and traceability systems to comply with domestic regulation and supply chain requirements, defraying at least some compliance costs under emerging offshore regimes. New Zealand’s distance to major markets amplifies exposure to carbon-on-freight charges and longer supply chains, creating a persistent delivered-cost penalty relative to nearer competitors. 	<p>Demand in offshore markets for all key export commodities including:</p> <ul style="list-style-type: none"> Dairy Logs Other forest products Kiwifruit. <p>Top New Zealand export markets vary across key commodities, but broadly speaking include:</p> <ul style="list-style-type: none"> China United States Australia European Union United Kingdom Japan South Korea Southeast Asia (Indonesia, Malaysia, Thailand, the Philippines, Vietnam) Taiwan Other markets Middle East and North Africa (UAE, Saudi Arabia, Algeria, Egypt) notable for dairy and some horticulture/wood products. <p><i>Note: Mandatory climate disclosure regimes are already in force or proposed in markets covering ~80% of New Zealand exports by value, with around 40% also destined for countries that have CBAMs in place or under consideration.</i></p>	<p>Current impacts: Additional countries have announced plans for one or more of the listed regulatory systems, continuing the broader trend towards emissions-based trade restrictions. EU and IMO have also announced new and proposed changes. However, no impacts on Port exports have been observed to date.</p> <p>Anticipated impacts: All key export commodities are expected to face growing exposure to emission-related regulatory frameworks in key markets, which may affect demand positively or negatively depending on policy settings. For example²⁴:</p> <ul style="list-style-type: none"> EU’s CBAM currently excludes food and fibre, but the EU has signalled dairy, meat, and wool as candidates for future inclusion. Based on the way that CBAMs imposed carbon-based cost on imported goods, they are expected to make lower-emission options more competitive, potentially advantaging exports like New Zealand dairy due to its status as one of the most greenhouse gas (GHG) efficient producers (assuming this advantage is retained over time)²⁵. Other regulatory systems: Behind-the-border rules, the EU ETS extension to shipping, and a possible IMO Net-Zero Framework (if enacted) may also influence demand. These measures could bolster exports by highlighting relative greenhouse gas efficiency, but they are also expected to increase compliance and shipping costs. For New Zealand, distance to market amplifies the risk that these costs reduce competitiveness relative to other exporters. <p>As noted in the Port’s FY2024 disclosure CBAMs and other mitigation focused trade regulations are expected to become increasingly prevalent in developed export markets in the short-term under its Orderly and Disorderly scenario pathways, with developing economies expected to follow suit over the medium-term onwards. No material exposure is anticipated under the Port’s Hothouse pathway.</p> <p>For reasons also noted in the FY2024 disclosure (e.g. concentration of key exports in developing economies, New Zealand’s value proposition as one of the most greenhouse gas efficient and sustainable dairy producers and a source of sustainable timber) key exports are expected to have a lower level of vulnerability to CBAMs. However, New Zealand’s distance to key export markets is expected to make key exports more vulnerable to other regulations like the extension of the EUs ETS to shipping emissions and the potential approval of the IMO Net-Zero Framework²⁶.</p> <div data-bbox="994 1342 1599 1489"> <table border="1"> <thead> <tr> <th>Scenario</th> <th>Impact Rating</th> </tr> </thead> <tbody> <tr> <td>Orderly (SSP1-2.6)</td> <td>Moderate</td> </tr> <tr> <td>Disorderly (SSP2-4.5)</td> <td>High</td> </tr> <tr> <td>Hothouse (SSP3-7.0)</td> <td>Low</td> </tr> </tbody> </table> </div>	Scenario	Impact Rating	Orderly (SSP1-2.6)	Moderate	Disorderly (SSP2-4.5)	High	Hothouse (SSP3-7.0)	Low	<p>Current response: Existing strategies related to diversifying cargoes and income streams, regular customers consultation, and responding to existing customers’ changing needs as well as securing new customers and/or cargoes.</p> <p>Climate change initiatives to decarbonise Port operations and support New Zealand exporters with the lowest emissions supply chain.</p> <p>Transition objectives: Robust and resilient infrastructure fit for a changing climate and providing New Zealand exporters with the lowest emissions supply chain.</p> <p>Near-term priorities:</p> <ul style="list-style-type: none"> Priorities including consulting with key customers regarding forecasts and long-term trends, and monitoring climate-related changes affecting global trade and domestic production to ensure proactive and agile response to evolving cargo patterns. <p>Regarding a low emissions supply chain:</p> <ul style="list-style-type: none"> Priorities including developing the hub-and-spoke model to enable coastal shipping, advocating for rail and coastal shipping as an alternative to road transport and accommodating larger vessels at Tauranga. Work to position both Northport and PrimePort Timaru as future locations for vehicle imports. <p>Short to medium-term goals:</p> <ul style="list-style-type: none"> New Zealand’s primary hub port providing lower carbon supply chain for importers and exporters, to and from international markets, serviced by extensive inland port and rail networks. The Port’s infrastructure vision, investment and planning ensures climate resilience. Development of Northport berths and adjacent land holdings to cater for expected increases in import cargo volumes.
Scenario	Impact Rating										
Orderly (SSP1-2.6)	Moderate										
Disorderly (SSP2-4.5)	High										
Hothouse (SSP3-7.0)	Low										

IDR5: Decarbonisation of New Zealand’s transport and broader energy systems

Exposure of New Zealand’s liquid fuel imports to a range of policy, market, and technology-based transition drivers specific to the transport and other fuel intensive sectors are expected to progressively reduce reliance on imported fossil fuels. For example, in the transport sector this includes increasing electrification of New Zealand’s light vehicle fleet, increased use of public and active transport options, and gradual uptake of alternative fuels for heavy transport, changes likely to alter the scale and composition of future fuel demand over time.

KEY | **Impact rating:** Climate-related risks

■ Low ■ Moderate ■ High ■ Extreme

Key risk parameters	Elements at risk	Current and anticipated impacts	Response and outcomes																				
<p>Transition drivers of particular note included:</p> <ul style="list-style-type: none"> Declining production of internal combustion (“ICE”) vehicles, particularly light vehicles, alongside accelerating electric vehicle (EV) adoption and the rollout of a national charging network. Policies that incentivise mode shift from private vehicles to active and public modes of transport. Development and uptake of alternative fuel technology for heavy transport and mode-shift to rail and coastal shipping. Potential future regulatory changes, e.g. ICE import restrictions, and mandated biofuel blending and efficiency rules. <p>Time horizon: Short to medium-term</p> <p>Risk type: Transition risk and opportunity</p> <p>Basis and methods: Anticipated impacts are derived from structured scenario analysis of transition pathways under each SSP-RCP archetype (Orderly SSP1-2.6, Disorderly SSP2-4.5, Hothouse SSP3-7.0). Pathways were established using a range of credible sources combining qualitative and quantitative analysis of expected outcomes from relevant drivers. Methods otherwise follow those described at IDR1.</p> <p>Confidence level:</p> <ul style="list-style-type: none"> Exposure mapping: High Impact assessment: Medium to high <p>Notable linkages and amplifiers:</p> <ul style="list-style-type: none"> Outcomes under IDO2, particularly the surge in mitigation-driven capital investment, may lift biofuel imports (e.g. via greater import of alternative fuel on and off-road plant and equipment). Financial incentives from IDR4 (CBAM and climate regulation impacts) may further accelerate declining fossil fuel imports and rising biofuel alternatives. 	<p>Domestic demand for liquid fuel imports</p> <p>Reduced domestic demand for traditional liquid fuel imports, totalling 6,803.51 kt in 2024, including²⁷:</p> <ul style="list-style-type: none"> Diesel – 3,205.42 kt (47% total imports) Petrol – 2,133.73 kt (31%) Aviation fuel – 1,464.36 kt (22%) total 2024 imports 6,803.51 kt. <p>Key demand/use categories include:</p> <ul style="list-style-type: none"> Diesel (on-road: 2,438.68 kt) – underpinning New Zealand’s freight industry and linked to overall economic performance. Diesel (off-road) – agriculture, construction, other commercial sectors, and peaking/ emergency electricity generation. Petrol (on-road 1,769.98 kt) – primarily the light vehicle fleet. Petrol (off-road residential use adding 323.95 kt). <p>Increased domestic demand: for biofuel imports also anticipated.</p>	<p>Prior to management response and by scenario</p> <p>Current impacts: Largely unchanged since FY2024. Transition drivers are likely continuing to trim demand, but effects on import volumes are muted by fluctuations driven by non-transition factors.</p> <p>Anticipated impacts: Demand for all three liquid fuel import categories is expected to decline, but the timing and extent will vary based on how easily high-volume end users can shift to low or zero-emission alternatives (as well as the strength, timing, and extent of top-down policy transition drivers, which are needed to catalyse and accelerate other market and technology shifts)²⁸.</p> <ul style="list-style-type: none"> Petrol demand is expected to fall earlier and more steeply as light vehicles, which dominate end use, are replaced by increasingly affordable EVs; Diesel demand is expected to decline more gradually given freight and agricultural reliance, subject to some reductions also achieve via mode shift to rail and coastal shipping; and Aviation fuels are the hardest to substitute, with only incremental reductions feasible until sustainable alternatives scale. <p>As noted in the Port’s FY2024 disclosure, while the exact timing and rate of change is difficult to anticipate due to uncertainty surrounding the future of New Zealand’s energy mix, traditional liquid fuel imports are expected to decline across all scenarios, with the sharpest decreases in the short to medium-term under the Orderly and Disorderly pathways.</p> <p>Under each of these scenarios petrol imports are expected to fall sooner and faster as light vehicle electrification and mode shifts gain momentum. Diesel decline is expected to start later and be more gradual due to the harder to abate nature of most on and off-road end uses. As this occurs, increasing volumes of biofuel imports are expected to replacing a proportion of heavy vehicle related liquid fuel imports in the medium-term onwards. Aviation fuel is expected to decline slowest across all scenarios due to technological and other constraints that make this sector one of the hardest areas to abate. Potentially significant decreases are also possible in the medium to long-term under the Port’s Hothouse scenario. However, under this pathway demand reduction is expected to be driven less by mitigation policy and more by energy security and cost pressures, including increased supply chain disruptions from physical climate impacts and rising geopolitical tensions.</p> <div data-bbox="949 1300 1550 1449"> <table border="1"> <thead> <tr> <th>Scenario</th> <th>Low</th> <th>Moderate</th> <th>High</th> <th>Extreme</th> </tr> </thead> <tbody> <tr> <td>Orderly (SSP1-2.6)</td> <td></td> <td>■</td> <td>■</td> <td>■</td> </tr> <tr> <td>Disorderly (SSP2-4.5)</td> <td>■</td> <td></td> <td>■</td> <td>■</td> </tr> <tr> <td>Hothouse (SSP3-7.0)</td> <td>■</td> <td>■</td> <td>■</td> <td></td> </tr> </tbody> </table> </div>	Scenario	Low	Moderate	High	Extreme	Orderly (SSP1-2.6)		■	■	■	Disorderly (SSP2-4.5)	■		■	■	Hothouse (SSP3-7.0)	■	■	■		<p>Transition measures (existing and planned)</p> <p>Current response: Similarly to other import/exports impacts, existing strategies related to diversifying cargoes and income streams, regular customers consultation, and responding to existing customers’ changing needs as well as securing new customers and/or cargoes.</p> <p>On wider transport and energy system change, climate change initiatives to decarbonise Port operations and support New Zealand exporters with the lowest emissions supply chain.</p> <p>Transition objectives: Robust and resilient infrastructure fit for a changing climate and providing New Zealand exporters with the lowest emissions supply chain.</p> <p>Near-term priorities:</p> <ul style="list-style-type: none"> Priorities including consulting with key customers regarding forecasts and long-term trends, and monitoring climate-related changes affecting global trade and domestic production to ensure proactive and agile response to evolving cargo patterns. <p>And further supporting a low emissions supply chain:</p> <ul style="list-style-type: none"> Priorities including developing the hub-and-spoke model to enable coastal shipping, advocating for rail and coastal shipping as an alternative to road transport and accommodating larger vessels at Tauranga. Consider and develop supply and demand-side options for energy management and resilience in infrastructure design and planning. Inform strategy by modelling future scenarios i.e. granular forecasting where possible, electricity market and dynamics, and demand-side economics. <p>Short to medium-term goals:</p> <ul style="list-style-type: none"> New Zealand’s primary hub port providing lower carbon supply chain for importers and exporters, to and from international markets, serviced by extensive inland port and rail networks. The Port’s infrastructure vision, investment and planning ensures climate resilience.
Scenario	Low	Moderate	High	Extreme																			
Orderly (SSP1-2.6)		■	■	■																			
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IDO1: Increased demand for logs and other forestry export commodities

Exposure of log and other forest product exports to a range of transition-driven shifts in consumer and commercial buyer preferences, together with an increasing number of policy and technology-enabled value-added uses of sustainable timber (e.g. in high-volume emission-intensive sectors like energy, transport, construction and manufacturing), has the potential to increase demand for forestry exports. Examples include engineered wood substituting structural steel, cellulose replacing plastics, woody biomass displacing coal, and bio-energy alternatives to liquid fuels.

KEY | **Impact rating:** Climate-related opportunities
■ Material ■ High ■ Very high

Key risk parameters	Elements at risk Global demand for forestry exports	Current and anticipated impacts Prior to management response and by scenario	Response and outcomes Transition measures (existing and planned)									
<p>Transition drivers:</p> <ol style="list-style-type: none"> 1. Consumer focus on embodied emissions and environmental impacts 2. Increasing consumer preference for low-carbon alternatives 3. Increasing supply chain emission reduction pressure (from customers, lenders, investors, insurers) 4. Improving availability and performance of low-emission alternatives through technological advances. <p>Time horizon: Medium to long-term Risk type: Transition opportunity</p> <p>Basis and methods: As per IDR3. Confidence level:</p> <ul style="list-style-type: none"> • <i>Exposure mapping:</i> Medium • <i>Impact assessment:</i> Medium <p>Notable linkages and amplifiers:</p> <ul style="list-style-type: none"> • Harvest cycle baseline: Export volumes are projected to peak in 2026 before falling by up to one-third in the 2030s, then rebounding. This is due to a surge in planting during the 1990s, followed by a period of substantially reduced planting. As this cycle is unrelated, any projected changes in export volumes under the Port's climate scenarios are relative to this baseline. • Relative climate advantage, which may result in competing forestry export nations experiencing greater productive capacity declines and higher plantation management costs (see IDR1.B). • Physical impacts on New Zealand plantation forestry yields under IDR1.B may also limit the extent of IDO1's impact on export volumes. 	<p>Increasing demand for New Zealand's log and other forestry product exports ("Forestry Exports"), which include:</p> <ul style="list-style-type: none"> • Logs • Woodchips • Wood pulp and paper • Sawn timber and sleepers • Engineered wood products • Other forest products • Emergent 'bioeconomy' uses of lower grade logs and residuals including: <ul style="list-style-type: none"> • Bio-energy (solid biomass, biofuels, bio-gas, and related energy products). • Bio-chemicals and bio-based materials (non-fossil chemical inputs, bioplastics, and packaging alternatives). <p>Top New Zealand forestry export markets:*</p> <ul style="list-style-type: none"> • China (primarily logs and pulp) • United States (primarily sawn timber) • Japan (primarily panels and woodchips) • Australia (primarily paper, paperboard and other forest products) • South Korea • Southeast Asia (Indonesia, Thailand, Malaysia, Philippines, Taiwan, Vietnam) • Other <p><small>*Source: Stats NZ and MPI.</small></p>	<p>Current impacts: No material change since FY2024. Emergent bioeconomy uses of timber are still central to energy, transport, construction, and sector decarbonisation strategies. No impact on exports observed to date.</p> <p>Anticipated impacts: Forestry exports are exposed to a consumer, market, and technology-transition drivers (see "Key risk parameters"), which have the potential to lift demand and prices, prompting increased afforestation and a greater share of annual harvest volumes allocated to export. Of these, the following relatively new technology-enabled uses of timber, are expected to have the greatest potential to create sustained demand and price uplift²⁹:</p> <ul style="list-style-type: none"> • Construction: Substitution of steel and concrete with engineered wood products (e.g. LVL, CLT, Glulam) as supply chains, consumers, and policies increasingly favour low-emission materials. • Energy and fuels: Rising use of residues and woody biomass in process heat and power generation settings, and various forestry feedstocks in advanced biofuels (e.g. SAF, marine fuels), particularly as costs fall and mandates tighten. • Bio-chemicals and materials: Cellulose, lignin, and other derivatives displacing fossil fuel-based plastics, packaging, textiles, and industrial chemicals. • System-wide shifts: Policy, consumer, and corporate procurement changes driving supply-chain decarbonisation and a gradual move toward circular economy practices, which forestry-based bio-alternatives are well suited to. <p>Based on the SSP transition pathways that underpin each Port scenario (Orderly, Disorderly, Hothouse), and projections from a range authoritative sources on how relevant transition drivers may evolve under each of these pathways, IDO1 is assessed as having the greatest potential to materially increase forestry exports under the Port's Orderly and Disorderly scenarios in the medium to long-term. Under these pathways, export volumes are initially expected to lift at the margins. Over the longer term, transition-driven afforestation (from the late 2020s and 2030s onwards) is expected to deliver a more significant structural uplift as this new transition driven planting reaches harvest age. In Disorderly, the uplift is likely to be smaller and later, reflecting delayed, uneven, and costlier transition dynamics that are expected to weaken uptake of the technology-enabled uses of timber projected to drive increased demand³⁰.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Orderly (SSP1-2.6)</td> <td style="padding: 2px;">No impact</td> <td style="padding: 2px;"><div style="width: 100%; height: 10px; background: linear-gradient(to right, #90EE90, #008000);"></div></td> </tr> <tr> <td style="padding: 2px;">Disorderly (SSP2-4.5)</td> <td style="padding: 2px;">No impact</td> <td style="padding: 2px;"><div style="width: 100%; height: 10px; background: linear-gradient(to right, #90EE90, #008000);"></div></td> </tr> <tr> <td style="padding: 2px;">Hothouse (SSP3-7.0)</td> <td style="padding: 2px;">No impact</td> <td style="padding: 2px;"><div style="width: 100%; height: 10px; background: linear-gradient(to right, #90EE90, #008000);"></div></td> </tr> </table> </div>	Orderly (SSP1-2.6)	No impact	<div style="width: 100%; height: 10px; background: linear-gradient(to right, #90EE90, #008000);"></div>	Disorderly (SSP2-4.5)	No impact	<div style="width: 100%; height: 10px; background: linear-gradient(to right, #90EE90, #008000);"></div>	Hothouse (SSP3-7.0)	No impact	<div style="width: 100%; height: 10px; background: linear-gradient(to right, #90EE90, #008000);"></div>	<p>Current response: Response to seasonal variability and gradual decline in export commodity supply also applicable to increased demand. This includes diversifying cargoes and income streams, regular customers consultation, and responding to existing customers' changing needs as well as securing new customers and/or cargoes. Also, relevant are measures to ensure on-going operational capacity and efficiency.</p> <p>Transition objectives: Robust and resilient infrastructure fit for a changing climate and providing New Zealand exporters with the lowest emissions supply chain.</p> <p>Near-term priorities:</p> <ul style="list-style-type: none"> • Priorities including consulting with key customers regarding forecasts and long-term trends, and monitoring climate-related changes affecting global trade and domestic production to ensure proactive and agile response to evolving cargo patterns. <p>Regarding a low emissions supply chain:</p> <ul style="list-style-type: none"> • Priorities including developing the hub-and-spoke model to enable coastal shipping, advocating for rail and coastal shipping as an alternative to road transport and accommodating larger vessels at Tauranga. <p>Short to medium-term goals:</p> <ul style="list-style-type: none"> • New Zealand's primary hub port providing lower carbon supply chain for importers and exporters, to and from international markets, serviced by extensive inland port and rail networks. • The Port's infrastructure vision, investment and ensures climate resilience.
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Hothouse (SSP3-7.0)	No impact	<div style="width: 100%; height: 10px; background: linear-gradient(to right, #90EE90, #008000);"></div>										

IDO2: Impacts of climate migration and transition on demand for imported goods

The transition to a low-carbon, climate-resilient future, alongside the physical effects of climate change, is expected to generate systemic impacts that both lift and dampen demand for imported goods. Rising climate-induced migration to New Zealand and large-scale investment in decarbonisation and resilience measures are expected to increase some import categories (e.g. commercial materials, components, plant and equipment) while macroeconomic headwinds from transition and physical impacts dampen others (e.g. household, consumer, food and beverage goods).

KEY | **Impact rating:** Climate-related opportunities
■ Material ■ High ■ Very high

Key risk parameters	Elements at risk Domestic demand for all imports	Current and anticipated impacts Prior to management response and by scenario	Response and outcomes Transition measures (existing and planned)									
<p>Transition drivers: DO2 is a product of both the transition to a low-carbon, climate-resilient future and the wider physical impacts of climate change on the economy as a whole, rather than select climate hazards and transition drivers.</p> <p>Time horizon: Medium to long-term</p> <p>Risk type: Transition opportunity</p> <hr/> <p>Basis and methods: Anticipated impacts are derived from structured scenario analysis of transition pathways under each SSP-RCP archetype (Orderly SSP1-2.6, Disorderly SSP2-4.5, Hothouse SSP3-7.0). Pathways were established using a range of credible sources combining qualitative and quantitative analysis of expected outcomes from relevant drivers. Methods otherwise follow those described at IDR1.</p> <p>Confidence level:</p> <ul style="list-style-type: none"> Exposure mapping: Medium Impact assessment: Medium <p>Notable linkages and amplifiers: DO1 and DO2 outcomes are also expected to enable greater capitalisation of potential benefits arising as a result of IDO2 (i.e. if DO1 and DO2 play out as anticipated in full or part, any additional imports arising as a result of IDO2 have a greater potential to arrive via the Port of Tauranga).</p>	<p>Shifts in demand affect a broad range of containerised, bulk, and breakbulk goods, together representing around 68% of total imports in FY2025. Key categories include:</p> <ul style="list-style-type: none"> Technological hardware (commercial and consumer): 12.6% of total annual import value (2024), but known to account for a smaller share by volume. Food and beverage: 12.6% of total annual import value (2024), representing a larger share by volume. Commercial materials: 17.9% of total annual import value (2024), also likely to account for a larger share by volume. Capital goods and infrastructure: 28% of total annual import value (2024); likely to account for a smaller share by volume due to their high unit value. Consumer household and personal goods: 7.2% of total annual import value (2024), but likely to account for a larger share by volume. <p><i>Source: Stats NZ; Customs NZ; MPI.</i></p>	<p>Current impacts: Largely unchanged since FY2024. Mitigation and adaptation investment remains active across the New Zealand economy. However, no observable changes attributable to IDO2 observed to date.</p> <p>Anticipated impacts: Macroeconomic headwinds capable of softening demand for many import categories (see "elements at risk") are expected under all Port climate scenario pathways:</p> <ul style="list-style-type: none"> Orderly and Disorderly: transition-driven structural changes to the global and domestic economy are expected to generate moderate to potentially severe headwinds in the short to medium-term (e.g. slower or uneven growth, inflation, interest-rate volatility, market uncertainty). Under Disorderly, greater physical impacts projected post-2040 are expected to add further pressures. Hothouse: adaptation-driven pressures, compounded by more severe projected physical climate impacts, are expected to generate persistent and severe headwinds in the medium to long-term. <p>Across all scenarios, resulting headwinds expected to dampen demand for some import categories by eroding household purchasing power, curbing non-mitigation and adaptation-related commercial and public spending and tightening fiscal capacity. However, these effects are expected to be offset, at least in part, by:</p> <ul style="list-style-type: none"> A surge in capital investment: driven by prioritisation of emission reduction and adaptation (to varying extents under each scenario) across New Zealand's economy, which is expected to drive potentially significant increases in the volume of certain imported materials, components, plant, and equipment. Population growth, including through climate-induced migration, which is projected to rise 16-26% by 2050 under Port scenarios, supporting a general uplift across most import categories listed. <p>Under the Port's Orderly scenario these variables have the potential to generate a net increase in import volume over the short to medium-term, whereas under the disorderly and hothouse scenarios, they at least have the potential to offset and minimise the impact that anticipated macro-economic headwinds may otherwise have on import volumes.</p> <div data-bbox="949 1262 1552 1409" style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Orderly (SSP1-2.6)</td> <td style="width: 20%;"></td> <td style="width: 50%;"><div style="display: flex; align-items: center;"><div style="width: 100%; height: 10px; background: linear-gradient(to right, #90EE90, #008000, #006400);"></div></div></td> </tr> <tr> <td>Disorderly (SSP2-4.5)</td> <td>No impact</td> <td><div style="display: flex; align-items: center;"><div style="width: 100%; height: 10px; background: linear-gradient(to right, #008000, #006400);"></div></div></td> </tr> <tr> <td>Hothouse (SSP3-7.0)</td> <td>No impact</td> <td><div style="display: flex; align-items: center;"><div style="width: 100%; height: 10px; background: linear-gradient(to right, #90EE90, #008000);"></div></div></td> </tr> </table> </div>	Orderly (SSP1-2.6)		<div style="display: flex; align-items: center;"><div style="width: 100%; height: 10px; background: linear-gradient(to right, #90EE90, #008000, #006400);"></div></div>	Disorderly (SSP2-4.5)	No impact	<div style="display: flex; align-items: center;"><div style="width: 100%; height: 10px; background: linear-gradient(to right, #008000, #006400);"></div></div>	Hothouse (SSP3-7.0)	No impact	<div style="display: flex; align-items: center;"><div style="width: 100%; height: 10px; background: linear-gradient(to right, #90EE90, #008000);"></div></div>	<p>Current response: Similarly to other import/exports impacts, existing strategies related to diversifying cargoes and income streams, regular customers consultation, and responding to existing customers' changing needs as well as securing new customers and/or cargoes.</p> <p>On wider transport and energy system change, climate change initiatives to decarbonise Port operations and support New Zealand exporters with the lowest emissions supply chain.</p> <p>Transition objectives: Robust and resilient infrastructure fit for a changing climate and providing New Zealand exporters with the lowest emissions supply chain.</p> <p>Near-term priorities:</p> <ul style="list-style-type: none"> Priorities including consulting with key customers regarding forecasts and long-term trends, and monitoring climate-related changes affecting global trade and domestic production to ensure proactive and agile response to evolving cargo patterns. <p>And further supporting a low emissions supply chain:</p> <ul style="list-style-type: none"> Priorities include developing the hub-and-spoke model to enable coastal shipping, advocating for rail and coastal shipping as an alternative to road transport and accommodating larger vessels at Tauranga. <p>Short to medium-term goals:</p> <ul style="list-style-type: none"> New Zealand's primary hub port providing lower carbon supply chain for importers and exporters, to and from international markets, serviced by extensive inland port and rail networks. Future development of Northport berths and adjacent land holdings to cater for increases in import cargo volumes. The Port's infrastructure vision, investment and planning ensures climate resilience.
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Climate-related risks and opportunities currently assessed as immaterial (FY2024 baseline)

In FY2024 the Port identified a number of direct physical risks, direct transition risks and opportunities, and indirect physical risks and opportunities that were deemed immaterial, but had the potential to become material over time, hence their inclusion in the FY2024 disclosure. The Port remains aware of and continues to monitor this cohort of lower-level risks and opportunities on a precautionary basis for any changes that may affect materiality. The tables below list each of these risks and opportunities:

Continued monitoring of direct physical risks currently deemed immaterial	
Impact of wetter winters: Physical risk	All Port sites are projected to experience warmer wetter winters, which can cause lower levels of accelerated wear and tear to Port assets and infrastructure. Existing maintenance programmes and asset resilience limit materiality.
Impact of drier summers: Physical risk	All Port sites are located in areas projected to experience drier summers. Prolonged dry conditions can cause soil to shrink and contract, damaging underground utilities and building foundations in the process.
Groundwater rise: Physical risk	Rising coastal water tables may increase hydrostatic pressure exerted on foundation slabs and other underground elements, such as basement levels and underground utilities. It can also lead to "salinity intrusion" that attacks concrete and reinforcing. Most exposed assets will be decommissioned in the relevant timeframe.
Temperature increases: Physical risk	Increasing temperatures and solar radiation were identified as having the potential to impact thermal comfort levels, lead to increased air conditioning use, generate widespread but low grade additional wear and tear.
Worker health and safety: Physical risk	Various acute and chronic climate hazards were identified as having the potential to increase the prevalence of certain workplace hazards and/or potential harm they may cause. However, existing and readily available Workplace Health and Safety measures, can adequately mitigate and manage these anticipated increases in workplace hazards due to climate change.
Continued monitoring of indirect physical risks and opportunities currently deemed immaterial	
Comparative extent of climate impacts: Physical opportunity	New Zealand's geographic isolation and relatively moderate pre-existing climate may lead to producers of primary exports experiencing less severe physical climate impacts compared to their counterparts in other key producing nations, potentially resulting in increased demand in offshore markets. Such an outcome may in turn have a positive impact on exported volumes.
Shipping disruptions: Physical risk	Physical climate risks have the potential to disrupt and adversely impact shipping in numerous ways. Having assessed the potential impacts and available adaptation measures that the shipping sector will or may implement, it was determined that any resulting impacts on the Port would likely be immaterial based on the Port's current understanding.
Impacts on dairy transport: Physical risk	Acute events are expected to increasingly disrupt farm-gate access and supply chains. For example, Cyclone Gabrielle cut access to over 600 Fonterra farms through slips and flooding, but the impact on total exports was minimal given New Zealand's ~21 billion litres of annual milk production.

Continued monitoring of direct transition risks and opportunities currently deemed immaterial	
Stakeholder and public expectations: Opportunity and risk	The Port anticipates increased scrutiny of its greenhouse gas emissions and climate-related risk profile by all stakeholders. However, it anticipates that robust reporting alongside effective and ambitious transition planning will ensure that this presents an opportunity.
Cost and security of electricity supply: Transition risk	Electricity costs are expected to increase and become more volatile, especially under the Port's Orderly and Disorderly scenarios. From a cost perspective, this risk was deemed manageable, as any electricity cost increases are likely to be passed on in full. Potential brownout or blackout risks were also deemed low.
Building regulation changes: Transition risk	The Port anticipates building regulations changes that impose whole of life embodied emission and operational emission rules will be implemented in the short to medium-term. However, additional costs can be passed on and low carbon, energy efficient new builds are already a priority. Therefore this risk is currently deemed immaterial.
Other supply chain risks, cost and access: Transition risk	Decarbonisation of supply chains at the global and domestic levels has the potential to increase the general cost of materials and potentially lead to supply shortages as manufacturers re-tool, and end user demand for low embodied emission materials increases. Again, such costs are expected to be passed on. Access issues can also be managed via prudent transition planning.
Ship-to shore power: Transition opportunity	Investing in shore-to-ship power would enable the Port to secure a meaningful reduction in Scope 3 emissions. This mitigation measure is being investigated, however current transmission capacity constraints may make this a medium to long-term opportunity.
Resource management and consenting: Transition risk	Port anticipates that resource management and environmental policies will be subject to ongoing changes as they respond to increasing physical risks and implement changes recommended in national emission reduction and adaptation plans. As it is not currently possible to anticipate the exact substance and timing of such policy changes, the Port will continue to monitor this risk.
Increased insurance costs: Transition risk	The increased frequency and severity of climate events like Cyclone Gabrielle are expected to have significant impacts on insurance costs, underwriting criteria, and cover. The Port intends to mitigate this anticipated cost pressure by continuing to focus on preserving climate resilience and engagement with insurance stakeholders.

Transition Plan summary



Background

The Port's assessment of its climate-related risk and opportunities found that through the development of its national strategic network, the Port has acquired a high degree of inherent resilience to both physical climate risks and the transition to a low-emissions economy. While not its primary purpose, this resilience has emerged as a significant ancillary benefit of the Port's broader commercial strategy, which is anchored in diversification of cargo, geography, operations, and revenue streams.

A key strategic focus of developing the Tauranga sites as New Zealand's primary international shipping hub has further strengthened the Port's long-term resilience. The container terminal at Sulphur Point is currently the only site in the country capable of accommodating the larger container vessels calling New Zealand (up to 11,000 TEU). Current estimates indicate emissions per tonne of cargo transported are approximately 20% lower with ships of this size, compared to the average vessel calling at other large New Zealand ports. Port of Tauranga has consistently invested in developing the capacity required to support this trend and continues to plan for future growth in larger, more efficient vessels.

In addition, the Port's national network of inland freight hubs and connected regional ports – linked by rail, road, and coastal shipping – provides exporters and importers with access to lower-emissions transport options across key national supply chains. The Port has also assessed that its ability to monitor and respond in a proactive and agile manner to evolving cargo patterns, many of which will increasingly reflect climate-related changes in global trade and domestic production, further strengthens its strategic positioning.

Transition-relevant trends and strategic drivers

The Port has identified a range of structural trends expected to influence future planning and investment decisions. While not explicitly climate-related, these structural trends are likely to be significantly shaped by both the physical effects of climate change and the global transition to a low-emissions, climate-resilient economy. Ensuring the Port's response to these trends is informed by a transition lens is critical – not only to deliver long-term value, but also to secure resilience against both physical climate hazards and transition-related disruption. Key trends include:

- North Island population growth: Continued urbanisation, particularly in Auckland and surrounding regions, is expected to be a primary driver of future import growth. This reinforces the strategic importance of the Port's inland freight network and Tauranga's role as the Upper North Island's key cargo gateway.
- Changing land use and industrial geography: Planning constraints and evolving land use in and around Auckland are anticipated to push industrial activity north and south of the city. This increases the strategic value of the Port's sites at Tauranga, Ruakura, and Northland, although additional industrial land may be needed to fully meet Upper North Island freight and manufacturing demand.
- Larger, lower-emissions vessels: The global container shipping fleet is evolving toward larger vessels with deeper draught requirements (15-15.5m), which are expected to have significantly lower emissions per unit of cargo. It is strategically important to ensure New Zealand can accommodate these larger vessels in order to retain direct services and reduce emissions intensity of trade to our shores. These vessels are on track to filter through to and become prevalent on New Zealand routes in the short to medium-term, and failing to accommodate them could mean larger vessels use Australia as a hub, with smaller vessels calling in New Zealand. The Port's ability to accommodate these larger vessels represents a key resilience and decarbonisation advantage. Port of Tauranga is planning to undertake the second stage of its channel dredging programme in FY2026 to accommodate larger vessels.

Port of Tauranga plays a central role as New Zealand's international hub port. This creates particular challenges for achieving emissions reduction, as increased import and export volumes naturally result in higher operational (Scope 1 and 2) and value chain (Scope 3) emissions. In addition, many of the Port's critical decarbonisation and resilience enablers are shaped by broader influences outside its direct control (e.g. shipping fuel use). These factors have further reinforced the need to take a phased and dynamic adaptive approach, and maintain a system-aware and collaborative mindset.

Strategic intent

Consistent with the XRB and Transition Plan Taskforce frameworks, Port of Tauranga's Transition Plan is structured around three core areas of impact:

- 1. Responding to climate-related risks and opportunities** – by integrating the Port's evolving understanding of climate-related physical and transition risks and opportunities into its business strategy, infrastructure planning, customer engagement, and asset development programme. Interventions should be commercially feasible, cost-effective and resilient.
- 2. Contributing to the real-economy transition** – by leveraging the Port's unique national and international position to support decarbonisation across New Zealand's freight and logistics sector. This includes continued investment in hub port capacity, coastal shipping connectivity, rail integration, and future-ready infrastructure that supports low-emissions transport pathways and climate-resilient supply chains.
- 3. Decarbonising the Port Group** – by progressively reducing direct and indirect emissions across the Port's operations and infrastructure, including Scope 1 and 2 emissions, and material Scope 3 emissions where the Port can influence change (e.g. modal freight shifts, tenant activity, and supply chain choices). This is while recognising that the Port is part of a wider ecosystem, and accounting for relevant dependencies and opportunities in its decarbonisation strategies.

Objectives of the Transition Plan

As the Transition Plan is reviewed and developed through a staged and adaptive approach, the Port will maintain an overriding focus on its core objectives. This will ensure the Plan remains credible, nationally relevant and resilient to uncertainty:

- A. Ensure robust and resilient infrastructure fit for a changing climate
- B. Providing New Zealand exporters with the lowest emissions supply chain
- C. Commitment to net-zero by 2050
- D. Support our workforce, stakeholders and communities
- E. Remain adaptive and responsive as the transition unfolds

In its first iteration of the Transition Plan, the Port has reviewed against these objectives its existing strategy, initiatives and climate-related risks and opportunities, testing assumptions, gaps, improvements and refinements to short, medium and long-term goals.

In the future, the Transition Plan will inform decision-making and drive accountability. The Port will progressively refine its implementation strategy over time, as clarity improves around technology availability, infrastructure readiness, shipping trends and customer needs and expectations.

In FY2025, the Port focussed on operationalising its strategic intent, identifying feasible interventions and developing a long-term blueprint that will be regularly reviewed. The plan reviewed relevant trends, strategic drivers, planning challenges unique to the Port and potential trade offs between objectives.

The Plan

Detailed initiatives have been developed to align with the Port's transition planning strategic intent, operational context and current maturity, to ensure interventions are impactful and have a strong commercial rationale:

A. Ensure robust and resilient infrastructure fit for a changing climate

The Port has a well-established over-arching infrastructure vision and plan that caters for the impacts of climate change. The aim is to ensure the Port's own assets and infrastructure supports the resilience and ongoing function of New Zealand's import and export trade. Through transition planning the Port took a closer review and critique of existing key actions and established practice, which has inherently reduced exposure of the Port's assets and sites, operations, wharves, and harbour access. The Port continues to build the evidence base, identify gaps, test assumptions and monitor impacts. The wider Group also has a role to play, and with the Port, is in a unique position to combine expertise and knowledge and identify practical, feasible actions that support overall infrastructure resilience for New Zealand.

New initiatives and goals focus on engaging the wider Group to align ambition and objectives. This report provides further analysis of wider Port Group sites Timaru Container Terminal, PrimePort Timaru and Northport Group, which are exposed to similar physical risks (subject to some site-specific differences). While a small part of the Port's asset base, joint ventures will be encouraged to ensure resilience to the potential impacts of climate change, especially on their local and regional economies and communities.

B. Providing New Zealand exporters with the lowest emissions supply chain

The Port has taken an integrated view of the supply chain, investing in other ports, inland freight hubs, cargo handling expertise and logistics companies, giving it levers to reduce emissions, waste and inefficiencies for customers within its national network and beyond. Ongoing investment in the Port's resilience and capacity to accommodate the largest vessels to visit New Zealand is a key component of this strategy. Its relationships across key import and export value chains – particularly its partnership with KiwiRail – will continue to support cargo mode shift to lower-emissions transport where possible, and emissions reductions where they are real, effective, and ensure resilience over time. As stated in the Port's 2024 Integrated Annual Report, a 2022 study by University of Canterbury for coastal shipping company Swire Shipping estimates greenhouse gas emissions generated by heavy road transport are between 2.4 and 2.7 times larger than rail, and between 5 and 5.6 times larger than coastal shipping³¹. Together with the use of rail, and inland ports for cargo hubbing and consolidation, coastal shipping offers a path to significantly increase cargo volumes in future while decarbonising the supply chain.

The Plan (continued)

C. Commitment to net-zero by 2050

The Port's long-term aspiration to achieve net-zero emissions by 2050 guides both its internal decarbonisation efforts and its contribution to New Zealand's emissions profile. These commitments inform a clear set of near-term emissions reduction targets and priority action areas. The Port has new near-term emissions reduction objectives for Scope 1 and 2:

- 15% absolute emissions reduction (kt CO₂e) by 2035 relative to a 2023 base year.
- 28% emissions intensity reduction (t CO₂e per cargo tonne) by 2035 relative to a 2023 base year.

These targets reflect what is considered achievable and realistic, based on modelling and within current technology and operational constraints. It is acknowledged that these targets fall short of a 1.5°C aligned pathway using the Science-based Target Initiative (SBTi) approach. The Port's emissions reduction pathways and comparison against near-term targets is detailed in Targets and Metrics.

The net zero by 2050 commitment reflects the Port's desire to keep this ambition in focus, and is supported by annual review of targets, goals and progress against a 1.5°C aligned pathway to remain adaptive as opportunities arise to improve. The Port is also committed to:

- Ensuring planning and investment generate meaningful emission reductions in operations, supported by pricing carbon into investment decisions.
- Investigating whether a feasible, credible pathway to carbon sequestration, offsets and investing in nature-based opportunities can be developed.

The Port is expanding its focus beyond the terminal gate, seeking opportunities across its national strategic network and the broader freight system where it can use its operational scale, resources, relationships, and influence to help enable absolute emissions reductions over time.

D. Support our workforce, stakeholders and communities

Nurturing our people is a key aspiration for the Port of Tauranga, with a strong focus on a positive health and safety culture and supporting overall wellbeing (physical, mental, emotional and financial). The future of work is a material issue currently that the Port aims to address through its strategies. The Port has reviewed existing processes and developed new near-term priorities to support its workforce and operations through the transition:

- Ensure existing emergency response across direct and outsourced labour is fit-for-purpose under different climate futures and/or stressors.
- Ensure current and future workforce planning is integrated with transition planning, to make sure the Port's people are looked after through future of work, technology, and operational health and safety changes.
- Upskilling and training of the workforce to cater for new roles as a result of new technologies and operations. e.g. automation.

Outcomes for stakeholders include improving community wellbeing through secure employment and prosperity at the local, regional and national levels, and forming effective partnerships to pursue a shared vision of success.

The Port also needs to ensure appropriate risk and return for shareholders, responsive environmental stewardship, and a highly effective and resilient logistics networks that meet the needs of the New Zealand supply chain. As physical and transition risks and opportunities can potentially affect these outcomes, particularly over the medium to long-term outlook, the Port will take a proactive and adaptative response to risks as needs arise. This is supported by its other transition objectives and is an ongoing focus.

E. Remain adaptive and responsive as the transition unfolds

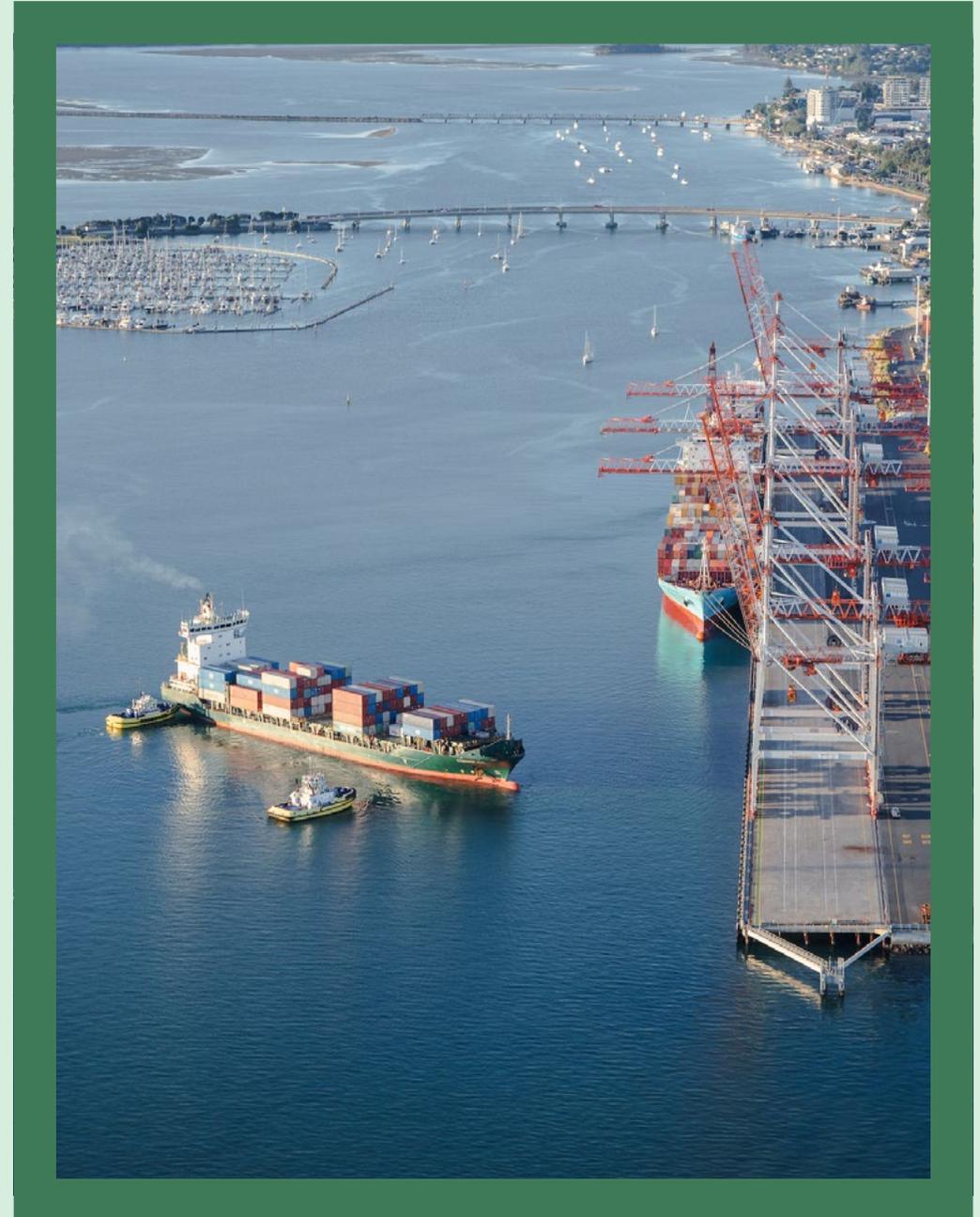
Achieving the Port's transition objectives requires a strategic and risk management system that is set up to recognise, monitor and respond to risk and opportunities, and enables a phased and dynamic adaptive approach. This has been a focus of review and the Port has developed the following goals and near-term priorities:

- **In FY2025** develop a longer-term blueprint underpinned by regular review aligned with business and strategic planning cycles so the Port's systems are set up to recognise, monitor and respond to risk and opportunities, and forms the foundation of a phased and dynamic adaptive approach to achieve transition objectives.
- **In FY2026** refine and ensure strategic intent is integrated into each of the Port's core operational areas, with supporting actions mapped and monitored across business operations, services, policies and financial planning.

This will be supported by more detailed actions to review and integrate climate risk into existing risk management frameworks and processes, including strategic planning and outlooks, stress-testing, and ongoing process and best practice development to monitor, review and test risk assumptions.

Targets and metrics

This statement constitutes the preparation used by Port of Tauranga in the disclosures of its Scope 1 and 2 greenhouse gas (GHG) emissions and related targets for reporting under the CRD regime (having utilised the amended standard to NZ CS2 regarding Scope 3 emissions).



Reporting period

This statement is applicable for the reporting period 1 July 2024 to 30 June 2025, following the Port's financial year cycle.

Assurance statement

NZ CS1 Appendix B paragraph B1 requires assurance over an entity's GHG emissions for reporting periods that end on or after 27 October 2024.

The Scope 1 and 2 GHG emissions disclosed by the Port for the reporting period under the CRD have undergone assurance by KPMG.

Intended use and users

The Port wants to measure and report its emissions for a number of reasons, namely to:

- Identify and prioritise emissions management and reduction opportunities
- Meet stakeholder expectations
- Meet reporting obligations under the Financial Sector (Climate-related Disclosures and Other Matters) Amendment Act 2021.

On this basis, the intended users of the Port's emissions inventory are:

- Existing and potential investors, lenders and other creditors
- The Port's Board of Directors and management
- All other interested stakeholders including regulators, communities, employees, customers, and contractors.

Standards used in the preparation of the inventory

The Port has prepared its Scope 1 and Scope 2 GHG emissions for the reporting period in accordance with:

- The Greenhouse Gas Protocol – A Corporate Accounting and Reporting Standard (Revised Edition)
- The Greenhouse Gas Protocol: GHG Protocol Scope 2 Guidance: An amendment to the GHG Protocol Corporate Standard.

Organisational boundaries

The Port as the reporting company has used the operational control consolidation approach, as defined by the GHG Protocol.

Under this consolidation approach the organisational boundaries established by the Port include the Port as the parent company and its wholly-owned subsidiaries, Quality Marshalling and Timaru Container Terminal and its joint venture interest in Ruakura Inland Port that is operated by Quality Marshalling. This organisational boundary is collectively referred to as the Group. The Port has another wholly owned subsidiary, Port of

Tauranga Trustee Company Limited, that has been excluded from the inventory as it has no associated emissions. For the reporting period the Port also held interests in additional joint ventures Coda Group, Northport Group, PrimePort Timaru and PortConnect that have been excluded from the Scope 1 and 2 emissions inventory due to a lack of operational control held by the Port or its subsidiaries. This is further detailed in Table 1 (see page 43).

The selected consolidation approach was chosen as it allows for the establishment of an organisational boundary that best aligns with the ability of the Port to influence emissions reductions. The emissions of joint ventures not included in the organisational boundary may be included in the Port's Scope 3 inventory in FY2026 following a full materiality assessment of Scope 3 sources.

Operational boundaries

The GHG Protocol Standard differentiates emissions into Scopes as follows:

- Scope 1 – Direct GHG emissions
- Scope 2 – Indirect GHG emissions (from the generation of acquired and consumed energy)
- Scope 3 – Indirect GHG emissions (other sources).

Direct GHG emissions are from sources that are owned or controlled by companies within the organisational boundary and indirect GHG emissions are from sources that occur as a consequence of the activities of the companies within the organisational boundary but occur at sources owned or controlled by another company.

Scope 1 emissions included for the Group include diesel combustion in owned or controlled plant (such as straddle carriers, tugs, pilot vessels, generators, terminal tractors, reach stackers, mobile harbour cranes and light vehicles) as well as the combustion of unleaded and premium petrol in light vehicles.

Scope 2 emissions for the Group include the consumption of electricity used in refrigerated container slots, ship-to-shore cranes, floodlighting, office buildings and electric vehicle charging stations.

A small amount of Scope 1 emissions has been excluded from the inventory, being gasses utilised in the Port's mechanical workshop, and refrigerant gas leaks. These have been excluded due to being immaterial to the inventory and/or poor data quality.

The Port leases several buildings where the Port pays for the electricity consumption and then on-charges the cost to the tenant. These electricity emissions have been excluded as they are the Scope 2 emissions of the Port's tenants (Scope 3 of the Port's emissions).

For the specified reporting period, all Scope 3 emissions have been excluded as the Port has elected to adopt the amending standard to provision 4: Scope 3 GHG emissions of NZ CS2 that allows for a climate reporting entity to not report on Scope 3 emissions in its first and second mandatory reporting year. This has been adopted as the Port is still undertaking an assessment of Scope 3 emissions operational boundaries.



Table 1: Organisational boundaries

Entity	Percent interest	Description of entity	Included in inventory?	Justification
Port of Tauranga Limited	100% (Parent company)	New Zealand's largest port and international freight gateway. Facilities include a container terminal, bulk cargo wharves, a bunker berth and extensive cargo storage and handling facilities in Tauranga. Road and rail connections to Hamilton, Auckland and the central North Island with extensive road networks and coastal shipping connections.	Yes	Port of Tauranga is the reporting company and therefore full Scope 1 and 2 emissions are included in the inventory.
Quality Marshalling (Mount Maunganui) Limited	100% (Subsidiary)	Specialist cargo handling services company with operations at Tauranga, Timaru and Ruakura.	Yes	Quality Marshalling is a wholly owned subsidiary of the parent company and therefore the full Scope 1 and Scope 2 emissions of the organisation are included in the inventory.
Timaru Container Terminal Limited	100% (Subsidiary)	Direct shipping links from Timaru to the international hub port at Tauranga and is operated by Port of Tauranga's subsidiary Quality Marshalling. Connected to the South Island main trunk railway line, which provides direct access to the MetroPort Christchurch inland port at Rolleston.	Yes	Timaru Container Terminal is a wholly owned subsidiary of the parent company and therefore the full Scope 1 and Scope 2 emissions of the organisation are included in the inventory.
Ruakura Inland Port	50% (Joint venture)	Inland container terminal located within Ruakura Superhub, at the nexus of the golden triangle of Tauranga, Auckland and Hamilton. Sits adjacent to the East Coast Main Trunk rail line and the Waikato Expressway. Operated by Port of Tauranga's subsidiary Quality Marshalling.	Yes	Ruakura Inland Port is under the operational control of Quality Marshalling and therefore the full Scope 1 and Scope 2 emissions of the organisation are included in the inventory.
Coda Group	50% (Joint venture)	Freight logistics group providing 4PL, 3PL and distribution centre services in the North and South Islands.	No	Port of Tauranga or its subsidiaries do not have full operational control over Coda Group and therefore it has been excluded from the inventory.
Northport Group Limited	50% (Joint venture)	Northport Group is a joint venture that owns a 100% subsidiary company, Marsden Maritime Holdings (MMH). MMH owns 100% of Northport, a deep-water commercial port situated at Marsden Point with container handling and bulk cargo handling facilities. It is New Zealand's northernmost multi-purpose port and the closest to most of New Zealand's international markets. MMH also owns strategic landholdings that are positioned well for future developments and future commercial growth.	No	Port of Tauranga or its subsidiaries do not have full operational control over Northport Group and therefore it has been excluded from the inventory.
PrimePort Timaru Limited	50% (Joint venture)	Commercial port that handles bulk cargoes and is home to a major cement facility and oil terminal.	No	Port of Tauranga or its subsidiaries do not have full operational control over PrimePort Timaru and therefore it has been excluded from the inventory.
PortConnect Limited	50% (Joint venture)	Online cargo management system.	No	Port of Tauranga or its subsidiaries do not have full operational control over PortConnect and therefore it has been excluded from the inventory.
Port of Tauranga Trustee Company Limited	100% (Subsidiary)	A non-trading holding company for Port of Tauranga's employee share scheme.	No	Port of Tauranga Trustee Company has no associated GHG emissions and therefore it has been excluded from the inventory.

Base year

The base year for the Group's Scope 1 and Scope 2 emissions has been set for the reporting period 1 July 2022 to 30 June 2023. This base year has been selected as it represents a period for which reliable data exists and is reflective of usual operational and economic conditions. The base year's Scope 2 emissions have been calculated using the location-based method. The Group is still undertaking an assessment of operational boundaries with respect to Scope 3 emissions. An appropriate base year for Scope 3 emissions will be determined through this process and may differ to the Scope 1 and Scope 2 base year.

Emission inventory summary

The Group's calculated emissions for the reporting period for Scope 1 and Scope 2 emissions are detailed in Table 2 (see page 45) expressed in t CO₂e as well as broken down into the six major GHGs covered by the Kyoto Protocol in Table 3 (see page 45). There is no biologically sequestered carbon to report on for the Group's Scope 1 and Scope 2 emissions.

Emissions for FY2023 and FY2024 have been restated in FY2025. In practice this meant an update to the location-based electricity emissions factors for these years based on the latest Ministry for the Environment (MfE) 2025 guidance. FY2023 Scope 1 emissions factors were also updated to reflect the MfE 2023 guidance emissions factors that were relevant to the FY2023 reporting period at that time. It was identified that the factors previously used were not in alignment with that guidance. These restatements have led to a 1.6% increase for FY2023 and 0.7% for FY2024 compared to figures disclosed for those reporting periods in our FY2024 CRD. Recalculations were undertaken for reasons of consistency and clarity, in line with our recalculation policy, even though changes were below the mandatory 5% threshold. This approach ensures that progress against our refreshed Scope 1 and 2 targets reflects the most up-to-date emissions factors, as even changes below the 5% threshold can affect how incremental progress is interpreted against our targets.

Calculation methodologies and uncertainty

All calculations of emissions are expressed in tonnes of carbon dioxide equivalent (t CO₂e).

Calculations are based on multiplying activity data (e.g. litres of fuel or kilowatt-hour (kWh) electricity) by an emissions factor (EF). EFs utilised in the Group's inventory for the reporting period are sourced from the MfE "Measuring emissions: A guide for organisations 2025" detailed guide. This edition uses Global Warming Potential (GWP) values with a 100-year time horizon sourced from the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5) and these are the GWPs that have been utilised in the Group's emissions inventory.

In calculating the Scope 2 market-based emissions, the 2024/2025 residual supply mix emissions factor published by BraveTrace was used. The Group has utilised EFs in calculating the emissions inventory as described in Table 4 (see page 46) that also highlights the method used, activity data uncertainty and assumptions and the rationale for the selected calculation methodology.

Uncertainties in either source data quality or EF uncertainties can have an impact on the accuracy of GHG emissions inventories and disclosures. Overall, the Scope 1 and Scope 2 emissions of the Group have a low degree of uncertainty due to clear supplier activity data. In the Group's view, the overall impact of the uncertainty on the disclosures of its Scope 1 and 2 emissions is low.

Emissions reduction targets

The Group's emissions reduction target is a combined Scope 1 and 2 target where Scope 2 emissions (and associated reductions) are calculated using the location-based method. The Group target is set out in Table 5 (see page 46).

The net zero by 2050 target is aspirational in nature and reflects the Group's desire to align its reductions with the Paris Agreement goal to hold the increase in the global average temperature to well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels. It is the Group's view that having a long-term aspirational target is an important component of the organisation's long-term future vision.

For FY2025, the Group did not have a near-term target in place while it undertook a review of its near-term target capabilities. For the five years prior to this, the Group had targeted a 5% annual reduction in intensity of Scope 1 and 2, and some Scope 3 emissions, without relying on offsets. However, due to the need to reassess Scope 3 emissions boundaries, near-term emissions reduction targets for the Group were reviewed in the current reporting period.

This review included a more detailed assessment of near-term decarbonisation opportunities and gave consideration to whether the setting of near-term science-aligned targets was a feasible option for the Group's Scope 1 and Scope 2 emissions.

The review led to near-term combined Scope 1 and 2 emissions reduction targets as follows:

- A 15% reduction in absolute emissions by 2035, and
- A 28% reduction in emissions intensity by 2035, using 2023 as the base year.

These targets are underpinned by modelling and their success relies on the model assumptions playing out within the assumed timeframes*. This includes a commitment for all future straddle purchases being hybrid (at minimum), the staged rollout of automated stacking cranes, procurement of hybrid tugs, and a trial of an electric straddle carrier (as the Port currently understands these initiatives).

The modelling accounts for growth assumptions and tonnage throughput forecasts as well as emissions factor forecasts for electricity based on MBIE's Electricity Demand and Generation Scenarios 2024 – Reference Scenario from FY2026 onwards. While the Port is committed to the trial of an electric straddle carrier, at this stage this technology still requires testing in the Port's operations and further rollout of electric straddles beyond the trial have therefore been excluded from the targets. Based on the above modelling it was also determined that near-term science-aligned targets were not a feasible option for the Group at this stage.

The Group is committed to reviewing these near-term targets annually as uncertainties are resolved, new initiatives are implemented, and forecasting becomes more granular and mature. As part of these annual reviews, the Group will continue to assess whether near-term science aligned targets become a realistic option that can be backed by a credible delivery plan.

* Note the Port's models are based on a 2.5% container volume growth rate at Tauranga Container Terminal (TCT), other emissions sources not dependent on container volume growth at TCT have been modelled at 1% year on year growth. Tonnage forecasts vary depending on location, for example, Tauranga Container Terminal 2.5%, Mount Maunganui Wharves 0.5%, Timaru Container Terminal 0.5% to FY2030, 1% from FY2031, and Ruakura Inland Port 2.5%

Performance in FY2025

Absolute Scope 1 and 2 emissions for FY2025 are 21.9 kt CO₂e, up 20% from FY2024 (18.2 kt CO₂e) and up 15% from the FY2023 base year (19.1 kt CO₂e).

The Scope 1 and 2 emissions intensity for FY2025 is 0.00084 t CO₂e per cargo tonne. This is a 13% increase compared to FY2024 (0.00074 t CO₂e) and a 12% increase compared to the FY2023 base year (0.00075kg CO₂e).

The increase in emissions for FY2025 can be attributed to two main things:

1. The MfE location-based electricity emissions factor for FY2025 has increased by 32% compared to FY2024 and is 23% higher than the FY2023 base year factor. This change is driven by a shift in electricity generation. The FY2023 and FY2024 factors reflect favourable hydro conditions, whereas the FY2025 factor reflects increased reliance on fossil fuels in the national electricity mix.
2. Diesel generator emissions at the Tauranga Container Terminal (TCT) saw a 126% increase compared to FY2024 and a 209% increase compared to the FY2023 base year.

Generators are used during peak periods when demand for refrigerated container (reefer) power exceeds the capacity of the existing electric plug-in infrastructure.

This significant increase in demand for reefer points was driven by:

- Strong export seasons for kiwifruit, meat, and dairy, increasing reefer volumes by 19.6% compared to FY2024
- Kiwifruit season starting early and dairy season finishing late, creating overlap and therefore increasing peak demand timeframes
- A shift from dry to refrigerated containers by some customers for certain cargo types
- Global weather-related vessel disruptions causing congestion and extended reefer plug-in durations; and
- A concentration of reefer vessel calls later in the week, reducing the usual spread of demand.

The Port has established a project team to investigate methods of reducing the reliance on generator capacity for FY2026. The Port's proposed automation project also caters for an increase in the number of electrical connections for reefers.

Internal carbon pricing

For the reporting period, no internal carbon price has been set. The internal carbon price used in the analysis of projects that could contribute to emission reductions has been based on current market pricing.

Base year recalculation policy

A base year recalculation is triggered where significant changes occur to the organisational boundary (i.e. merger, acquisition or divestiture), changes to calculation methodologies or emissions factors or the discovery of errors or omissions in the emissions source data. The significance threshold that triggers recalculation is set at 5% for combined Scope 1 and 2 emissions and could be either a single source or cumulative sources. The Group will review the recalculation significance threshold upon determination of its Scope 3 base year. The Group may decide to recalculate the base year for changes below the significance threshold for other reasons such as consistency or clarity. The reasons for recalculation will be clearly stated. For the avoidance of doubt, organic growth or decline does not trigger recalculation.

Table 2: Calculated emissions for the reporting period for Scope 1 and Scope 2 emissions

Scope	Current reporting period (1 July 2024 to 30 June 2025) t CO ₂ e	Previous reporting period (1 July 2023 to 30 June 2024) t CO ₂ e	Base year (1 July 2022 to 30 June 2023) t CO ₂ e
Total Scope 1 and Scope 2	21,873	18,154	19,059
Scope 1	18,182	15,417	15,699
Mobile combustion	14,412	13,746	14,479
Stationary combustion	3,770	1,671	1,220
Scope 2 (Location-based)	3,690	2,737	3,360
Scope 2 (Market-based)	4,141	2,784	2,856

Table 3: Major GHGs covered by the Kyoto Protocol

Greenhouse gas	Metric tonnes	t CO ₂ e
CO ₂ (Carbon dioxide)	21,519	21,519
CH ₄ (Methane)	5	136
N ₂ O (Nitrous oxide)	1	218
HFCs (Hydrofluorocarbons)	–	–
PFCs (Perfluorocarbons)	–	–
SF ₆ (Sulphur hexafluoride)	–	–

Table 4: Calculating the emissions inventory

Scope and type	Unit	EF	EF source	Method adopted	Activity data uncertainty and assumptions	Rationale for selected methodology
Scope 1 (Diesel)	Litres	Transport fuel Stationary combustion commercial use	MfE	Activity-based	Low uncertainty. Activity data is sourced directly from suppliers and expressed as litres sold in the reporting period. It is assumed that supplier reports are accurate, and that fuel reported for the reporting period was used in the reporting period.	This calculation methodology and EFs were selected for quantifying diesel-related emissions as the Group understands it to be the most accurate method available for the quantification of emissions associated to diesel utilised in Group owned or controlled assets.
Scope 1 (Petrol premium and petrol regular)	Litres	Transport fuel	MfE	Activity-based	Low uncertainty. Activity data is sourced directly from suppliers and expressed as litres sold in the reporting period. It is assumed that supplier reports are accurate, and that fuel reported for the reporting period was used in the reporting period.	This calculation methodology and EFs were selected for quantifying petrol premium related emissions as the Group understands it to be the most accurate method available for the quantification of emissions associated to petrol utilised in Group owned or controlled plant.
Scope 2 (Electricity)	kWh	Location-based method grid average annual 2024 Market-based method residual supply mix 2024/2025	MfE BraveTrace	Activity-based	Low uncertainty. Activity data is sourced directly from suppliers either through reports or extracted from data portals or from invoices. Electricity consumption is expressed in kWh per installation control point (ICP) that is charged to the Group. It does not include kWh associated to transmission and distribution losses. kWh consumption for ICPs fully on-charged by the Group to tenants are not included. Partially on-charged ICPs where the Port uses 50% or more are included entirely and where it uses less than 50% are excluded entirely. It is assumed that supplier reports are accurate, and that kWh reported for the reporting period was used in the reporting period. It is assumed that the annual EF used is representative of the emissions associated to kWh consumed in the reporting period by the Group despite not aligning completely with the reporting period as the location-based EF is based on a calendar year and the market-based EF for the period 1 April to 31 March.	This calculation methodology and EFs were selected for quantifying electricity related emissions as it can be applied to the full reporting period kWh consumption. The Group understands it to be the most accurate method available (other than quarterly EFs for the location-based method) for the quantification of emissions associated to electricity utilised in Group owned or controlled assets.

Table 5: Group greenhouse gas emissions targets

Applicable Scopes	Target	Target base year	Target type	Reliance on offsets	Rationale for selected methodology
Scope 1 Scope 2	Net zero kt CO ₂ e by 2050	2023	Absolute	To be determined	Target is science-aligned when comparing to Science Based Targets Initiative (SBTi) long-term target criteria and therefore contributes to limiting global warming to 1.5°C.
Scope 1 Scope 2	A 15% absolute emissions reduction (kt CO ₂ e) by 2035	2023	Absolute	This target does not rely on offsets	The organisation has modelled the impacts on emissions of its strategic decarbonisation investments under growth assumptions that are grounded in its current and expected capabilities and expectations in the near-term. This ensures the Group's near-term targets are backed by data and that they can be adjusted and refined over time as uncertainties are resolved and additional decarbonisation initiatives are investigated and implemented. These targets are not science-aligned when comparing to SBTi near-term target criteria and therefore do not align with the degree of reduction required over the near-term to contribute to limiting global warming to 1.5°C. However, these targets along with a commitment to regular review keep the organisation on track to strive for continued reductions whilst investigating further reduction opportunities that may facilitate the setting of more ambitious near-term targets in future.
Scope 1 Scope 2	A 28% emissions intensity reduction (t CO ₂ e per cargo tonne) by 2035	2023	Intensity	This target does not rely on offsets	

Allocation of capital towards climate-related risks and opportunities

The tables below describe the actual spend. This expenditure is part of multi-year projects and does not represent the full investment in these initiatives.

Investment in low carbon initiatives – Climate-related Risks	FY2025	FY2024
Hybrid straddles	\$0	\$5,606,859
Automation/electrification	\$1,383,215	\$1,131,660
Lighting upgrades	\$574,306	\$233,978
Total parent capital expenditure	\$27,221,000	\$34,691,000
Percentage on low carbon initiatives	7%	20%

Bigger ships – Climate-related Opportunities	FY2025	FY2024
Dredging the shipping channel	\$3,119,970	\$1,286,767
Sulphur Point berth extension (Stella Passage project)	\$1,579,523	\$440,075
Total parent capital expenditure	\$27,221,000	\$34,691,000
Percentage on CROs	17%	5%
Percentage on CRRs and CROs	24%	25%

% of marine fleet which are low emissions vessels	FY2025	FY2024
Number of low emissions vessels (hybrid or better)	0	0
Number of vessels (as at 30 June)	5	5
<i>Low-emissions vessels will account for 40% of the total marine fleet (tugs and pilot vessels) by 2035</i>	0%	0%

% of straddle fleet which are low emissions vehicles	FY2025	FY2024
Number of hybrid straddles at 30 June (4 purchased in FY2024)	7	7
Number of straddles at 30 June	53	54
<i>100% of the straddle carrier fleet will be made up of low-emissions units by 2035 (hybrid or better)</i>	13%	13%

Port of Tauranga Limited – Targets for the financial years ended 30 June 2025 and 2026

Internal emissions price FY2025

Price of carbon per \$tonne: No internal emissions price has been set.

Management remuneration linked to CRR/CROs FY2025		
CE – Short Term Incentive (STI)	Develop Transition Plan and target reduction in t CO ₂ e	5%
	Targets linked to port expansion, infrastructure development (including berth extension and automation)	12.5%
CFO – STI	Develop Transition Plan and target reduction in t CO ₂ e	5%
GM Commercial – STI	Develop Transition Plan and target reduction in t CO ₂ e	5%
	Terminal automation project	10%
GM Property and Infrastructure – STI	Develop Transition Plan and target reduction in t CO ₂ e	5%
	Targets linked to port expansion, infrastructure development (including berth extension and automation)	10%
GM Corporate Services – STI	Develop Transition Plan and target reduction in t CO ₂ e	5%
GM Communications – STI	Develop Transition Plan and target reduction in t CO ₂ e	5%
	Climate-related Disclosures	5%
GM Health and Safety – STI	Develop Transition Plan and target reduction in t CO ₂ e	5%

FY2025 target category		Short-term	Long-term (FY2050)
GHG emissions	Intensity per cargo tonne Scopes 1 and 2 (reduction target)	5.0%	Net zero
	Absolute emissions Scopes 1 and 2 (reduction target)	2.5%	Net zero
Investment in low carbon initiatives	Low emission electric/hybrid straddles Automation/electrification Lighting upgrades Low emission fleet vehicles Hybrid tug	No specific target has been set, however capital budget has been allocated to all items	
Investment in climate-related opportunities	Dredging the shipping channel Sulphur Point berth extension (Stella Passage project)	No specific target has been set, however capital budget has been allocated to all items	

Internal emissions price FY2026

Price of carbon per \$tonne: No internal emissions price has been set.

Management remuneration linked to CRR/CROs FY2026		
CE – STI	Develop Transition Plan and target reduction in t CO ₂ e	5%
	Targets linked to port expansion, infrastructure development (including berth extension, capital dredging and automation)	12.5%
CFO – STI	Develop Transition Plan and target reduction in t CO ₂ e	5%
GM Commercial – STI	Develop Transition Plan and target reduction in t CO ₂ e	5%
	Targets linked to terminal automation project and other infrastructure development projects	10%
GM Property and Infrastructure – STI	Develop Transition Plan and target reduction in t CO ₂ e	5%
	Targets linked to port expansion, infrastructure development (including Stella Passage development and capital dredging)	15%
GM Corporate Services – STI	Develop Transition Plan and target reduction in t CO ₂ e	5%
GM Communications – STI	Develop Transition Plan and target reduction in t CO ₂ e	5%
GM Health and Safety – STI	Develop Transition Plan and target reduction in t CO ₂ e	5%

FY2026 target category		Near-term (FY2035)	Long-term (FY2050)
GHG emissions	Intensity per cargo tonne Scopes 1 and 2 (reduction target)	28%	Net zero
	Absolute emissions Scopes 1 and 2 (reduction target)	15%	Net zero
Investment in low carbon initiatives	Low emission electric/hybrid straddles Automation/electrification Lighting upgrades Low emission fleet vehicles Hybrid tug	No specific target has been set, however capital budget has been allocated to all items	
Investment in climate-related opportunities	Dredging the shipping channel Sulphur Point berth extension (Stella Passage project)	No specific target has been set, however capital budget has been allocated to all items	

Direct climate-related risk and opportunity metrics

The percentage of Port of Tauranga assets and business activities identified as vulnerable to direct climate-related risks and aligned with climate-related opportunities has been provided on a value at risk ("VaR") basis (capital VaR for assets and annual revenue VaR for activities).

Non-Tauranga assets and business activities

Assets and business activities across sites outside of Tauranga are also addressed (despite constituting a small proportion on a VaR basis) due to the importance of the interconnected and often inter-dependent national network from strategic, value proposition and operational perspectives. Less than 6% of total capital VaR and total revenue VaR is located at sites outside of Tauranga.

Joint ventures

In line with our staged approach to joint ventures, more detailed metrics for these investments (including their underlying assets and revenue streams exposed to climate-related risks and opportunities) will be provided in FY2026. This will incorporate any assessments undertaken by our joint venture partners.

Direct climate-related risk and opportunity key metrics

In accordance with NZ CS1 22(c) to (e), metrics for direct climate-related risks ("DR") 1-5 and direct climate-related opportunities ("DO") 1-2 are as follows:

Capital VaR

100% Of assets across all sites are vulnerable to **DR1: "Increased wear and tear and risk of acute damage to assets caused by exposure to increased rainfall, wind and storm events"**.

However, the level of vulnerability varies across sites (due to variances in regional climate hazards projections) and assets (due to their respective levels of resilience).

<3% Of Port assets across all sites are vulnerable to **DR3: "Risk of flood related damage and disruption, due to sea level rise and increased extreme rain, wind and storm events"**.

This is based on available fluvial, pluvial and coastal flood projections for a 1% AEP pluvial flooding or coastal inundation event under RCP 8.5 (taking into account sea level rise).

Revenue VaR

100% Of all Port assets and opportunities located across all Port sites are aligned with (i.e. stand to benefit from):

DO1: Structural changes to New Zealand's national freight system (road to multi-modal).

Freight mode shift from road to rail and coastal shipping entails a further shift to a hub-and-spoke model (where international freight enters/exits hubs such as Port of Tauranga and is then moved between regions via coastal shipping). This outcome is likely to increase freight movements via Port sites.

DO2: Introduction of larger low-carbon shipping vessels.

Operating routes to/from the Port of Tauranga is expected to increase the Port's role as an international hub, further facilitating a shift towards the hub-and-spoke model described above. This is expected to also increase business activity via all sites (due to the interconnected strategic nature of the Port's national network).

100% Of business activities across all sites are vulnerable to **DR2: "Increasing instances of disruption, caused by exposure to increased rainfall, wind and storm events"**.

Marine services and certain cargo-handling activities were identified as being the most vulnerable, whereas commercial leasing has a comparatively low level of vulnerability.

90% Of all business activities are prima facie vulnerable to being impacted by **DR3**.

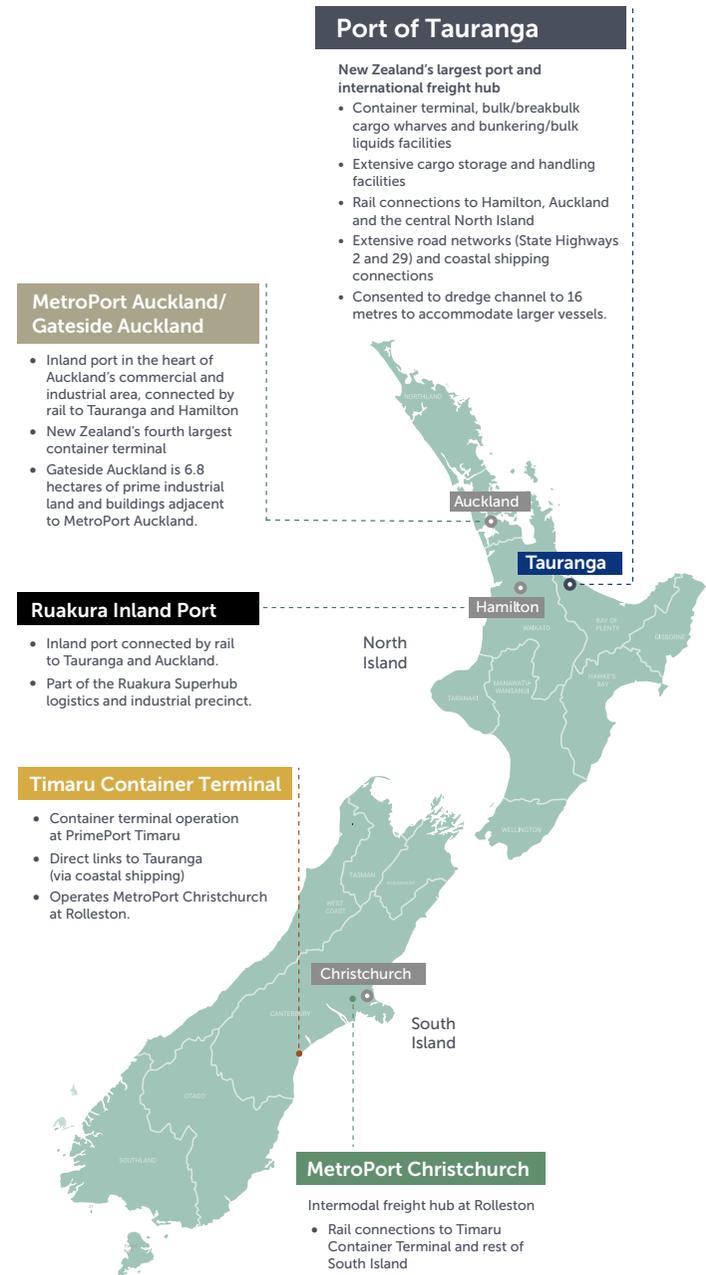
All business activities at the Port of Tauranga, Gateside Auckland, and Ruakura could be disrupted, except for commercial leasing, which is unlikely to be materially impacted by rare instances of flooding and/or coastal inundation.

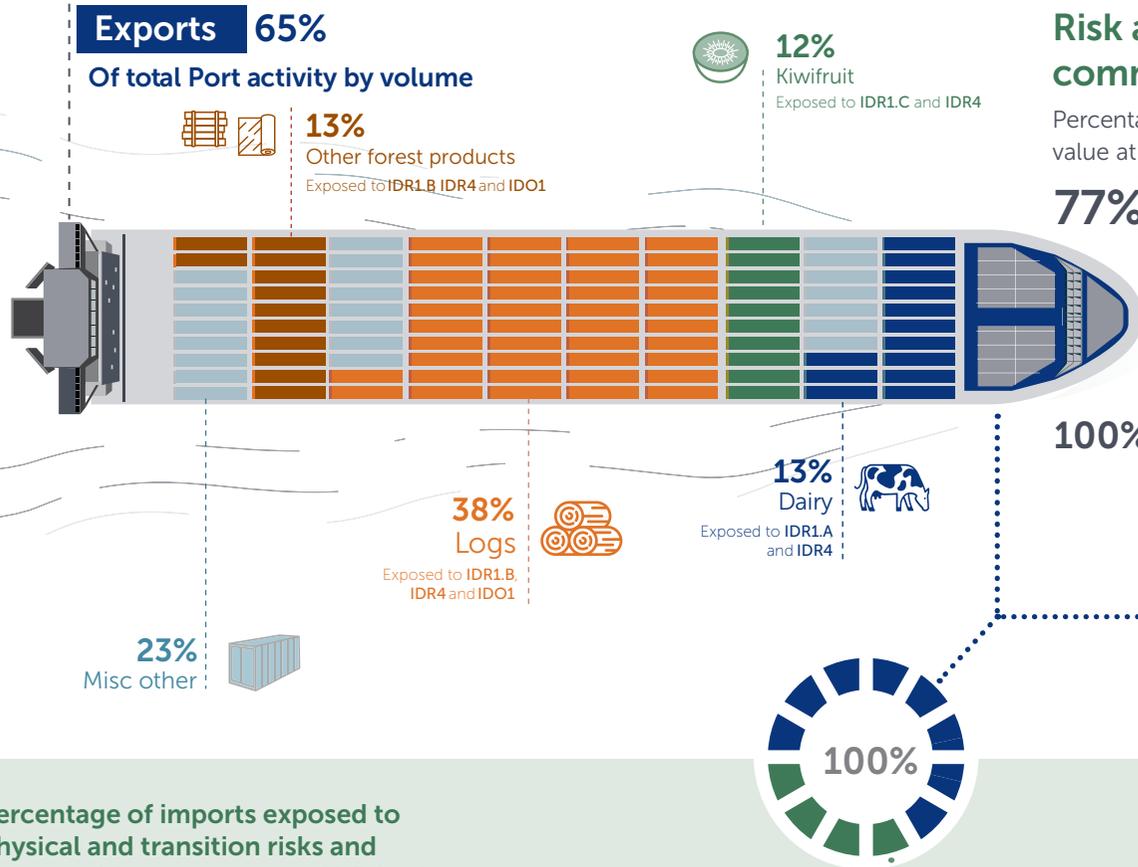
90% Of Port activities are vulnerable to **DR4: "Risk of disruption to road and rail access due to sea level rise and increased extreme weather (rain, wind and storm) events"**.

DR4 is relevant to business activities across the Tauranga, Gateside Auckland, and Timaru sites, excluding commercial rentals. This is based on a 1% AEP pluvial flooding or coastal inundation event under RCP 8.5.

100% Of all business activities are prima facie vulnerable to **DR5: "Risk to Port of Tauranga wharves, harbour access, and loading/unloading capability, due to sea level rise and increased coastal inundation"**.

Most buildings, infrastructure, and other improvements to land assets at the Port of Tauranga are exposed to full or partial stranding if wharf or harbour access is compromised. This may also have an indirect adverse impact on land capital values. Given the inter-dependent network nature of Port of Tauranga's operations across all sites, all business activities are also deemed potentially vulnerable.





Risk and opportunity exposure via import/export commodities by volume

Percentage of exports exposed to physical and transition risks and opportunities on a revenue value at risk ("VaR") basis:

77% Of total annual exports are comprised of logs and other forest products, dairy and kiwifruit "Key Export Commodities".

52% Of total annual exports are **Logs** and **Other forest products**, which are aligned with IDO1: Increased demand for logs and other forestry export commodities due to changing preferences and the emergence of new low carbon sustainable alternatives.

100% Of Port business activities are exposed to IDO1, IDR1, and IDR4
All Port business activities (e.g. terminal, cargo, marine, storage and related operations) play a role in facilitating the receipt and shipment of all exports.

100% Of **Key Export Commodities**, which comprise 50% of total freight (i.e. all imports and exports) are exposed to:

- **IDR1:** Risk of compromised seasonal production and gradual loss of productive capacity over time (see IDR1.A to IDR1.C)
- **IDR4:** Impact of changing market access rules and other climate-related regulations on key export commodity volumes.

All **imports** and **exports** are exposed to Direct Risks and Opportunities
As each relies on Port assets and business activities which are exposed to direct risks (DR) 1-5 and direct opportunities (DO) 1-2.

Percentage of imports exposed to physical and transition risks and opportunities on a revenue VaR basis:

IDR2: Reduced availability and/or increased cost of stock feed

Has the potential to impact supply of and demand for stock feed imports, which comprise:

15% of annual imports; or

5% of total freight (i.e. all imports and exports).

IDR5: Decarbonisation of New Zealand's transport system

Is expected to fundamentally alter demand for liquid fuel imports, which comprise:

17% of annual imports; or

6% of total freight (i.e. all imports and exports).

DO2: Impact of climate migration and transition to a low carbon climate resilient future, on demand for miscellaneous imported goods

Specifically, containerised goods and breakbulk which comprise:

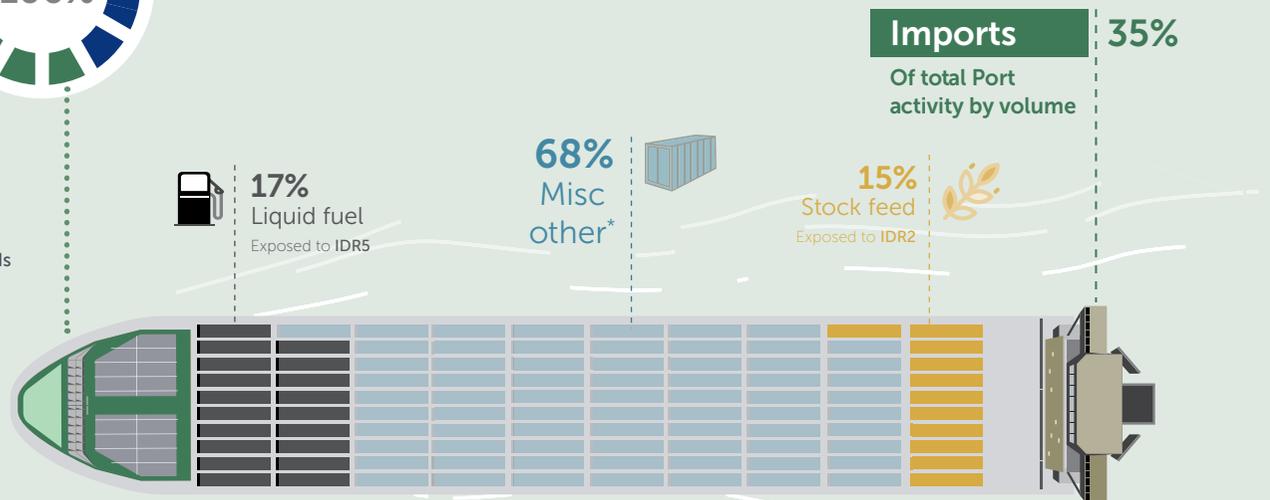
68% of total imports; or

24% of total freight (i.e. all imports and exports).

100% of Port business activities are exposed to IDR2, IDR5, and DO2

As they each play a role in the landing, holding, and dispatching all imported goods (albeit to varying extents depending on the method of unloading and handling each category, amongst other factors).

* Miscellaneous imported goods subcategories are set out in IDO2.



Glossary



Aotearoa New Zealand Climate Standards

Standards issued by the External Reporting Board that comprise the Climate-related Disclosures framework.

Climate-related opportunities

The potentially positive climate-related outcomes for an entity. Efforts to mitigate and adapt to climate change can produce opportunities for entities, such as resource efficiency and cost savings, the adoption and use of low-emissions energy sources and building resilience in the value chain.

Climate-related risks

The potential negative impacts of climate change on an entity. See also the definitions of physical risks and transition risks.

Climate resilience

The capacity to cope with a changing climate. This includes the ability to project, assess, prepare for, respond to, recover from, and adapt to the impacts of climate change.

Climate scenario

A plausible, challenging description of how the future may develop based on a coherent and internally consistent set of assumptions about key driving forces and relationships covering both physical and transition risks in an integrated manner. Climate scenarios are not intended to be probabilistic or predictive, or to identify the “most likely” outcome(s) of climate change. Port of Tauranga has drawn from scenarios developed by Aotearoa Circle for the transport, agriculture and energy sectors. These scenarios may not be representative of the entire sector’s views.

Greenhouse gas (GHG)

Atmospheric gases including carbon dioxide, methane and nitrous oxide that contribute to trapping heat in Earth’s atmosphere. Human activities such as the burning of fossil fuels increase greenhouse gas levels in the atmosphere leading to more trapped heat and therefore consequential increases in the global average temperature and associated effects on climate systems.

Materiality

The degree to which climate-related risks and opportunities could affect an entity’s ability to create value for itself, its stakeholders and society at large.

Physical risks

Risks related to the physical impacts of climate change. Physical risks arising from climate change can be event-driven (acute) such as increased severity of extreme weather events. They can also relate to longer term shifts (chronic) in precipitation and temperature and increased variability in weather patterns, such as sea level rise.

Scope 1

Direct GHG emissions from sources owned or controlled by the entity.

Scope 2

Indirect GHG emissions from consumption of purchased electricity, heat, or steam.

Scope 3

Other indirect GHG emissions not covered in Scope 2 that occur in the value chain of the reporting entity, including upstream and downstream GHG emissions. Scope 3 categories are purchased goods and services, capital goods, fuel-related and energy-related activities, upstream transportation and distribution, waste generated in operations, business travel, employee commuting, upstream leased assets, downstream transportation and distribution, processing of sold products, use of sold products, end-of-life treatment of sold products, downstream leased assets, franchises, and investments.

Transition plan

An aspect of an entity’s overall strategy that describes an entity’s targets, including any interim targets, and actions for its transition towards a low-emissions, climate-resilient future.

Transition risks

Risks related to the transition to a low-emissions, climate-resilient global and domestic economy, such as policy, legal, technology, market and reputation changes associated with the mitigation and adaptation requirements relating to climate change.

Value chain

The full range of activities, resources and relationships related to an entity’s business model and the external environment in which it operates. A value chain encompasses the activities, resources and relationships an entity uses and relies on to create its products or services from conception to delivery, consumption and end-of-life. Relevant activities, resources and relationships include those in an entity’s operations, such as human resource; those along its supply, marketing and distribution channels, such as materials and service sourcing and product and service sale and delivery; and the financing, geographical, geopolitical and regulatory environments in which an entity operates.

Endnotes

1. Stats NZ: [Overseas merchandise trade datasets](#), Ministry of Transport: [Freight Information Gathering System \(FIGS\): Containers](#).
2. The Agricultural Sector Tū-ā-hope, Misstep (Disorderly) scenario is based on NIWA RCP 4.5, which yields substantially different physical impact outcomes compared to RCP 2.6, which the Transport Sector's Short Detour equivalent is based on. Port of Tauranga chose to align its Disorderly scenario with the Agricultural Sector equivalent because: (a) it provides a more distinct set of challenging circumstances to test against (i.e. compared to RCP 2.6, which yields physical impact outcomes that are similar to those in the Port's Orderly scenario); and (b) the difference in physical impacts (i.e. between RCP2.6 vis-a-vis RCP 4.5) was deemed to be more pertinent to the primary sector commodities that make up the majority of the Port's exports than it is to elements of the transport system which are relevant to the Port. SSP5 assumes continued fossil fuel consumption and rapid technological advancement will enable functional global trade that delivers high economic growth. In contrast, SSP3 depicts a fragmented world characterised by regional blocs, protectionism, and low economic cooperation. The Port elected to align with SSP3 because: (a) it entails circumstances that are arguably more challenging and thereby present more opportunity to stress test the resilience of the Port's business model; and (b) it will likely entail physical impacts that are similar to those under SSP5-8.5.
3. Acute and chronic climate hazards projected to rise across all Port scenarios which are aligned with SSP1-2.6, SSP2-4.5, SSP3-7.0. These hazard trajectories remain closely aligned through the 2030s, generating only gradual increases, then diverge sharply from the early 2040s, lifting asset wear and acute-damage risks accordingly.
4. Note: Minor changes to the impact ratings relative to FY2024 have been made to reflect updated assessed levels of exposure against the recently released NIWA downscaled CMIP6 datasets for SSP1-2.6, SSP2-4.5, SSP3-7.0.
5. Refer to DR1 for additional details regarding assets located across JV sites. These sites are included because they are integral to the Port's broader strategic national network, meaning operational impacts from a significant DR3-related outage could still be material (despite capital value of assets at each site being comparatively low).
6. Note: Minor changes to the impact ratings relative to FY2024 have been made to reflect updated assessed levels of exposure against the recently released NIWA downscaled CMIP6 datasets for SSP1-2.6, SSP2-4.5, SSP3-7.0.
7. [Effects of sea-level rise on dredging and dredged estuary morphology](#), *Journal of Geophysical Research: Earth Surface*, 127(11). Projected sea level rise in conjunction with more frequent and intense acute climate events may also necessitate additional investment in sea walls and similar protective infrastructure.
8. Note: Changes to the impact ratings relative to FY2024 reflect the inclusion of additional JV sites, which in some cases have higher assessed levels of exposure.
9. [Ministry of Transport. \(2017\). Future freight scenarios study](#), Wellington: Ministry of Transport.
10. Note: Minor changes to the impact ratings relative to FY2024 are a result of incorporating a wider range of information in addition to the Aotearoa Circle's Transport Sector Climate Change Scenarios at Appendix D: Detailed climate scenario parameters. This included anticipated outcomes derived from structured scenario analysis using updated SSP-RCP archetypes.
11. For example, [Intergovernmental Panel on Climate Change. \(2022\). Mitigation of climate change: Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Chapter 10](#): Transport.
12. [Aotearoa Circle's Transport Sector Climate Change Scenarios](#) at Appendix D:
13. International Maritime Organization & GreenVoyage2050 (2023): [Readiness of low- and zero-carbon marine fuels technology](#), International Energy Agency: [International shipping](#), International Maritime Organization: [2023 IMO strategy on reduction of GHG emissions from ships](#), Smith School of Enterprise and the Environment (2024): [Emission and technology pathways in the shipping sector](#).
14. Note: Changes to the impact ratings relative to FY2024 reflect updated drivers that may accelerate deployment of larger vessels (e.g. EU ETS carbon-pricing now extended to shipping, and the potential approval of the IMO Net-Zero Framework later this year), alongside findings from a more granular impact assessment.
15. [Agri adaptation climate scenarios. April 2023. The Aotearoa Circle](#).
16. [Ministry for Primary Industries \(2012\): Impacts of climate change on land-based sectors and adaptation options: Stakeholder report](#), Fonterra Co-operative Group (2023): [Climate-related disclosure 2023](#), Climate change adaptation in Aotearoa New Zealand: [Evolving risks and responsibilities: Climate change impacts on land use suitability](#), In L.D. Currie & C.L. Lindsay (Eds.), [Nutrient management in a rapidly changing world](#) (Occasional Report No. 22), Ministry for Primary Industries (2025): [Situation and outlook for primary industries \(SOP1\)](#), Lincoln University (2020): [Agribusiness climate change report](#) [Prepared for Westpac New Zealand], Westpac New Zealand (2021): [Canterbury dairy drought impact case study](#).
17. [Ministry for Primary Industries \(2018\): Climate change impacts on dairy farming and adaptation options: Current and planned adaptation and mitigation in New Zealand dairy farms](#), Westpac New Zealand (2020): [On-farm greenhouse gas mitigations report](#), Fonterra (2024): [Climate roadmap: Climate change and its impacts on Aotearoa New Zealand](#), Deep South National Science Challenge.
18. Ministry for Primary Industries (2018): [The effect of climate change on New Zealand's planted forest](#), Ministry of Business, Innovation and Employment (2023): [Impacts of climate change on national and regional productivity and profitability: Forestry](#).
19. [Zespri five-year outlook 2024](#), Westpac New Zealand (2021): [Kiwifruit climate change fact sheet](#), Potential impact of climate change on Hayward kiwifruit production viability in New Zealand, National Institute of Water and Atmospheric Research (NIWA) [Updated national climate projections for Aotearoa New Zealand](#), Bay of Plenty Regional Council: [Regional climate change risk assessment](#), NIWA: [Climate change projections and impacts for the Bay of Plenty region](#).
20. [Zespri Group Limited \(2022\): Zespri climate change adaptation plan](#).
21. [Our Land and Water National Science Challenge \(2024\): Implications of global price and supply of supplementary feeds on the New Zealand agricultural sector](#), United States Department of Agriculture (2025): [Grain and feed market situation: New Zealand](#), Intergovernmental Panel on Climate Change (2019): [Chapter 5: Food security](#), World Bank (2021): [Climate risk country profile: Indonesia](#), Washington, DC: World Bank, Asian Development Bank (2021): [Climate risk country profile: Malaysia](#), International Energy Agency (2024): [Biofuels](#), International Energy Agency (2024): [Renewables 2024: Renewable fuels](#), International Energy Agency (2023): [Renewables 2023: Transport biofuels](#).
22. Ministry for Primary Industries (2025): [Situation and outlook for primary industries \(SOP1\)](#).
23. The Aotearoa Circle (2023): [Agri adaptation climate scenarios](#), Fonterra Co-operative Group (2023): [Climate-related disclosure 2023](#), OECD & FAO (2025): [Organisation for Economic Co-operation and Development/Rome: Food and Agriculture Organization of the United Nations: Our Land and Water National Science Challenge \(2024\): Protein futures synthesis: Final report](#), New Zealand's climate change programme: [Targets, policies, institutions](#), Policy Quarterly, Food and Agriculture Organization of the United Nations (2019): [Climate change and the global dairy cattle sector: The role of the dairy sector in a low-carbon future](#).
24. [Aotearoa Circle \(2024\): Protecting New Zealand's competitive advantage](#), Toitū Envirocare (2023): [How NZ exporters can avoid EU carbon border tax](#).
25. [Ministry of Foreign Affairs and Trade \(2025\): One year on: Implementation of the European Union's Carbon Border Adjustment Mechanism](#), Ministry of Foreign Affairs and Trade (2024): [UK Carbon Border Adjustment Mechanism](#).
26. Note: Minor changes to the impact ratings relative to FY2024 have been made to reflect updated assessed levels of exposure and potential impacts based on the introduction of additional transition drivers such as extension of the EU ETS to include emissions from certain ships calling at EU ports.
27. [Ministry of Business, Innovation and Employment \(2024\): Oil statistics](#).
28. [Ministry of Business, Innovation and Employment \(2021\): About our fuel system: Consultation document – Draft fuel security plan](#), Ministry for the Environment (2024): [New Zealand's second emissions reduction plan 2026–2030](#), Climate Change Commission (2025): [Emissions reduction monitoring report 2025](#), Ministry for the Environment (2022): [Aotearoa New Zealand's first emissions reduction plan: Transport chapter](#), Z Energy (2021): [The future of fuel demand](#), Energy Efficiency and Conservation Authority (2023): [New Zealand energy scenarios](#), Ministry of Business, Innovation and Employment (2025): [Energy in New Zealand 2025](#), Aotearoa Circle's Transport Sector Climate Change Scenarios.
29. [International Energy Agency \(2023\): Renewables 2023](#), Ministry for Primary Industries (2020): [The future of forestry](#), Ministry for Primary Industries (2023): [Forestry and wood processing industry transformation plan: Final report](#), Forestry and wood processing industry transformation plan: [Context, development and opportunities](#), New Zealand Journal of Forestry, Ministry for Primary Industries (2020): [Wood fibre futures: Investment in the use of commercial forest biomass to move New Zealand towards carbon zero – Stage 1](#), Ministry for Primary Industries (2022): [New Zealand wood fibre futures project: Stage two – Final main report](#), [Climate and land use change: Potential impacts on New Zealand land use](#), Motu Economic and Public Policy Research, Parliamentary Commissioner for the Environment (2024): [Farms, Forests and Fossil Fuels – Reset? Examining the Drivers of Forestry in New Zealand](#).
30. Note: Minor changes to the impact ratings relative to FY2024 have been made to reflect updated assessed levels of exposure and potential impacts based on a range of additional transition driver changes that have occurred in the last year.
31. [Evaluating the opportunity to engineer transition to low carbon freight transport in New Zealand](#), University of Canterbury EPE Centre, March 2022.

