

PORT NELSON

Climate-Related Disclosure Report 2024



// Welcome to

Port Nelson's Climate- Related Disclosure Report

E aronui ana ki ō tātou tāngata kei te manawa pātuki o Whakatū, me mihi ka tika hoki.

Mai i ngā pae maunga ki Tangaroa takapou whāriki, Papatūānuku e hora ake nei.

Ko tā tātou i Te Taihu, he tautoko i ngā wawata, he hāpai anō hoki i te oranga o te hāpori.

E kōkiri whakamua ana te kounga hei painga mā ō tātou kiritaki.

E aronui ana ki te taiao, kia tū, kia oho, kia mataara ki te anamata.

E kaha whakaputa mai ana i ngā hua mā te hunga whaipānga.

E mahi ngātahi ana, e aro ngātahi ana 'ki te hāpai i te puawaitanga ā-rohe'.

We acknowledge our people, who are at the heart of Port Nelson.

We honour the mountains, the sea and the land under, in, and upon which we operate.

We recognise our role within Te Taihu and support the aspirations and wellbeing of our community.

Driving excellence across the supply chain for our customers.

Respecting the environment in which we operate and pushing towards a sustainable future.

Delivering strong and sustained returns for our shareholders.

Working and striving together 'to facilitate regional prosperity'.



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DISCLAIMER: Quantifications in this report of financial impacts of climate change are estimates only and are not intended to constitute earnings guidance. No representation is made as to their accuracy, completeness, or reliability. These risks and opportunities may not eventuate, and if they do, the actual impact may differ materially from these estimates. Other material risks and opportunities may exist or eventuate that are not included within this report.

Introduction





Port Nelson Limited and its wholly owned subsidiaries (Port Nelson) is pleased to present its 2024FY climate-related financial disclosures in accordance with Aotearoa New Zealand's Climate Standards (NZ CS 1, 2 and 3) pursuant to section 12(a) of the Financial Reporting Act 2013. This is the first report of this type produced by Port Nelson.

The purpose of this report is to describe Port Nelson's risks and opportunities arising from the impact of climate change on its activities in the short, medium, and long term, in line with the goal of climate-related disclosures to support capital allocation toward climate change-related transitions. The report aims to provide stakeholders with an understanding of the potential implications of climate change on its business, highlighting potential climate risks (both physical and transitional), opportunities, and the strategy to address these. Additionally, it offers an overview of Port Nelson's governance structures and how it measures carbon emissions against its targets.

// The report aims to provide stakeholders with an understanding of the potential implications of climate change on its business.

As part of its continuous improvement journey, Port Nelson is committed to reducing environmental impacts and pushing towards a more sustainable future. The Port expects to further develop and improve its climate change reporting as more information, experience, and knowledge are gained.

The report covers the four required sections within NZ CS 1 - governance, strategy, risk management and metrics and targets.

Consistent with the requirements of Council shareholders, both the Port's shareholder (IHL) and its subsidiaries will commence reporting against New Zealand's Climate Standards in 2024. Over the following three years, the disclosure will mature through three phases: scoping, qualitative compliance and quantitative compliance. The aim is for full compliance to be reached at the end of 2026FY.



// "Port Nelson has a good understanding of the risks that it faces from climate change scenarios and the impact of those risks physically and operationally. However, further work is required to quantify the financial implications of the risk.

There are a number of opportunities for the Port to mitigate and adapt to potential risks, and we are fortunate to have the national treasure that is our Whakatū Boulder Bank, which protects the Port from storm events. Mitigation and adaptation of the cargo types that pass through the Port and the infrastructure links that connect the Port are more challenging, and the Port looks forward to working with its stakeholders to establish optimal adaptation plans.

Importantly, the Port is committed to reducing its own contribution to carbon emissions. As a member of the Climate Leaders Coalition, we are actively pursuing plans aligned with science and limiting warming to 1.5 degrees Celsius above pre-industrial levels. "

- CEO, Hugh Morrison



Port Nelson is an international port located in the city of Nelson owned by Infrastructure Holdings Limited (IHL) which is, in turn, equally owned by Nelson City Council and Tasman District Council.

Port Nelson is the maritime gateway for Te Taihū – a vital hub for economic activity and a key facilitator of its region's continued growth and prosperity. The rich history of Port Nelson has helped shape the region. Early accounts of Whakatū (Nelson) - meaning a 'standing place or shelter for canoes' - described the area's rich history for Māori trading fish and produce. Since the establishment of the Port Nelson Harbour Board in 1901, Port Nelson has welcomed visitors and commercial traders to Te Taihū and to this day continues to respond to its customers' and community's needs.

The Port handles a wide variety of cargo, including containerised and bulk cargo. Approximately 67% of Port Nelson's volumes are exported, and 33% are imported. Major export commodities include forestry products (logs, sawn and processed timber), seafood, pip fruit and wine. Port Nelson is the largest seafood processing port in Australasia, supporting and catering to the needs of some of New Zealand's main seafood companies and associated fishing fleets. The Port also houses one of New Zealand's largest marine service sectors.

// **Approximately 67% of Port Nelson's volumes are exported and 33% are imported. Major export commodities include forestry products (logs, sawn and processed timber), seafood, pip fruit and wine.**

Nelson/Tasman is the second-largest apple growing region in the country, with approximately 28% of the total apple crop being grown here and exported around the world. Approximately 70% of New Zealand's wine is produced in Marlborough, making Port Nelson a vital link in the wine industry's supply chain. The main import commodities to Port Nelson are fuel and vehicles, both second-hand and new.

Port Nelson creates value for its customers by providing a suite of marine, cargo handling, warehousing, logistics, slipway, and property portfolio services. Since the Port was established, it has undergone significant expansion and upgrades to accommodate the growing demand for its services. In recent years, Port Nelson has invested in infrastructure and plant to improve its efficiency and capacity. The Port has also focused on diversifying its services, including offering warehousing and logistics services.



**Over 123 years
since the formation
of the Port Nelson
Harbour Board**



**239
FTE Employees**



**\$395m
2024 Asset Value**



**6th Largest Port for
Container Numbers**



**31.27 Hectares of
Total Operational
Land**



**22.81 Hectares
Commercial Land
(Land for Lease)**



**3 Mobile
Harbour Cranes**



**4 Visiting
Container Lines**



9 Wharves



3 Tugs



**5,000m2
Marlborough
Warehousing**



**34,000m2
On- Port
Warehousing**



**14 Heavy Container
Handling Machines**



2 Slipways

Governance





The aim of this section is to provide an understanding to stakeholders as to both the role Port Nelson's Board plays in overseeing climate-related risks and opportunities, and the role the Management Team plays in assessing and managing those climate-related risks and opportunities.

Regular discussions are held at Board and Senior Management Team (SMT) meetings around the environmental strategy, progress thereof and to improve awareness and mitigate the impact of climate change on the Port's operations.

Board of Directors

The Port Nelson Board of Directors is responsible for oversight of climate-related risks and opportunities.

The Board provides oversight of the identification of the principal organisational risks faced by Port Nelson. It also ensures appropriate internal controls and monitoring systems are in place to manage and, to the extent reasonably possible, reduce the impact of these risks, including material climate-related risks. The Board receives regular reports and recommendations from SMT in relation to Port Nelson's overall risk management framework and reviews and approves the Risk Management Policy bi-annually.

// Risk Management is a part of every aspect of work at Port Nelson.

The Board is also responsible for approving the strategic direction of Port Nelson. This includes ensuring that climate-related risks and opportunities in the Port Nelson Environment and Sustainability Strategy (released April 2023) are integrated into the Group's long-term strategy and investment decision-making. The Finance and Risk Committee (FAR) supports the Board in this function by ensuring that management is implementing Port Nelson's overall risk management framework, monitoring corporate risk, and ensuring internal controls are implemented.

The Risk Management Policy provides the overarching framework for identifying, assessing, managing, and monitoring risk at Port Nelson, including climate-related risks. The objectives of the policy ensure that Port Nelson operates in a sustainable manner and protects the port environment in accordance with its sustainability strategy. Risk management is a part of every aspect of work at Port Nelson. Risks are formally reviewed each month by the Senior Management Team. Each quarter a formal report is provided to and discussed with the FAR and Board. The Senior Management team reviews Port Nelson's overall Risk Management Policy on a two-yearly basis and this is submitted to the Board for approval.

Management

The Chief Executive and SMT are responsible for developing the strategic direction ensuring that risks to the business (including climate-related risks) are managed in accordance with the Port's Risk Management Policy. This includes ensuring that risks are identified and evaluated, with effective responses and control activities developed and appropriate monitoring and timely re-evaluation conducted in accordance with the Port's Risk Management Policy.

The General Manager – Environment, Infrastructure and Maintenance, is responsible for the development and implementation of PNL's Environment and Sustainability Strategy, including assessment of climate-related risks.

In addition, the General Manager Environment Infrastructure and Maintenance:

- Ensures the integration of the Port Nelson Environment and Sustainability Strategy into business planning and overall strategy, risk management, key policies, processes, annual workplans and culture.
- Makes recommendations and reports to the Board on material climate-related risks and opportunities matters requiring governance decisions as well as reports on progress to the Board.
- Maintains oversight and feedback to the Board on the Port Nelson 30 Year Infrastructure Master Plan and the Port Nelson Asset Management Plans.

Port Nelson's governance model

	Role	Details	Frequency
Board Governance	PNL Board of Directors – responsible for oversight of strategy, including environmental and climate-related impacts.	Approves the strategic direction and investment decision-making while considering climate-related risks and opportunities. In addition, the Board provides oversight of the risks of the business and mitigation actions.	Ongoing but with a quarterly focus.
	Board Finance and Risk Committee – Provides the overarching framework for identifying, assessing, managing and monitoring risk including climate-related risks.	Ensures management is implementing the Risk Management Policy and internal controls.	Quarterly.
Senior Management Team	The Chief Executive and Senior Management Team are responsible for contributing to the strategic direction ensuring that risks to the business (including climate-related risks) are identified and evaluated, effective responses and control activities developed, and appropriate monitoring and timely re-evaluation conducted, in accordance with the Port's Risk Management Policy.	<p>The Chief Financial Officer, working with senior management, updates PNL's overall risk management framework and reports to the Risk Committee.</p> <p>The General Manager: Environment Infrastructure and Maintenance has overall responsibility for the development and implementation of the Port Nelson environment and sustainability strategy, including assessment of climate-related risks.</p>	Ongoing and as required.
Leadership Team	Provide support with identifying, monitoring and assessing climate change risks and ensuring appropriate mitigation actions are taken in relation to them.	Works with and supports the Senior Management Team in ensuring climate related risks are managed.	Ongoing and as required.
Environment Team	Assess, advise, audit, and provide recommendations on climate change and its related risks while supporting and implementing management decisions in relation to them.	Works across all levels to support the Senior Management Team in ensuring climate related risks are managed.	Ongoing and as required.

Strategy





The purpose of this section is to provide an understanding of how climate change is impacting the Port and how it may do so in the future.

This includes the scenario analysis PNL undertook, the climate-related risks and opportunities identified, the anticipated impacts of these risks and opportunities, and how it will position itself as the global and domestic economy transitions towards a low-emissions, climate-resilient future.

Port Nelson's purpose is: To facilitate regional prosperity. This drives everything PNL does and sets the scene for Port Nelson's Environment and Sustainability Strategy.

Sustainability is embedded in PNL's foundation and aligns with its five Stakeholder goals; particularly its

// **Port Nelson aims to be a leader in this space so that the port can support its community and ensure sustainable progress occurs throughout its whole business.**

environment goal, which is, to reduce its environmental impact and push toward a sustainable future. Port Nelson aims to show leadership in this space so that we can support our community and ensure sustainable progress occurs throughout the whole business, from operations through to the supply chain. Actively managing climate risks and opportunities is an integral part of the Port's 2030 strategy.

The following pages provides our high-level strategic framework and an overview of our environmental focus.

// Purpose and Goals

Port Nelson's purpose is 'to facilitate regional prosperity/kia āhei ki te kōkiri whakamua ki te taumata ā-rohe'

A keyword in our purpose is 'prosperity'. While traditionally seen from an economic perspective, the Port recognises that sustainable prosperity comes from addressing the needs of all its stakeholders.

The Port has five stakeholders: Customers, Environment, People, Community, and Shareholders.

The Port defines what success looks like from each stakeholder's perspective and has established goals that reflect that understanding. The simple days of 'or' – profit or environment; customer or community; profit or safety are gone - the Port embraces the 'and'.

Purpose

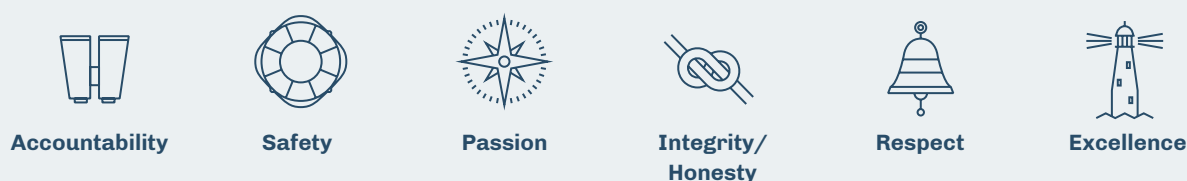
Facilitating Regional Prosperity *Kia āhei ki te kōkiri whakamua ki te taumata ā-rohe*

Stakeholder Goals



Values

Our values are traits that our people continually exhibit on a day-to-day basis to drive us to achieve our purpose:



// 2030 Strategy Overview

Port Nelson's 2030 strategy is a strategic framework which responds to our purpose, goals, and the needs of the Port's stakeholders.

There are ten strategies within this strategic framework spread across our five stakeholders.



Our Customers

Always better

Strive to demonstrably improve operational performance through a combination of continuous improvement and targeted investment

The preferred Te Taihu cargo pathway

Champion the needs of Te Taihu exporters and importers and growing the Marlborough cargo through our high service model



Our Environment

Reduce our impact

Reduce our physical and carbon impact on the environment

Leadership in sustainability

Actively engage in sustainability and climate change adaptation that also supports our people and community



Our People

"I see you"

Build on our strong culture and systems to create an environment where each team member is and feels recognised, appreciated and respected

One team for health, safety and wellbeing

Continue to build an environment and culture where every member of the Port team, and others who work in our spaces, are fully engaged and united in the continuous pursuit of improved health, safety and wellbeing



Our Community

A trusted partner for our community

Support our social licence to operate with open and transparent engagements and impactful contributions to the community's wellbeing

A trusted partner for iwi and Māori

Strengthen our relationship with iwi and Māori through ongoing commitment to support and contribute to Māori aspirations in Te Taihu



Our Shareholders

A fair and sustained return

Lift our economic profit to provide a fair return to shareholders and build resilient infrastructure

Diversified income

Strengthen returns from our property portfolio and leverage our expertise in logistics management

// Environment Strategy



Our Environment

Goal: Reduce our environmental impacts and push towards a sustainable future

Environmental stewardship is an essential aspect of Port Nelson's corporate responsibility and one of the five key pillars which contributes to PNL delivering its purpose – To facilitate regional prosperity.

// Challenges

Carbon Emissions

- Cost of investment required to transition to alternative fuels.
- Infrastructural requirements to service the port for the adoption of electrification and hydrogen fuels.
- Availability of technology.
- Reducing emissions associated with our value chain (Scope 3).

Climate Resilience

- Investment requirements to mitigate risk from climate change.
- Intensification of Port land use.

Geo-Political

- New Zealand legislation and policies.
- Broader community engagement in environmental and sustainable issues.

// Strategy #1

Reduce our impact

Reduce our physical and carbon impact on the environment by achieving decarbonization of at least 67% on 2019 scope 1 & 2 emissions by 2035.

2030 Tactics

- Alternative Fuel Transition Plan.
- Continuous improvement in:
 - Noise
 - Stormwater
 - Air quality
- Climate awareness training across business units,

// Strategy #2

Leadership in sustainability

Engaged in sustainability and climate change adaptation that also supports our people and community

2030 Tactics

- Continue to improve upon PNL's ISO 14001 Environmental Management System (EMS),
- Champion regional environmental initiatives
- Provide employees with the tools and knowledge to reduce the impacts of their activities on the environment
- Adopt a zero waste to landfill approach.
- Develop, integrate and implement a "green" procurement approach.
- Established adaptation plan that addresses climate change impacts.
- Report against Climate-Related Disclosure Framework.

Current climate-related impacts

Climate change is already affecting Nelson, causing downstream impact on its natural environment, the economy, and communities. Without adaptation, further climate-related changes are projected to have substantial impacts on water resources, coastal ecosystems, infrastructure, health, agriculture, and biodiversity (Pearce et al 2020). In 2018, cyclones Fehi and Gita swept the region one after the other, causing havoc. In 2019, a hot, dry summer resulted in a large fire across Pigeon Valley, forcing Wakefield residents to evacuate. In August 2022, continuous heavy rain caused severe landslips and floods in and around Nelson, dramatically impacting its communities and demanding long and expensive recovery work. These events impose a heavy cost on communities, businesses, and territorial authorities not just financially, but also emotionally, socially, and environmentally.

The Port is exposed to most aspects of climate-related risks before one even reach its gates, including infrastructure links and a variety of impacts of climate change on its community and customers. PNL is committed to working collaboratively with relevant territorial authorities, businesses, community groups, and other ports to share information and develop solutions to deliver a more resilient business and region. For example, in the 2023FY, Port Nelson participated in the Nelson & Tasman District Councils Climate Change Risk Assessment Workshop. This region-wide warming scenario development exercise assessed climate-related impacts and risks. Nelson & Tasman District Councils assessed the impacts on the built environment, including infrastructure, transport, and buildings. In the 2025FY and 2026FY, Port Nelson will assess and quantify the financial implications of climate-related physical and transitional impacts.

// **Climate change is already affecting Nelson, causing downstream effects on its natural environment, the economy, and communities.**



Scenario analysis and risk assessment

Climate-related disclosures involve organisations understanding the physical and transitional risks climate change poses to their organisation along with understanding any opportunities that may arise as a result of a changing climate. As a precursor to understanding climate risks, identifying climate scenarios can help with understanding plausible alternative futures in the context of a changing climate. The reference scenarios that informed our analysis are outlined in the table below. The Port will look to refine its scenario planning process over time.

PNL engaged Deloitte to facilitate workshops to identify the Port's physical risks, leveraging NIWA's climate change projections for the Nelson region as Intergovernmental Panel on Climate Change (IPCC) 6th Assessment Report the scenarios selected were as follows: SSP1- 2.6, SSP2-4.5 and SSP5-8.5H+. These scenarios are a combination of the shared social-economic pathways and the representative concentration pathways RCP. RCP are climate change scenarios to project future greenhouse gas concentrations, which gives us a narrative of what might drive climate-related decisions and ties in emission impact in response to them.

	Scenario 1	Scenario 2	Scenario 3
	Orderly	Disorderly	Hot house
SSP (Shared Socio-economic Pathways)	SSP1	SSP2	SSP5
RCP (Representative Concentration Pathways)	1.9	4.5	8.5H+
Scenario	New Zealand and the world reach net zero by 2050, driven through strong policies and rapid technological change.	Progress towards decarbonisation is slow to 2030. New Zealand and the developed world commence their transition, but the developing world does not follow suit, and as such emissions still increase considerably.	New Zealand and the world miss net zero targets, current growth patterns continue. There is a continued reliance on fossil fuels.
Global/ NZ Narrative	An ambitious and globally coordinated transition to a low emissions future accelerates through the 2020s. Strong climate policies, innovation, targeted investment, and social change cause disruption, but limit global warming to a temporary overshoot of +1.6°C by 2050, with carbon capture used to dial temperatures back to +1.4°C by 2100.	Meaningful global action on decarbonisation is delayed until the early 2030s, followed by a sudden and globally uncoordinated economic transformation. Extensive and stringent government intervention both in Aotearoa New Zealand and overseas limits global warming to +1.7°C by 2100, but with higher socioeconomic costs	Aotearoa New Zealand prioritises an adaptation strategy to build climate resilience. Global emissions reduction policies and investment falter, and current socio-economic trends continue, resulting in +2.1°C global warming by 2050 and more than +3.9°C by 2100 in a 'hot house world'.
Global Temp Increase (by 2100) ¹ - Baseline: Pre 1900	+1.4°C	2.7° C	4.4°C
Domestic Sea Level Rise ²	N/A	0.5m SLR	1.05m SLR
Transition Risk by 2050	Medium	High	N/A- no transition
Physical Risk by 2100	Lower	Medium	High

¹ IPCC, 2021. Summary for Policy Makers. [Online] Available at: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf [Accessed March 2024].

² Niwa Regional Projections: Zone 4: <http://niwa.co.nz/climate-change-adaptation-toolbox/projected-regional-climate-change-hazards/regional-projections-zone-4>

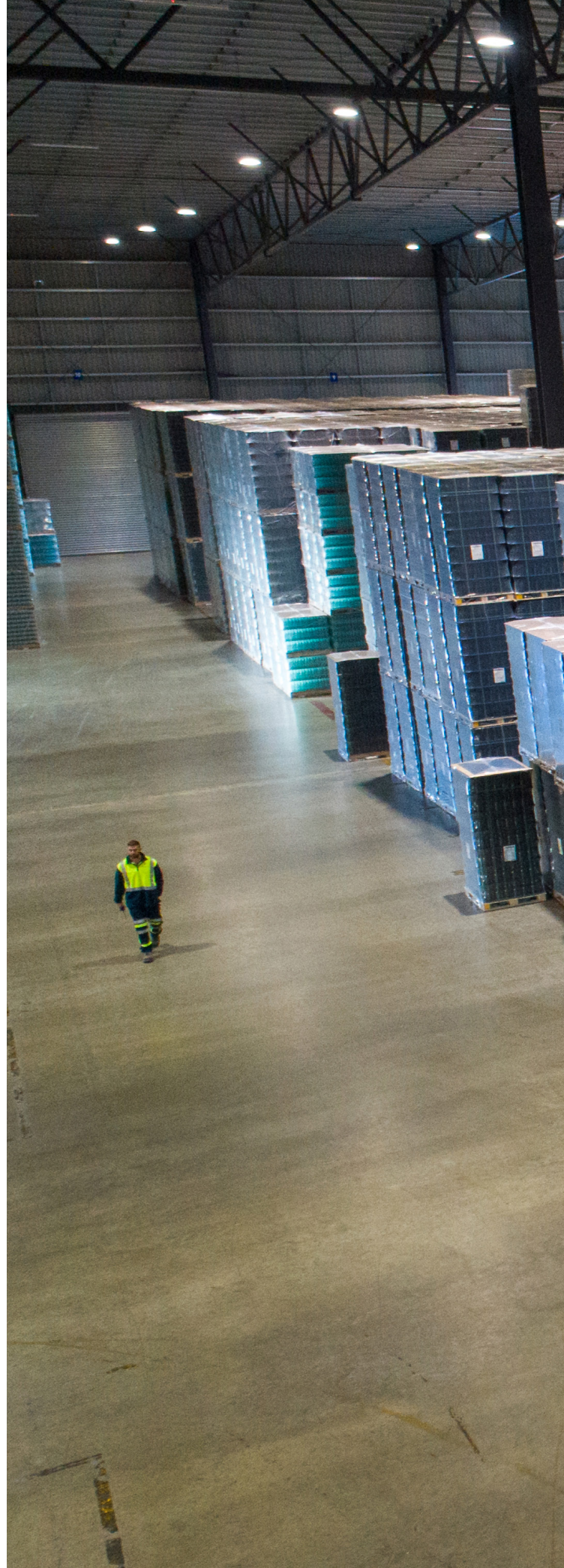
Climate-related risks and opportunities over the short, medium and long-term






Risks were identified across the short (present day to 2030), mid (2030 to 2050) and long-term (>2050). The Deloitte workshops identified a total of 69 climate related risks across three key areas identified for the Port: assets, people and operations. The outputs of the workshops were assessed and quantified to identify the most material climate hazards, risks by climate hazard, by risk type, by risk area, and finally to rank individually rated risks. The workshops also identified seven transition opportunities which are discussed below.

The Deloitte assessment found the Port operations risk category to be most at risk, with 47% of all risks identified relating to operational risk. Asset-related risk was a very close second, comprising 38% of all risks, followed by people-related risks (risks to port staff and port users), which comprised 15% of all risks. In terms of aggregated risk scores, the climate hazards presenting the highest number of risks were ranked in the following order: extreme weather events, coastal inundation, pluvial and fluvial flooding, extreme wind, an increasing number of hot days, ocean chemistry, invasive pest species, landslides, biodiversity loss, wildfire, and ocean temperatures. The assessment also noted that PNL is highly exposed to similar upstream risks, mainly hot days, wildfires, and landslides, all of which could have severe flow-on effects on the Port's revenue and operations.

Due to its coastal location and the impacts of sea-level rise, climate-related effects will result in several risks to Port Nelson's infrastructure. Port Nelson assets are susceptible to short- and long-term physical risks, including acute weather and natural disaster events. Climate change modelling indicates that higher temperatures will increase the likelihood of extreme weather events that may affect operations and damage infrastructure, and there will be the ongoing impacts of sea-level rise, which may cause erosion and flooding.

The top five physical impacts of climate change considered the most material to PNL are described on the following page. Financial implications and risk mitigations are to be determined in the reporting cycle for 2025FY.



Climate Hazard	Risk Type	Risk Receptor
 <p>Coastal Inundation</p> <p>A remote possibility in the near term even with the combination of high tides, storm surge and swell, coupled with high rainfall. Climate change effects of the sea-level rise are projected to increase in the mid and long term. The frequency of inundation will become increasingly likely to cause damage or operational issues for the Port. Potential inundation of the Port due to extreme sea levels has been modelled under future warming scenarios. The modelling shows potential areas of inundation based on extreme sea levels and projected sea-level rise under RCP4.5 and RCP8.5 to 2040 and 2090.</p> <p>A significant portion of the Port is of a sufficient elevation and not expected to be affected by SLR-induced inundation under extreme sea levels, in particular the container terminal, wharves and adjacent infrastructure. However, the interlinking roads have the potential for some minor inundation even today. This is expected to get worse under both RCPs, minor inundation can be reasonably expected every 5 years in the short to medium-term (2040) under RCP4.5. In the longer term (2090) under RCP4.5, and both the short and long-term under RCP8.5, the level of inundation is much more extensive across this area.</p>	<p>Asset Damage Risk</p>	<ul style="list-style-type: none"> • Wharfs, Berths, Seawalls • Underground Infrastructure • Cranes, Ancillary Equipment
 <p>Extreme Weather</p> <p>Climate change is expected to increase the frequency and intensity of extreme rainfall events. NIWA reports that short duration rainfall events have the largest relative increases compared with longer duration rainfall events. Rainfall depths for 1-in-50-year and 1-in-100-year events are projected to increase across the greenhouse gas concentration scenarios and future time periods. Extreme weather events present a risk to both port assets and operations, presenting an increasing frequency of disruption to operational windows, asset damage, and upstream suppliers for whom weather events impact the volume through flow of produce for export, due to asset loss (forest, wine, or fruit harvest).</p> <p>As with flooding, extreme weather events has a potential to impact the roading network, and therefore access to and from the port.</p>	<ul style="list-style-type: none"> • Health & Safety Risk • Operational Risk • Asset Damage Risk • Upstream Risk 	<ul style="list-style-type: none"> • Port Staff • Floating Plant • Port Operations • Export Loss/Damage
 <p>Extreme Winds</p> <p>Extreme wind events, like some aspects of extreme weather events, present a risk to both port assets and operations, presenting an increasing frequency of disruption to operational windows. Extreme winds pose an additional health and safety risk due to falling containers and present an asset risk to cranes. Increase wind also increases dust related health and safety to Port Staff, damage to vessels and ancillary equipment.</p>	<ul style="list-style-type: none"> • Health & Safety Risk • Operational Risk • Asset Damage Risk • Upstream Risk 	<ul style="list-style-type: none"> • Port Staff • Floating Plant • Port Operations • Export Loss/Damage
 <p>Flooding</p> <p>Fluvial and pluvial flooding poses a significant operational risk due to export clients suffering damage to their produce as well as the threat of road closures impacting access in and out of the port.</p>	<ul style="list-style-type: none"> • Operational Risk • Asset Damage Risk • Upstream Risk 	<ul style="list-style-type: none"> • Port Operations • Export Loss/Damage • Paving and Road Access • Underground Infrastructure
 <p>Increasing Number of Hot Days</p> <p>An increasing number of hot days is linked to upstream impacts on revenue as suppliers face more impacts on their crops and potential to fires.</p>	<ul style="list-style-type: none"> • Health & Safety Risk • Operational Risk • Asset Damage Risk • Upstream Risk 	<ul style="list-style-type: none"> • Port Staff • Energy Security • Port Operations • Export Loss/Damage



Climate-related risks and opportunities over the short, medium and long-term (cont.)

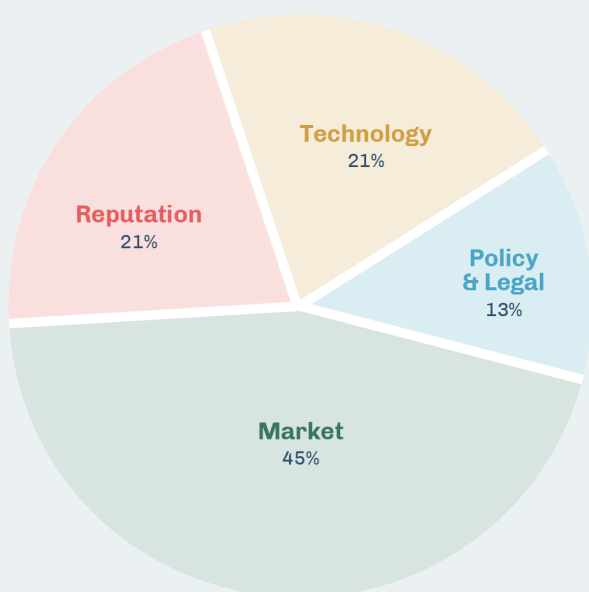
The next 10+ years will be a critical period of change as the global community works to reduce global emissions. During this transition phase, substantial investment in every sector of the economy into new technologies will be needed to reduce energy use, eliminate emissions, and restore land. This will present unique challenges and opportunities, defined as Transition Risks and Opportunities.

Transition Risks are related to the transition to a lower-emissions global and domestic economy, such as policy and legal risks, technology risks, market risks and reputation risks, whereas Transition Opportunities are the potential positive impacts related to climate change on a reporting entity.

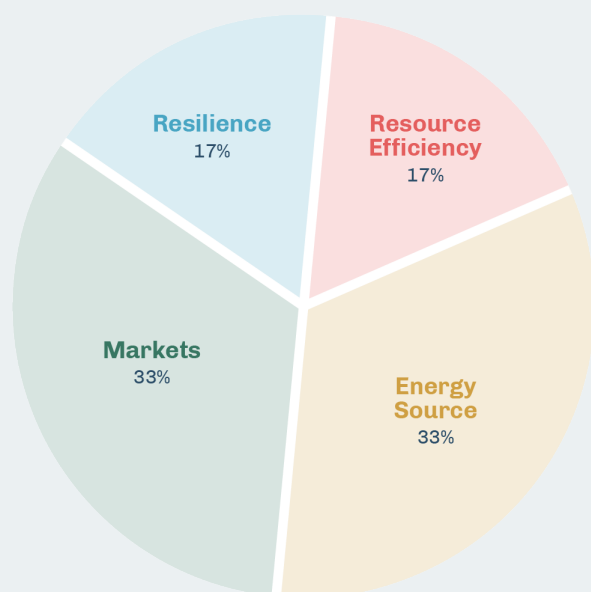
Efforts to mitigate and adapt to climate change can produce opportunities for entities, such as resource efficiency and cost savings, adopting and utilising low-emission energy sources, developing new products and services, and building resilience along the supply chain, such as additional revenue streams from requirements for ships to use shore power while in Port and opportunities to partner in the supply chain to provide low carbon or zero emission solutions for customers.

PNL identified 40 Transition Risks and 7 Transition Opportunities. Below are some examples with the highest risk rating from each category. Financial implications and risk mitigations are to be determined in the year 2 reporting cycle.

Transition Risk Categories



Transition Opportunity Categories



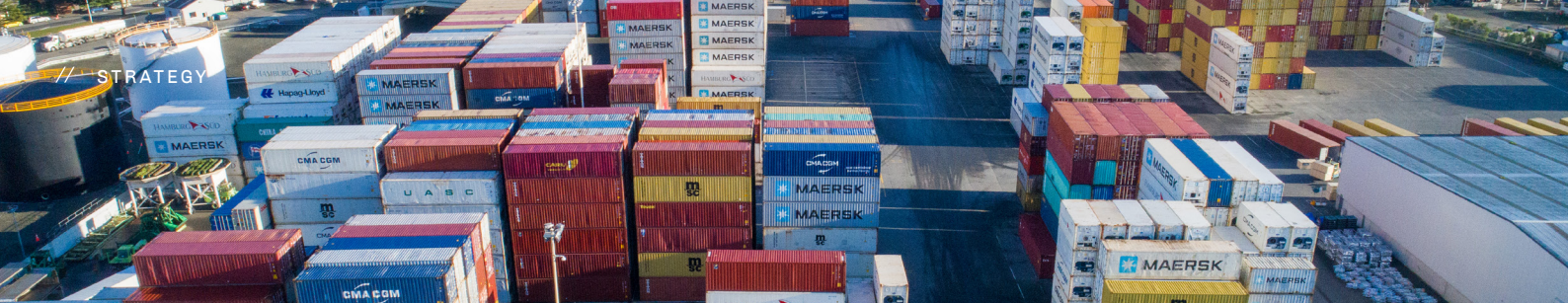


Anticipated impacts of climate-related risks and opportunities

Policy actions around climate change continue to evolve. Their objectives generally fall into two categories - policy actions that attempt to constrain actions that contribute to the adverse effects of climate change, or policy actions that seek to promote adaptation to climate change.

Technological improvements or innovations that support the transition to a lower-carbon, energy efficient economic system can have a significant impact on organisations. Climate change has been identified as a potential source of reputational risk tied to changing customer or community perceptions of PNL's contribution to or detraction from the transition to a lower-carbon economy.

Risk Category	Transition Risk Impacts
POLICY & LEGAL	Any new practice or process around energy could have environmental noise impact for residential overlay during construction/installation, may create more noise pollution - can generate negative media attention.
POLICY & LEGAL	Potential reputational risk due to potential biodiversity and unsafe release of biodiversity waste.
REPUTATION	Ports already have challenges influencing its Scope 3 emissions. Careful stakeholder management needed on timing of introduction of clean technology, to avoid sunk investment in redundant technology.
REPUTATION	Increasing reputation risk as community is increasingly aware of climate change and level of public scrutiny is heightened. (Reported incidents of members of the community asking questions about the vessels with generators – Noise and “black smoke”).
REPUTATION	Potential exposure to climate litigation if the port is not seen to be proactive in managing emissions /decarbonizing quickly enough.
MARKET	Risk of potential energy brownouts arising due to increased electric demand national fleet and industrial heat electrification.
MARKET	Shortage of skills and funding could present resourcing risks to achieve energy independence/ resilience goals.
TECHNOLOGY	Poor stakeholder engagement leads to poor coordination of decarbonizing i.e. Logistical services – fleet/truck charging requirements at the Port and changing over at the right time (lag/lead market).
TECHNOLOGY	Risk of market fragmentation - if key customers and suppliers do not move together, it may result in market fragmentation and associated costs of tech incompatibility, sunk investment in redundant assets, need to over-invest in multiple options for shipping customers etc.



Anticipated impacts of climate-related risks and opportunities (cont.)

While the ways in which markets could be affected by climate change are varied and complex, one of the major ways is through shifts in supply and demand for certain commodities, products, and services as climate-related risks and opportunities are increasingly considered. Below is a table outlining transition opportunities identified by the business .

Opportunity Type	Opportunity Description
RESILIENCE	Decarbonizing and partnering on local green energy projects both resolve carbon issues, and times well with PNL's mid-life asset maintenance programme. PNL is currently working with several industry players. This presents an opportunity for greater energy independence.
RESILIENCE	Target midlife asset maintenance cycle and rebuild to gain a further 10,000 hours, by which time the H2 tech may be available.
ENERGY SOURCE	Renewable energy (Solar) installation onsite, on the roofs of all the largest warehouses/sheds (subject to feasibility).
ENERGY SOURCE	Noise will be reduced by electrification or new technology.
RESOURCE EFFICIENCY	Reduced fuel costs - to ensure the Supply chain operates at full capacity PNL is focusing on amalgamating loads to avoid half-full trucks and be as fuel-efficient as possible.
MARKETS	Opportunity - positive media coverage arising from carbon reduction initiatives.

Port Nelson is planning to transition in a planned, orderly way with emission reduction pathways underway as part of the wider Sustainability and Business Strategy. The required infrastructure development is expected to occur over a longer period and will require additional

capital investment. Some of this has been identified in the Port Nelson 30 Year Master Plan released May 2024. In 2025FY and 2026FY, Port Nelson will assess the financial implications of making the Port more resilient to the changing climate.

PNL's place in a climate-resilient future

The Port is actively managing climate risks in the short-term. Sustainability has been embedded into its ways of working as the Port continues to look after its people, the planet, and the community it operates in, including undertaking projects that both build its resilience and mitigate the effects of climate change. These projects include the electrification of two of its mobile harbour cranes, use of 12 plus electric forklifts, and the trial of a hydrogen injection system on one of its container handlers to reduce fuel consumption, to name a few. These projects are outlined in more detail in its' 2030 Long-Term Plan and its' 30-year Master Plan. In the short term, PNL will continue to complete assessments of climate-related effects and ensure these are considered and incorporated into the Port Nelson 30 Year Master Planning process.

As stated above, the decision-making process for investing in low emission or alternate fuel technology versus diesel technology poses a risk when considering the lifespan of equipment, in particular key assets with relatively longer lifespans such as tugs, container handlers, etc. Decisions today are relatively simple due to prohibitive costs and availability of technology. Conversely in 20 years' time asset replacement decisions will also be simple as low emissions technology will be established and cost-effective. In the intervening period, the decision-making process is more complex, and where policy risk could have a significant effect. Higher fuel costs may result in an earlier-than-expected move to alternative technologies that could make existing equipment redundant before the end of its expected useful life. However, the best option cost-wise remains to replace the equipment at the end of their normal economic life. The Port may need to continue to follow a step-change approach, such as with the hydrogen injection system, delaying the purchase of hydrogen engines but using the available transition technology to reduce its emissions.

The Port's Utilities Master Plan provides a pathway to meet future electrical demand, which is highly dependent on the local, regional, and national supply grid.

Risk Management



This section covers how the Port's climate-related risks are identified, assessed, and managed and how those processes are integrated into its risk management processes.

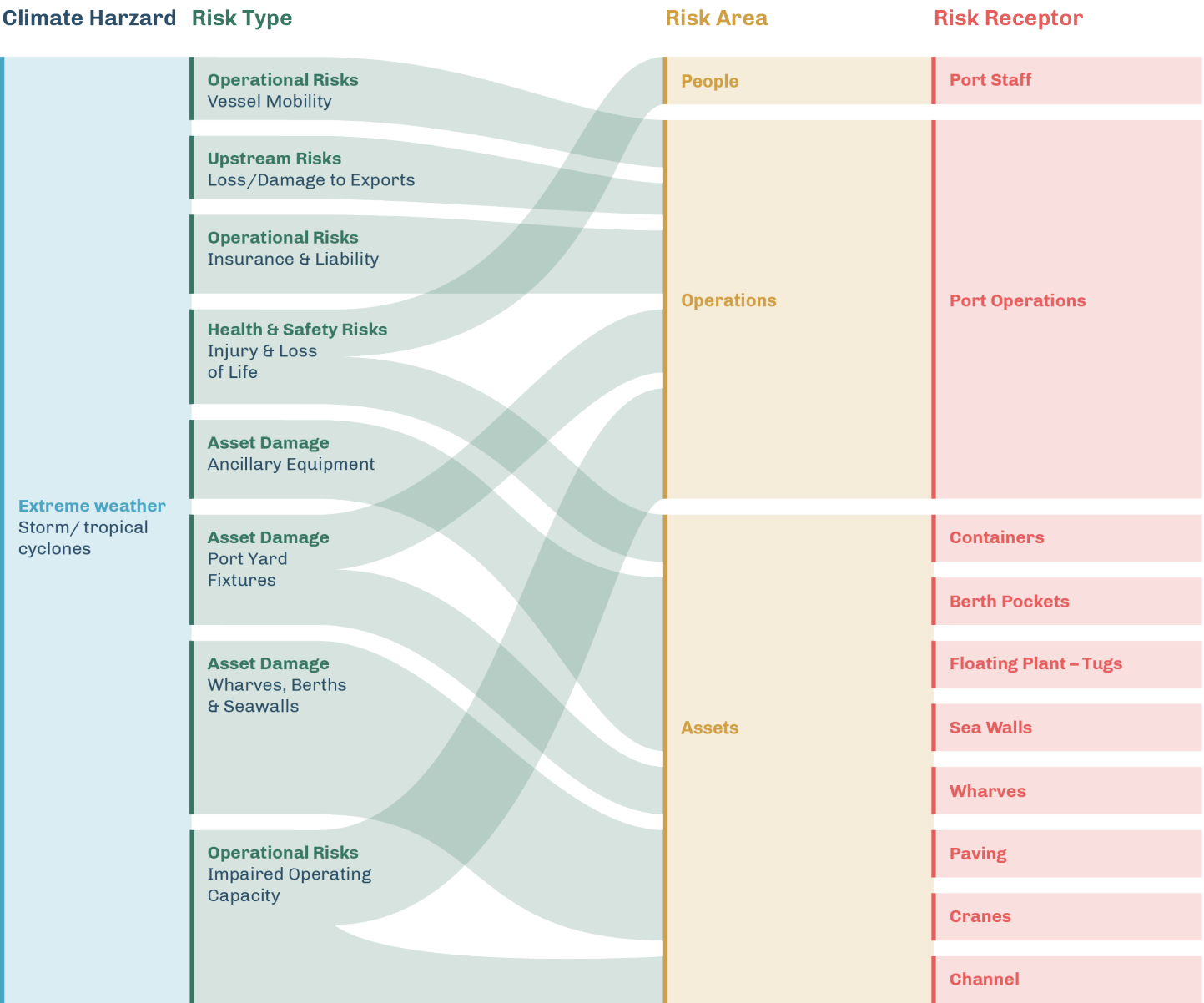
Identifying, assessing, managing and integrating climate-related risks

A key component of climate-related disclosures is the assessment of physical and transitional risk and opportunities.

Deloitte facilitated the Port's climate change risk assessment process, adhering to the Ministry for the Environment's, National Climate Change Risk Assessment Framework. The process involved:

- Establishing the scope and boundaries of the Port's climate change risk assessment;
- Agreeing on global warming scenarios for testing climate hazards; and
- Identifying key subject matter experts to contribute to the identification and rating of physical risks.

The following time horizons were used to assess Port Nelson's climate-related risks. As outlined in the strategy section, these are as follows: Short-term 0-30 years; Medium-term 30-50 years; and Long-term 50 plus years. NIWA's downscaled climate change projections for the Nelson region were used to identify hazards. A materiality analysis of each climate hazard was undertaken to help visualize and capture these risks' interlinking and cascading nature. This has been illustrated in the example below for extreme weather. The same approach was then applied to all identified climate-related risks.



Identifying, assessing, managing and integrating climate-related risks (cont.)

The Governance section within PNL's Risk Management Policy provides the overarching framework for identifying, assessing, managing, and monitoring climate-related risks at Port Nelson.

This framework ensures that Port Nelson operates in a sustainable manner and in accordance with its sustainability strategy. Climate risks were identified using the methodology aligned with the Ministry for the Environment's National Climate Change Risk Assessment Framework. In addition to the assessment Port Nelson undertook with Deloitte, it also assessed climate-related risks using consequence and likelihood matrices in accordance with Port Nelson's Risk Management Policy. This assessment was part of a review undertaken in early 2023 by key subject matter experts at PNL to review the findings of the 2022 workshops. The review undertaken in 2023 did not identify any significant changes to the risks identified during the 2022 assessment.

A weighting and scoring methodology was applied to identified climate risks to yield a materiality analysis that enables PNL to identify aggregated scores by climate hazard, risk type, and risk area, as well as individually scored risks. This ensures that the interlinked and cascading nature of climate-related risks is captured in the risk summary.

// This framework ensures that Port Nelson operates in a sustainable manner and in accordance with its sustainability strategy.



Metrics and Targets





The purpose of this section is to outline how Port Nelson measures and manages its climate-related risks and opportunities, providing a basis for comparing its performance with other New Zealand businesses.

Global metrics

The GHG emissions sources included in this inventory were identified with reference to the methodology in the GHG Protocol and ISO 14064-1:2018 standards and include:

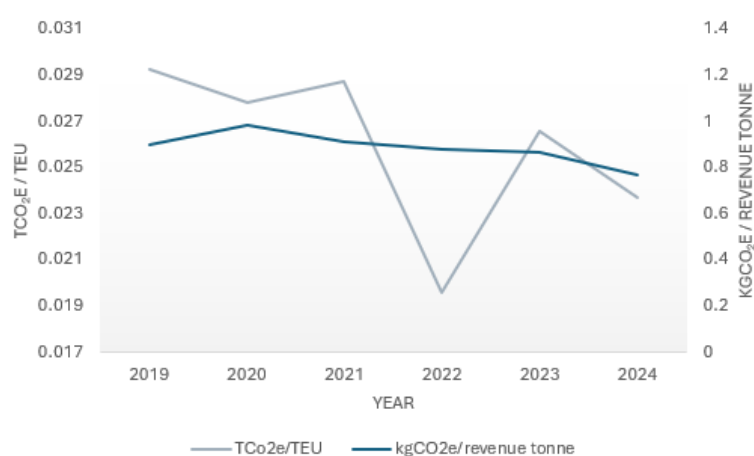
- Scope 1 - Fuel use in its marine and land fleet
- Scope 2 - Electricity
- Scope 3
 - Cat. 1 Material purchased goods and services
 - Cat. 3 Transmission and distribution losses
 - Cat. 4 Upstream transportation and distribution - freight of customer cargo where the Port has operational control
 - Cat. 5 Waste generated in its operations
 - Cat. 6 Business travel
 - Cat. 7 Employee commuting
 - Cat. 13 Electricity used in downstream leased assets

Categories 2, 8, 9, 10, 11 & 12 have currently been assessed as non-material.

Industry-based metrics to measure and manage climate-related risks and opportunities

Port Nelson's GHG emissions intensity for each financial year starting from our baseline year of 2019 are shown in the following graph. GHG emissions intensity values shows our carbon footprint in relation to port productivity. This is reported in two relevant measurements of Twenty Foot Equivalent (TEU) and Revenue Tonnes.

GHG emissions intensity values from 2019FY



As Port Nelson moves into its second and third year of Climate-Related Disclosure Reporting, it will combine the understandings from Port Nelson's 30-year Infrastructure Master Plan, its Mobile Asset Replacement Plan and its Environment and Sustainability Strategy, to develop an integrated transition plan aspect to its strategy. This will include relevant changes that might be required, infrastructure to address its climate-related risks, and how these will impact internal capital expenditure, financing, or investments required to be deployed toward climate-related risks and opportunities. Port Nelson's Transition Plan will also identify and quantify the percentage of assets and business activities that are vulnerable to physical risks and the percentage of assets and business activities that align with climate-related opportunities. Finally, it will develop an internal emissions price and define the percentage of management remuneration linked to climate-related risks and opportunities.



Targets used to manage performance of climate-related risks and opportunities

Environmental stewardship is an essential aspect of PNL's corporate responsibility and is captured in the Port's Environmental Goal "to reduce its environmental impacts and push towards a sustainable future."

Port Nelson has been measuring and reporting Scope 1, 2 and limited Scope 3 emissions since 2019. In 2023FY, PNL decided to have its emissions externally audited by Toitū Envirocare and achieved its first Toitū Reduce certificate. In addition, in 2023FY a wider range of Scope 3 emissions were included, and these were retrospectively calculated back to 2019. The additional Scope 3 emissions now include goods and services, freight and employee commuting (as outlined above).

Certification is a significant milestone in its emissions reduction journey and PNL's Toitū certification can be found on its website.

Port Nelson has set a course to achieve a decarbonisation target of at least 67% of 2019 emissions by 2035. The Port is committed to reducing its carbon emissions using low carbon alternative fuels or renewable energy without compromising the delivery of services to its customers or community.

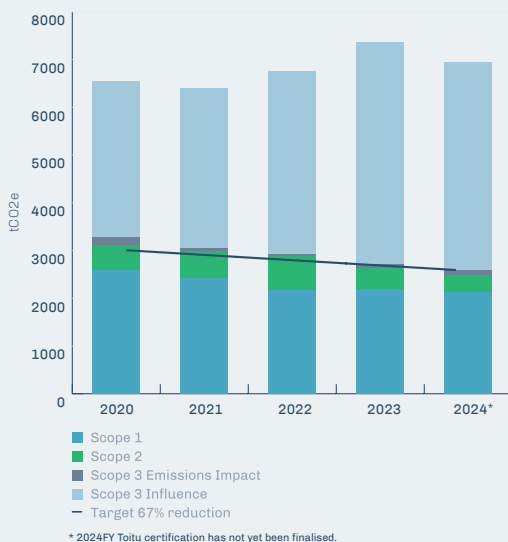
The plan to achieve this is as follows:

- Target reduction of 4.2% in Scope 1 and 2 carbon emissions per year.
- Maintain Toitū certification.
- Adhere to our commitment to Climate Leaders Coalition which includes engaging with our suppliers around Scope 3 emissions (their Scope 1 and 2 emissions).
- Obtain renewable energy certificates to confirm that all electricity consumed by the Port is from renewable energy sources.
- Focus on its mobile assets, as around 80% of its Scope 1 and 2 emissions are generated from this equipment. This would include us completing a feasibility study on alternative fuels (hydrogen injection) by the end 2024. If successful undertake conversions of further 10 machines by end 2026FY.
- Developing an equipment monitoring system to improve equipment utilisation and carbon efficiency.

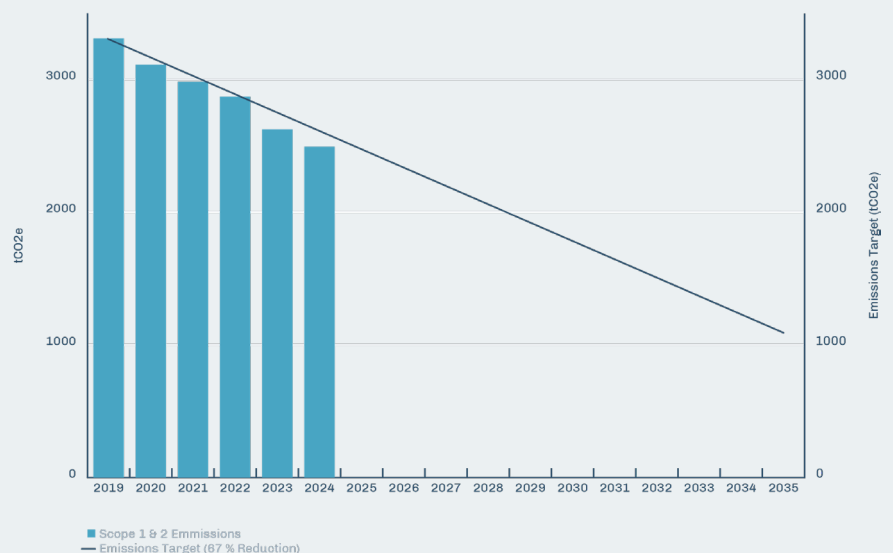
The Port uses ESP (Efficiency, Sustainability, Performance) software to manage and document data sources of its emissions and disclose any exclusions. Port Nelson targets do not rely on the use of offset credits.

The below graphs show our year-on-year performance against those targets and our path to achieve scope 1 and 2 decarbonisation of at least 67% of 2019 emissions by 2035FY.

Emissions



Scope 1 & 2 emissions and emissions target (67% reduction)





GHG emissions

The Port measures and manages its GHG emissions using the operational 'control consolidation' approach in line with global best practice and conformance with the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (GHG Protocol) (WRI, 2004). The GHG Protocol is the widely accepted methodology for organisational carbon accounting and is supported by ISO 14064 (2018). The GHG inventory, report, and any GHG assertions have been verified by a Programme-approved, third-party verifier. Port Nelson has achieved carbon reduce certification from Toitū.

All emissions were calculated with the Ministry for the Environment published emissions factors for 2024 and Global Warming Potentials (GWP) from the IPCC fifth assessment report (AR5).

No PNL business units were excluded. However operations on Port operational land leased to other PCBUs not under the operational control of PNL have been excluded.

References

1. Port Nelson Environment and Sustainability Strategy, April 2023
2. Port Nelson Annual plan 2024 and 2025
3. Port Nelson 2030 Strategy
4. Deloitte Climate risk assessment summary, August 23, 2022
5. Port Nelson 30-year Master Plan, 2023
6. Port Nelson Mobile Asset Replacement Plan
7. Port Nelson Infrastructure Plan
8. XRB Aotearoa New Zealand Climate Standard 1, December 2022

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