

# Climate-related Disclosures

31 March 2024





Cover: Castlepoint Reef, Wellington Region  
This page: North Piha Beach, Auckland Region  
Photography by Rob Suisted ([www.naturespic.com](http://www.naturespic.com))



# Introduction

Climate change represents an urgent global challenge, impacting ecosystems, economies, and communities across the globe. It is characterised by alterations in climate patterns, rising sea levels, and increasing occurrences of extreme weather events.

The implications of these changes are far-reaching, affecting agricultural productivity and water quality, reducing biodiversity and posing significant risks to human health and livelihoods.

Addressing climate change is crucial not only for environmental preservation but also for ensuring sustainable economic growth and social stability. It necessitates collective action from governments, businesses, and individuals to reduce greenhouse gas emissions, promote renewable energy, and adapt to the changing environment. The transition to a lower-carbon economy can help ensure a viable and resilient future for coming generations.

New Zealand has committed to reduce net greenhouse gas emissions to 50% below gross 2005 levels by 2030. The New Zealand Government has introduced the Aotearoa New Zealand Climate Standards (NZ CS1, NZ CS2, NZ CS3) to support the allocation of capital towards activities that are consistent with a transition to a low-emissions, climate-resilient future.

NPF is a trustee of various superannuation schemes established to provide for members retirement savings. NPF is also trustee to the Global Asset Trust, an investment vehicle in which all NPS schemes invest. To the extent possible, NPF wishes to play its part in contributing to a sustainable future.

*This climate report for the year ended 31 March 2024 has been prepared on a voluntary basis.*



# About NPF

The Board of Trustees of the National Provident Fund (referred to in this report as “NPF” or “we”) is a statutory entity governed by the National Provident Fund Restructuring Act 1990.

The various superannuation schemes that NPF manages have been closed to new members since 1991. Some of the schemes will continue to exist up to and beyond 2050.

The benefits payable to members and other beneficiaries under the schemes are guaranteed by the Crown.

We have a duty to act in the best long-term interests of NPF’s members, having regard to the Crown’s guarantee.

We invest the scheme assets across a wide range of entities globally, in both equity and fixed income securities.

We believe that environmental, social and governance (ESG) issues, of which climate change is a key example, can affect the performance of NPF’s investment portfolios. Many, if not most, of the entities NPF invests in will be impacted by climate change.

After consulting with us, and a group of other institutions collectively known as Crown Financial Institutions (CFIs), in 2021, the Minister of Finance issued an Enduring Letter of Expectations with respect to a Responsible Investment Framework for us and the other institutions. We have adopted that framework, and it establishes the basis for our approach to reducing the carbon footprint of our investments.

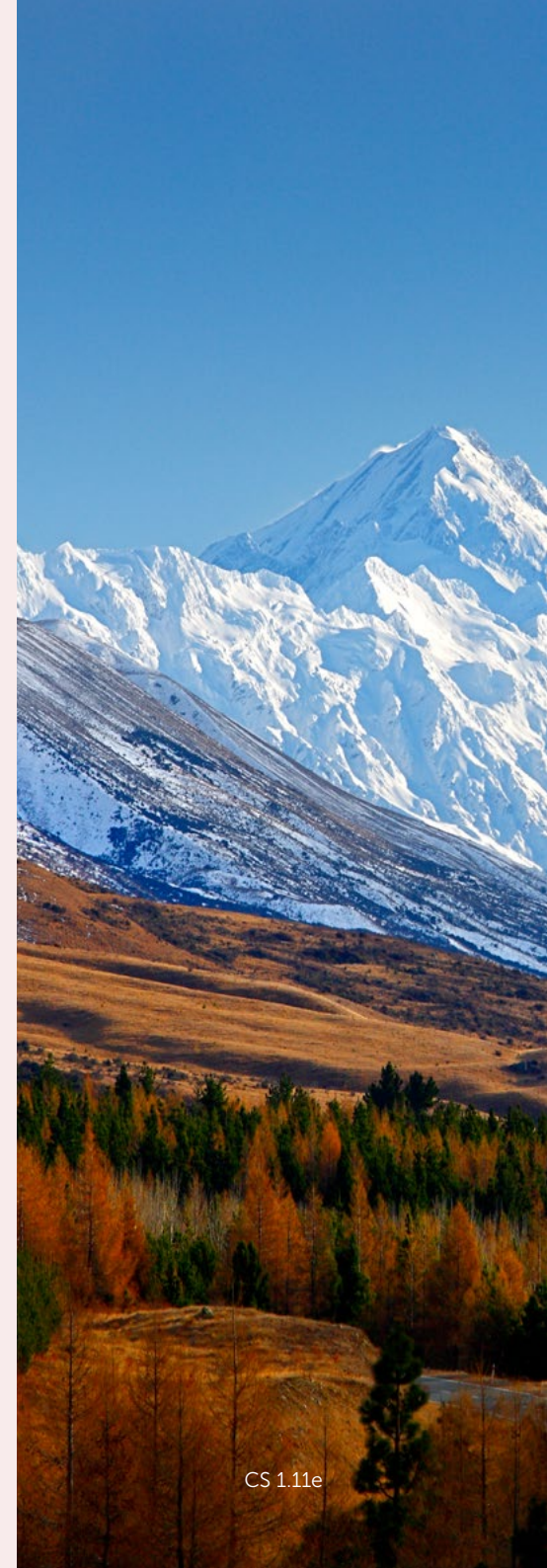
We expect to contribute to limiting global warming through drawing on the Paris Aligned Investment Initiative’s Net Zero Investment Framework. We have set a target for NPF’s investment portfolios to be carbon neutral by 2050. We have set a short-term 2025 target to reduce (relative to a 2019 baseline) the carbon intensity of the public equity portfolios by 50%. These targets are consistent with the ambition, set out in the Paris Agreement, to pursue efforts to limit temperature rise to 1.5°C above pre-industrial levels.

Climate-related impacts directly incurred by NPF as a corporate entity are relatively immaterial.

**NPF is not a mandated climate-reporting entity under the reporting regime giving effect to the Aotearoa New Zealand Climate Standards. However, we have voluntarily produced disclosures having regard to the approach outlined in the standards.**

In these disclosures we present climate-related information about NPF’s investments and, separately, encompassing the activities of NPF as a corporate entity.

This report is written primarily for the benefit of NPF Schemes’ members. Members should note that this report and associated analyses relate to all investments under the Global Asset Trust.





*The Board of Trustees of the National Provident Fund is not bound by the Climate-Related Disclosure Framework prescribed by the Financial Markets Conduct Act 2013 and the External Reporting Board's Climate Standards. While the Board has had regard to the Climate-Related Disclosure Framework in preparing this climate report, it makes no representation or statement that the climate report complies with the Framework or covers all information that the Framework requires to be disclosed.*

*To view the index of Climate Standards please see page 25.*

# Disclosures

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*Relevant Climate Standards are referenced in the footer of each page.*

# Board Governance

NPF Board members are appointed by the Minister of Finance on the advice of the New Zealand Treasury. The Board maintains a skills matrix setting out the necessary skills to fulfil its responsibilities. Board members self-assess against these skills. When vacancies on the Board arise, the Board Chair discusses the skills required on the Board with the Treasury.

The Board has a training and development programme to ensure that its members remain up-to-date with their obligations and current best practices. The programme includes formal training where required, as well as presentations and updates from management or third-party experts. Beyond this, Board members attend external training on climate-related matters.

The Board has two committees: the Audit, Risk and Review Committee (ARRC) and the Investment Committee (IC) who preview materials and make recommendations to the NPF Board.



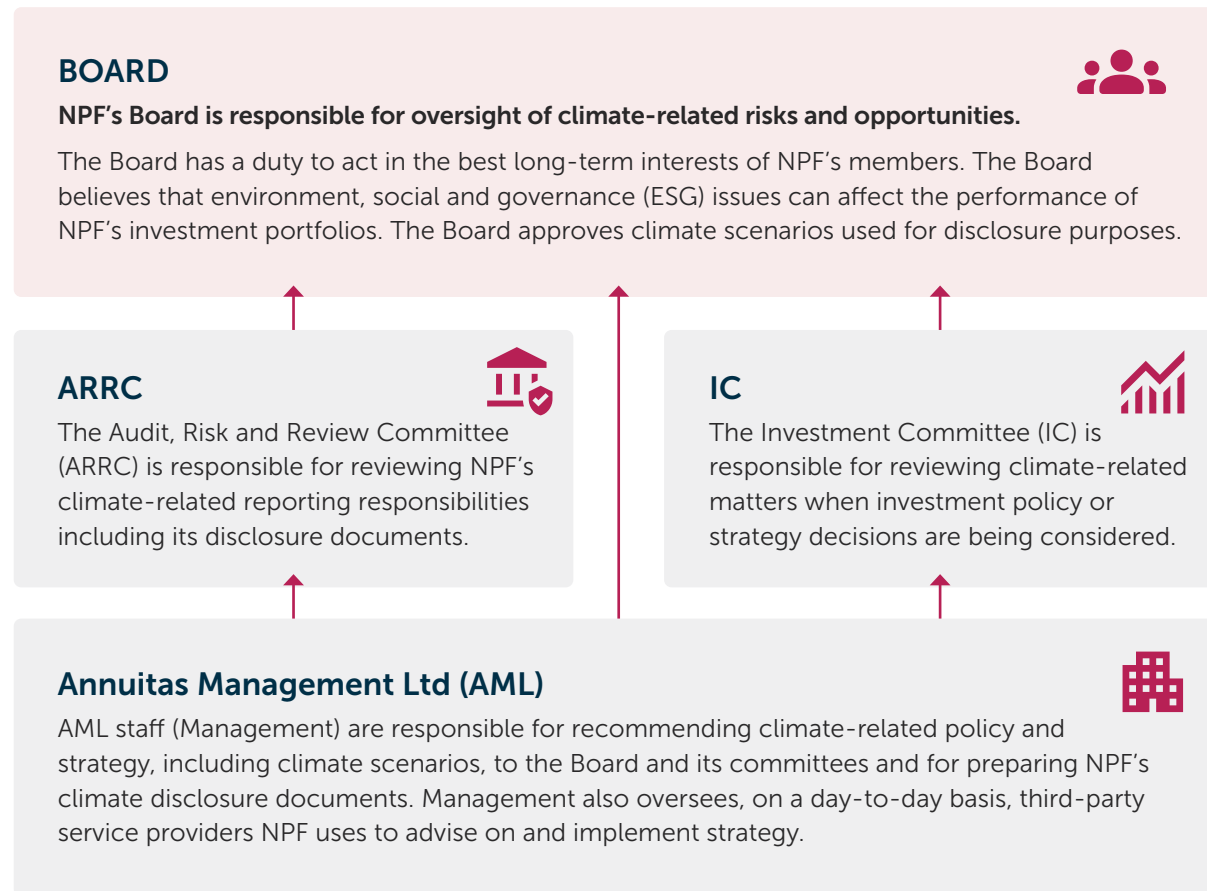
Net Zero and aligned targets are set by the Board. Climate risks and opportunities are reviewed by the Board on a quarterly basis.



Progress against short-term carbon targets is reviewed by the Board on a quarterly basis.



Policies related to climate change, from both an investment and corporate perspective, are reviewed as required by the Committees and Board.



# Management

Executive management functions are provided to NPF by Annuitas Management Limited (AML), a joint venture between NPF and the Government Superannuation Fund Authority (GSFA).

AML’s Board members consist of representatives from both the NPF and the GSFA Boards. The AML Board sets objectives for AML staff (Management), including climate-related responsibilities. While Management remuneration is not tied specifically to achievement of climate change targets, success against objectives is in part measured by the NPF Board’s satisfaction with Management’s performance.

Within AML, staff with objectives or responsibilities related to climate-related investment risks and opportunities are the Chief Executive, Chief Investment Officer and Senior Responsible Investment Strategist. Staff with objectives or responsibilities related to NPF’s corporate emissions and project managing our climate-related disclosures are the Chief Financial Officer and Business Analyst.



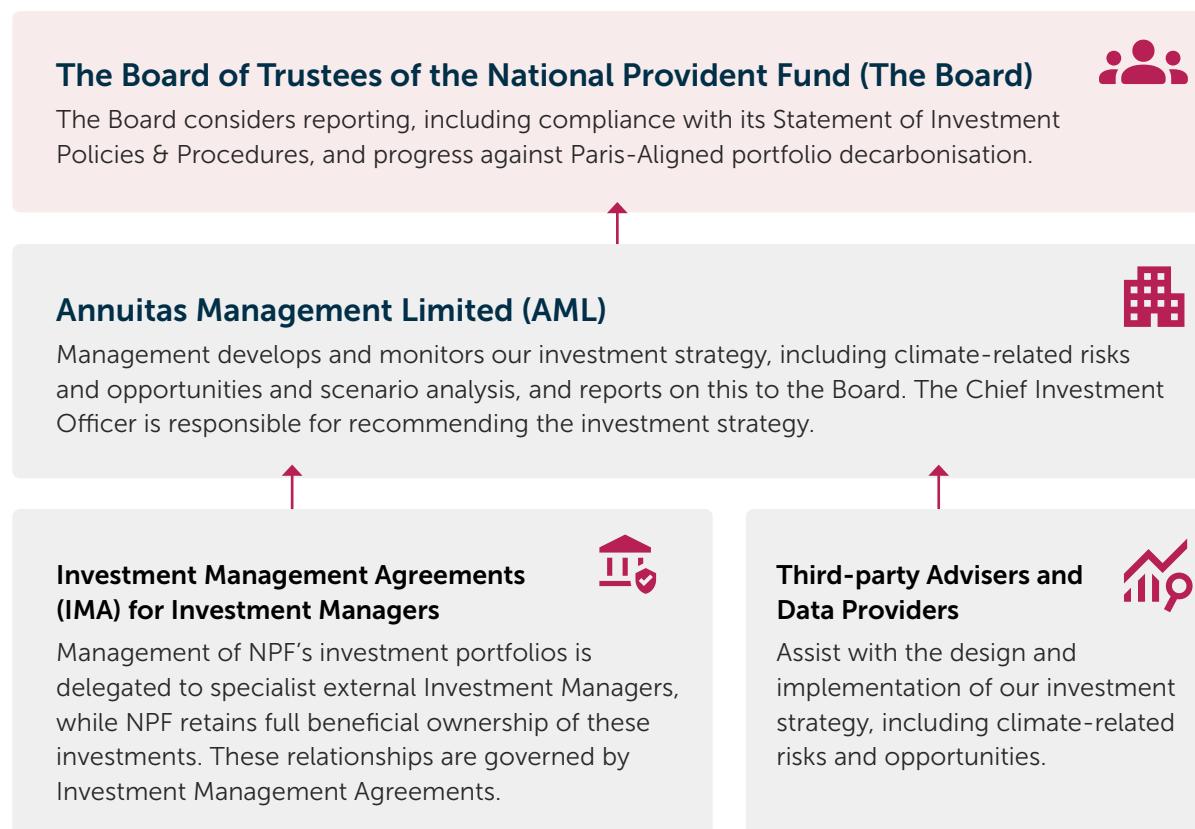
Net Zero and aligned targets are recommended to the Board by AML. Climate risks and opportunities are reviewed by the Board on a quarterly basis.



Progress against short-term climate targets is compiled and assessed by AML.



AML staff regularly review climate-related risks and opportunities.





Half Moon Hut, Marlborough Region, by Rob Suisted ([www.naturespic.com](http://www.naturespic.com))

## Management's Role

Management reviews regular (usually quarterly) reporting from NPF's external investment managers, analysing alignment with proxy voting, stewardship and exclusion lists in relation to carbon intensive or climate-reliant investments.

It uses this information to monitor our external managers' decision-making and form the basis of relevant reporting to the Board.

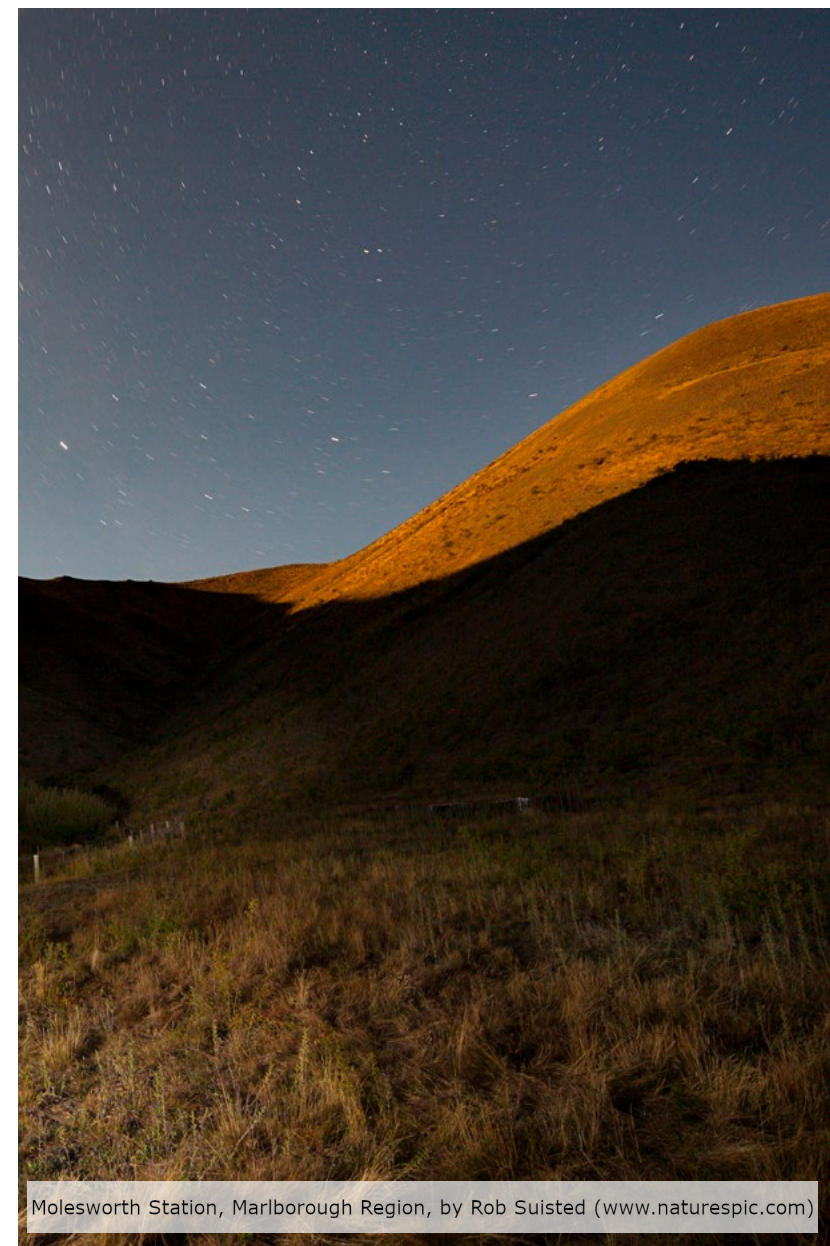
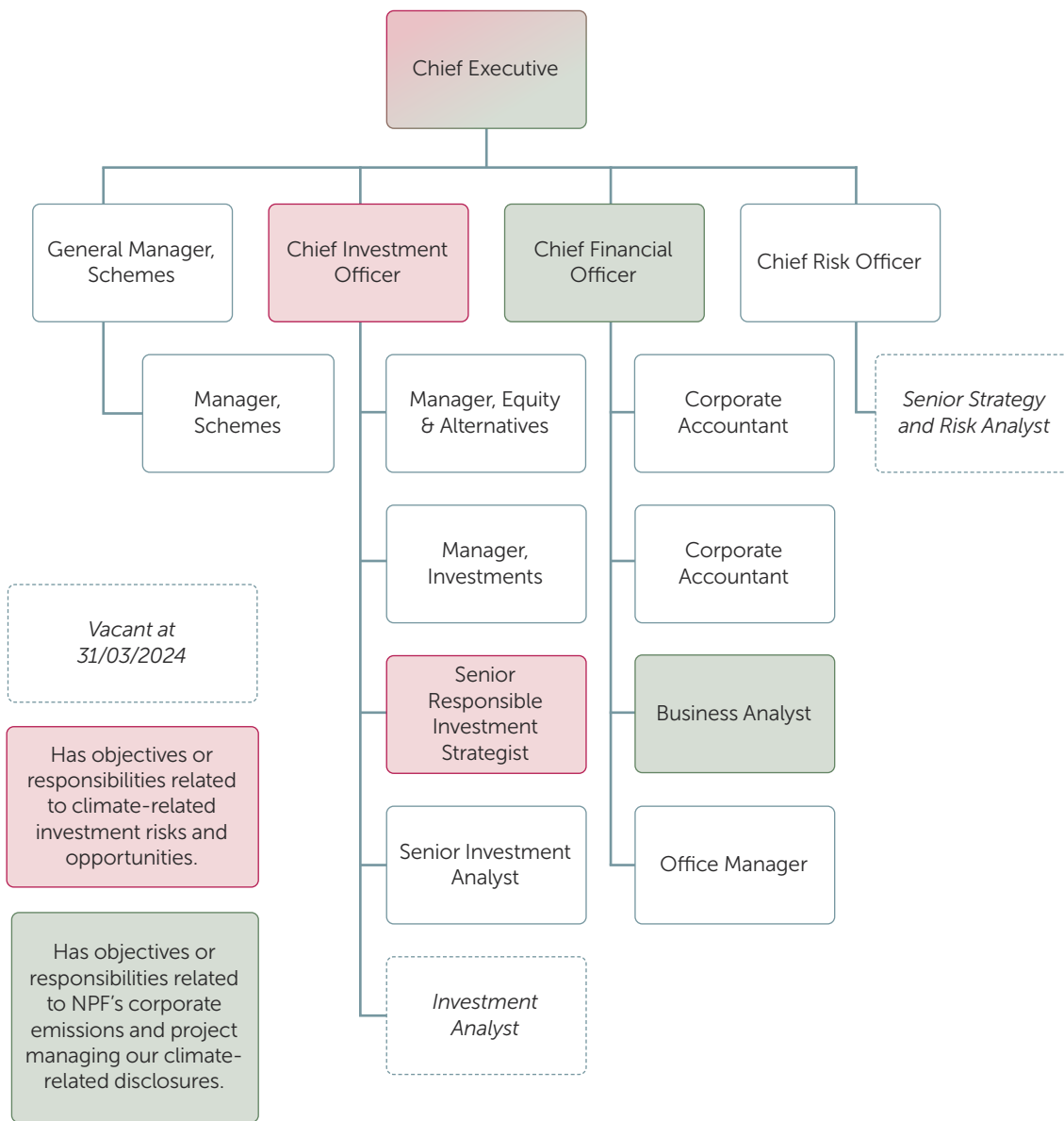
Management engages with the Board and its committees on a regularly scheduled basis. Staff annually provide the Board with data on emissions from Board activities and those generated by AML on the Board's behalf. Staff provide a quarterly analysis of the NPF investment portfolio's alignment with mandates and targets.

Management keeps informed about climate issues through research, conferences and engagement with relevant peer organisations. Climate issues are covered in quarterly portfolio reviews with NPF's external managers. Management has a close relationship with the Guardians of NZ Superannuation who provide information on climate issues.

Management engage with, and monitor, our external investment managers through regular reporting and 1:1 meetings. We measure our global equity managers against the MSCI ACWI Low Carbon Target Index.

The **Morgan Stanley Capital International All Country World Index (MSCI ACWI) Low Carbon Target Index** includes large and mid-cap stocks across 23 Developed and 24 Emerging Markets countries. The Index is a benchmark for investors who wish to manage potential risks associated with the transition to a low carbon economy.





# Acknowledging a changing climate

The Board has developed several core investment beliefs that are foundational to its strategy.

The pertinent beliefs with respect to climate are:

- The environmental, social and governance characteristics of commercial enterprises (including their inputs, processes and outputs) have a bearing on the financial performance of their issued securities.
- Human activity is driving climate change which creates commercial opportunities and threats for the issuers of public securities.

## Climate-related activities to date and future objectives

### 2018

**Statement of Investment Policies, Standards and Procedures (SIPSP) published inclusive of Responsible Investment (RI) Policy**

Previous Voting policy expanded to be a Responsible Investment (RI) policy. RI expectations include incorporating ESG risks and opportunities and have evolved to reference our Net Zero commitment.

### 2021

**Board commits to Paris Aligned Asset Owners commitment to achieve a Net Zero Portfolio by 2050**

NPF became a signatory of the Paris Aligned Asset Owners, a global group of 56 asset owners, with over \$3.3 trillion in assets.

### 2022

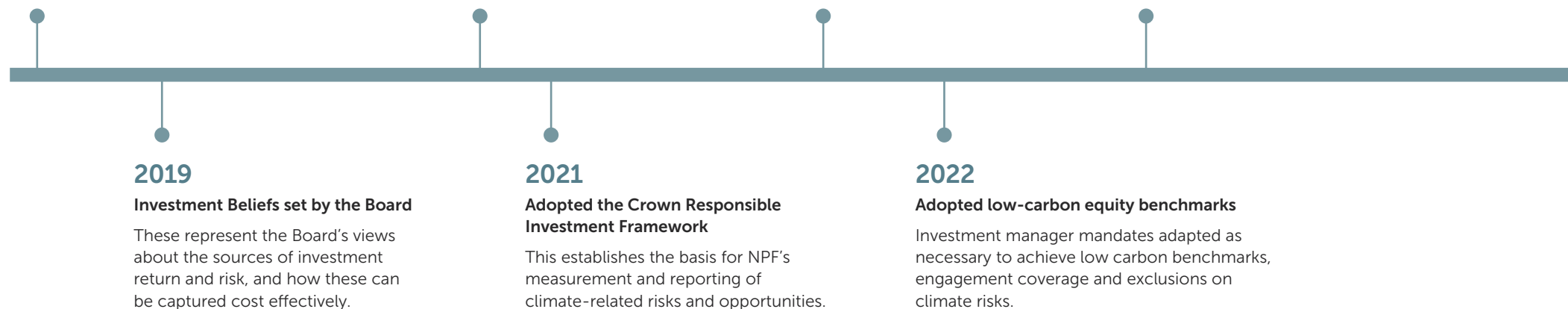
**Published first annual Task Force on Climate-Related Financial Disclosures (TCFD) Report**

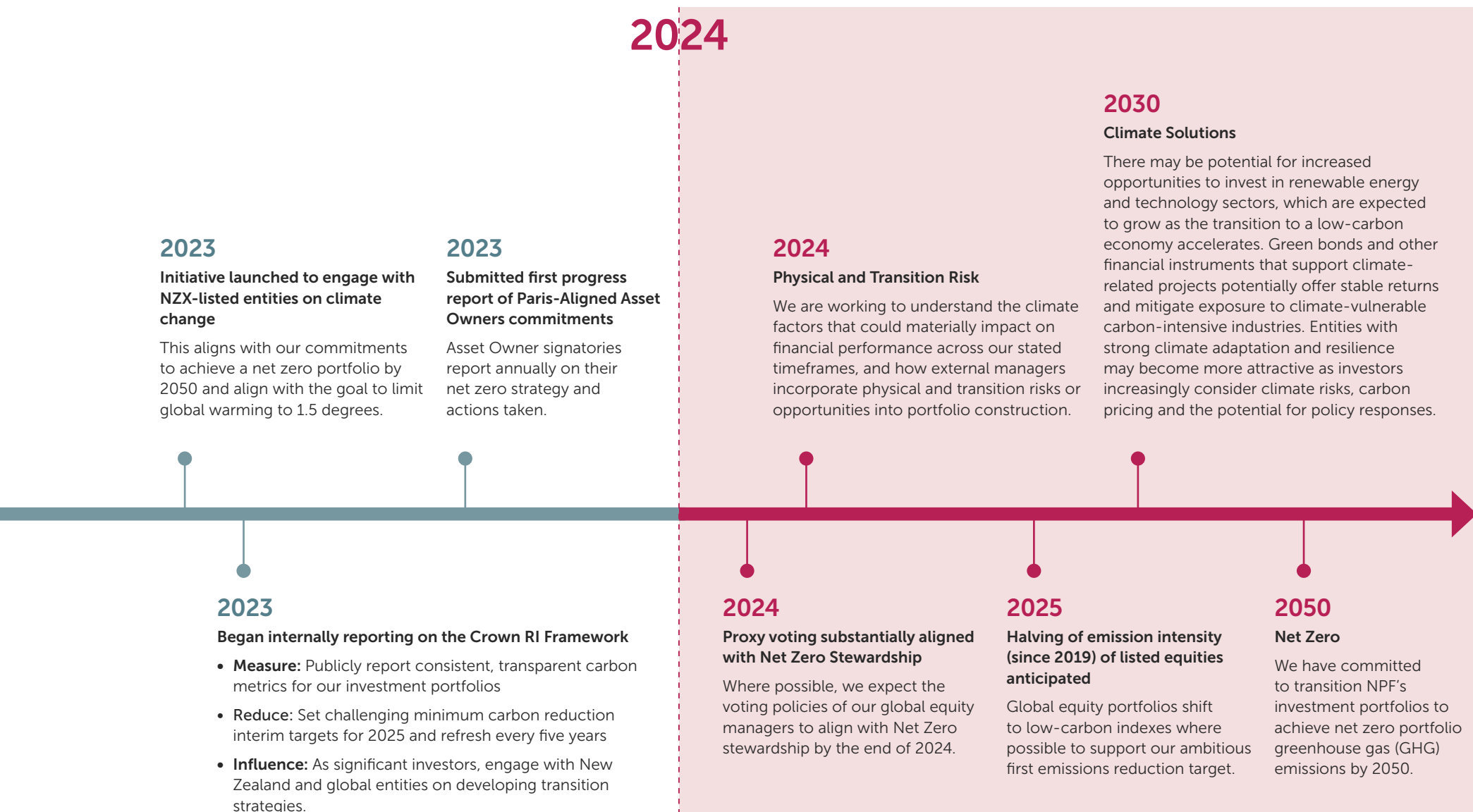
The initial framework for entities and financial organisations to disclose climate-related risks and opportunities.

### 2023

**Climate integration included in Investment Management Agreements**

Climate-related risks and opportunities explicitly considered in capital deployment and decision-making.





*Forward looking statements are based on what we know at this point in time and are subject to change.*

# Time Horizons

Based on existing commitments in relation to the Crown's Responsible Investment Framework and the Paris-Aligned Asset Owners Net Zero 2050, we use the following timeframes.

**Short-term**  **2025**

**Relative to our 2019 base year we defined short-term as up to 2025.**

In 2025 we will reach the first short-term horizon since we set our first decarbonisation target. From 2025 our short-term horizon will become 2030.

We have set a Paris Aligned Asset Owners target to achieve a 50% reduction in carbon intensity (tons CO<sub>2</sub>e/US\$m sales) of the public equity portfolio by 2025. Progress toward this target can be found in our **Metrics and Targets** section.

**Medium-term**  **2030**

**We defined medium-term as up to 2030.**

For the ten-year period beginning 2025, our medium-term horizon will be 2035.

**Long-term**  **Beyond 2030**

**We define long-term as beyond the period for which incremental targets have been set, through to 2050.**

**Net Zero**  **2050**

**We aim to have a Net Zero portfolio by 2050.**

We have set a Paris Aligned Asset Owners target to achieve a carbon neutral investment portfolio by 2050. We expect our external managers to evolve our portfolios towards this long-term target. Progress toward this target can be found in our **Metrics and Targets** section.



# The impact of climate change

In our inaugural report we adopt provisions which allow for an exemption in the first year from the disclosure requirement to describe current climate-related impacts including the current physical and transition impacts and anticipated impacts of climate-related risks and opportunities.

To accurately assess impacts at the portfolio level we require underlying issuers to report their impacts and costs in their annual reporting.

This is not yet legislated across the jurisdictions we hold investments in and so is not consistently available. The parallel adoption of the climate standards by some NZX-listed entities we invest in means that we will only be able to see their disclosed impacts for the first time under this legislation in 2024.

Despite these limitations, we use the best available data from our climate data provider, MSCI, when monitoring our portfolio's carbon intensity and in formulating climate scenario analysis.

In summary, we do not yet have sufficient data to be able to describe specific current physical and transition impacts on the investment portfolio.

In June 2023, the International Sustainability Standards Board (ISSB) issued International Financial Reporting Standards (IFRS) S1 and IFRS S2. These standards matter for the foreign entities we invest in.

IFRS S1 provides a set of disclosure requirements designed to enable entities to communicate to investors about the sustainability-related risks and opportunities they face over the short, medium, and long term.

IFRS S2 sets out specific climate-related disclosures and is designed to be used with IFRS S1. Both fully incorporate the recommendations of the Taskforce for Climate-related Financial Disclosures (TCFD).

With IFRS S1 and IFRS S2 applying to reporting periods after 01 January 2024, the ISSB will work across 140 jurisdictions and entities to support adoption in the coming years. We will continue to monitor developments in this area and will incorporate relevant insights in future years.



Waimakariri River bridge, Canterbury Region, by Rob Suisted ([www.naturespic.com](http://www.naturespic.com))



Clutha River/Mata-Au, Otago Region, by Rob Suisted (www.naturespic.com)

## Scenario Analysis

Climate-related scenarios are plausible, challenging descriptions of how the future may unfold. These descriptions are based on sets of assumptions about the drivers of future physical and transition risk and opportunity (and the relationships between them).

We emphasise that these are scenarios and not forecasts. At this stage there are significant gaps in our understanding of the interaction between the changing climate, economic variables and entity profitability. Together with current (global) issues with data availability and quality, this means we cannot provide a complete picture of risks and opportunities in this report.

We have applied three scenarios, published by the NGFS, and undertaken analysis to systematically explore the potential physical and transition risks affecting the investment portfolio. This process has provided us an opportunity to better understand how climate-related risks and opportunities

could impact our investment strategy, including risk budgets and asset allocation, and business models over time.

The NGFS scenarios emphasise that an accelerated and coordinated transition will have a lower overall impact on the portfolio than a disorderly or delayed transition in the long run. The macroeconomic costs and financial risks associated with unmitigated climate change will surpass the costs or risks associated with an effective transition.

Scenario analyses are prepared by Management and reviewed by the Board. We aim to review how regularly we complete scenario analysis at the end of reporting year one.

## The Network for Central Banks and Supervisors for Greening the Financial System (NGFS)

Launched at the Paris One Planet Summit in December 2017, the NGFS is a group of Central Banks and Supervisors willing, on a voluntary basis, to share best practices and contribute to the development of environment and climate risk management in the financial sector and to mobilise mainstream finance to support the transition toward a sustainable economy. Their models (see below) form the basis of our scenario analysis. After consideration of available options for scenario analysis we chose to align with the Crown Financial Institutions (CFIs).

### 1.5°C Net Zero

New Zealand’s Net Zero target, keeping the temperature rise to 1.5°C above pre-industrial levels. This scenario is based on data from the Intergovernmental Panel on Climate Change, the National Institute of Water and Atmospheric Research, and the NGFS. This scenario assumes climate policies are introduced immediately and innovation is incentivised to enable net zero emissions. This is expected to give at least a 50% chance of limiting global warming to below 1.5°C by 2100.

- Aligns with Net Zero Asset Owners Commitment (NZPAAO)

### 2.0°C Delayed Transition

The Delayed Transition (or SSP2-RCP2.6) scenario where global emissions do not decrease until 2030. Stringent policies are then implemented to limit warming to below 2°C. The level of policy action is expected to differ across countries. Emissions exceed the carbon budget before declining to ensure a 67% chance of limiting global warming to below 2°C. This scenario has higher transition and physical risks than the 1.5°C scenario.

- Reflects stop/start nature of climate discussions
- Reflects lower end of emissions trends and market pricing

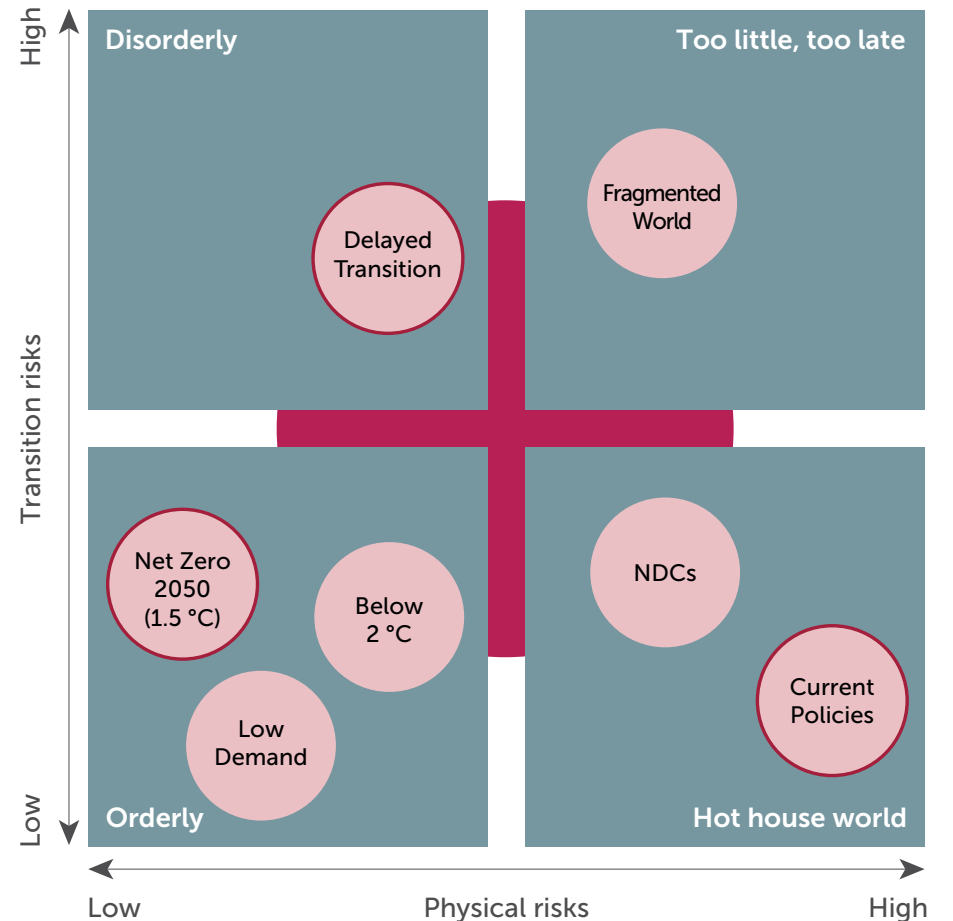
### 3.0°C Current Policies

The Current Policies (or SSP2-RCP6.0) scenario where only currently implemented policies are preserved, leading to high physical risks. Emissions grow through 2080 leading to 3°C of warming, severe physical risks, and irreversible sea level rise.

The implications of reaching climate tipping points, which are also becoming more probable, have also not been captured by available macroeconomic models.

- Aligns with current trajectory
- Reflects higher end of emissions trends and market pricing

## NGFS scenarios framework in Phase IV



Positioning of scenarios is approximate, based on an assessment of physical and transition risks out to 2100.

Image: NGFS

# 1.5°C Net Zero

How could a concentrated effort to keep the temperature rise to 1.5°C above pre-industrial levels affect our investment strategy and portfolio returns?

## Characteristics of this scenario

- Rising social demand of decarbonisation through government policy and consumer purchasing power.
- Aggressive technological innovation in developing climate solutions.
- Government/regulatory policy that rapidly increases the cost of emissions released into the atmosphere (carbon pricing).
- Increased cost of insurance due to more severe weather events than experienced previously.
- Increasing consensus in climate science pathways based on modelling.
- Domestically, rising flood risk for coastal areas, currently home to NZX-listed entities, advances investor appetite for emission reductions and investment in resilience.

Efficient carbon markets are integral to this scenario. The increased cost of carbon, and reduction in sovereign carbon budgets would drive the transition to a low carbon economy, creating risks for carbon intensive industries and opportunities for transition enablers.

## Potential broad impacts of the scenario

Following this 1.5°C pathway, we would expect:

- A rapid reduction in the quantity of fossil fuel consumed by commercial and individual users as they adopt transport modes and source energy with lower emissions profiles.
- An increased likelihood of some oil and gas, and coal assets becoming stranded, reducing the viability of this sector's profitability to the extent it is not already pivoting towards renewable energy sources.
- Increased scrutiny of the source of carbon credits, potentially benefiting countries with stronger governance and evidenced based creation of credits (with the benefit being through premium prices for their carbon credits).
- Other sectors like steel, electricity, cement and chemicals face transition risks.
- The share of wind and solar in electricity generation reaches 70% (from 12% in 2022).

Technological opportunities exist based on the quality and quantity of low carbon patents held by a range of energy, manufacturing and transport companies.

Alongside this, successful carbon capture and storage would be financially rewarded for investors.

## Risks to the portfolio

The largest potential impact of this scenario is from sudden and rapid global policy change that significantly raises the cost of carbon.

These transition risks would negatively affect the value of the utilities, energy, and transport sectors currently held in the portfolio.

Physical risks are relatively lower in this scenario, with Coastal Flooding the largest physical risk via listed entities with ports, land and buildings potentially exposed.

## Mitigants

We monitor the evolving policy and regulatory landscape.

Our stewardship processes and engagement with external managers and investee entities.

Our external managers actively position the portfolios relative to their perception of risk and return, of which climate risk is one aspect.



# 2.0°C Delayed Transition

How could a temperature rise to 2°C above pre-industrial levels affect our investment strategy and portfolio returns?

## Characteristics of this scenario

- A delayed response in reducing emissions until at least 2030. Less coordinated, disorderly policy-making and high regional variance in implementation of Paris Accord goals.
- Economic outcomes become less equitable for countries with higher physical risks in producing economic output.
- In 2030 stringent policies are implemented to limit warming to below 2°C. Emissions exceed the carbon budget before declining, giving a 67% chance of limiting global warming to below 2°C.
- In a delayed transition the limited use of carbon dioxide removals results in the release of more emissions ahead of an eventual net zero economy in 2060.
- Rising annual rainfall leads to an increase in flood risks in most parts of the world.

## Potential broad impacts of the scenario

This scenario has lower immediate transition risks/costs (than the 1.5°C scenario), but higher physical risks. Other potential impacts:

- A rising cost of borrowing due to sovereign credit rating downgrades in countries slow to implement policy change.
- Increased physical risks from increasingly severe weather events, including drought, flooding and lower river flow than in the 1.5°C scenario.
- Increased physical risk is anticipated to affect sovereign states and local economies differently based on their sensitivity to chronic weather-related risk
- Inherent in the scenario is that over the long-term the cost of transition risks under the 1.5°C scenario is less than the cost of the higher physical risks under the 2°C scenario.
- Some countries defer their goals, and this affects purchasing power and socio-economic outcomes for those in countries slower to adopt policy change in the medium/long-term. It is plausible these citizens/countries would be content with the lower costs in the short term from keeping the status quo.

## Risks to the portfolio

Overall, the short-term value at risk from policy aligned to a delayed transition is lower in this scenario (than for the 1.5°C scenario). This is because sectors with higher emission profiles, or less willingness or ability to transition to a lower carbon economy, would have their short-term profitability impacted by the policy levers that would be required under the 1.5°C scenario.

In the longer term, under this 2°C scenario, NPF portfolio entities (and our holdings in sovereign bonds) most at risk of lower valuations are those sensitive to coastal flooding, river low flow (e.g. river flow hydro electricity generation), and extreme heat (in Australia, the US, and parts of Asia).

## Mitigants

As with the 1.5°C scenario.

We would expect significant changes to investment portfolios in the medium term to adjust to this scenario.

# 3.0°C Current Policies

How could a temperature rise to 3°C above pre-industrial levels affect our investment strategy and portfolio returns?

## Characteristics of this scenario

- Some climate policies are implemented in some jurisdictions, but globally efforts are insufficient to halt significant global warming.
- The scenario results in severe physical risk including irreversible impacts like sea-level rise.
- Assumes only currently implemented policies are preserved, and the carbon price remains near zero, alongside low use of carbon dioxide removals.
- Acute impacts from extreme weather events lead to business disruption and damage to property.
- Chronic impact, particularly from increased temperatures, sea level rise and precipitation, may affect labour, capital, land and natural capital in specific areas. These changes will require a significant level of investment and adaptation from entities, households and governments.
- Slow technology change.

## Potential broad impacts of the scenario

This scenario has low transition risk from policy changes but high physical risks which lead to:

- Increased variability in reliability of energy and utilities providers. Oil remains a key fuel source and oil prices rise.
- Escalating climatic consequences resulting from increased greenhouse gas (GHG) emissions impose a financial burden and opportunity on businesses. This impact affects their customers, supply chains, and facilities.
- Regional rivalry for resources; countries most prone to dramatic changes in temperatures have less capacity to adapt.
- Paris Accord pledges fail to detail how states intend to reduce emissions increasing opaqueness of sovereign bond issuance.
- A warmer planet would result in lower productivity of human capital, increased heating/cooling costs, reduced reliability and mobility of transportation affecting the majority of other sectors, including consumer goods, materials and food & beverage distribution

## Risks to the portfolio

Physical risks severely reduce the predictability of returns for banks' lending on physical assets. Physical risks raise the cost of maintaining and obtaining insurance on real estate. Transportation routes become less predictable due to lower resilience of roads, rail and shipping routes.

Rising oil prices would result in higher costs for sectors that have been slow to transition to alternative fuels, eroding profitability.

Under this scenario coastal flooding is overtaken as our highest physical risk by both river low flow and extreme heat exposed assets.

## Mitigants

As with 1.5°C scenario.

Increasing corporate targets and disclosures would help investors identify risks and opportunities resulting from intense physical change.

We would expect significant changes to investment portfolios in the medium term to adjust to this scenario.

## Risk Framework

NPF's Risk Policy provides a framework for managing risk within NPF which includes assessing climate-related risk relative to other risks. This policy utilises the risk management guidelines provided in the Australian/New Zealand standard (AS/NZS ISO 31000:2009).

Risks are managed using a six-step process: Establish Context, Risk Identification, Risk Assessment, Risk Management, Monitoring and Testing, and Reporting.

The Crown Responsible Investment Framework is designed to be complementary to the Government's carbon neutral commitments and forms the basis for identifying, assessing and managing climate-related risks.

Our external equities managers are mandated to manage portfolios on our behalf. Within the Investment Management Agreements, managers are expected to integrate responsible investment into investment analysis where the aim is to improve investment performance and/or where the manager believes these factors will affect long-term investment performance. Management leverages insights from third-party climate data providers and engage in collaborative climate related projects with CFIs.

Once risks have been identified the likelihood and consequence of each risk is assessed on an inherent

and residual basis using a Risk Assessment Matrix. The residual risk rating outcome on the risk matrix provides a basis for NPF to determine if further risk minimisation strategies are required to manage the identified risk.

Where the outcome of the risk assessment step reveals a key risk is outside of the target risk level, risk mitigation strategies are implemented to reduce the risk to an acceptable level.

Risk issues are discussed as required at the weekly meeting of AML's Leadership team. Management completes a portfolio review on an annual basis, with quarterly reporting to the NPF Board to escalate risks and present opportunities from climate change alongside data points relevant to public commitments for decarbonisation.

Risks are prioritised based on likelihood and materiality. Today climate-related risks are not prioritised separately from other types of risk.



Whiritoa Beach, Waikato Region,  
by Rob Suisted (www.naturespic.com)

# Physical and Transition Risk

The Aotearoa NZ Climate Standard Adoption Provision 1 (CS2.10-CS2.11) allows new reporters to omit initial disclosures of financial impacts from physical and transition risks (CS1.12b) and related metrics (CS1.12c), acknowledging the dynamic nature of climate data for evaluating investments. We have adopted this provision for our first year.

Our primary means of managing climate risks identified in our holdings is through engagement, driven primarily by third-party specialists and our external investment managers.

We use MSCI and external manager data to monitor the carbon emissions of the portfolios. We have excluded cash and cash equivalents from our metrics and targets.

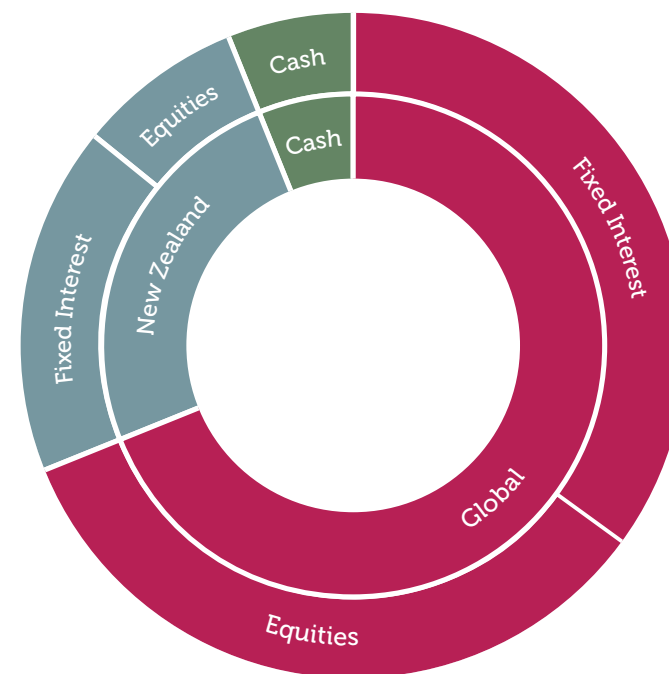
Our escalation process involves a watchlist, direct engagement and proxy voting, shareholder escalation through investor groups and ultimately divestment resulting in permanent or temporary exclusion reviewed bi-annually.

Each of NPF’s external investment managers is a signatory to the Principles of Responsible Investment (PRI), committed to incorporating ESG (climate falling within ‘E’) issues into investment analysis and decision-making processes. We review their PRI Transparency Reports (that they issue annually) to assist our understanding of their approach to responsible investment.

Management produces quarterly reporting assessing material climate risk factors based on MSCI’s methodology for the equities portfolio. We anticipate expanding this across the entire portfolio by the end of 2024.

NPF invests the scheme assets across a wide range of entities globally, in both equity and fixed income securities.

Investment Assets



	Fixed Interest	Equities	Total
New Zealand/Australia	17%	8%	<b>25%</b>
Global	35%	34%	<b>69%</b>
	<b>52%</b>	<b>42%</b>	<b>94%</b>
Cash and cash equivalents			<b>6%</b>

# Metrics and Targets

All portfolio metrics involve estimated data for companies we invest in and encompass a high degree of uncertainty, specifically in regard to:

- Scope 3 emissions,
- the combination of indirect emissions and financed emissions in listed equities, and
- potential double-counting in fixed income data (country data affecting both sovereign bonds and the corporate bonds issued in that country).

We use third-party data and tools (from MSCI) for our metrics.

We have greater confidence in the metrics pertaining to equities as the carbon data coverage of the equities in the portfolio is significantly higher than the bonds in the portfolio.

In these metrics and targets we are reporting financed emissions. These are not emissions by NPF or AML through our own activities. Financed emissions are those 'owned' by NPF through our investments in the assets in the portfolios. Technically, these are scope 3 emissions for NPF; however, we differentiate in these metrics and targets the emissions that are scopes 1, 2 and 3 (upstream) from our underlying investments. This illustrates the emissions that are directly under the control of companies or securities issuers we invest in (scopes 1 and 2).

In 2022 we set a target for the NPF investment portfolio to be carbon neutral by 2050. Consistent with that we also set a 2025 target to achieve a 50% reduction (relative to a 2019 baseline) in carbon intensity (tons CO<sub>2</sub>e/US\$m sales) of the public equity portfolios. Progress against the 2025 target is presented to the Board on a quarterly basis, leveraging third-party climate data provider MSCI.

The 2025 target does not rely on offsets. The 2050 target requires further maturity of sectoral transition pathways over the next two decades before a decision on offsets (and their verifiability) can be determined.



Each investment in NPF's portfolio is issued or listed in a country that has signed the Paris Agreement. Progress towards our 2025 Paris Aligned Asset Owners target of reducing carbon intensity in our equity portfolio by 50% can be seen in the charts on the following page.

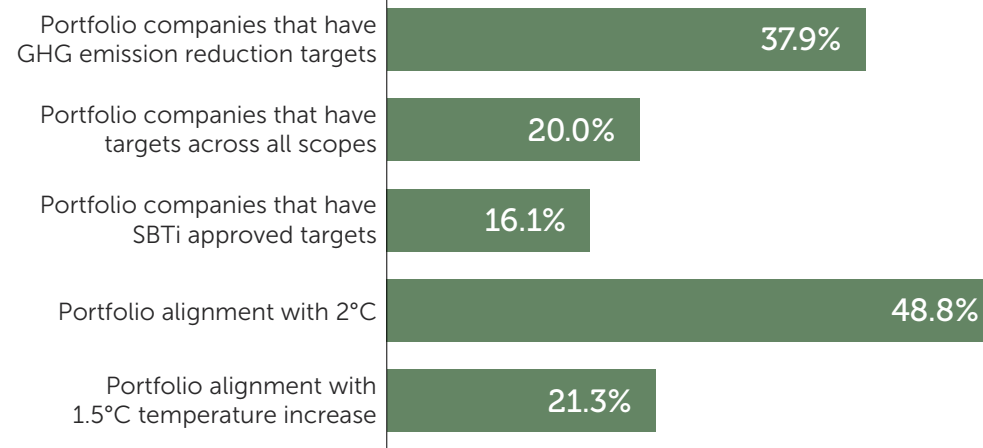
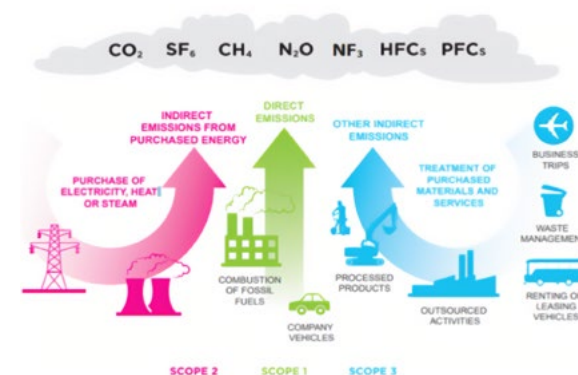
The current estimated Financed Emissions of the portfolio are (tons CO<sub>2</sub>e):

- Scopes 1 & 2: 26,371
- Scope 3 (upstream): 86,583

Exposure to companies classified as:

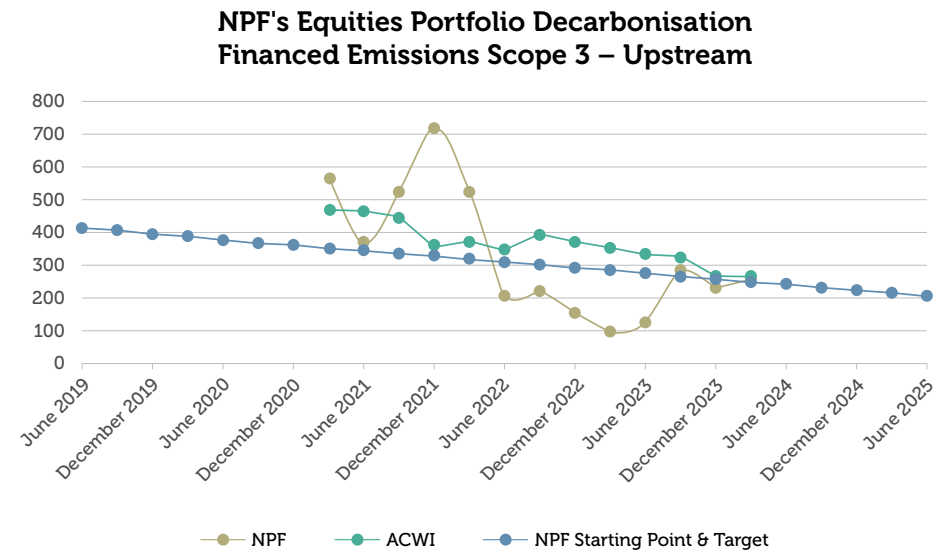
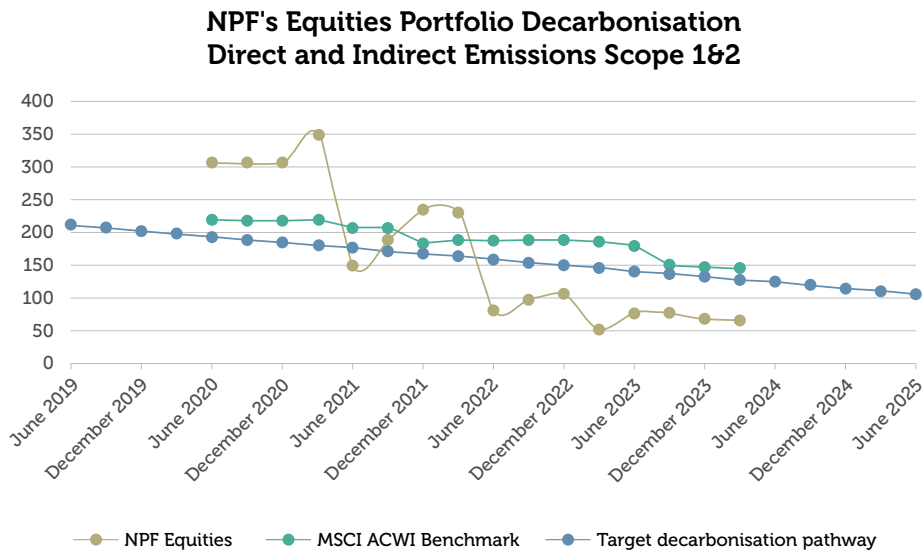
- Low Carbon Solutions 4.7%
- Low Carbon Transition Risk 9.6%

Physical Risk Climate Value at Risk -4.0%



# Metrics and Targets

The charts below show the decarbonisation of our equities portfolio through time towards our 2025 target. They measure the financed carbon intensity (tons CO<sub>2</sub>e/US\$m sales) of the portfolio, the benchmark and the pathway required to reach the 2025 target. The first chart is based on scopes 1 & 2 of our equity holdings, and the second chart shows scope 3 (upstream).



On a scopes 1 & 2 basis the target has been achieved (current 65.3 versus target 105). When considering scope 3 (upstream) we have further to go to reach the target (current 261.6 versus target 205).

*Note: the pathway of the portfolio (and the benchmark) varies through time due to changes in holdings and changes in the underlying data per investee entity.*

# Metrics – 31 March 2024

On this page we present metrics from each component of our portfolio – equities and fixed income separately.

Listed Equities		Portfolio	Benchmark	Variance	2025 Target
<b>Financed Carbon Intensity</b> tCO <sub>2</sub> e/US\$m sales Investor Allocation: Enterprise Value including Cash	Scope 1+2	65.3	143.2	-54.4%	105
	Scope 3 – Upstream	261.6	261.4	0.1%	205
<b>MSCI Coverage of Listed Equities</b>		98.9%	99.9%		
Allocated emissions per allocated sales. Measures the carbon efficiency of a portfolio, defined as the ratio of carbon emissions for which an investor is responsible to the sales for which an investor has a claim by their equity ownership. Emissions and sales are apportioned based on equity ownership (% market capitalisation).					
<b>Entities with greenhouse gas (GHG) emission reduction targets</b>		81.4%			
<b>Entities with Science Based Targets initiative (SBTi) approved targets.</b>		40.0%			
Fixed Income		Portfolio	Benchmark	Variance	
<b>Corporate constituents</b> tCO <sub>2</sub> e/US\$m sales Investor Allocation: Weighted Average Carbon Intensity	Scope 1+2	139.1	157.5	-11.7%	
	Scope 3 – Upstream	181.0	194.2	-6.8%	
<b>MSCI Coverage of Fixed Income Corporate constituents</b>		26.6%	33.8%		
Measures a portfolio's exposure to carbon-intensive entities, defined as the portfolio weighted average of entities' Carbon Intensity (emissions/sales).					
<b>Sovereign constituents</b> tCO <sub>2</sub> e/US\$m GDP nominal Investor Allocation: Weighted Average Carbon Intensity	GHG intensity	343.2	319.2	7.5%	
<b>MSCI Coverage of Fixed Income Sovereign constituents</b>		47.7%	60.9%		
Measures a portfolio's exposure to carbon-intensive economies, defined as the portfolio weighted average of sovereigns' GHG Intensity (emissions/GDP).					
<b>Corporate constituents with GHG emission reduction targets</b>		21.4%			
<b>Corporate constituents Science Based Targets initiative (SBTi) approved targets.</b>		4.6%			
<b>Equities Benchmark:</b> Morgan Stanley Capital International (MSCI) All Country World Index		<b>Fixed Income Benchmark:</b> Bloomberg Global Aggregate			

# Portfolio Alignment with Net Zero

On this page we present metrics for the combined Fixed Income and Equities portfolios (excluding cash).

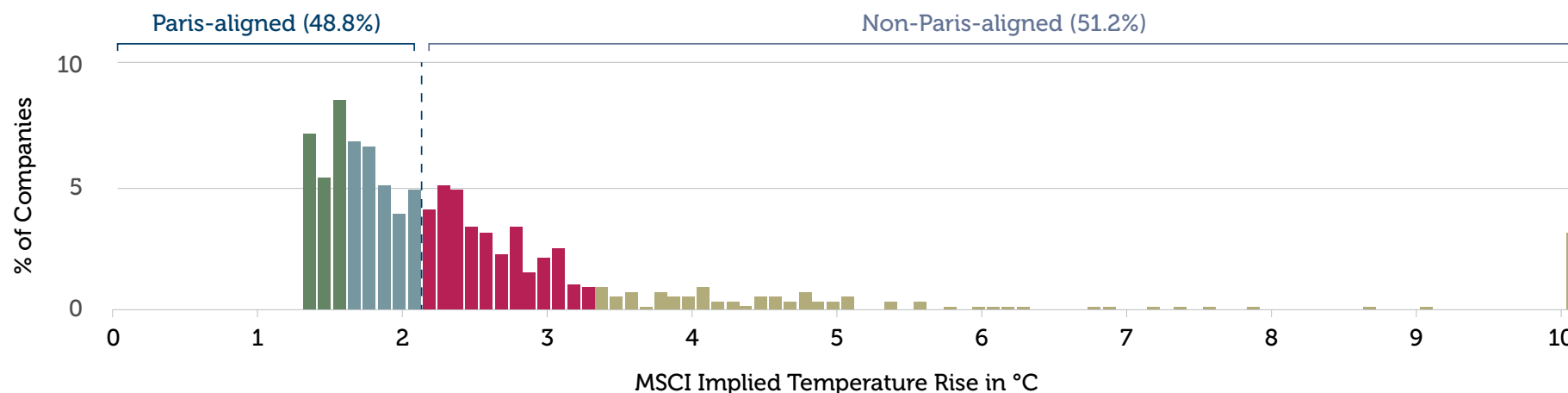
Implied Temperature Rise (ITR) from MSCI ESG Research is a forward-looking metric, expressed in degrees Celsius, designed to show the temperature alignment of entities, portfolios and funds with global temperature goals.

The ITR measure is part of a platform of analytical tools from MSCI ESG Research for institutional investors to navigate the transition to net-zero.

Portfolio MSCI ITR Distribution reflects the Fixed Income and Equities NPF portfolio as at 31 March 2024.

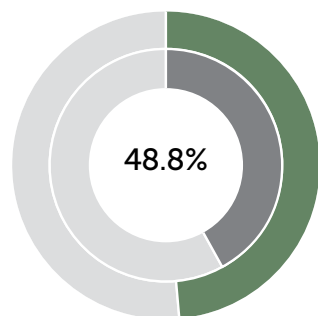
## Portfolio MSCI Implied Temperature Rise Distribution

The issuers in the portfolio are distributed according to their Implied Temperature Rise showing the number who are aligned with the Paris Agreement and the more ambitious 1.5°C temperature goal.

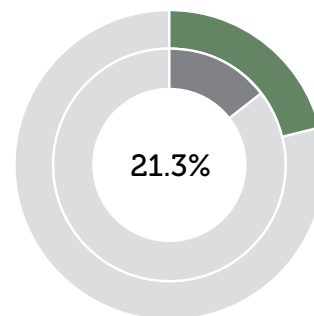




Companies' Transition Plans	FI & Equities	Equities
Companies with GHG emission reduction targets	37.9%	81.4%
Companies with targets across all scopes	20.0%	40.0%
Companies with SBTi approved targets	16.1%	40.0%
Companies with top quartile carbon management score	22.5%	47.3%

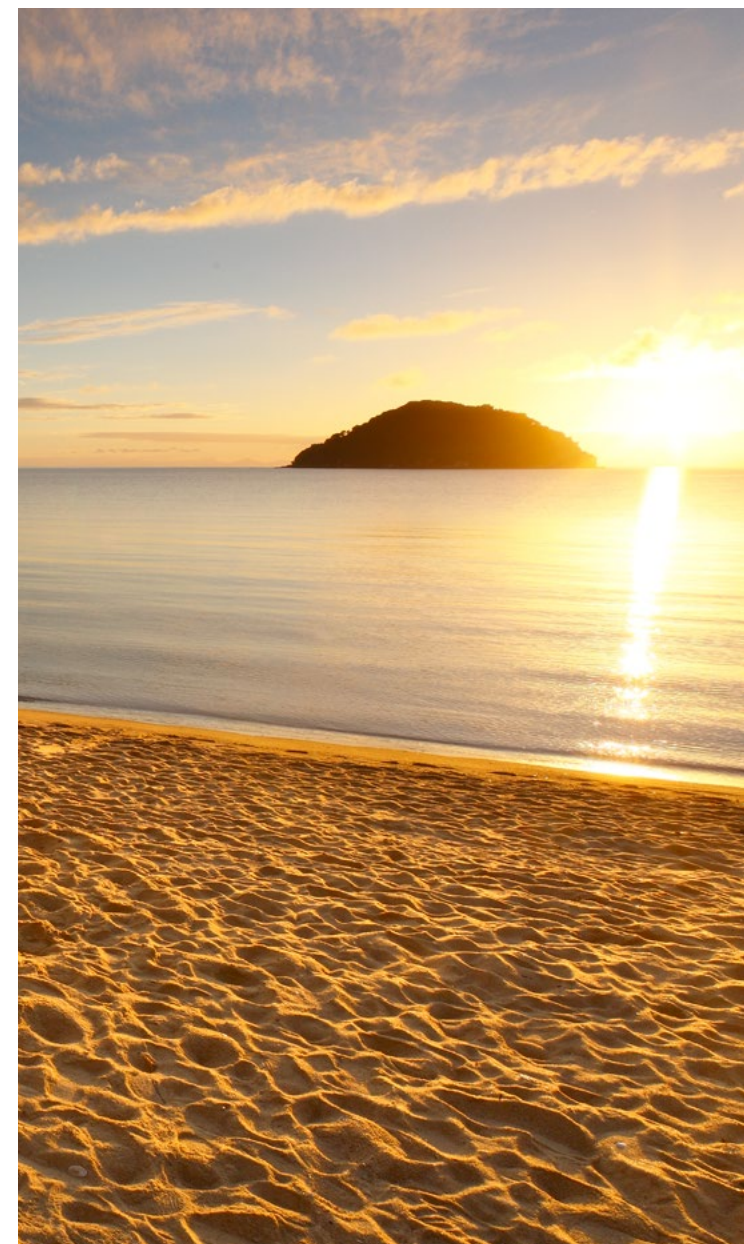


48.8% of entities within the portfolio align with the goal of limiting temperature increase to below 2°C.



21.3% of entities within the portfolio align with the goal of limiting temperature increase to below 1.5°C.

Implied Temperature Rise Categories		% of companies in category	
<span style="color: green;">■</span>	1.5°C Aligned	<=1.5°C	21.3%
<span style="color: blue;">■</span>	2°C Aligned	>1.5°C – 2°C	27.5%
<span style="color: red;">■</span>	Misaligned	>2.0 – 3.2°C	34.9%
<span style="color: olive;">■</span>	Strongly Misaligned	>3.2°C	16.3%



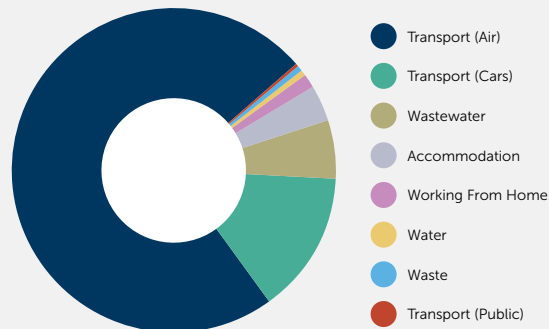
# Appendix One Corporate Emissions

We provide climate-related information at a corporate level, encompassing the activities of NPF as a corporate entity and AML, separately from climate-related information about NPF’s investment portfolios.

The location of AML in Wellington presents some physical climate-related risks due to the city’s geographical and climatic characteristics. While impacts on Wellington’s infrastructure could interrupt AML’s day-to-day operations, this risk is mitigated by remote-working capabilities. This means that all AML staff can work from home at short notice by using work-allocated laptops and phones.

Climate-related impacts currently being experienced by the NPF Board and AML are minor but are expected to increase as the impact of climate change increases. We aim to establish targets and a transition plan to mitigate, adapt and reduce our emissions. Both the NPF Board and AML have developed use of online and hybrid meetings to reduce travel, which is our biggest source of corporate emissions.

## Scope 3 Emissions



	TOTAL Tonnes Carbon Dioxide Equivalent tCO <sub>2</sub> -e	% of Total tCO <sub>2</sub> -e	Carbon Dioxide (tCO <sub>2</sub> )	Methane (tCO <sub>2</sub> -e)	Nitrous Oxide (tCO <sub>2</sub> -e)
<b>Scope 1</b>					
Direct GHG emissions from sources owned or controlled by the organisation.	0.00	0%	0.00	0.00	0.00
<b>Scope 2</b>					
Indirect GHG emissions from the generation of purchased energy that the organisation uses.	1.30	7.32%	1.26	0.03	0.00
<b>Scope 3</b>					
Other indirect GHG emissions occurring because of the activities of the organisation but generated from sources that it does not own or control (eg, air travel).					
Accommodation	0.61	3%	0.61	0.00	0.00
Transport (Air)	12.15	69%	12.06	0.01	0.50
Transport (Cars)	2.32	13%	2.23	0.42	0.07
Transport (Public)	0.04	0%	0.04	0.00	0.00
Waste	0.07	0%	0.00	0.07	0.00
Wastewater	0.92	5%	0.12	0.35	0.45
Water	0.08	0%	0.08	0.00	0.00
Working From Home	0.24	1%	0.18	0.05	0.01
<b>Scope 3 Total</b>	<b>16.43</b>	<b>92.68%</b>	<b>15.31</b>	<b>0.91</b>	<b>1.02</b>
<b>Total</b>	<b>17.73</b>	<b>100%</b>	<b>16.57</b>	<b>0.94</b>	<b>1.02</b>

# Appendix Two

## Climate Standards Index

Climate Standard	Page
<b>CS1.6</b> Governance – The role our governance body plays in overseeing climate-related risks and climate-related opportunities, and the role management plays in assessing and managing those climate-related risks and opportunities.	4-6
<b>CS1.7a</b> The identity of the governance body responsible for oversight of climate-related risks and opportunities.	4
<b>CS1.7b</b> A description of the governance body’s oversight of climate-related risks and opportunities.	4
<b>CS1.7c</b> A description of management’s role in assessing and managing climate-related risks and opportunities.	5-6
<b>CS1.10</b> Strategy – How climate change is currently impacting the National Provident Fund and how it may do so in the future.	1, 8-16
<b>CS1.11a</b> A description of our current climate-related impacts.	11, 24
<b>CS1.11b</b> The scenario analysis we have undertaken to help identify our climate-related risks and opportunities and better understand the resilience of our business model and strategy.	12-16
<b>CS1.11c</b> A description of the climate-related risks and opportunities we have identified over the short, medium, and long term.	9, 17-18
<b>CS1.11d</b> A description of the anticipated impacts of climate-related risks and opportunities.	17-18, 24
<b>CS1.11e</b> A description of how we will position ourselves as the global and domestic economy transitions towards a low-emissions, climate-resilient future state.	2, 9-10
<b>CS1.17</b> Risk – How our climate-related risks are identified, assessed, and managed and how those processes are integrated into existing risk management processes.	17-18

Climate Standard	Page
<b>CS1.18</b> A description of our processes for identifying, assessing and managing climate-related risks.	17-18
<b>CS1.20</b> Metrics and Targets – How we measure and manage our climate-related risks and opportunities. Metrics and targets also provide a basis upon which you can compare entities within a sector or industry.	19-24
<b>CS1.22a</b> Greenhouse gas (GHG) emissions	19
<b>CS1.22b</b> GHG Emissions Intensity	21
<b>CS1.22c</b> <b>CS1.22d</b> <b>CS1.22e</b> Assets vulnerable to transition and physical risks; assets aligned with climate-related opportunities.	19
<b>CS1.22f</b> Capital expenditure is immaterial.	19
<b>CS1.22g</b> <i>We have not set an internal emissions price.</i>	
<b>CS1.22h</b> Management remuneration linked to climate-related risks and opportunities.	5

### Adoption Provisions

<b>CS 1.12b</b> <b>CS 1.12c</b>	<b>Adoption Provision One: Current financial impacts</b> CS 2.10 and CS 2.11 provides an exemption from these disclosure requirements in our first reporting period.
<b>CS 1.15b</b> <b>CS 1.15c</b> <b>CS 1.15d</b>	<b>Adoption Provision Two: Anticipated financial impacts</b> CS 2.12, CS 2.13 and CS 2.14 provide exemptions from these disclosure requirements in our first reporting period.
<b>CS 1.25</b> <b>CS 1.26</b>	<b>Application date</b> CS1.B2 states that these assurance standards apply to annual reporting periods that end on or after 27 October 2024. (CS1.B2)

The Board of Trustees of the National Provident Fund is not bound by the Climate-Related Disclosure Framework prescribed by the Financial Markets Conduct Act 2013 and the External Reporting Board’s Climate Standards. While the Board has had regard to the Climate-Related Disclosure Framework in preparing this climate report, it makes no representation or statement that the climate report complies with the Framework or covers all information that the Framework requires to be disclosed.

The Board has had regard to the Aotearoa New Zealand Climate Standards commencing with the financial year ending on 31 March 2024.

# Appendix Three

## Glossary

### **Annuitas Management Limited (AML):**

The company that employs the Management team. AML is a joint venture between the Board and the Government Superannuation Fund Authority, working on behalf of NPF members to increase the value of their investment.

### **Aotearoa New Zealand Climate Standards (CS):**

Standards issued by the External Reporting Board to support the allocation of capital towards activities that are consistent with a transition to a low-emissions, climate-resilient future.

**Crown Financial Institutions (CFIs):** Accident Compensation Corporation, the Government Superannuation Fund Authority and the Guardians of New Zealand Superannuation.

### **Crown Responsible Investment Framework (CRIF):**

This provides a framework for CFIs to set transition plans consistent with Government policy, the Paris Agreement and global investment leadership to support the transition to a lower carbon economy.

### **Environmental, Social, and Governance (ESG):**

A set of issues, including environmental issues, social issues and corporate governance that can be considered in investing.

**Greenhouse Gases (GHG):** Gases that trap heat in the atmosphere. GHG emissions are a key metric for assessing a company's environmental impact and its contribution to climate change.

### **International Financial Reporting Standards**

**(IFRS):** Sets of standards issued by the International Accounting Standards Board (IASB) and the International Sustainability Standards Board (ISSB). They standardise the way companies' financial and sustainability performance are described, making statements understandable and comparable across international boundaries.

### **Morgan Stanley Capital International (MSCI):**

Both a provider of our financial climate data and refers to the All Country World Index (ACWI) a reference portfolio we compare our investment performance to.

### **Net Zero Investment Framework (NZIF):**

Paris Aligned Asset Owners publication defines methodologies and approaches for investors to align portfolios to the goals of the Paris Agreement and maximise the contribution they can make to achieving global net zero global emissions by 2050.

**Paris Agreement:** An international treaty on climate change that was adopted in 2015. The treaty covers climate change mitigation, adaptation, and finance. The Paris Agreement was negotiated by 196 parties at the 2015 United Nations Climate Change Conference near Paris, France.

**Paris Aligned Investment Initiative (PAII):** established in May 2019 as a collaborative investor-led forum, to support investors to align their portfolios and investment activities to the goals of the Paris Agreement.

**Scopes 1,2 3 (upstream):** The Scope 1 category includes the direct emissions from an organisation's facilities. Scope 2 includes the emissions from energy purchased by the organisation. Scope 3 (upstream) includes other indirect emissions, such as those from suppliers, used in the manufacture of products.

**Paris Aligned Asset Owners (PAAO):** A global group of asset owners, with over \$3.3 trillion in assets. Consistent with their fiduciary obligations to clients and beneficiaries to avoid financial risk and to maximise long-term value of assets, committing to transition their investments to achieve net zero portfolio GHG emissions by 2050, drawing on the PAII Net Zero Investment Framework to deliver these commitments.

### **Taskforce for Climate-related Financial**

**Disclosures (TCFD):** The precursor to Climate-related Disclosures, which NPF reported against in the 2022 and 2023 financial year. Due to emerging global regulation to standardise climate-related financial information, the TCFD was disbanded in November 2023.

# Appendix Four

## About Our Data

### During the reporting period we:

- Switched how we weighted the equities benchmark to calculate carbon intensity. We now exclusively use the MSCI ACWI as our comparator (we previously blended the MSCI ACWI with the NZX based on asset allocation).
- Noted the continuous change to underlying data in MSCI's ESG Manager tool, enhanced by disclosures in reporting and methodology changes. This has the ability to significantly change the emissions data of our holdings over the course of the reporting period.
- Relied exclusively on MSCI data for producing the carbon emissions metrics disclosed in this report.
- Analysed our fixed income portfolio for the first time; and continued to exclude cash from portfolio analysis or carbon emission figures.
- Requested some of our equity managers invest in line with a Low Carbon Index.
- Did not seek assurance of the disclosures associated with our metrics and targets. Part 7A of the Financial Markets Conduct Act 2013 has not been applied as it is not applicable to this voluntary disclosure.
- Did not predict the future in our climate scenario analysis; we use third party developed scenarios with a range of underlying assumptions to assess plausible pathways that may impact the portfolio through time.
- Understood that decarbonisation requires investing in sectors across the investible universe; we are not explicitly a low-carbon investor.

### Limitations in our disclosure:

- This data is a snapshot at a point in time, for both the underlying data and methodology. Our metrics reflect the investments held by our investment managers on a specific date. This point in time on its own does not reflect our medium and long-term decarbonisation expectations for external investment managers with low carbon targets in the equities portfolio.
- Understanding the severity of climate change and its impact on our portfolio is a best estimate based on data available today. This data is evolving rapidly and we anticipate that its coverage and quality will improve through time. The carbon data does not fully cover the holdings in the portfolio.
- Cash has been excluded from our portfolio emissions. While financed emissions of lending cash may have a carbon footprint, we assume this is immaterial compared to our equities and fixed income assets held in the portfolio.
- Business models and their alignment to a lower carbon economy continue to evolve. Our external managers evolve our portfolio holdings accordingly based on their views of risk and return.
- Most entities in our portfolio are at varying stages of their own disclosure journey. The underlying methodology to determine carbon emissions is based on numerous assumptions, reducing accuracy. We expect this to improve as regulators mandate further disclosure and assurance over time.



Pauatahanui, Wellington Region, by Rob Suisted ([www.naturespic.com](http://www.naturespic.com))



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