

Auckland Airport  
2021 financial year

# Climate Change Disclosure Report



Prepared in accordance with the recommendations of the  
Taskforce on Climate-related Financial Disclosures (TCFD).

# Introduction

As New Zealand’s largest airport, Auckland International Airport Limited (“**Auckland Airport**”) is an important economic engine for New Zealand, making a significant contribution to the Auckland community and helping to grow the country’s success in travel, trade and tourism.

Our operations deliver high levels of availability, reliability and resilience, and we recognise climate change has the potential to affect our business, both through physical impacts and in the transition to a low-carbon economy.

We are committed to reducing our carbon footprint, improving our operational resilience and adapting to the predicted effects of a changing climate now and into the future. We are also committed to supporting others, particularly in the aviation sector, to reduce carbon emissions.



## TCFD framework

In 2015, the Financial Stability Board established the Task Force on Climate-related Financial Disclosures (“**TCFD**”) to review how the financial sector can take account of climate-related issues.

In 2017, the TCFD released recommendations for climate-related financial disclosures which promote transparency leading to better climate-risk management. The recommendations are structured around four thematic areas that represent core elements of how organisations operate: governance, strategy, risk management, and metrics and targets. These are intended to interlink and inform each other.

## Core elements of recommended Climate-related Financial Disclosures



### ● Governance

The organisation’s governance around climate-related risks and opportunities.

### ● Strategy

The actual and potential impacts of the climate-related risks and opportunities on the organisation’s businesses, strategy and financial planning.

### ● Risk management

The process used by the organisation to identify, assess and manage climate-related risks.

### ● Metrics and targets

The metrics and targets used to assess and manage relevant climate-related risks and opportunities.

# Our TCFD plans

This year, for the first time, we are following the guidelines of the TCFD to disclose the impact of climate change on our business and our impact on climate change.

As we further identify, assess and manage climate change risks and new opportunities to the business we will continue to increase our disclosure. Auckland Airport expects to produce a disclosure fully aligned with the TCFD recommendations by 2023.

TCFD element	Future actions
<b>Governance</b>	<ul style="list-style-type: none"> <li>• Increase Board oversight of climate-related risks and opportunities</li> </ul>
<b>Strategy</b>	<ul style="list-style-type: none"> <li>• Expand analysis to include a scenario of 2°C or lower</li> <li>• Implement climate resilience strategy</li> <li>• Further integrate climate-related considerations into strategic planning</li> </ul>
<b>Risk management</b>	<ul style="list-style-type: none"> <li>• Improve processes to identify, assess and manage climate change risk</li> <li>• Further integrate climate change risk into company-wide risk management processes</li> </ul>
<b>Metrics and Targets</b>	<ul style="list-style-type: none"> <li>• Continue to make progress on climate-related targets</li> <li>• Further integrate climate-related metrics into strategic decision making and remuneration policies</li> </ul>



# Governance



## Board oversight of climate-related risks and opportunities

Auckland Airport’s Board of directors is responsible for reviewing and ratifying the risk-management structure, processes and guidelines which are developed, maintained and implemented by management, including climate change. The Board also sets the company’s risk-appetite on an annual basis and tracks the development of any existing risks and the emergence of new risks to the company. The Board receives an annual update on climate-related risks and opportunities, and has delegated further risk oversight and monitoring (including in relation to climate change) to the Safety and Operational Risk Committee (“SORC”) which currently comprises five Board directors.

The SORC is responsible for assisting the Board in discharging its responsibilities in relation to risks, and oversees, reports and makes recommendations to the Board on the safety, environmental (including for climate change) and operational risk profile of the business. The SORC receives a quarterly report from management which includes updates on climate-related risks.

## Management manages climate-related risks and opportunities

Auckland Airport’s management is responsible for the active identification of risks and implementation of mitigation measures, including climate change, in order to achieve and maintain operational and strategic objectives. Management has developed an enterprise risk management framework, designed to promote a culture which ensures a proactive and consistent approach to identifying, mitigating and managing risk on a company-wide basis. Our Chief Executive oversees the risk framework and reporting to the SORC, including climate change risks, and the general manager for each business unit is responsible for addressing the risks specific to their business unit.

In the 2021 financial year, management developed Auckland Airport’s Sustainability Pathway to 2030, which outlined climate change as a material issue to the organisation and included the recommendation to begin disclosing climate-related risks and opportunities aligned with the TCFD framework.

This year management also established a Sustainability Management Group, involving nine senior leaders from across the company, to oversee the implementation of the Sustainability Strategy including climate change initiatives and to manage our ongoing TCFD disclosure. This includes ongoing monitoring of climate change modelling and research.

# Strategy

## Strategic planning

Climate-related risks and opportunities are considered as part of Auckland Airport’s strategic planning, including our short-term asset management plans, medium-term infrastructure projects and longer-term masterplan for the whole of the Auckland Airport precinct.

The Sustainability Strategy accounts for our impact on climate change. There is a significant focus on carbon reduction including reducing the reliance on natural gas for space heating, replacement of our corporate vehicle fleet with electric vehicles, and the sustainable design of new infrastructure including selection of low-carbon materials.

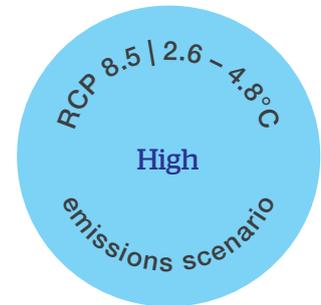
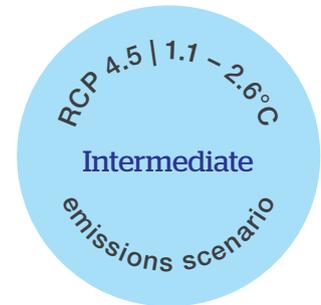
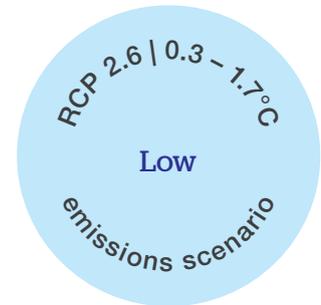
## Resilience to climate change

Because of Auckland Airport’s unique location on the Manukau Harbour, physical inundation and flooding of assets due to sea-level rise and extreme weather events is one of our key climate-related risks.

Auckland Airport sees climate-scenario analysis as a key tool for identifying climate change risk, and therefore keeps abreast of emerging climate modelling and research. The intention is to use three climate scenarios based on Representative Concentration Pathways (“RCPs”) outlined in the Intergovernmental Panel on Climate Change (“IPCC”) Fifth Assessment Report.

These scenarios are not intended to predict the future but rather explore possible futures which enable Auckland Airport to understand our resilience as a business within these areas.

To date, Auckland Airport has undertaken analysis of current and future flooding and inundation under the high emissions scenario, representative of a 4.8°C warming pathway (RCP 8.5). This analysis identified that without intervention, the frequency and intensity of inundation and flooding events on the airport precinct will increase significantly, eventually resulting in frequent interruption to business activity in 2090. This potential impact is being addressed by regular monitoring, maintenance and upgrades to existing infrastructure as well as through strategic planning of future infrastructure requirements.



**Climate-related risks and opportunities**

The impacts of climate change, including rising sea levels, higher temperatures and increasing frequency and severity of storm events and high winds, could have negative effects on the infrastructure and property assets of Auckland Airport. In addition, climate change policies enacted

globally and domestically could affect aviation activities, which could have a negative impact on our financial performance.

We have assessed physical and transitional risks for our business due to climate change as illustrated in the table below.

Auckland Airport’s contribution to climate change solutions will present new opportunities also. These include lowering operating costs by reducing energy consumption, as well as designing and building sustainable buildings to attract tenants.

Risk driver	Impact on Auckland Airport	Current and future controls
<b>Physical</b>		
Sea-level rise	Business interruption and operational delays due to inundation of areas that feature existing assets critical to airport operations	<ul style="list-style-type: none"> <li>Increased monitoring and maintenance of the seawall</li> <li>Maintenance of existing (and development of new) infrastructure undertaken in consideration of climate change</li> </ul>
	Constraints to future development	<ul style="list-style-type: none"> <li>Consideration of climate change in Auckland Airport’s masterplan</li> </ul>
	Saltwater intrusion into wetlands and ponds, loss of functionality of stormwater and wastewater systems and consequential impact on the surrounding marine environment	<ul style="list-style-type: none"> <li>Stormwater Masterplan and planned infrastructure upgrades</li> <li>Ongoing monitoring of stormwater discharges</li> </ul>
Increased frequency and intensity of storm and rainfall events	Damage to infrastructure, business interruption and operational delays due to flooding of areas that feature assets critical to airport operations	<ul style="list-style-type: none"> <li>Maintenance of existing (and development of new) infrastructure undertaken in consideration of climate change</li> </ul>
	Changes to aircraft noise contours due to changing wind patterns	<ul style="list-style-type: none"> <li>Annual review of weather data to identify emerging trends that could impact the location of the aircraft noise contours</li> </ul>
Decreased rainfall days	Water shortages due to drought resulting in increased potable water prices and the introduction of water restrictions	<ul style="list-style-type: none"> <li>Water efficiency initiatives</li> <li>Secured access to non-potable water supplies</li> <li>Further inclusion of non-potable water reticulation to increase non-potable water usage</li> </ul>
	Increase in electricity price and introduction of restrictions on electricity use, particularly at times of peak demand, due to less generation capacity from ‘dry’ hydro-electric schemes	<ul style="list-style-type: none"> <li>Energy efficiency initiatives</li> <li>Exploration of feasibility for onsite renewable energy generation</li> </ul>
Rising mean temperatures	Increased risk of mosquitos and other exotic pests which pose a threat to New Zealand biodiversity and human health	<ul style="list-style-type: none"> <li>Ongoing biosecurity monitoring programme</li> <li>Elimination of potential breeding grounds such as standing water</li> </ul>
	Increase in operating costs for air cooling as the operating parameters will need to be expanded for the expected temperature and humidity range in the long term	<ul style="list-style-type: none"> <li>Factoring future requirements into long-term asset-management and replacement plans</li> </ul>
<b>Transitional</b>		
Global and domestic legislative changes	Risk of global and domestic policies, regulation and pricing mechanisms being applied to reduce carbon emissions from aviation sector	<ul style="list-style-type: none"> <li>Policy engagement and advocacy</li> </ul>
Changing public behaviours	Risk of moderation in passenger growth if public sentiment towards air travel changes due to the carbon footprint of aviation	<ul style="list-style-type: none"> <li>Effective monitoring of consumer perceptions in New Zealand and key inbound markets</li> <li>Maintaining a diverse portfolio of markets and strengthening short-haul markets</li> <li>Supporting airline partners to reduce their emissions at gate through the provision of ground power units (“GPUs”) and pre-conditioned air (“PCA”)</li> <li>Maintenance of a precinct-wide masterplan that promotes an efficient airport design and layout</li> </ul>

# Risk management

**Our enterprise risk management framework and risk management company policy guide our approach to risk management in relation to climate change. Risks are identified at all levels of the organisation, and all employees are responsible for implementing, managing and monitoring the processes and risk plans with respect to material business risks, as appropriate.**

All enterprise-wide material risks, including those relating to climate change, are assessed through Auckland Airport's risk assessment matrix. This assesses the likelihood of the risk occurring, and the impact on the business should it occur, to produce a total "risk rating". Risk ratings are described as "residual risks" and "inherent risks" reflecting the impact to the business with or without controls in place to mitigate the risks.

Auckland Airport's process for risk management is continuous and is designed to provide advanced warning of material risks before they eventuate. In addition to identifying and assessing risks, the process includes:

- Risk mitigation strategy development
- Reporting
- Compliance, monitoring and evaluation to ensure the ongoing integrity of the risk management process.

Priority physical and transitional climate change risks are included in Auckland Airport's enterprise-wide risk register. The SORC receives a quarterly update on enterprise-wide risks, the controls in place to mitigate the risk and the planned actions to address them.



# Metrics and targets

Auckland Airport recognises that the travel industry contributes to climate change. The impacts of climate change, including rising sea levels and temperatures, and unpredictable weather patterns will impact our company, the local community, New Zealand and the planet. We seek to take a leading-practice approach to managing and reducing our carbon emissions.

## Managing our own footprint

In 2017, Auckland Airport was the first airport in the world to set a carbon reduction target under the Science-Based Targets Initiative. We achieved this target five years ahead of schedule in 2020.

In 2017, Auckland Airport was also among the first wave of New Zealand businesses to join the Climate Leaders Coalition, which now has over 100 signatories. The Coalition promotes business leadership and collective action on the issue of climate change. It commits the signatory organisations to take voluntary action on climate change and to work together to help New Zealand transition to a low-carbon economy.

This year, we set a suite of new sustainability targets to 2030. This includes the following environmental targets:

# Net Zero

CARBON EMISSIONS BY 2030

20% 

 REDUCTION IN POTABLE WATER USE BY 2030

20% 

 REDUCTION IN WASTE TO LANDFILL BY 2030



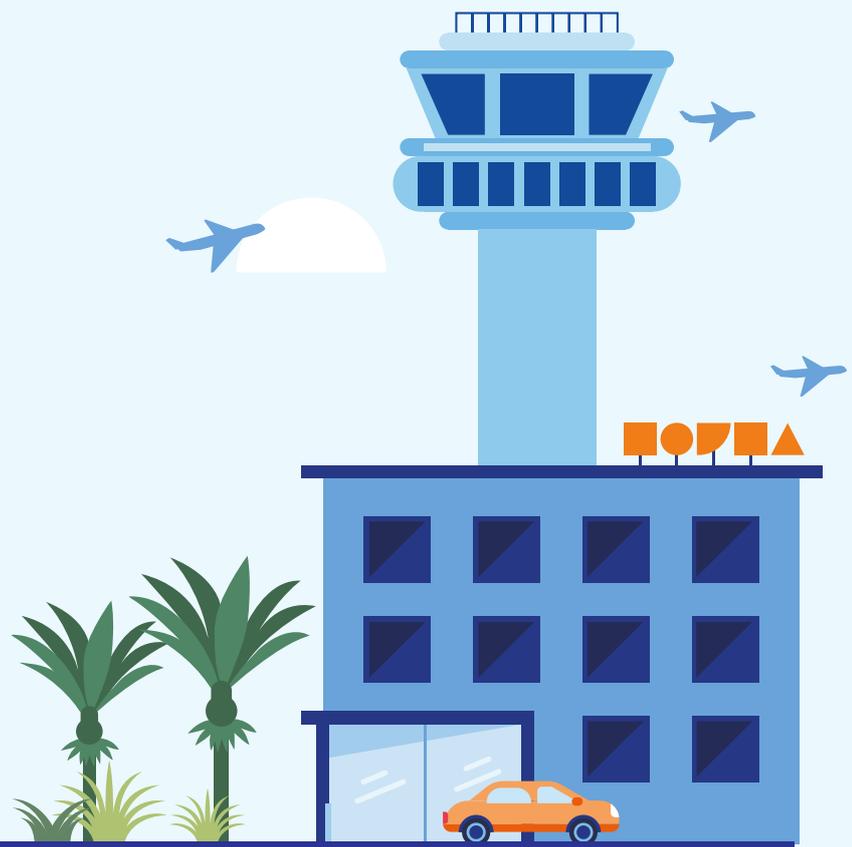
### Pathway to Net Zero

For the first time, we have set a pathway to reach Net Zero carbon emissions by 2030. This means reducing our scope 1 and 2 emissions<sup>1</sup> as far as is feasible, which will be achieved by:

- Phasing out the use of natural gas in the terminal
- Electrifying our corporate vehicle fleet
- Using refrigerants with the lowest global warming potential possible
- Using 100% renewable electricity.

In 2030, should there be any residual emissions these will be neutralised by the purchase of certified carbon removals.

# 2030



<sup>1</sup> Scope 1 is the emissions from sources that are owned or controlled by the company.  
Scope 2 is the emissions from the generation of purchased electricity consumed by the company.



**Supporting our business partners**

Airlines flying to and from Auckland Airport are continuing to upgrade their fleets to more fuel-efficient aircraft. Auckland Airport recognises we have a role to play in assisting airlines to reduce their carbon emissions. We have worked with New Zealand’s air navigation service provider, Airways, and airlines to help reduce aircraft fuel burn, with fuel-saving flight paths and the allocation of taxiways to minimise aircraft taxi time.

We also support our partners to reduce their carbon emissions through the introduction of equipment that reduces their dependence on aviation fuel while at our airport. This includes provision of GPUs and PCA at all international stands so that aircraft can be serviced by New Zealand’s low-carbon electricity grid while preparing for the next flight, instead of burning jet fuel while on the ground.

**Auckland Airport’s 2021 financial year carbon emissions**

The 2021 financial year has been extraordinary for the aviation industry. Although domestic passenger numbers returned to 77% of pre-COVID-19 levels in the final quarter of the year, international passenger numbers remain significantly lower than usual. This is reflected in Auckland Airport’s emissions profile. Although substantial emission reductions have been achieved to date through efficiency upgrades and other initiatives, an increase in absolute emissions in coming years is expected with the return of international travel.

Below is a summary of Auckland Airport’s scope 1 and 2 greenhouse gas emissions.

For the full 2021 financial year emissions profile, please refer to Auckland Airport’s greenhouse gas inventory report on the company website.

Information within the greenhouse gas inventory report is stated in accordance with the requirements of International Standard ISO 14064-1 Greenhouse gases – Part 1: Specification with guidance at the organisation level for quantification and reporting of greenhouse gas emissions and removals (“ISO 14064-1:2018”) and the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2004) (“the GHG Protocol”).

Scope	Base year FY12	FY19	FY20	FY21
Scope 1	2,615	2,472	2,397	1,674
Scope 2 <sup>2</sup>	6,708	3,802	3,648	3,031

<sup>2</sup> Previous years’ scope 2 emissions have been re-stated in 2021 to include transmission and distribution losses from electricity lines owned by Auckland Airport.



