

WLG 2040

TE MAHERE NUI 2040 O TE TAUNGA RERERANGI
O TE WHANGANUI-A-TARA





WLG 2040

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Left: View of Wellington
Airport from above, including
suburbs Miramar, Strathmore,
Kilbirnie and Rongotai.

Welcome

NAU MAI KI TO TATOU HEKE MAI

Sixty years ago, Wellington Airport opened on its present site with thousands of spectators there to witness the event. It was fitting the city chose Rongotai for the location of the airport, as one of New Zealand's first flights occurred almost fifty years earlier in nearby Lyall Bay.

The construction of the airport was a mammoth undertaking with three million cubic metres of earth and rock shifted and significant land reclamation.

The vision to create an airport in close proximity to the city and connecting Wellington to the world was certainly ambitious. However, since the first travellers were welcomed to a corrugated iron hangar that served as the domestic terminal, the airport has grown and evolved to become one of the country's busiest and most popular hubs.

Building upon our founders' original vision has required courage, foresight and a robust plan.

There has been significant capital investment in the airport to accommodate the growth in travellers over the years including world-class terminal re-developments and expansions, airfield technology and safety advances, the country's first fully integrated airport hotel and a number of runway extensions.

The last major extension, which occurred in 1972, enabled direct jet services to Australia and significantly enhanced Wellington's connectivity.

There was plenty of debate at the time as to whether Wellington really needed jet aircraft. Today, we have over 70 international flights a week to six destinations. Wellington would be a different place today without that development and those connections.

Wellington Airport now welcomes 6.4 million passengers every year and the region has better connectivity to the world than ever before but there is still room for improvement.

We're now setting our sights on creating the airport of the future for central New Zealand, using our resources efficiently to create a new era of possibility for travellers, the region and our economy.

The 2040 blueprint would require investment of around \$1 billion in infrastructure, including runway improvements, aircraft parking stands and additional terminal space.

Our future airport will reflect New Zealand and Wellington's cultural identity. It will provide visitors with a sense of place, incorporating sustainable principles into design and operation and enabling visitors to experience what we already know, that our corner of New Zealand is something truly special.

Left: Wellington Airport terminal in the '80s. Media articles and cartoons from the 70's when debate raged about whether Wellington needed jet air services to Australia.



Wellington Has A Hard Fight Ahead To Get Modern Airport

Parliamentary Reporter

JEALOUSY and parochialism in Parliament could well gravely hinder the Capital in getting an upgraded airport at Rongotai capable of taking even the biggest jets.

These feelings among some Wellington members will be sufficiently to provide for Tasman jet usage.



3.5M IN 2000
6.4M IN 2019
TOTAL PASSENGER NUMBERS



UNLOCKING

Our Potential

KO TĀ TĀTOU TŪRANGA I TE WĀHEKE O TE WHANGANUI-A-TARA

Left: Aerial view of Wellington City from the south.

Growing Wellington's global connectivity is critical to the city, region and New Zealand's economic growth.

As the international gateway for central New Zealand, Wellington Airport supports businesses to prosper and tourism to flourish, generating employment for close to 11,000 people in the local economy.

Currently Wellington Airport generates economic output of \$2.3 billion annually, contributing \$1.1 billion of Gross Domestic Product.

For an international airport catering for 6.4 million passengers per annum, 110 hectares is an extremely small footprint, making Wellington Airport one of the most efficient passenger processing airports in the world. Compared to Auckland Airport's 1500 hectares and Christchurch's 750 hectares, the space limitations mean we must seek innovation at every turn.

Looking forward, an economic impact study undertaken by BERL predicts that by 2040, the airport will make a direct contribution to the region of \$4.3 billion per year, generating \$2.1 billion of GDP and facilitating more than 22,500 jobs.

The economic benefits outlined exclude the projected benefits of the proposed runway extension. The benefits of direct long haul services were forecast by Sapere to deliver an additional \$8 in economic benefit for every single dollar spent lengthening the runway, with a net benefit of \$2.3 billion to the national economy over a 40-year period.

Connectivity is vital for a region's livability and socio-economic wellbeing.

SHAMUBEEL EAQUB,
ECONOMIST

\$2.3b IN 2019
\$4.5b BY 2040

ECONOMIC IMPACT

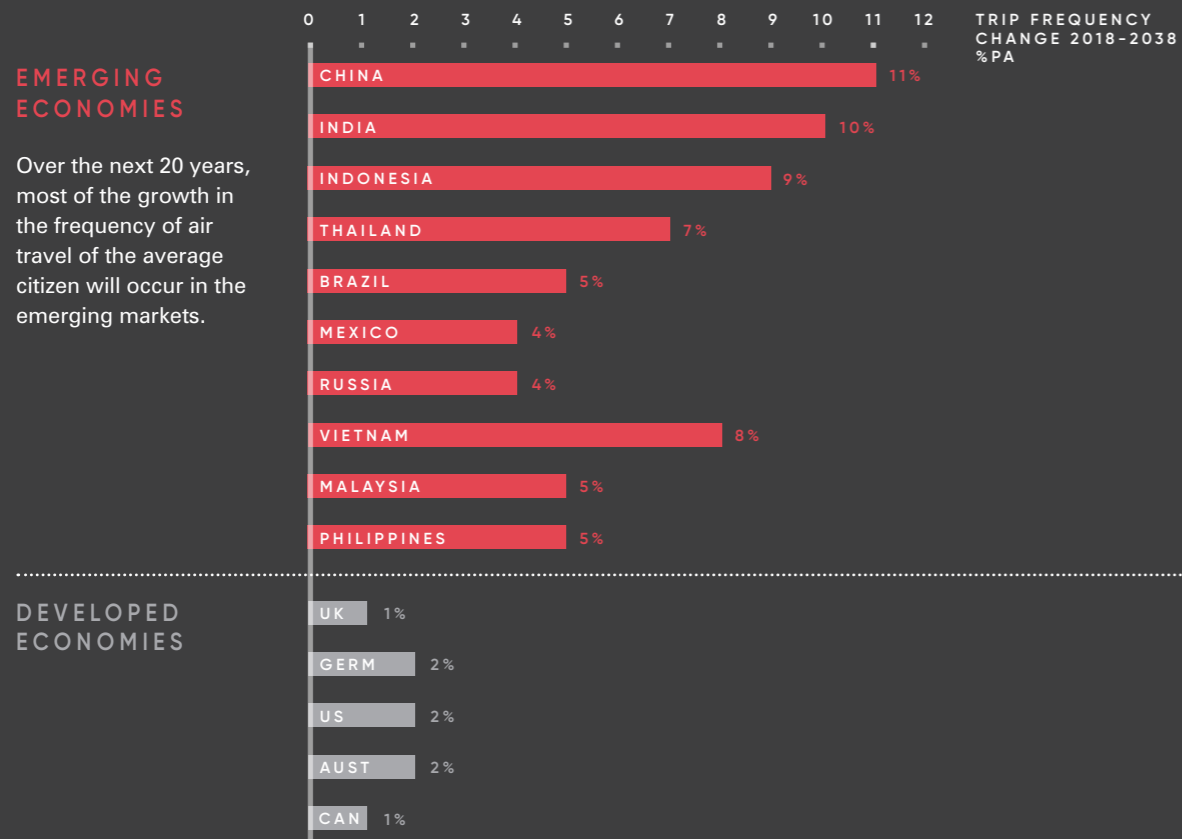
11,000 IN 2019
22,500 BY 2040

JOBS GENERATED

Changes in global air travel frequency over the next 20 years

The number of trips per person is forecast to increase 4-8% per annum for many emerging countries but could be as high as 10-11% per annum in the case of China and India. In contrast, trip frequency is likely to grow much more slowly, at just 1-2% per annum, in developed countries.

AVERAGE ANNUAL CHANGE IN TRIP FREQUENCY 2018-2038



TOP 10 LARGEST AIR TRANSPORT MARKETS AMONGST EMERGING COUNTRIES IN 2038



THE FUTURE OF

Air Travel

TE RERERANGI I TE WĀHEKE

New generation wide body aircraft, such as the Airbus 350 and Boeing 787, are revolutionising aviation models and opening new markets. They are lighter, more efficient and able to fly further which enables airlines to develop stronger hubs and fly direct to destinations.

Forecasts by manufacturers Boeing and Airbus predict a 4.5% annual growth in global passenger numbers and indicate the world aviation fleet will double from 24,000 to 48,000 aircraft within the next 20 years. The Asia-Pacific fleet is anticipated to grow from 7,000 aircraft to 18,000 aircraft in that time.

In domestic markets, with airport space at a premium and the cost of fuel rising for airlines, growth in travel is being accommodated by narrow body aircraft like the Airbus 321neo which are more fuel efficient and can carry up to 240 people.

Over the past 20 years, the air travel market has proven to be remarkably resilient, with robust growth continuing despite global incidents such as fuel price fluctuations, recessions, incidents of terrorism and pandemics.

Wellington Airport growth has mirrored global aviation trends, with sustained annual passenger growth of 3.5% per annum over the last 20 years and international growth outpacing domestic.

More airlines are flying to and from New Zealand, operating with increased capacity on more routes around the Asia-Pacific region. A more competitive domestic market has also developed. These have provided more choice and fare options for travellers.

Global tourism is expected to increase considerably, especially from Asia over the next 20 years. As disposable income increases so does the propensity to travel.

4.5% ANNUAL GROWTH
IN GLOBAL PASSENGER NUMBERS

\$39B IN 2019

\$50B IN 2025

TARGETED GROWTH IN INTERNATIONAL TOURISM SPEND IN NEW ZEALAND

Tourism Industry Aotearoa has set a target for international tourism spend in New Zealand, currently \$39.1 billion per annum, to exceed \$50 billion in 2025.

The tourism industry in New Zealand has a collective strategy to create a more sustainable future for tourism with economic, social and environmental benefits. The focus is shifting from volume, which puts pressure on some regional infrastructure, to prioritising value and dispersal of tourists into regions that have the opportunity and infrastructure to cater for more tourism.

Wellington has a significant role to play as the industry looks to grow more sustainably. Currently 50% of international visitor spend is in Auckland and Queenstown, with a further 10% spent in Christchurch. In central New Zealand, international spend is only 14%.

Wellington is a compact, walkable city surrounded by an adventure wilderness and marine environment with world-class hospitality. Wellington also has the ability to provide accommodation options during peak season when government and corporate travel is low and other regions are near capacity.

Just as direct services to Australia grew the trans-Tasman market, enhancing how Wellington connects to the rest of world will open up business opportunities, create new jobs, improve our liveability and bring more visitors to the city – encouraging more to explore the surrounding regions of central New Zealand.

In the last three years, Wellington has been at the top of the rankings for most liveable city in the world. It has also been rated by Lonely Planet as the top destination to visit in New Zealand. Te Papa is the most visited museum in Australasia and Trip Advisor's #1 attraction in New Zealand.

On top of what is already on offer, a number of significant visitor attractions are in the pipeline. These are a world class convention centre, outdoor adventure park, indoor arena, continuing to build on the world renowned local film industry and ongoing ecological restoration. It is vital that Wellington's air connectivity supports these projects and enables them to flourish.

If designed and managed well, tourism has the ability to deliver significant social, cultural, environmental and economic benefits. A key part of achieving this is generating and shaping demand with the kind of visitors who deliver the best outcomes for New Zealand. By attracting high-value visitors and influencing their visitation patterns, we spread the benefits tourism delivers across the year and across our communities.

STEPHEN ENGLAND-HALL
CHIEF EXECUTIVE,
TOURISM NEW ZEALAND.



WELLINGTON IS CONSISTENTLY RATED AS ONE OF THE MOST LIVEABLE CITIES IN THE WORLD.

TE PAPA IS THE MOST VISITED MUSEUM IN AUSTRALASIA AND TRIP ADVISOR'S #1 ATTRACTION IN NEW ZEALAND. ZEALANDIA AND HIAKAI ARE CONSIDERED ONE OF THE WORLDS GREATEST PLACES BY TIME MAGAZINE.

Wellington Terminal Experience



1985

DOMESTIC TERMINAL INTERIOR



2017

EXTENSION OF MAIN TERMINAL



INDICATIVE RENDER OF THE EXPANDED TERMINAL



Left: Indicative architectural render of the Wellington Airport International Terminal extension project.

BLUEPRINT TO 2040

KO TŌ TĀTOU WĀHEKE

Our master plan outlines the vision for the next 20 years, creating a blueprint that leaves the airport well placed for the future.

By 2040, we expect 12 million passengers to fly in and out of the Wellington region every year. This represents a growth rate of 2.9% per year.

This growth will play a pivotal role in shaping Wellington's future. Now more than ever before, growing Wellington's global connectivity is critical to the city, the region and New Zealand's socio-economic wellbeing.

The plan will be implemented as demand increases over time, requiring more than \$1 billion in infrastructure. With the airport's constrained site, we need to be smart about how we utilise our infrastructure and implement plans in a staged and flexible manner.

Our development plans and investment will also ensure our airport infrastructure is more resilient to a changing climate.

Despite passenger numbers doubling, annual flight movements are forecast to increase by less than 25% (from 85,000 now to 105,000 by 2040). This is as a result of airlines using larger, but more fuel efficient aircraft over time.

Extending the runway to enable direct long haul flights will actually reduce aircraft movements by 2040. This will also reduce the fuel and time travellers use as they no longer have to take an extra flight or alternative route to get to their destination.

6.4M IN 2019
12M BY 2040

GROWTH IN WELLINGTON PASSENGER NUMBERS

The Terminal



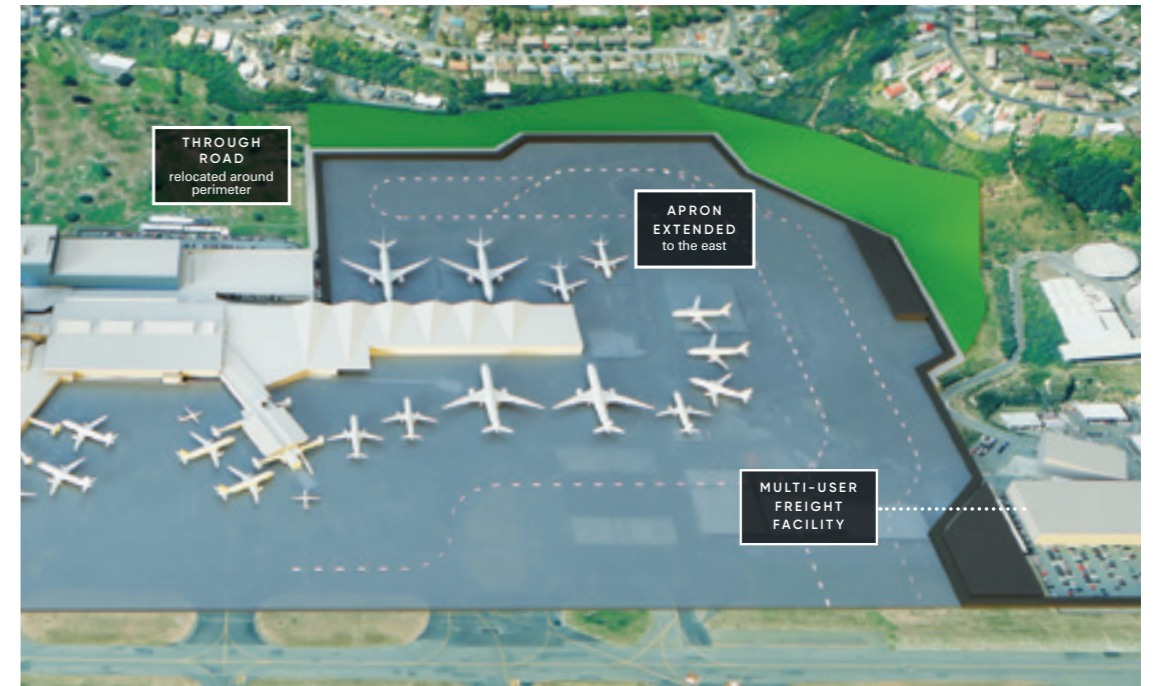
Our first step will be to repurpose the current northern area from international flights to regional flights. Then a new, expanded terminal will be constructed to the south for international and domestic jet aircraft.

This will mean we will be able to accommodate future growth in both domestic and international travellers. Surrounding the expanded terminal will be a taxiway area that can be configured for a number of alternative aircraft layouts.

KEY FEATURES:

- The airport will 'flip' its terminal, repurposing the northern area for regional traffic and expand the main terminal to the south for international and domestic jet aircraft.
- The smaller aircraft stand footprint requirements and tail heights of regional aircraft can be accommodated within the northern apron, with the north pier re-purposed as a domestic facility.
- A common use, international and domestic terminal will be constructed on available land to the south, with the surrounding apron and at-grade car parking areas repurposed for jets.

Eastern Apron



Our terminal buildings, transport hub and New Zealand's first fully-integrated airport hotel all provide a platform for growth. The eastern apron will continue to be the centre of operations for all scheduled passenger movements.

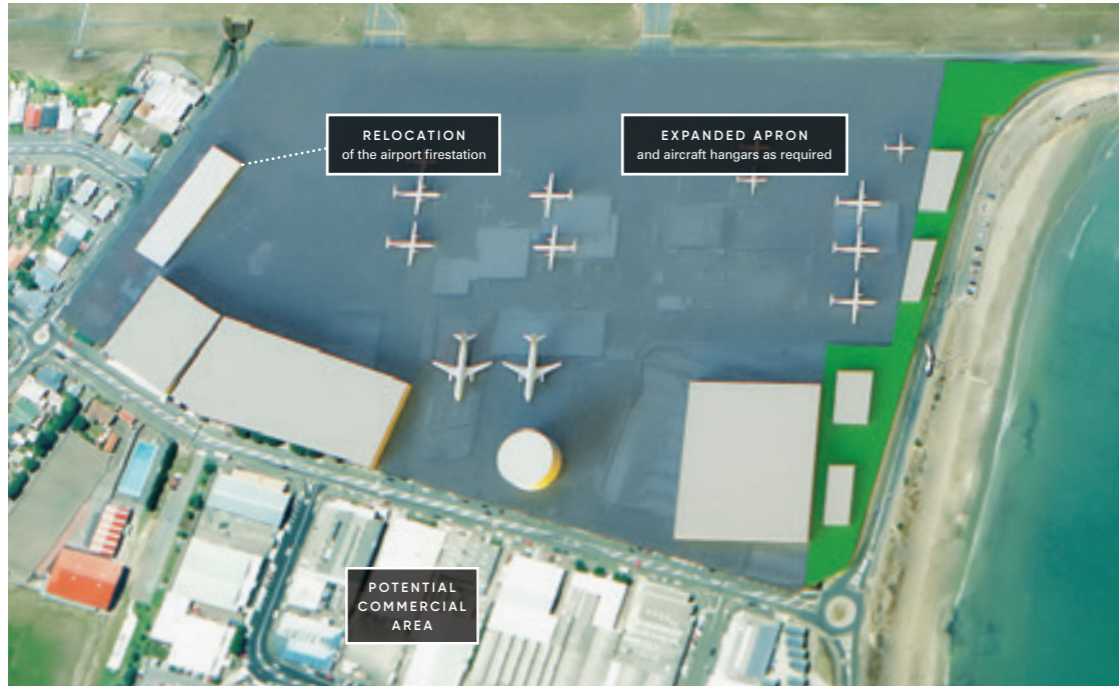
As growth to the north is limited by the suburb of Miramar, our only feasible expansion options lie to the south and east.

KEY FEATURES:

- With a limited ability to grow within our existing footprint, we are engaging with key stakeholders to acquire part of the Miramar golf course to free up space for aircraft movements.
- Re-purpose the southern freight buildings into a more efficient multi-user facility. With growth in online shopping and parcel cargo this facility would be able to efficiently enable the transfer of freight from landside to airside, and vice-versa.

- Flight catering and out-of-terminal rental car facilities will be re-homed in new buildings on vacant land to the north of the airport.
- To accommodate regional growth, we will need to build new aircraft stands on to the north of the current international terminal and move the airport fuel facilities and the airport fire station. Plans for the fire station are well advanced, with construction of new premises on the western apron due to start in 2020. Plans for the fuel facilities are still to be determined in consultation with our providers.
- Continued provision for access road will be made around the perimeter of the apron between Moa Point and Miramar.

Western Apron



As scheduled activities increase on the eastern apron, there may be a future requirement to redevelop the western apron to accommodate non-scheduled movements such as freight, medical, VIP and defence.

Only as required, this need would progressively shift these operations further west, displacing the existing hangars and commercial activities including the retail park.

Infrastructure and Transport



As the airport grows, we will work with our key utility and transport providers to ensure their capacity matches the requirements of a growing airport, and in instances of shared services, a growing community.

Our plans mean that many existing utilities will end up in areas used for aircraft operations and will be difficult to access for maintenance and future renewal.

To address this, we propose relocating the key telecommunications, power, gas, sewer, waste and potable water services to a specially designed corridor, that preserves access and builds resilience as the airport develops.

Future development will also address risks from the effect of climate change, including the capacity of our stormwater network and sea walls.

As we grow, the continued safe and efficient land transport access to and from the airport is fundamental to the customer experience and business and visitor growth.

Despite growing traffic volumes in the eastern suburbs, there has been no increase in the corridor and roading capacity on State Highway 1 between the airport and Wellington CBD. This has led to a lack of reliability and an increase in travel times to and from the airport.

Wellington Airport can and will accommodate any mode of future public transport. However, it is important to note that public transport to and from the airport needs to be direct in order for people to use it. Let's Get Wellington Moving (LGWM), a joint initiative between WCC, Greater Wellington Regional Council and the NZ Transport Agency, is working towards improving traffic congestion and unreliable journey times, seeking to improve service levels, encouraging cycling and walking and limiting the impact of disruptions.



FUTURE TERMINAL & TRANSPORT INTERFACE

REGIONAL PIER EXPANSION

APRON EXTENDED to the east

THROUGH ROAD relocated around perimeter

EXTENDED MAIN TERMINAL for domestic and international flights

MULTI-USER FREIGHT FACILITY

RELOCATION flight catering and rental car facilities

POTENTIAL RUNWAY EXTENSION

RELOCATION of the airport firestation

UPGRADED SEA WALLS AND BREAKWATER FOR RESILIENCE

EXPANDED APRON and aircraft hangars as required

POTENTIAL COMMERCIAL AREA

Wellington 2040 Masterplan



Left: Aerial view of Wellington Airport.

Kaitiakitanga

Few airports can boast such proximity to a city. As a truly city airport we understand the importance of managing our operations and future growth to deliver excellent connectivity and customer service while caring for our neighbouring community and the environment.

The aviation industry is a recognised contributor to carbon emissions, with aircraft emissions equating to about 2% of all global carbon emissions. Domestic aviation contributes to about 1% of New Zealand's total carbon emissions.

The new generation of aircraft are around 20% more fuel efficient than the model they replace. A Boeing 787-9 uses 2.5L of fuel per seat per 100 kilometres travelled. Given the high number of people in an aircraft this matches or beats the fuel efficiency of modern compact cars.



Globally, the International Airport Transport Association (IATA) has made a commitment to reduce the carbon emissions of its 290 member airlines by 50% by 2050, relative to 2005 levels. The airlines are collectively working hard to develop sustainable alternative fuels and aircraft technologies.

Extending the runway would make it possible for more direct flights to international destinations from Wellington. Direct flights reduce the fuel travellers use as they no longer have to take an extra flight or alternative route to get to their desired destination.

↓ 50% BY 2050

IATA GLOBAL COMMITMENT TO REDUCE CARBON EMISSIONS



At Wellington Airport we are supporting our airline partners in their initiatives to reduce fuel consumption and carbon emissions and are committed to reducing our own emissions.

We have established targets for a 30% reduction in our carbon emissions by 2030.

Achieving these targets while expanding our operations will require us to adopt energy efficient and sustainable construction into our projects.

Our sustainability commitment, Kaitiakitanga, includes how we will manage our operations to decouple growth from increased resource consumption and reduce the risk of adverse impacts on our communities and our environment:

- Working with airlines and Airways New Zealand, we aim to improve aircraft emissions and noise. This includes the recently trialled Performance Based Navigation routes to enable quieter and more fuel-efficient arrivals into Wellington Airport, and significant investment in the electrification of aircraft ground power and service equipment.
- Reduce electricity consumption and adopt alternative energy options.
- Targeting a reduction in operational waste by 30% by 2030, and working with our suppliers and tenants to eliminate single use plastics.

CLIMATE CHANGE ADAPTATION AND RESILIENCE

Improving operational resilience is a priority. As the climate continues to change, we expect rising sea levels, more extreme weather and climate-related events to occur which will present a risk to infrastructure and property. The potential impact and future resilience has been considered as follows:

- Establishing targets and taking all practical steps to reduce our operational greenhouse gas emissions.
- Upgrading coastal protection structures so they're able to withstand a rise in sea level, storm frequency and intensity, and seismic activity in forecast earthquake scenarios.
- Continuing to advocate and support the Let's Get Wellington Moving initiative to improve land transport options and resilience to and from the airport – reducing congestion, providing sustainable transport alternatives and limiting disruption from unplanned events.
- Designing airfield and stormwater infrastructure for more intense rainfall events.
- Ensuring buildings exceed the minimum seismic building code requirements.
- Protecting our coastal marine environment by managing all discharges, including stormwater.
- Maintaining and protecting air, water, soil and groundwater quality.
- Improving the environment of the airport precinct and active access to the airport through landscaping and design.



↓ 30% BY 2030

**WELLINGTON AIRPORT CARBON EMISSIONS
REDUCTION TARGET**

WELLINGTON
AIRPORT