

Why does Central Otago need a new airport?

June 2022

Central Otago is one of the fastest growing regions in New Zealand.

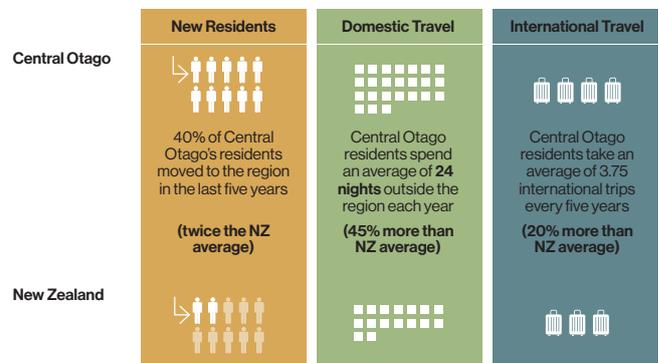
The Central Otago region grew by an average of 3.6% per annum over the last 25 years and is forecast to grow by around 1.3% – 1.8% per annum over the next 25 years.^{1,2} This makes it the second fastest growing region in the country behind Canterbury’s Selwyn District.

40% of Central Otago residents have moved to the region in the last five years, which is twice the national average. New residents often maintain strong connections with their home region or country, driving demand for travel.

These attributes, together with the region’s geographic remoteness, mean that demand for air connectivity among Central Otago residents is high and growing at a significant rate. The average Central

Otago resident takes around 45% more domestic trips and 20% more international trips each year than the average New Zealander.

Central Otago is a region of travellers



Central Otago’s population centroid lies midway between Queenstown and Tarras

A ‘population centroid’³ is the geographical location that represents a region’s ‘population centre of gravity’ or the point around which the region’s population is evenly balanced. Central Otago’s population centroid is located at Roaring Meg (see map). This is approximately halfway between Queenstown and Tarras, around 30km (45km drive) from each location.

This means that a regional airport in Tarras would be about the same distance from the geographical centre of Central Otago’s population as Queenstown Airport is currently. This suggests that either airport location would be equally suitable from the perspective of its proximity to residents.

The centre of Central Otago’s population is expected to stay in roughly the same place for the next 25 years, reflecting relatively even forecast population growth to its east and west.



¹ Based on Stats NZ medium - high series projections.

² The ‘Central Otago region’, comprising Queenstown Lakes District and Central Otago District, has been identified as the primary catchment area for a new airport.

³ Or ‘population-weighted mean centre’.

The vitality of Central Otago's economy depends on the efficient movement of people and products

Many of Central Otago's key sectors of employment require high-quality transport connections to operate successfully. Some examples include:

- Wine producers and fruit & vegetable growers rely on travellers (e.g. backpackers) for their seasonal workforce. The wine industry also relies on visitors as customers, with around 22% of international visitors going to a winery.⁴
- Exporters of premium fresh foods, like stone fruit and seafood, rely on airfreight to get their products to overseas markets in a timely way.
- Growing sectors like screen production, technology and education rely on the efficient movement of people and equipment in and out of the region.

Efficient air connectivity will help enable these and other sectors of the Central Otago economy to grow and thrive, providing employment opportunities for current and future generations.

Did you know?

- Air freight is typically much higher value than sea freight. Air freight accounts for less than 1% of New Zealand's total freight volume but about 16% of our exports and 22% of our imports by dollar value.⁵
- New Zealand's air freight exports are mostly time-sensitive, perishable products like flowers, stone fruit, meat, and seafood.

High-quality air connectivity is an important driver of social and economic wellbeing

Access to affordable, convenient air travel underpins many of the things communities value. Below are some examples of positive social and economic outcomes that are enabled by high-quality air connectivity.

Social outcomes:

- More job options
- Easy to see friends and family
- Convenient access to healthcare and education
- Convenient access to leisure and work opportunities
- High-quality infrastructure and social amenity

Economic outcomes:

- Access to high-value freight markets
- Ability to attract and retain talent
- Opportunities to grow new and existing businesses
- Dispersal of investment and tourism across the region
- A diverse and resilient economy

⁴ Deloitte, Wine industry benchmarking and insights, 2017.

⁵ See New Zealand Freight & Supply Chain Issues Paper, 2022

Central Otago will outgrow its air capacity in the short-medium term

While difficult to predict with certainty, air passenger volumes in and out of Central Otago are widely expected to return to pre-Covid levels within the next 2-5 years. Queenstown Airport has served the region's air travel needs well for decades, but it faces two key constraints that prevent it from scaling to accommodate this increased demand.

Infrastructure constraints: Queenstown Airport has said that it does not have enough space within its current airfield and terminal infrastructure to accommodate expected future passenger demand.⁶

Noise constraints: Queenstown Airport is subject to noise restrictions that limit the number of scheduled aircraft movements that it is allowed to operate each year. In 2018, the airport predicted that this limit would be reached by around 2022.⁷ Even with Covid temporarily reducing demand, these noise limits can be expected to be reached before 2030.

Dunedin and Invercargill Airports are not good substitutes for residents and visitors. Both airports are two to three hours' drive from the centre of Central Otago's population and have been identified as vulnerable to inundation from climate change.

The limitations described above mean that existing airports are unable to meet Central Otago's future air connectivity needs. If nothing is done, air capacity constraints will make it harder for Central Otago to move people and products. A shortage of air capacity is likely to result in:

- **Reduced choice:** It will become harder to secure seats or freight slots at the times and days people want.
- **Longer journey times:** Some people will need to drive or send freight to other airports further away to access flights.
- **Increased cost:** Prices are likely to rise as competition for seats and freight capacity increases.
- **Higher emissions:** CO2 emissions are likely to grow as a result of increased driving and over-flying.⁸

Local residents are more likely to be disadvantaged by a supply shortage than visitors, who often book earlier and have a higher willingness to pay for travel.

Can air capacity constraints be used to manage demand?

Demand for Central Otago will continue to grow even if air capacity is constrained, due to its strong visitor offering. Doing nothing about air capacity constraints is not an effective demand management strategy - it will cause congestion

and inefficient travel patterns. These problems can be avoided by taking a proactive approach to managing growth that ensures the right infrastructure is in place to support it.

⁶ See e.g. Queenstown Airport Master Plan Options Report, 2017.

⁷ See Queenstown Airport Proposed Noise Changes, August 2018.

⁸ Over-flying occurs when air passengers fly over their point of origin or destination. For example, a Central Otago resident who takes a flight from Dunedin Airport to Australia will fly back over Central Otago, covering some of the same ground twice.

A new Central Otago airport would relieve infrastructure constraints and provide important benefits to the region

A new regional airport would:



remove airport infrastructure constraints



create the option to match the best aircraft to the route



enable greener aviation



enable operational efficiencies

Each of these outcomes is explained below:



Removing airport infrastructure constraints

The location and size of the new site at Tarras can support an airport that could serve the region for the next 50+ years. The proposed new site is:

- large enough to support future movements of people and products
- 30 minutes drive from the Central Otago population centroid

- not immediately surrounded by large residential populations
- adjacent to established and sustainable energy sources for next generation aircraft
- resilient to climate change



Creating the option to match the best aircraft to the route

A new airport without Queenstown's space constraints would be able to accommodate a wider range of aircraft types to suit route requirements.

For example, Queenstown Airport can accommodate 'narrowbody' aircraft such as A320's but, because of infrastructure limitations, it can't feasibly accommodate larger, 'widebody' aircraft such as B787's. Widebodies can carry up to twice as many people and up to 7.5 times as much freight as narrowbodies. They can also fly further.

A new airport would create the option of operating widebody aircraft in the future, subject to demand.

This would have the following benefits:

- it would enable airlines to carry the same number of people with fewer flights;
- it would give southern businesses more options for sending and receiving time-sensitive freight; and
- it would make it possible to access more destinations directly from Central Otago.

Decisions regarding whether and when to introduce widebodies in Central Otago would sit with the airlines.

While it may be some time before this happens, it is good practice to design long-term airport infrastructure in a way that preserves this option for the future.

Did you know?

- Over 90% of New Zealand's international airfreight is carried on widebody passenger aircraft.
- These aircraft deliver freight to a wide range of countries via connections to large regional freight hubs (e.g. Sydney, Singapore, Hong Kong, Canada).



Enabling greener aviation

A greenfield site provides the opportunity to develop a low-emission “airport of the future” in Central Otago. A new build airport would provide the ability to:

- use airport technology that enables the adoption of next-generation aircraft and sustainable energy sources
- fly aircraft fuel-efficiently due to relatively flat topography
- right-size aircraft for routes, reducing emissions per kg carried on current-generation aircraft
- adopt an integrated, system-wide approach to maximising airport environmental performance



Enabling operational efficiencies

A new airport would incorporate design elements that maximise efficiency and support lower-cost aviation. Examples include:

- the development of resource efficient buildings constructed with responsibly sourced materials
- cost efficiencies resulting from the ability to right-size aircraft and in-flight energy savings
- airfields and buildings designed in a way that allows for future development flexibility