

AIRWAYS



Queenstown Airport DRAFT MASTERPLAN

Stakeholder Feedback

VERSION 1.0, 21 JULY 2023

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1. Introduction

Airways New Zealand (Airways) thanks the Queenstown Airport Corporation (QAC) for the opportunity to provide feedback on their recently developed draft master plan.

To get to this point there has already been significant engagement between QAC and Airways at a local level, resulting in the sharing of ideas and concepts as to how collectively we could enable the safe and efficient flow of air traffic at Queenstown Airport over the next 10 years.

Airways understands the important role that Queenstown Airport plays in supporting the economic and social wellbeing of the region and we see our role as helping to support and enable that as best we can.

We look forward to the finalised master plan and working together for the future of aviation in Queenstown.

1.1 Airways Strategy – Safe Skies Today & Tomorrow

In our review of the draft master plan, we noted the similarities between the Airport’s mission, vision and strategic pillars and our own strategy. That we align in many areas indicates to us a successful relationship going forward based on a mutual understanding of the future needs of aviation in New Zealand



Airways Purpose, Vision, Strategic Pillars and Values published May 2023



1.2 Community Perspectives

QAC is to be commended for the significant engagement with the local community who have provided eight areas to QAC regarding the future development of the airport.

The community input, in the main, considered matters landside and how the airport connects with its people and environment. Airways has reflected on those eight focus areas and utilised the same titles to interpret how we interact or touch those points 'airside' through the delivery of air traffic services at Queenstown Airport.

- ▶ **Improve the ease of getting to and from the airport.**

Airways ensures the safe and efficient arrival and departure of aircraft to and from the airport. We will continue to do this by working with you and local aviation participants to maximise efficiencies under the proposed layout, with safety remaining our main priority.

- ▶ **Improve the management of vehicle (aircraft) parking and (air-traffic) flow through the airport site.**

We recognise that we may need to review how our Tower Controllers currently handle the flow of air traffic on the ground. To increase safety and in particular to reduce ground-based delays, we may need to redefine how each air traffic control position in Queenstown Tower operates. While an internal matter for Airways, we will need to work with the airport in a collaborative way to ensure the services our people provide are matched to the future operational profile of the airport.

- ▶ **Maximise the airport's connection with the environment.**

Through our future air traffic services roadmap, Airways will continue to optimise airspace architecture and enhance our network management. We are committed to collaborating with all industry stakeholders to reduce carbon emissions and to realise the aviation system benefits that airspace optimisation and technologies, such as eVTOL offer.

- ▶ **Noise Management**

We will work closely with you, and be guided by you, if any new procedures or flight tracks are developed to help ensure noise is appropriately managed in accordance with your requirements.



2. Northern Aviation Precinct

2.1 General

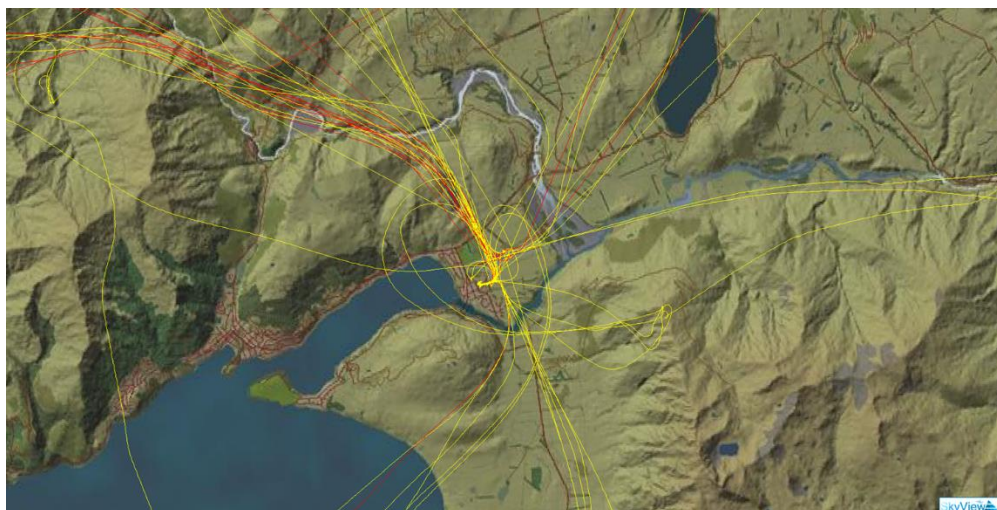
QAC has proposed to consolidate helicopter operations into one location, a new precinct located on the northern side of the main runway. Airways has considered the air traffic management implications of this and supports the proposal.

2.2 Benefits

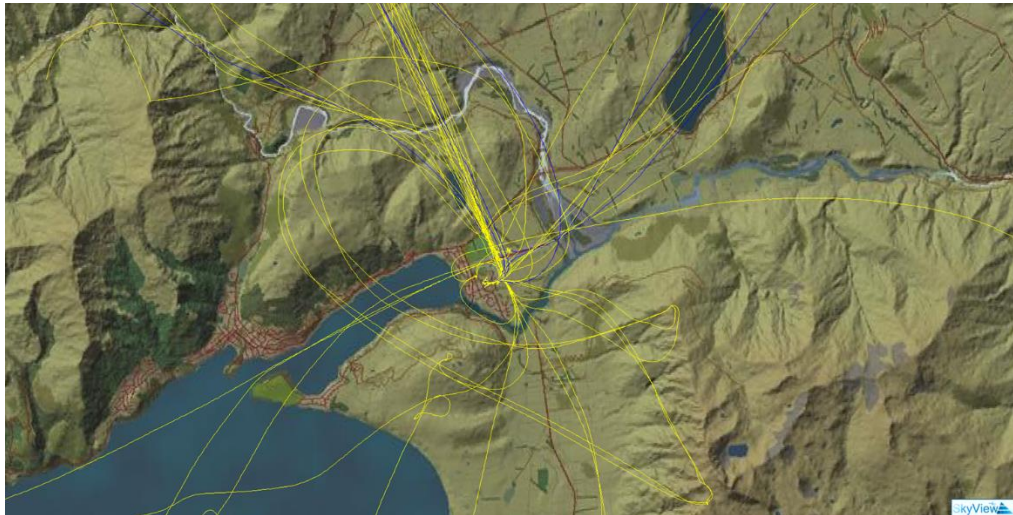
- ▶ Airways and local operators have previously advised of the complexity and safety concerns of multiple helicopters operating at low levels immediately adjacent to, and over, multiple fixed wing aircraft. Operations to/from the Southern Apron area have been reviewed numerous times in an attempt to manage the concerns however they could never be eliminated entirely.

The separation of helicopter operations away from fixed wing aircraft will improve safety with respect to operations on the aerodrome. Separate taxi/air-taxi routes and will also allow for greater freedom of movement for both those aircraft types.

- ▶ A random selection of two operational days in January 2023 has confirmed what our local ATS team anecdotally believe to be the case. It appears that most helicopter operations to/from Queenstown are to the North, therefore locating all helicopter operations at the new Northern Aviation Precinct will result in safer outcomes as the aircraft will not need to cross runway 05/23 on arrival or departure.



Heli Arrivals 13 January 2023. Majority of the tracks to the North.



Heli Departures 21 January 2023. Majority of the tracks to the North.

- ▶ The Manual of Air Traffic Services dictates the minimum distance required to permit simultaneous operations between a helicopter and other aircraft on an adjacent runway. The distance varies between 60m and 165m depending on the greater of the helicopter weight or Maximum Cleared Take Off Weight (MCTOW) of the aircraft using the runway.

If helicopter operations at the Northern Precinct are located at least 90m from runway 05/23 then simultaneous operations may be permitted that cover almost all of Queenstown's regular fixed wing GA operators. On reviewing the draft master plan, Airways believes that the 90m minimum distance will be achieved.

If the Northern Precinct can be located at least 165m from runway 05/23 then simultaneous operations may be permitted for aircraft over 5700kg MCTOW. Through initial discussions of the draft master plan Airways believes that this distance may be possible at the Northern Precinct, but more scoping work is required to accurately determine if this can be so. If possible, regular passenger transport (RPT) aircraft using runway 05/23 may operate simultaneously however this is likely to be subject to a rigorous risk assessment and safety case with scheduled airline operators due to the off-set nature of the RNP-AR final approach paths.

2.3 Comments

Regardless of whether helicopters are located at the Northern or Southern aviation precinct, helicopter operations to and from Queenstown Airport sit underneath the runway 14/32 circuit pattern. If the runway 14/32 circuit is in operation helicopter departures will be impacted, as they are today from the Northern Apron, and its use does not support the simultaneous operation model discussed in the bullets above.



As a result and to improve safety and efficiency through consistent and predictable operations, moving both fixed wing and helicopters away from the current Southern Apron area will likely result in a change of use of runway 14/32.

Wake turbulence from arriving or departing RPT aircraft will impact helicopter operations regardless of whether they are located at the Northern or Southern Precinct as any operation within 760m is affected.

Having the freedom to operate without affecting taxiing fixed wing aircraft, TLOFs and FATOs may be established at the Northern Precinct. The TLOF (touch down and lift off area) is a defined location where a helicopter operates from on the ground and is normally centred in the FATO. The FATO (final approach and take off area) is a safety area intended to reduce the risk of damage to helicopters as they approach or depart the aerodrome. The establishment of such areas is possible at the Northern Precinct and will ensure safety, consistency and predictability in helicopter operation. Such areas may not be possible if located on the southern side of runway 05/23 due to the location and proximity of taxiing and parked aircraft.

To improve efficiency, two TLOFs/FATOs could be established to promote a helicopter circular flow dependant on the main runway in use however this requires more assessment as a rigid requirement to follow a circular flow could negatively impact the efficiencies gained by having a separate helicopter location.

The establishment of a TLOF and FATO rests with the Part 139 certificate holder.



3. Southern Aviation Precinct

3.1 General

QAC has proposed to locate fixed wing operations on the southern side of the main runway. Airways has considered the air traffic management implications of this and supports the proposal subject to a further detailed evaluation of taxiway access to and from all runways.

3.2 Benefits

- ▶ As mentioned in section 2, separation of fixed wing aircraft from helicopters will bring safety benefits as the two taxi/air-taxi operations will no longer need to operate over and/or immediately adjacent to each other at critical phases of flight.
- ▶ The location supports the move towards an increased use of runway 05/23 by GA fixed wing aircraft. This creates a much more consistent and predictable flow and reduces the ATS complexity that comes with operating multiple circuit patterns. It also aligns with the ICAO Global Runway Safety Action Plan that identifies intersecting/crossing runway use as a top contributory factor to runway incursion events.

Access to and from runway 05/23 will be more fluid if GA fixed wing taxiways/routes are well designed so while RPT operations at Queenstown may gradually increase over time (in line with QAC's anticipated compound annual growth rate of 3.2%), access to the primary runway for GA fixed wing aircraft will likely open up when combined with improved entry/exit pathways for all aircraft.

- ▶ As locally based operators look to transition to different aircraft types in the coming years (electric/hydrogen or traditional fuel based), there will likely remain a requirement to utilise RWY 14/32 in certain wind conditions. The proposed location of fixed wing aircraft at the Southern Precinct supports the use of RWY 14/32 provided appropriate taxiways are developed, particularly to the north of runway 05/23, and the crossing of runway 05/23 is appropriately and safely managed by air traffic control.
- ▶ ICAO's global runway safety focus has identified air traffic control factors that may contribute to a runway safety event. These factors include;
 - Clearing an aircraft to land/depart on an occupied runway,
 - Not monitoring aircraft position on approach to intersecting runways, and
 - Clearing aircraft to cross a runway with aircraft on departure/landing roll.

Combined with that, aerodrome design factors that may contribute to a runway safety event are;



- Complex or inadequate aerodrome design such as the complexity of the layout of roads and taxiways adjacent to the runway, and
- Intersecting/crossing runways.

To help prevent runway incursions, the ICAO Global Runway Safety Action Plan* places the onus on the aerodrome operator to ensure that any new infrastructure, or changes to existing infrastructure, take runway incursion risks and their mitigation into consideration. ICAO encourages aerodrome operators to make use of available best practices and guidance materials.

To maximise the benefits of the new Southern Precinct and to mitigate any factors associated with runway incursion, Airways encourages QAC to consult and seek input from all locally based operators and our local ATS team in the development of the final revised aerodrome design.

* *First Edition, November 2017 <https://www.icao.int/safety/runwaysafety/Pages/default.aspx>*



4. Flow of Air Traffic on, and in, the Vicinity of Queenstown

4.1 General

The draft master plan layout supports the increased use of runway 05/23 by all operators. This in turn likely results in the development of a circular flow of traffic based on the runway in use. The development of modified traffic patterns will be subject to significant stakeholder consultation and cross-party input and may possibly take the form of;

- Runway 23 in use
 - o Fixed wing aircraft to Milford utilising existing VFR procedures RAT Point or MOKE Lake Departures,
 - o Helicopter traffic departing to the North through position Moonlight.
 - o Fixed wing aircraft arriving from Milford via position Skippers Saddle, Shotover River for right base runway 23.
 - o Helicopter traffic arriving from the North via Mt Dewar on a newly defined procedure to a right base for the Northern Precinct.

- Runway 05 in use
 - o Fixed wing aircraft to Milford utilising existing VFR procedures SOHO or Skippers Saddle Departure.
 - o Helicopter traffic departing to the North via a newly defined procedure through Mt Dewar.
 - o Fixed wing aircraft arriving from Milford via the current published procedure commencing at Black Gorge.
 - o Helicopter traffic arriving from the North through position Moonlight (or thereabouts) for the left base runway 05 to the Northern Precinct.

A proposed circular flow aligns with the RNP-AR procedures in use at the time and in so far as practicable brings VFR traffic towards the airport at right angles to the RNP-AR track. Ultimately depending on the outcome of simultaneous helicopter/fixed wing operations a circular flow could maximise efficiencies of the proposed aerodrome layout whilst operating within current flight track/profiles.

The circular flow model is coincident with an increased use of runway 05/23 and a more consistent and predictable flow, which in turn will have added safety benefits as the utilisation of the crossing runway drops away.

Such a circular flow dependant on the runway in use accounts for the majority of GA operations with itinerant and random VFR operations simply aligned with the general flow prior to entering controlled airspace.



5. New Code C Taxiway

5.1 General

QAC has proposed to develop a parallel taxiway for Code C aircraft, to improve operational efficiency and capacity on the existing runway and airfield.

In the draft master plan QAC has stated 'It will also enhance safety and sustainability, as it will reduce the length of time pilots are asked to fly a holding pattern while waiting to land. It will also reduce ground delays and, in the event of an emergency response, it could act as an additional runway for light aircraft'.

Airways supports the proposal and strongly agrees with the comments made.

5.2 Benefits

- ▶ Currently our air traffic controllers in Queenstown are required to account for an aircraft's total (Airbus A320 for example) runway occupation time due to the lack of a Code C taxiway. This includes not just the take-off or landing manoeuvre but also;
 - The roll out to a stop after landing;
 - The turn and backtrack on the runway to vacate after landing;
 - The entry and backtrack on the runway before departure; and
 - The turn to line up and final preparation before departure.

For a typical A320 departure from Queenstown using runway 23, an additional five (5) minutes of runway occupation time is factored in for the departure backtrack, turn and line up manoeuvres. During this five minute period the runway cannot be used by anyone else to take-off or land.

For a typical A320 departure from Queenstown using runway 05, an additional four (4) minutes is considered in traffic management calculations.

Similar scenarios and time frames exist for an arriving A320 as the aircraft must come to a stop, turn and backtrack to vacate the runway during which time no other aircraft can utilise the runway to land or depart.

Put simply if we envisage ten A320 departures in a one hour period then for runway 23, approximately 50 minutes of the hour is ineffective runway utilisation with only 10 minutes of the hour being used for the take-off roll. With the development of a Code C taxiway along which aircraft can taxi, prepare for departure and be in a position to quickly commence a line up and take-off roll, 50 minutes of ineffective runway utilisation will become available for use.

- ▶ Ineffective runway utilisation can adversely impact the on-time-performance of airlines at Queenstown Airport. This is not a symptom of poor ATC decision making



but simply the physical characteristics of the aerodrome and the necessity to taxi/backtrack on runway 05/23.

- ▶ Removing ineffective runway utilisation will, as QAC have stated, have a positive impact on arriving aircraft with a reduction in airborne holding delays.
- ▶ For the current mode of operation with simultaneous use of both runway 14/32 and runway 05/23, inherent runway safety risks exist with the crossing of runway 14/32 by an Airbus A320 backtracking on runway 05/23. The safety risk is well managed by our air traffic controllers however the latent threat remains.

With the implementation of a Code C taxiway and the shift towards all aircraft using runway 05/23, the latent threat will diminish.

5.3 Comments

In line with our comments in section 3.2, Airways supports broad stakeholder consultation in the development of the final aerodrome design. Effective taxiway design that considers all operators will ensure a safe and efficient flow of both arriving and departing aircraft.

With confirmation of the development of a Code C taxiway, Airways will promote the need for a review of the current Queenstown air traffic service operation as it is possible that a specific surface movement control position at Queenstown will be required for the safe and efficient movement of aircraft on the aerodrome.

Airways notes QAC's comments regarding the staging of aerodrome developments and we will actively seek to be involved; to assist with air traffic service management input to help ensure safe and robust practices are followed as the aerodrome evolves.



6. Future of Aviation

6.1 General

Airways is developing an Air Traffic Services Future Services Roadmap with a key focus on ensuring sustainable aviation practices are adopted, as well as being adaptable and flexible with future ATS services to ensure we meet the needs of all future airspace users.

We are also assessing the integration of autonomous aircraft into the air traffic management system and working with participants, including the regulator, to support and enable that as appropriate.

Airways acknowledges QAC's comments in the draft master plan with respect to advanced air mobility, hydrogen & electric aircraft and the identification of areas on the aerodrome from where such aircraft may operate.

In our efforts to support all airspace users, we are open to the development and integration of eVTOL routes and will work closely with QAC and all aviation stakeholders to ensure their future success and look forward to collaborating with QAC on this at the appropriate time.



Conclusion

As stated by QAC, an airport master plan is a complex and highly technical document that presents a long-term view. Airways has reviewed the draft master plan and supports the content of it with feedback provided herein.

Airways supports broad stakeholder engagement and we commend QAC on this. Airways is committed to being actively involved with the change process and providing feedback when necessary to ensure the final plan is a shared vision that promotes a safe and sustainable future of aviation in Queenstown.

Should QAC want to discuss this submission in more detail then please contact Jon Brooks, Regional Tower Operations Manager, [REDACTED]

James Young
Chief Executive Officer

9 November 2023

James Young
Chief Executive Officer
Airways



Dear James

Queenstown Airport Master Plan

Thank you for your letter dated 21 July 2023 providing feedback from Airways on the Queenstown Airport Draft Master Plan. We appreciate you taking the time to provide your feedback to us, and value the engagement we have had with the Airways team throughout the development of the Master Plan.

The alignment of our values reflects the successful partnership we've established, which forms an important foundation as we progress to the development of more detailed plans. We greatly appreciate the thought Airways has applied to evaluating the community feedback and how it, through the delivery of air traffic services, can help to respond to these perspectives as part of the wider airport community.

In developing the Master Plan QAC has worked to strike the right balance, considering many different perspectives. Safety and efficiency have been core objectives of the layout, as has ensuring that when relocating activities, we can stay within our noise boundaries and ensure that what has been proposed is affordable for QAC and for the users of the airport.

In response to your more technical feedback, we acknowledge that there is a lot more detailed work to be undertaken following the approval of the Master Plan. We look forward to working with you in these next stages, which will include the Concept of Operations Plan and subsequent Airside Development Plan.

Northern Aviation Precinct – We note your support. Airspace has been a key consideration in the location of this facility to the north of the airfield. We have considered simultaneous operations for jets and helicopter activity, the separation proposed in the draft Master Plan is

considered appropriate within the parameters of land area, and noise boundaries. Your other comments including circuits, wake turbulence, TLOFs (touch down and lift off areas) and FATOs (final approach and take off area) have been recorded and will be confirmed through the Concept of Operations Plan and subsequent Airside Development Plan.

Southern Aviation Precinct - We note your comments about a further evaluation of taxiway access to and from all runways. One change we have incorporated in the final Master Plan is an extension of the Code B Taxiway enabling direct access to and from the fixed wing area within the Southern Aviation Precinct. Once again, this will be confirmed through the Concept of Operations Plan and subsequent Airside Development Plan.

Flow of Air Traffic on, and in, the vicinity of Queenstown – Thank you for your comments and we note the need for collaboration between all users of the airfield to ensure efficient use of the infrastructure available to us at Queenstown Airport.

New Code C Taxiway – We appreciate your comments and agree that the introduction of a Code C taxiway at Queenstown Airport will improve efficiency, reduce risk, and improve on-time performance for airlines and ultimately passengers.

Future of Aviation – We are very pleased to understand the workstreams that Airways is exploring in anticipation of the changing aviation environment and how air services will accommodate and manage advanced air mobility, hydrogen and electric aircraft. We are seeing rapid advances in this area and understanding how these opportunities will fit into the regulatory environment will be helpful for us to enable these technologies operating at Queenstown Airport.

Thank you for your collaborative and constructive feedback and we look forward to continuing to work with you as we finalise the Queenstown Airport Master Plan and progress to more detailed planning.

Yours sincerely

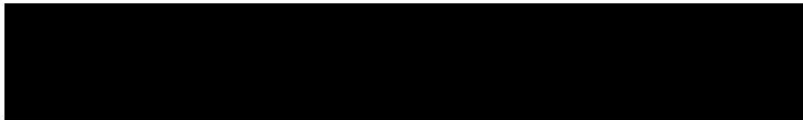


Glen Sowry
Chief Executive

Copy: Jon Brooks, Regional Tower Operations Manager
[REDACTED]

23 June 2023>

To: Glen Sowry
Chief Executive Officer
Queenstown Airport Company



Re: Draft Masterplan: Queenstown Airport Company

Kia ora Glenn

Thank you for the opportunity to submit to Draft Masterplan for Queenstown Airport Company (QAC). Thank you also for discussions with your team, and for discussions QAC has held with airline members of BARNZ as you have prepared the Draft Masterplan.

BARNZ understand that this Draft Masterplan will be developed to a Final Masterplan in the coming months, before being reported to shareholders before submission to the QAC Board. BARNZ makes comments in this submission mindful that there will be time, in the coming months, to explore issues and further develop the Masterplan. We would welcome the opportunity to discuss these issues with QAC, and as relevant, with Queenstown Lakes District Council (QLDC).

Tensions of growth

Throughout the Draft Masterplan, QAC makes clear the tensions that exist between a need to plan appropriately for growth of air services, and the difficulty of planning for growth of air services in a location where the ability to grow air services is constrained by community preference, and by noise boundaries in the district plan.

Noise boundaries are a pre-existing constraint for QAC. With QLDC as 75% shareholder, and regulator of the noise boundaries, both QAC and its owners understand the limitations of the existing boundaries. Neither QAC nor QLDC wish to make changes to noise boundaries without community support.

The Draft Masterplan tells us that no change to the noise boundaries is sought for the next ten years. This means growth of air services at Queenstown Airport are at 'end of life'. In this scenario, airlines should only be asked to make very limited investment into aeronautical assets – as there cannot be a return on that investment.

Assumed growth is very modest

The Draft Masterplan assumes 'modest growth' of air services to Queenstown Airport to 2032. The assumed growth rate is 3.2% CAGR¹. This is a particularly modest assumption – in the ten years to 2019 growth of air services to ZQN was 10.1% CAGR. BARNZ asks for more detail on what mechanisms QAC plans to use to control growth of air services such that they do not exceed this parameter? If growth exceeds 3.2% CAGR, cessation of growth will occur even earlier than 2032.

ZQN has recently become a level three airport for slot management, which is appropriate for what is currently New Zealand's second busiest international airport. QAC has yet to establish a slot management consultation group. BARNZ encourages consultation with airlines and border agencies on slot parameters, and consequent requirements for airlines and agencies. Given constraints on growth, and in consultation with its community, QAC might consider making note of growth constraints in its published parameters, so airlines are aware of the limited opportunity for future growth when making network planning decisions.

Managing constraints by managing fleet

The Draft Masterplan notes that it will plan for modest growth described above and will manage pressures on its noise boundaries by '*actively managing aviation activity at the airport*'. It notes that quieter, larger aircraft are a significant part of achieving its strategy of operating inside noise boundaries for the next ten years.

It is true that aircraft such as the A321neo aircraft operated by Air New Zealand are larger and quieter, than earlier narrow body aircraft technology. However, it may not always be true that new technology is quieter. It is important to consider how much noise electric aircraft might generate, and the impact of use of these aircraft on noise parameters in combination with jet fleet. Early discussion of this issue would assist all stakeholders to consider both provision for, and impact of, electric fleet at ZQN.

Further, if QAC is only able to accept larger narrow body fleet as part of its activity management of aviation activity, it might consider including fleet type limitation in its slot parameter setting process. Airlines operating services to ZQN would prefer not to have any fleet limitation, especially as some airlines have smaller aircraft now operating Tasman services. However, the ability to plan with confidence is important, and if fleet constraints are proposed, it would assist airlines to know what these are proposed to be.

¹ Compound annual growth rate

Finally, if larger aircraft are encouraged using some mechanism, is QAC confident that passenger processing of those larger passenger loads can be accommodated within the reasonably modest changes in the terminal footprint?

We need to plan for the future beyond 2032

Airport assets are 50 to 100-year investment assets – they are generational. Master planning guidelines published by the Airports Association of New Zealand indicate appropriate provision would consider a horizon *'as long as possible and usually at least 20 years'*². At the point that this Draft Masterplan moves to a final version, reported to QLDC and ultimately considered for approval by QAC board, there will be some eight years remaining to 2032. This time horizon is very short, and in many ways assists QAC in avoiding discussion of the matters raised in this submission.

While proposals for a second taxiway and modest terminal expansion are useful additions to the aeronautical assets at QAC, the overwhelming issue of cessation of growth is not examined in detail in the Draft Masterplan. What is the future of Queenstown Airport? What is the view of the Queenstown community about air services, and the growth of these over time? How does QLDC as majority shareholder propose to address this, and manage the asset in this context? How might airlines plan for growth, or plan to end growth of air services to Queenstown Airport?

While these are challenging questions for QAC, for QLDC and for the Queenstown community, BARNZ members would welcome an open conversation about this with QAC and with QLDC so that all options for air services to the region can be considered and planned for. We are now in the horizon period for aircraft orders, which are made with a ten year horizon. If QAC does not intend to accommodate growth beyond (or before) 2032, this is a very important conversation to have.

What investment is required for electricity distribution and transmission assets?

The Draft Masterplan tells us that planning for and enabling decarbonisation of aviation is core to the QAC strategy. However, the only planning for decarbonisation of air services themselves is the allocation of space which the Draft Masterplan notes may accommodate hydrogen and comment that existing infrastructure will cope with sustainable aviation fuels (SAF). BARNZ expects that airports engaged in master planning in 2023 should investigate in more detail the electrical assets that serve airports, and load parameters.

While the Draft Masterplan makes comment on the commitments made by Air New Zealand, which are likely to require a hydrogen or electric energy source by 2030, the Draft Masterplan is silent on the current electricity assets available to serve QAC, whether they will require strengthening, and what Transpower is able to deliver to these assets in terms of load.

² <https://www.nzairports.co.nz/assets/Files/public/Airport-Master-Planning-NZ-Airports-Feb-2017-FINAL2.pdf> See section 5.2

The Draft Masterplan notes that the Queenstown community also seeks to decarbonise, adding to local electricity demand. BARNZ asks whether QAC is confident that it has sufficient ability to draw on electricity supply to serve aircraft battery charging? In the Final Masterplan, it would be useful to set out what (if any) investment distribution or transmission assets is required, and timeframes for this investment. Like airports, electricity assets are long life, and require significant planning to deliver or reinforce.

QAC as lifeline utility – emergency planning

The Draft Masterplan discusses the importance of Queenstown Airport as a lifeline utility, and the importance of Queenstown Airport during a national emergency. At time of writing, central government agencies are making preparation of a rupture of the alpine fault, as is now overdue to occur. In the event of an alpine fault rupture, it may be that Queenstown Airport terminals or runways are damaged and out of use.

For consideration in the Final Masterplan, BARNZ asks what planning QAC has in place for extended loss of use of the airport assets? This might include what discussion might be had with the National Emergency Management Agency (NEMA) to prepare for a time where Queenstown Airport might be inoperable. If that occurred at a peak season, the challenges of displaced persons in Queenstown and the surrounding areas would be significant, even assuming road access was possible to Dunedin or Christchurch.

Airlines operating to ZQN would welcome discussion on these issues. Recent flood events in Auckland have taught us that even a few days of inoperable airport assets leads to significant impacts for airlines, airports and travellers. Airlines would welcome detailed discussions on emergency planning both in support of the Final Masterplan, and over time.

We welcome further discussion

BARNZ acknowledges the challenges that QAC face in managing an asset which is reaching capacity. We would encourage conversation with QAC, QLDC, and the Queenstown community on approach to provision for air services. In time, airlines would be pleased to participate in discussions, as the community examines the benefits and consequences of air connections to what is – we agree – one of the most spectacular places in the world.

Ngā mihi -



Cath O'Brien
Executive Director
Board of Airline Representatives New Zealand

9 November 2023

Cath O'Brien
Executive Director
Board of Airline Representatives New Zealand
Leonard Isitt Drive, Auckland Airport
Auckland 2022



Dear Cath

Queenstown Airport Master Plan

Thank you for your letter dated 23 June providing BARNZ' feedback on the draft Master Plan for Queenstown Airport. We highly value the constructive and collaborative relationship that we have with the four airlines operating here. This has been particularly evident over recent years as the aviation sector has navigated through, and moved to recovery from, the global pandemic.

We appreciate that the Southern Lakes is a desirable destination for some of your airline members, and value the opportunities we have had to engage with you and the four airlines that operate at Queenstown Airport, alongside the communities we serve and our other partners and stakeholders.

In our industry, social licence to operate is a shared responsibility. Airlines and airports have an opportunity to constructively work together to plan for the future and we welcome the considered and detailed feedback you've provided.

We are now in the process of finalising the Master Plan for Queenstown Airport and I'd like to respond to the feedback you have provided to us.

Striking the right balance

We are mindful of the importance of balancing aeronautical activity with both the capacity of regional infrastructure and preserving what makes the region a special place to live, work and visit. Queenstown Airport also plays a crucial role in supporting the economic and social wellbeing of our region. 2.37 million passengers arrived and departed through Queenstown Airport in the financial year ending 30 June 2023. We serve the Queenstown Lakes District,

including Wānaka and the Upper Clutha, Central Otago and Fiordland – a steadily growing catchment of 75,000 people.

We have undertaken extensive community consultation and have actively listened to the communities we serve and to our shareholders in the development of the Master Plan. Importantly, our planning is aligned to the Destination Management Plans of the regional tourism organisations, endorsed by local Councils across our catchment.

In our 2022 10-year Strategic Plan, we committed to operate within the existing noise boundaries at Queenstown Airport until 2032. We firmly challenge your inference that Queenstown Airport is therefore an 'end-of life asset'. QAC has a significant landholding in Frankton which can accommodate expansion in the future should that be supported.

Today Queenstown Airport is the fourth busiest airport in the country. Timely investment in and maintenance of infrastructure is vital to ensure we serve our airline customers and shareholders well.

With existing aircraft technology, passengers arriving and departing through Queenstown Airport could increase by about one third, and this is within our expected demand projections for air services to and from the airport over the next nine years.

The noise boundaries at Queenstown Airport were last amended 13 years ago, after extensive community consultation. The current noise boundaries are not a fixed geographic or permanent legal constraint and if there was support to do so they could be amended again through available regulatory processes, which include community consultation. The company's land footprint provides options for QAC to provide appropriate infrastructure to support additional capacity in the future, contingent on support from our shareholders and the community.

Queenstown Airport is also one of four airports close to population centres and popular visitor destinations, with available and existing additional capacity in the lower South Island, including Wānaka Airport. We note that our majority shareholder QLDC, as the owner of Wānaka Airport, will be consulting with the community and preparing a Wānaka Airport Master Plan soon.

Growth Assumptions

We received wide-ranging feedback on our draft Master Plan, and we observed a common perspective from Councils, regional tourism organisations, and business and residential communities that growth should be carefully managed.

There is support for growth, noting that submitting to limitless growth and turbo-charged tourism is considered an outdated approach and is not supported by stakeholders in this region. There is also strong alignment in our region to tackling the challenges associated with climate change.

In your letter you have compared our growth projections to pre-Covid rates of growth at Queenstown Airport. It is becoming increasingly irrelevant to refer to historical growth rates for a period pre-Covid in which the global environment was very different. The world has changed significantly since 2020 and our growth projections reflect this changed reality.

It is important to note that the strong growth rates experienced at Queenstown Airport over the decade preceding the pandemic were largely driven by significant advances in technology.

The commencement of RNP-AR procedure at Queenstown in 2012 enabled airlines operating here to do so with high levels of reliability and certainty. This was a 'game changer' for Queenstown Airport and enabled airlines to schedule and operate flights with confidence. Likewise, the introduction of night flights into Queenstown Airport in May 2016 also saw a significant increase in flights in the period since.

These structural changes to operations at Queenstown Airport have matured and we now see more moderate growth levels.

Projections for Queenstown Airport have been based on 3.2% compound annual growth rates (CAGR), and we believe that this will meet demand, and is a rate of growth acceptable to our community. The mechanisms in place to manage growth include slot parameters, and we will consider noise as a parameter to manage within this construct in the future.

Projecting aviation activity is always subject to changing global and national conditions. In considering growth projections for Queenstown Airport, we have taken into consideration potential head and tail winds and are confident that this growth rate is realistic.

We are finalising a Master Plan that envisages 800,000 additional passengers by 2032 and allows for further expansion in the future, again contingent on support from our shareholders and the community. The terminal will also be designed in a way that enables cost effective expansion should that be required in the future.

Managing constraints by managing fleet

We have been open and transparent about our desire to encourage more noise and emission efficient aircraft into Queenstown Airport. The A321 and A320 NEO aircraft are good examples of what can be achieved. Both of these aircraft types achieve many of the noise and emission benefits we are targeting. We have yet to work through the mechanisms we might

employ to encourage the use of these new generation aircraft types onto the Queenstown routes and we will work with the airlines in developing our thinking on this.

Once the Master Plan is finalised, QAC will commence work on its Terminal Development Plan (and other enabling work programmes). This will ensure that an appropriate terminal footprint is enabled to ensure that passenger processing space is available for our Aviation Security and border agencies partners to process passengers efficiently and expediently to support the whole airport aviation system.

Planning beyond 2032

We reject the assertion that the Master Plan only responds to the period to 2032. The Master Plan is a long-term planning document that extends well beyond 2032, with areas protected for future growth and technology advances. We have presented the plan in two phases and have taken a deliberate approach to detailing planning more specifically for the period to 2032, which aligns to the detailed 10-year Strategic Plan we published in 2022. By doing so, this gives confidence to the community and the airlines, that what is proposed is realistic, affordable, and fundable within the time frame and doesn't rely on anything beyond what is currently permitted by the community through the district plan.

By their nature, long-term plans should be 'living documents' subject to review and able to respond to the opportunities and constraints of the day and community expectations. All participants in the aviation sector understand we are on the verge of global changes to aviation as the focus on decarbonisation and innovative technology escalates, which highlights the importance of an iterative and responsive approach to long-term infrastructure planning.

Electricity distribution and transmission assets

We agree that the capacity of electricity into the Whakatipu Basin is of utmost importance for the airport and the wider community. We are actively involved in the district's strategic planning for the required additional capacity. The decarbonisation of our terminal operations is well underway. Understanding the investment required as airlines decarbonise their operations will be crucial to our planning.

Queenstown Airport, Queenstown Lakes District Council and other large tourism businesses are engaging with lines companies and Transpower on energy demand forecasting, to ensure investment is made to enable future decarbonisation across the region.

While further detail does not naturally fit in a spatial master plan, this important workstream is referred to in our next steps.

QAC as lifeline utility – emergency planning

Emergency preparedness is of critical importance for Queenstown Airport, and a significant feature of both our day-to-day operations and our future planning. Our obligations and ability to respond and act as a lifeline utility in an emergency response are well understood.

While our emergency planning anticipates a range of scenarios both on and off airport, you have highlighted AF8 in your letter. In response, we advise that this is a live topic in our region. In the last few months alone the QAC board and management has held two sessions, with input from experts, specifically related to AF8 and the preparedness and ability of the airport and its infrastructure assets to respond and support the region, particularly if access by road into the region is impacted which is forecast to be a likely outcome and makes the availability of an operational airport within the Whakatipu Basin increasingly important.

While a detailed examination of this issue is not required as part of a spatial master plan, we assure you that this is actively being addressed in collaboration with our partner airlines and general aviation operators, as well as QLDC and Civil Defence. Significant investment has been, and continues to be made, in seismic resilience at the airport. The runway has been independently assessed and deemed to be well engineered to respond to a seismic event.

Further discussion

In line with the approach we have taken to date, our door is always open for further discussion on any of the matters you have raised in your letter, either alongside the airlines, or separately as an airline industry representative. I again extend an invitation for you to visit us here at Queenstown Airport to see our operation and planning firsthand.

Thank you for your feedback and we look forward to continuing to work with you as we finalise the Queenstown Airport Master Plan and progress to more detailed planning to bring our shared aspirations to life for the airport, its people, and customers.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Glen Sowry', with a stylized flourish at the end.

Glen Sowry
Chief Executive

21 July 2023

Glen Sowry
Chief Executive Officer
Queenstown Airport Corporation Limited
Sir Henry Wigley Drive
Frankton
Queenstown 9300

Tēnā koe Glen

Submission on the draft Master Plan for Tāhuna Queenstown Airport

1. Introduction

This is the submission by Te Mana Rererangi Tūmatanui o Aotearoa Civil Aviation Authority of New Zealand (**Authority**) on the draft Master Plan for Tāhuna Queenstown Airport (**Master Plan**).

Thank you for the invitation to provide feedback and participate in the consultation process.

The Authority's contact person for this submission is:

Ben Whitehouse
Poumatua mō te Toitūtanga o te Wāhi mahi Chief Workplace and Sustainability Officer

[REDACTED]
[REDACTED]

Disclaimer

This submission is provided as a stakeholder and partner, not as the regulator.

The Authority regulates the Queenstown Airport Corporation Limited (**QAC**) as the operator of Tāhuna Queenstown Airport certificated under the Civil Aviation Act 1990 (**Act**) and Civil Aviation Rule Part 139. This submission provides no comment on regulatory matters, however, welcomes engagement from QAC on regulatory matters at the appropriate time.

2. Context

The Authority is a Crown entity established under the Act.¹ The objective of the Authority is to undertake safety, security, and other functions that contributes to the aim of achieving an integrated, safe, responsive, and sustainable transport system.

The Authority also provides the service called the Kaiwhakamaru Rererangi Aviation Security Service (**AvSec**).

¹ The Civil Aviation Act 2023 (**2023 Act**) received Royal Consent on 5 April 2023 with the majorly of the 2023 Act coming in to force on 5 April 2025. The 2023 Act which will replace the Civil Aviation Act 1990 and Airport Authorities Act 1966.

The Authority's vision and purpose is a safe and secure aviation system – so people are safe, and feel safe, when they fly.

The Authority currently employs over 195 people at Tāhuna Queenstown Airport and contributes over \$17 million annually to the local economy, primarily through salaries for our people delivering safety and security regulatory activities for participants (**passengers**) traveling through Tāhuna Queenstown Airport, leasing property from QAC, and buying goods and services from other local providers.

It is forecast by 2028 that the Authority will contribute over \$36 million annually to the local economy and directly employ over 365 people at Tāhuna Queenstown Airport to deliver the Authority's safety and security activities. Additionally, the Authority is also forecast to invest over \$12.5 million in new security screening equipment at Tāhuna Queenstown Airport before 2028.

3. Submission

A) Introduction

The Authority submission focus on three key areas outlined in the Master Plan:

- A Terminal the Community Takes Pride In.
- Sustainability.
- Master Plan Considerations.

B) A Terminal the Community Takes Pride In

i) Security Screening Regulatory Design – A System Approach

- Traditionally security screening regulatory activities have been designed and implemented in the 'manufacturing domain' rather than a 'service domain'. Screening activities are undertaken as a standalone component rather than as part of an integrated holistic airport system.
- The existing passenger airport experience at Tāhuna Queenstown Airport – as well as most other airports – is transactional and disjointed which the Master Plan does not address. Passengers interact with different organisations and complete discreet 'tasks' at different points along their journey from 'park to plane' – whether from check-in, bag drop, security screening etc.
- However, strong security regulatory outcomes and maintaining a strong security culture (which exists in QAC and at Tāhuna Queenstown Airport) do not have to be mutually exclusive of a seamless 'park to plane' experience for passengers traveling through Tāhuna Queenstown Airport (or any other airport for that matter).
- There is an opportunity to do things differently. To lead by example. The QAC Strategic Pillars of Experience and Community support a change from siloed thinking and operating, to taking a systems approach.
- There is an opportunity for all organisations – including the Authority – who are 'touch points' at Tāhuna Queenstown Airport to collaborate and co-design the entire 'park to plane' journey together as one integrated holistic system, taking a 'service domain' approach.

- The Authority acknowledges a shift towards a systems approach requires investment – in terms of time, people, resources and needs to align pricing obligations/cycles, funding reviews and capital plan etc.
- But the Authority sees the future not as something out of our shared control, but as something we can shape together by default for the better through concerted and collective effort. It will take patience, its takes commitment but we should not shy away just because it may be difficult. The Authority is excited and willing to embrace this change in partnership with QAC.

ii) *Terminal Development*

- The Terminal Development and Airfield Development Plans (**Plans**) will be most relevant to the Authority's future regulatory requirements. The Authority is interested in planning for now and for the future. These Plans will dictate how we accommodate our people, our equipment and how we deliver our safety and security regulatory activities.
- The Authority values QAC's commitment to building relationships with iwi and hapū and respecting the whakapapa of Kāi Tahu as part of the Master Plan. Delivering the Master Plan in partnership, and in consultation with the community, will result in an innovative Tāhuna Queenstown Airport that people love to travel through, and the community is proud of.
- Similarly, and as described above, there are opportunities for QAC to take a collaborative, co-design by default approach with the Authority, Border Agencies, and other key stakeholders in the development of the Plans, from day one.
- At the Authority, the Workplace² is at the heart of everything we do. The below Workplace strategic principles guide how we invest in our Workplaces:
 - People are at the heart of everything we do.
 - Taking a whole of system view is embedded within our DNA. This involves co-location, co-design, and a partnership by default approach.
 - Sustainability is entrenched in everything we do. A shared destiny for long-term sustainable outcomes will deliver the best possible outcomes for all parties as tangata tiriti.
 - Only people actively delivering our core safety and security actives will be located on the airport campus. All other enabling and supporting functions will be located off the main airport campus.
- The above Workplace strategic principles align with the Vision, Mission, and Strategic Pillars of the Master Plan.
- Collaboration between QAC and the Authority will drive an innovative result with people at its core. However, the proposed *Airport Community House* does not align with our Workplace strategic principles; we are driving a new approach to enabling our safety and security regulatory activities. Therefore, we do not see the proposed Airport Community House as a fit for purpose solution.

² Workplace means anywhere or in any thing the Authority's people perform their safety and security regulatory activities. This ranges from screening lanes, hold baggage screening rooms, vehicles, break rooms and everything in between.

- Instead the Authority would like to take a lead role in partnership with QAC, Border Agencies and other stakeholders to co-design a fit for purpose all of Government building/facility for the Authority and all other Border Agencies – which may be located off aeronautic land owned by QAC.
- The Authority’s shift in strategic direction necessitates a new way of thinking about things. What matters is our people and our shared outcomes. The Authority is open to considering new and alternative funding models to ensure we deliver the best possible outcome for everyone.

C) Sustainability

i) *Sustainability and Resilience*

- The Authority supports QAC’s commitment to embedding sustainability and resilience into the Master Plan. Similarly, the Authority is working towards embedding sustainability into everything we do and adopting a sustainability by default approach.
- QAC has an opportunity to be a leader; sustainability should, and must, guide the way we all think, the decisions we make and the way we all do business. In conjunction with the *QAC Sustainability Strategy* (June 2023), the Master Plan provides pathway to developing a more sustainable, resilient, and adaptable airport with net-zero emission operations.
- The Authority sees an opportunity to embed a sustainability by default approach into the proposed infrastructure. QAC should consider, for any new or redeveloped infrastructure, designing and constructing to achieve a 5 GreenStar Certification (*New Zealand Excellence*) as the minimum, and aspire to a 6 GreenStar Certification (*World Excellence*).
- The Authority would welcome a conversation with QAC how we can partner to achieve the shared outcome of embedding sustainability and resilience into the whole system. As a significant employer at Tāhuna Queenstown Airport the Authority can immediately identify several opportunities to partner with QAC.

D) Master Plan Considerations

i) *Slot Management*

- The Authority supports the introduction of the enhanced ‘slot coordination’ system. It is essential slots allocated to airlines are carefully controlled so peaks and troughs can be managed and additional infrastructure – and in the case of the Authority – additional people are not required to undertake safety and security regulatory activities for only very short periods of a day.
- It is acknowledged this must be balanced with passengers’ preferences for time of travel, and airlines’ ability to serve many different routes. However, if slot management is not holistically controlled and managed at the system level this may have unintended consequences that directly impact passengers moving through Tāhuna Queenstown Airport and ultimately the passenger experience.

- The Authority would encourage early system collaboration with QAC, Boarder Agencies, airlines, and other stakeholders as part of the slot coordination system which will ultimately contribute to an innovative airport that people love to travel through, and the community takes pride in.

Nāku noa, nā

Mark Davis

Kaitiriwā Ratonga Rangatōpū Deputy Chief Executive, Corporate Services

9 November 2023

Mark Davis

Kaitiriwā Ratonga Rangatōpū Deputy Chief Executive, Corporate Services
Civil Aviation Authority of New Zealand

By email: [REDACTED]

Dear Mark

Queenstown Airport Master Plan

Thank you for your letter dated 21 July 2023 providing the Civil Aviation Authority's feedback, as a key stakeholder, on the Queenstown Airport draft Master Plan. We appreciate you taking the time to review the draft plan and provide your feedback to us.

Throughout the development of the Master Plan we have taken time to consult with stakeholders and to carefully consider all the feedback received to ensure we strike the right balance as we finalise the Queenstown Airport Master Plan.

Sustainability

Sustainability and decarbonisation are shared challenges across the sector. Sustainability is integral to our operations and planning, and we are pleased that this is also a high priority for CAA. We welcome the opportunity to collaborate with CAA to embed these principles and values. I note that conversations have already begun, and we appreciated the recent proactive visit to Queenstown Airport by your Sustainability team and CAA's commitment to the ZQN Sustainability Pledge. QAC is in the process of developing a set of sustainable design guidelines for construction for future development on the ZQN campus and QAC owned landholdings. QAC's recently published Sustainability Report is available [here](#).

Development Planning

As you will be aware, a Master Plan is a spatial representation of our strategy and presents a "block level" or "bulk and location" level of planning. Following the approval of the Master Plan, we will progress to airside, landside and terminal development plans. It is at this stage that some of your feedback will be able to be more fully considered, and we will consult with you in more detail at this time.

We commend the CAA on its refreshed approach to customer experience and are encouraged that you are seeking to interact with Queenstown Airport in a more holistic

manner, with customer experience as a key outcome of design. The Terminal Development Plan will examine and respond to the feedback you have provided in relation to a system approach to security screening regulatory design. We also note that a holistic approach involves infrastructure, process, people and technology and look forward to the Aviation Security Service being active in resolving issues in collaboration with the rest of the airport community.

It will similarly be important to take the same holistic approach in preparing the Airfield Development Plan and we agree with your sentiment in this respect.

Airport Community House

There has been a generally positive response to the proposed Airport Community House and the opportunity to build a collaborative and accessible workplace developed using sustainable building principles. We note your feedback that the Airport Community House does not align with your workplace strategic principles. Over the last few years, we have consulted extensively with CAA to understand your needs and objectives for staff accommodation. We understood that the CAA's preference was to be a tenant rather than owner of offices located in very close proximity to the terminal, which was factored into the planning for Airport Community House in the draft Master Plan.

The intent of Airport Community House is to bring QAC, Avsec and other airport community members together into one location where colocation benefits would accrue – both from a cultural as well as a capital efficiency perspective. We welcome the opportunity to assess the opportunities together to ensure that the infrastructure built is sustainable and appropriately sized.

The location shown for Airport Community House will be further evaluated, and could be subject to change, as we better understand the staging of development alongside many other activities within the Landside Development Plan.

Slot Management

We completely agree with the need to balance the various elements of the aviation system including airline preferences, infrastructure availability and processing capability. This is a key tenet of slot management and one of the key outcomes of moving toward a Level 3 Lot Coordination process at Queenstown Airport. We note that the Aviation Security Service is a member of the Slot Coordination Committee that reviewed slot coordination parameters set by Queenstown Airport.

Thank you for your constructive feedback and we look forward to continuing to work with you as we finalise the Queenstown Airport Master Plan and progress to more detailed planning to bring our shared aspirations to life for the airport, its people, and customers.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Glen Sowry', with a flourish at the end.

Glen Sowry
Chief Executive

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