# Noise Action Plan for Brisbane

## Brisbane Airport Community Airspace Advisory Board Presentation

Meeting 5

9 September 2024

# Program update

1. Status update
2. Actions from previous meetings
3. Out of session actions
4. Q&A

# Noise Action Plan for Brisbane

**Package One – Strong, transparent and representative governance (Development and implementation Q1/2 2023)**

**Recommendation 1.1** – Oversight, management and assurance program: Airservices will support government and other stakeholders in the establishment of oversight, management and coordination functions to support flight path change delivery, as well as development of assessment frameworks and independent assurance mechanisms.

**Recommendation 1.2** – Industry-wide communications planning: Airservices will work with industry stakeholders, government and community to develop effective communications plans supported by all relevant organisations and agencies, to ensure that information provided is consistent, clear and transparent.

**Recommendation 1.3** – Meaningful engagement process: Airservices will work with government, community and industry stakeholders to develop effective community engagement plans and tools, to ensure communities are adequately engaged, have the opportunity to input to decision-making and that the metrics used to make decisions are understood and transparently reported against.

**Recommendation 1.4** – Long-term Noise Action Plan: Airservices proposes the recommendations in this report form the initial version of the Noise Action Plan. This plan will implement noise mitigation measures which are well-planned, tracked, reported against, and supported by community and industry stakeholder involvement.

**Package Two – Maximise flights over the water (Development and implementation in 2023)**

**Recommendation 2.1** - ATC Operating Plan to extend the use of SODPROPS: Airservices will develop an ATC Operating Plan, examine options to extend the use of SODPROPS and implement associated design enhancements.

**Recommendation 2.2** - Reduce ATC workload and complexity associated with SODPROPS: Airservices will engage with Defence in relation to Amberley airspace, ATC procedures and specific flight paths that constrain SODPROPS operations.

**Recommendation 2.3** - Modify specific SODPROPS flight paths and ATC procedures: Airservices will review options to reduce track miles and emissions associated with SODPROPS operations, update ATC procedures to optimise final approach efficiency and review options to reduce the impact of over water operations on affected communities.

**Recommendation 2.4** – Reduce the impact of overnight operations on communities.

**Package Three – Reduce the frequency and concentration of flights over communities (Development during 2023 and implementation in 2024)**

**Recommendation 3.1** – Reduce the frequency and concentration of flights over communities: Airservices will develop options for departure and arrival paths over the city to allow for noise-sharing and to reduce the occurrence of communities being subject to both arrival and departure operations. Airservices will also develop options to reduce the impact on communities of non-jet tactical operations, flight paths further from the airport, merge points and hold downs. In addition, Airservices will introduce opportunities for greater use of advanced navigation technology where this improves community noise outcomes.

**Package Four – Optimise the performance of the wider Brisbane airspace system (Development in 2023 and 2024, implementation from 2025)**

**Recommendation 4.1** – Introduce noise sharing through new operating modes: Airservices will develop options to connect flight paths to all runway ends to provide greater flexibility for noise sharing, and investigate a range of modes, including segregated and semi-mixed modes, to provide periods of respite for communities.

**Recommendation 4.2** - Introduce multiple arrival routes over the city: Airservices will develop options for multiple arrival routes which can be alternated on a planned schedule to provide respite to communities. This will be completed in parallel with an already planned IT system upgrade.

# Acronyms list

| Term | Definition |
|---|---|
| AEDT | Aviation Environmental Design Tool |
| ANEF | Australian Noise Exposure Forecast |
| ANO | Aircraft Noise Ombudsman |
| ANOMS | Aircraft Noise Monitoring and Management System |
| ATC | Air traffic control |
| CAF | Community Aviation Forum |
| CASA | Civil Aviation Safety Authority |
| CEF | Community Engagement Framework |
| DER | Departure End of Runway |
| EIA | Environmental Impact Assessment |
| EIS | Environmental Impact Statement |
| *EPBC Act 1999* | *Environment Protection and Biodiversity Conservation Act 1999* (Cth) |
| ERSA | En Route Supplement Australia |
| FPDP | Flight Path Design Principles |
| GA | General Aviation |
| H24 | 24 hour operations |
| IAP2 | International Association of Public Participation |
| IFR | Instrument Flight Rules |
| INM | Integrated Noise Model |
| NADP | Noise Abatement Departure Procedure |
| NAP | Noise Abatement Procedure |

| Term | Definition |
|---|---|
| NCIS | Noise Complaints and Information Service |
| NFPMS | Noise and Flight Path Monitoring System |
| NOS | National Operating Standard |
| ODAS | Operational Data Analysis Suite |
| PIR | Post Implementation Review |
| RNAV | Area navigation approach |
| RNP-AR | Required Navigation Performance – Authorisation Required ('Smart Tracking') |
| RWY | Runway |
| TEIA | Targeted Environmental Impact Assessment |
| SID | Standard Instrument Departure |
| SODPROPS | Simultaneous Opposite Direction Parallel Runway Operations |
| STAR | Standard Instrument Arrival |
| ToR | Terms of Reference |
| TWY | Taxiway |
| VFR | Visual Flight Rules |

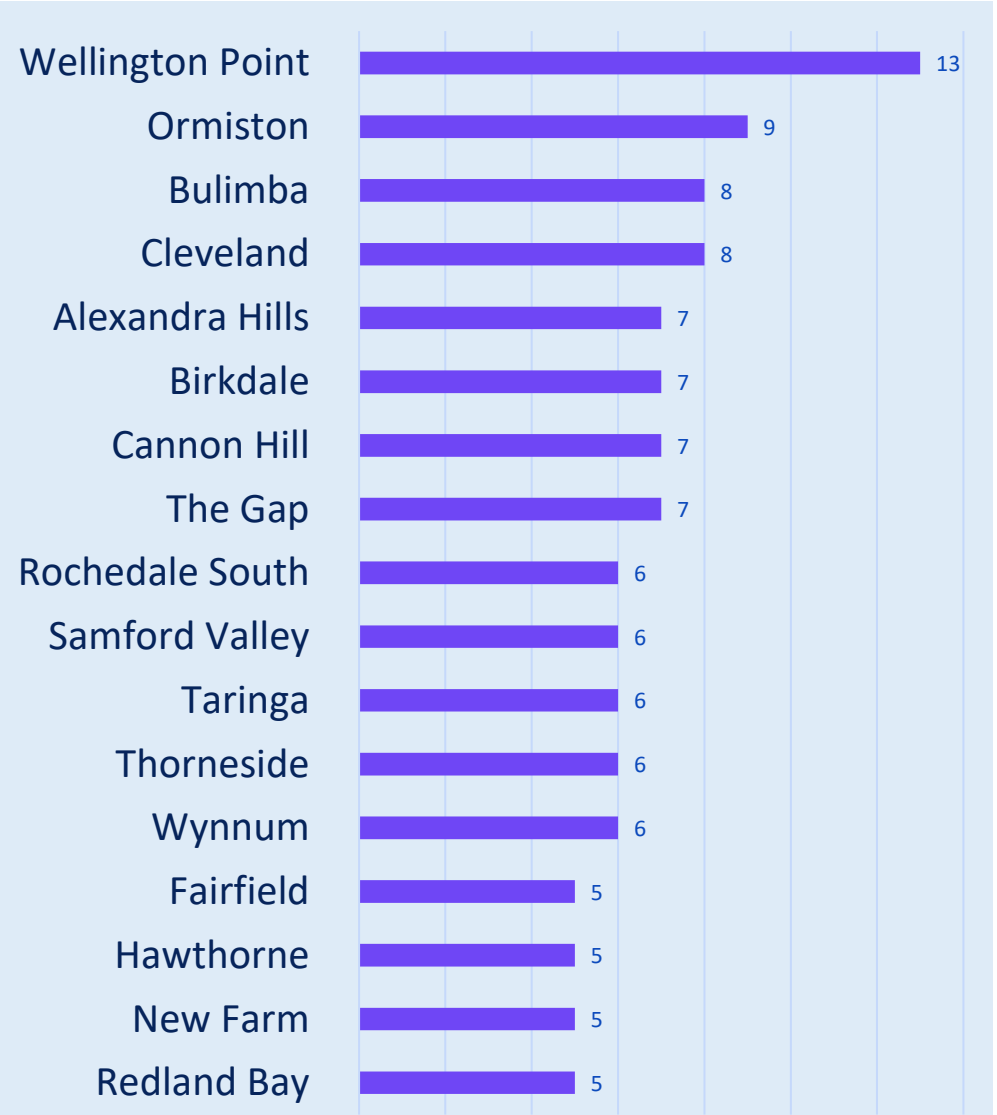
# 1. Noise Action Plan for Brisbane Status Update

**Phase 4: 31 May – 14 July 2024**

- **4 topics**
- **5 drop-in sessions**
- **3 webinars**
- **190 attendees**
- **265 submissions from 76 suburbs**

## Engage Airservices stats

| | |
|---|---|
| Total visitors | 19k |
| Visited at least one page | 14.8k |
| New registrations | 99 |
| Document downloads | 4.9k |
| Contributors | 269 |




**Suburbs with five or more submissions**

# 1. Noise Action Plan for Brisbane Status Update

**Phase 5: 14 August– 15 September 2024**

- **5 sets of proposals**
- **6 community meeting sessions**
- **5 webinars**
- **2 Q&A sessions**

# 2. Actions from previous meetings

| No. | Action | Response |
|---|---|---|
| 1.11 | Information and data on expected aircraft movements and previous and proposed impacts | BAC to provide |
| 2.14 | Out of Session NCIS meeting | Chair provided written suggestions. Airservices currently considering as part of a wider review. |
| 2.6 | ATC meeting with AAB members | Complete, session was held on 8 May 2024 |
| 3.8 | Industry representatives to update the AAB on any progress to develop metrics under the Noise Action Plan for Brisbane. | Metrics to be developed after preferred options are identified |
| 4.1 | Mr Muller's questions on Phase 1 Options Assessment Report | Written response provided |
| 4.5 | Samford Valley go around investigation | *Presented in this session* |

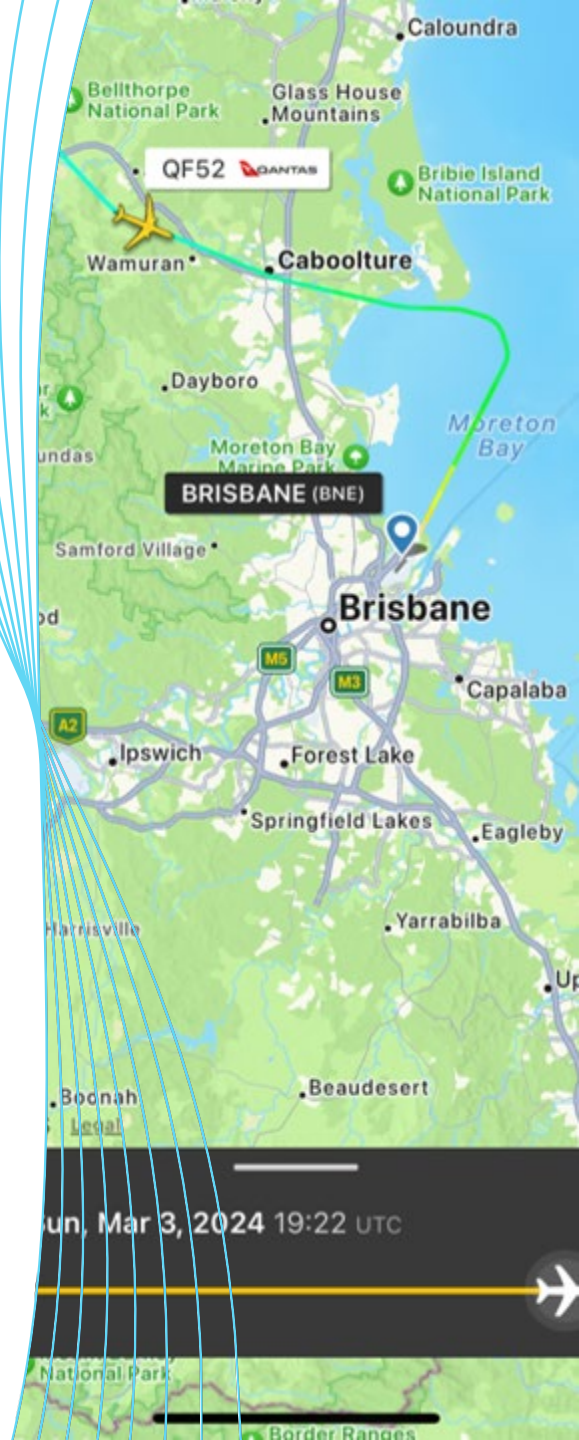
# 2. Actions from previous meetings

## Action 4.5: Go around over Samford Valley 3 March 2024, 12.30am – QFA52D SIN-BNE

*1. Did not resume the normal flight path back into Brisbane? 1. When this aircraft ascended from the runway, what process decides the path the aircraft takes to return to the runway?*

*2. Given the time, being the early hours of the morning, why did the aircraft take a lower, longer, wider path over mountainous communities an*

- QFA52D conducted a published missed approach due to excessive tailwind.
- The approach controller initiated a right turn for resequencing.
- The approach controller attempted to initiate further right turns to which QFA52D advised that there was weather in the vicinity, and they would prefer a left turn.
- The aircraft was taken left and climbed to 5000ft to comply with noise abatement prior to crossing the coast.
- QFA52D was vectored and taken wide for a left base 01R approach to follow a Flying Doctor arrival.
- QFA52D was vectored and joined final as per NAP.



# 3. Out of session actions

| Action | Response |
|---|---|
| 19 August – Phase 2 Options Assessment Report Methodology<br>(Submission provided by Tess Bignell) | *Presented in this session* |
| 16 July - questions from Tess Bignell<br>• Phase 2 engagement - noise sharing options<br>• NCIS update<br>• Mental health concerns<br>• Engagement session locations | Response provided by email |
| 5 July – question from Tess Bignell<br>• 2018 and 2019 EIAs | Response provided by email. EIAs to be made public when redacted. |
| 4 July – questions from Tess Bignell<br>• Meeting schedule<br>• Delivery timeframe<br>• Residents' mental health<br>• Engagement session locations | Response provided by email |
| 17 June – question from Tess Bignell<br>• Note-taking by staff at community sessions | Response provided by email |
| 29 May – question from Steve Muller<br>• Scope of consultancies | Response provided by email |
| 24 May – question from Steve Muller<br>• Meetings with Trax and Think | Response provided by email |

# 3. Out of Session Actions

## Phase 2 Options Assessment Report Methodology (Submission provided by Tess Bignell)

*Submission provided questioning assessment methodology, including lack of MCA process, use of 2km wide corridor for population counts, rejection of options, inconsistent assessment approach*

### Assessment considerations

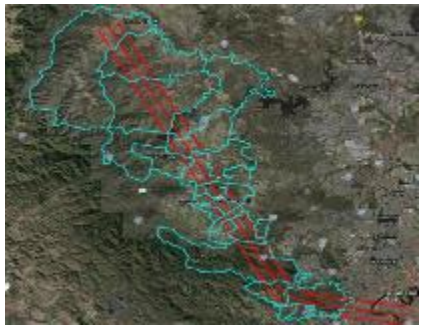
| Consideration | Outcomes |
|---|---|
| **Operate over water where possible** | • Option supports greater use of over-water modes such as SODPROPS<br>• Option directs traffic over-water to climb/descend to reduce the impact on communities |
| **↳Where we can't operate over water, avoid communities at night where possible** | • Option reduces the impact of night-time operations on communities |
| **↳↳Where communities cannot be avoided at night, seek noise sharing and respite options** | • Option reduces noise impacts on communities by sharing noise |
| **↳Where we can't operate over water, reduce total population affected where possible** | • Option reduces the total population overflown<br>• Option reduces the total population impacted at 70+dB and 60+dB |
| **↳↳Where we can't reduce population, reduce noise level where possible** | • Option reduces the total noise level of the impact |
| **Where over lower ambient areas (i.e. lower population), seeking noise sharing and respite options** | • Option reduces noise impacts on communities by sharing noise<br>• Option reduces the frequency of the current impact |
| **Avoid concentrating both arrival and departure operations over the same communities** | • Option avoids overflight of communities by both arrivals and departures<br>• Option affects a location subject to other movements (GA, helicopters, RAAF) |
| **Do not seek to shift noise from one community to another without a net overall benefit (i.e. total population affected or reduced noise level)** | • Option supports noise sharing as opposed to noise shifting<br>• Option avoids placing aircraft over communities currently not subject to aircraft operations<br>• Option reduces impacts on communities by sharing noise |
| **Avoid increasing total emissions where possible** | • Option reduces track miles and thereby emissions |

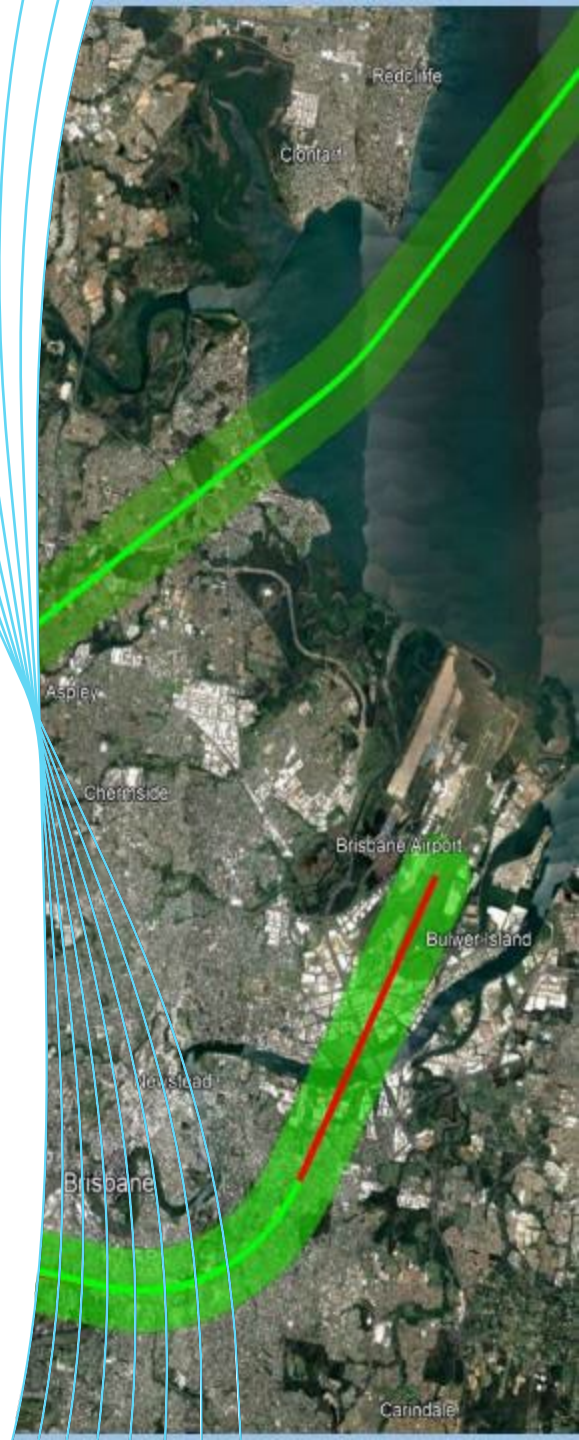
# Phase 2 options assessment

**Two-kilometre corridor**

- Enables direct overflight population comparison – apples with apples
- Aircraft will generally operate within 1km either side of the notional flight path centreline
- Does not suggest noise or other operational impacts are contained to this area

- SA1 boundaries use suburbs to count populations which is not useful for this particular assessment purpose





# Phase 2 options assessment

**Noise assessment for comparison**

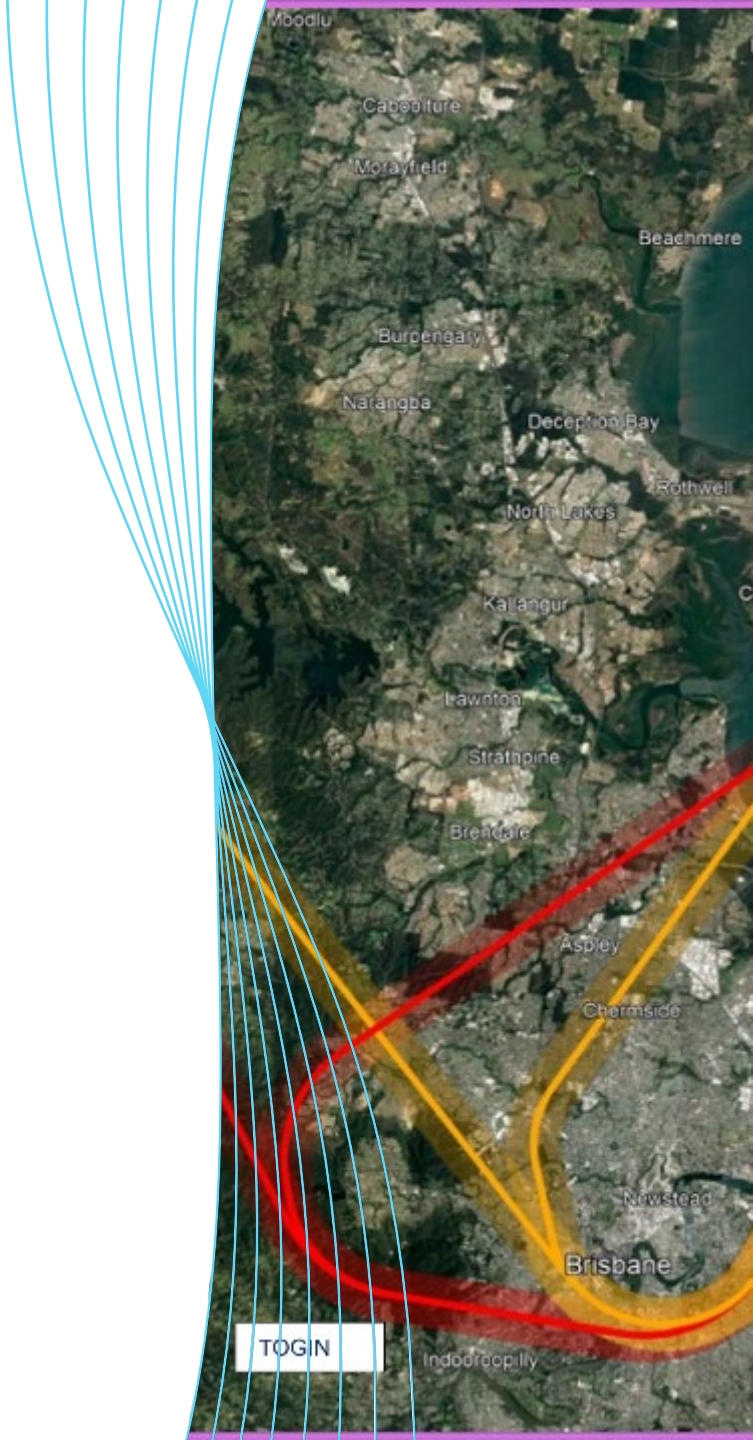
- Noise contours for 60dB+ and 70dB+
- Modelled not measured as we don't have actuals for proposals
  - Use of WebTrak (actual tracks) for comparison with proposals not appropriate as not like with like
- Models are periodically validated
- Based on loudest international jet and most typical aircraft
- Population numbers (not number of suburbs or SA1s)
- 60dB+ contour contains 70dB+ contour (as it is 60dB and everything above)

# Phase 2 options assessent

## Option 2 – Pre NPR flight paths track miles

- Acknowledge error in track miles calculated for Option 2 to BIXAD
- Will correct in updated version
- Does not change assessment outcome as the initial assessment noted increased track miles

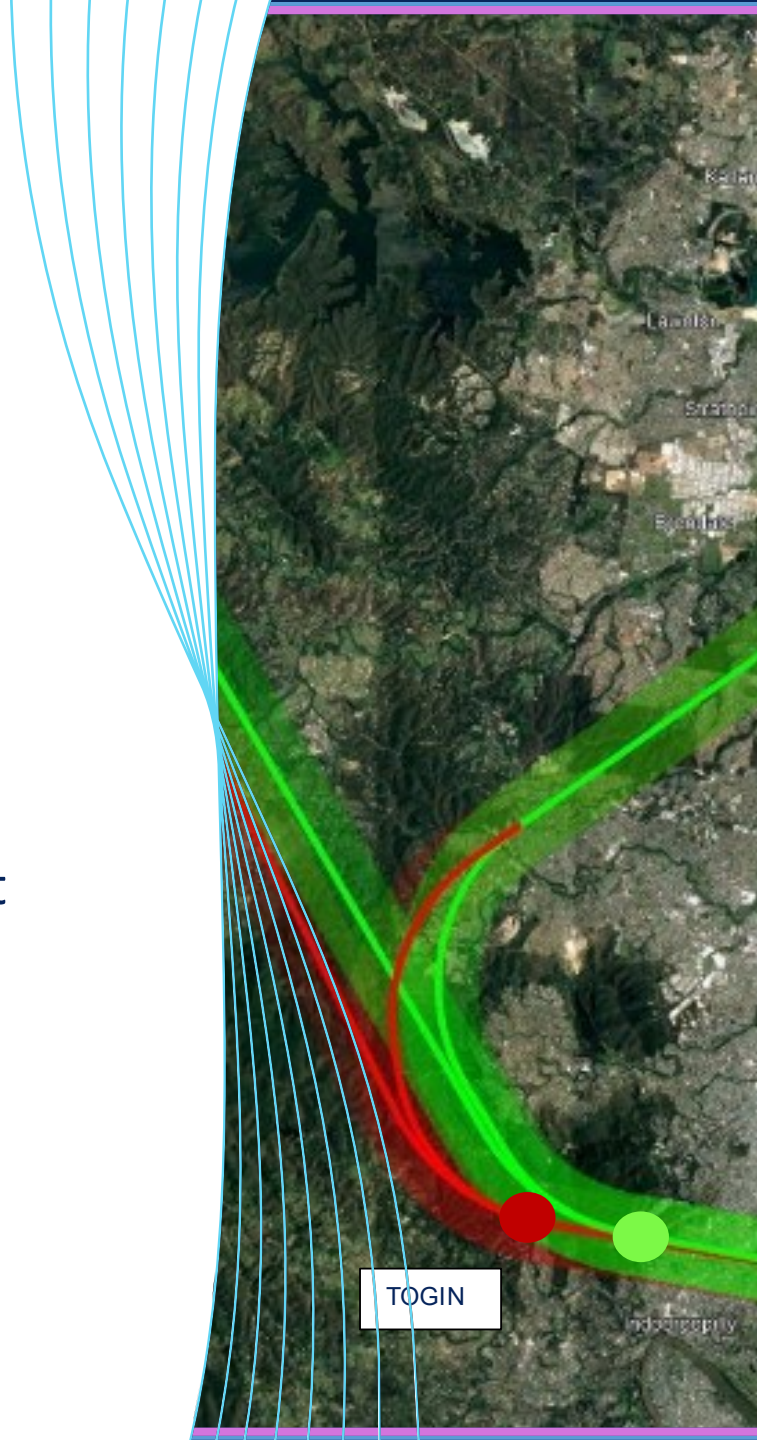
| | | |
|---|---|---|
| Does the option reduce track miles and aircraft emissions? | Yes | To WACKO waypoint: decreases track miles from 32.71nm to 30.91nm and decreases emissions from 6.1 tonnes to 6 tonnes<br>To BIXAD waypoint: decreases track miles from 35.9nm to 34.75nm while emissions remain at 6.1 tonnes |



# Phase 2 options assessment

## Option 3 - Additional waypoint

- Aircraft don't track exactly on the flight path as they turn
- Tracking further west than intended (over more populated area of Upper Brookfield)
- Modelled performance based on the range found in actual tracking was used to assess likely population numbers for proposed additional waypoint
- Aims to create actual operations consistent with design intent
- While majority community respondents did not note support, this option was progressed due to meeting the intent of the recommendation



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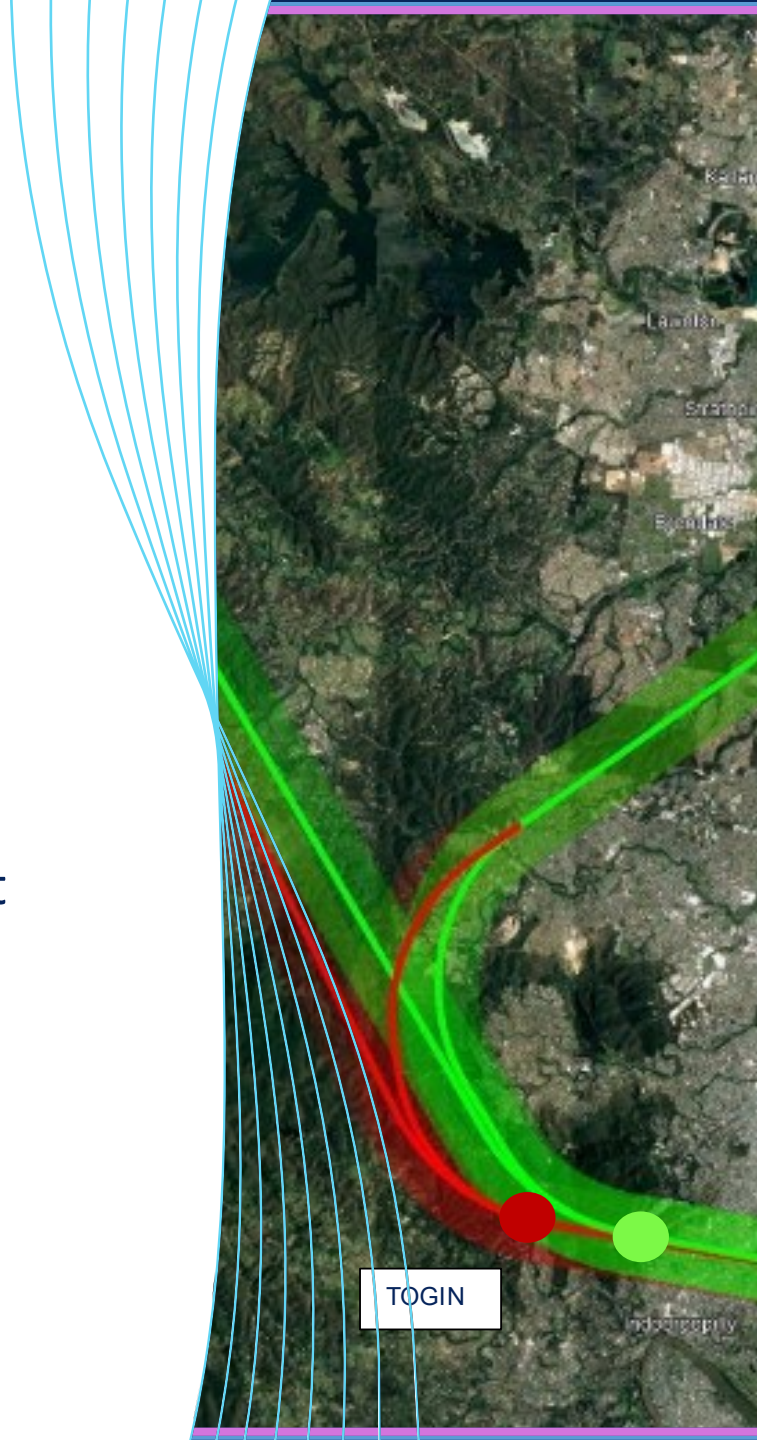

# Phase 2 options assessment

**Outcomes**

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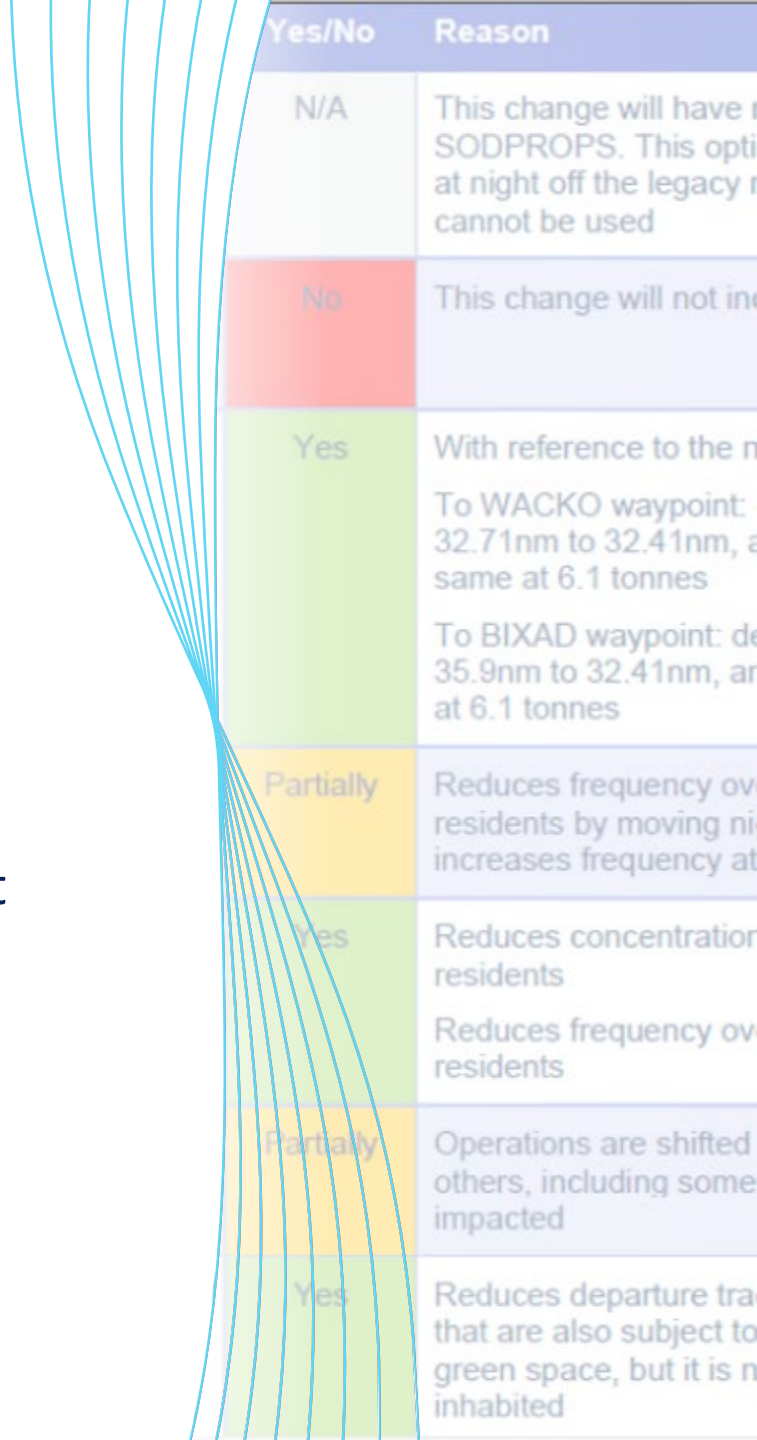

# Questions?