



Master Plan 2023-43



Archerfield Airport Master Plan 2023-2043

and

Airport Environment Strategy 2023

Approved 26 March 2025

Prepared for:

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Contents

| | Page | | Page |
|--|------------|--|------------|
| FOREWORD | 6 | 5.7 Aeromedical and emergency services | 109 |
| SUMMARY | 7 | 5.8 Advanced Air Mobility, and Air Taxi | 110 |
| | | 5.9 Implications for the Master Plan | 110 |
| 1 INTRODUCTION | 18 | 6 AVIATION FACILITIES | 112 |
| 1.1 Archerfield Airport | 19 | 6.1 Existing aviation facilities | 113 |
| 1.2 Archerfield Airport Corporation | 19 | 6.2 Aircraft characteristics | 117 |
| 1.3 Purpose of the Master Plan: A framework for the future | 20 | 6.3 Air traffic management | 117 |
| 1.4 Legislative framework | 21 | 6.4 Airport certification and standards | 119 |
| | | 6.5 Airport security | 119 |
| 2 THE VISION | 30 | 7 AVIATION DEVELOPMENT | 125 |
| 2.1 The vision – An airport with a sustainable future | 31 | 7.1 Progressive improvements | 126 |
| 2.2 Realising the vision | 34 | 7.2 Secondary grass runway facilities | 128 |
| 2.3 Overview of achievements 1998-2023 | 37 | 7.3 Longer term projects | 137 |
| 3 REGIONAL CONTEXT | 46 | 8 AIRPORT LAND USE | 138 |
| 3.1 Airport location | 47 | 8.1 Land use context | 139 |
| 3.2 Role and function relative to other South East Queensland airports | 47 | 8.2 Aviation development | 142 |
| 3.3 Strategic influences – Shaping the future | 50 | 9 AIRPORT SAFEGUARDING | 143 |
| 3.4 Queensland State Government | 51 | 9.1 Background | 144 |
| 3.5 Brisbane City Plan and local plans | 66 | 9.2 Prescribed airspace | 145 |
| 3.6 Brisbane: Our Productive City | 82 | 9.3 Restricted light zones | 151 |
| 3.7 Strategic strengths of Archerfield Airport | 85 | 9.4 Forecast noise impact—ANEF | 152 |
| 3.8 Consistency with State, regional and local planning provisions | 87 | 9.5 Wildlife buffer zones | 163 |
| | | 9.6 Windshear and turbulence | 164 |
| | | 9.7 Wind farms and monitoring towers | 166 |
| 4 ECONOMIC SIGNIFICANCE | 92 | 10 GROUND TRANSPORT | 168 |
| 4.1 Economic role and potential of Archerfield Airport | 93 | 10.1 Overview | 169 |
| 4.2 Economic significance and contributions | 96 | 10.2 Road network | 170 |
| | | 10.3 Public transport | 179 |
| 5 AVIATION ACTIVITY | 100 | 10.4 Pedestrian and cycle network | 180 |
| 5.1 Aviation activity at Archerfield | 101 | 10.5 Rail freight services | 182 |
| 5.2 Aircraft movements | 102 | 10.6 Internal road network and site access | 182 |
| 5.3 Forecast aircraft movements | 105 | 10.7 Car parking | 187 |
| 5.4 Air freight | 108 | 10.8 Future requirements and timing | 187 |
| 5.5 Regular public transport | 109 | 11 SERVICES INFRASTRUCTURE | 201 |
| 5.6 Corporate and business | 109 | 11.1 Stormwater drainage | 202 |

Contents

| Page | | | Page | | |
|-------|--|-----|-------|---|-----|
| 11.2 | Sewer | 207 | 15.7 | Tenant environmental reviews | 288 |
| 11.3 | Electricity | 207 | 15.8 | Environmental Management Procedures | 289 |
| 11.4 | Telecommunication and broadband services | 208 | 15.9 | Environmental training | 290 |
| 11.5 | Gas | 209 | 15.10 | Emergency preparedness | 292 |
| 11.6 | Water supply | 209 | 15.11 | Incidents | 292 |
| 11.7 | Sustainable use of natural resources and energy | 209 | 15.12 | Management of new facilities | 293 |
| | | | 15.13 | New operations and works | 295 |
| | | | 15.14 | Non-conformances | 296 |
| | | | 15.15 | Communication | 297 |
| 12 | AIRPORT DEVELOPMENTS | 211 | 15.16 | Complaints | 299 |
| 12.1 | General | 212 | | | |
| 12.2 | Development objectives | 213 | 16 | ENVIRONMENTAL CONDITIONS AND ACTIONS | 300 |
| 12.3 | Land use zones | 213 | | | |
| 12.4 | Airport precincts | 228 | 16.1 | Overview | 301 |
| 12.5 | Runway precinct | 229 | 16.2 | Heritage | 301 |
| 12.6 | Beatty precinct | 234 | 16.3 | Flora and fauna | 322 |
| 12.7 | Mortimer precinct | 242 | 16.4 | Air quality and ozone depleting substances | 329 |
| 12.8 | Beaufighter precinct | 245 | 16.5 | Surface water | 332 |
| 12.9 | Wirraway precinct | 248 | 16.6 | Groundwater | 339 |
| 12.10 | Boundary precinct | 249 | 16.7 | Soil | 346 |
| 12.11 | Ashover precinct | 254 | 16.8 | Hazardous materials and waste management | 352 |
| 12.12 | Barton precinct | 257 | | | |
| | | | 16.9 | Use of natural resources and energy | 356 |
| 13 | ENVIRONMENT STRATEGY SUMMARY | 260 | 16.10 | Noise | 360 |
| | | | | | |
| 14 | OVERVIEW OF THE AES | 266 | 17 | CONSULTATION ON THE MASTER PLAN | 367 |
| 14.1 | Scope of the Environment Strategy | 267 | | | |
| 14.2 | Overview of 2023 AES | 267 | 17.1 | Preparation of the draft Master Plan | 368 |
| 14.3 | Environmental management issues | 268 | 17.2 | Background studies | 371 |
| 14.4 | Overview of achievements 1998-2023 | 268 | 17.3 | Exhibition of the preliminary draft Master Plan | 379 |
| | | | | | |
| | | | 17.4 | Further draft Master Plan 2023-43 | 381 |
| 15 | ENVIRONMENTAL MANAGEMENT FRAMEWORK | 273 | | | |
| 15.1 | Regulatory framework | 274 | 18 | IMPLEMENTATION | 389 |
| 15.2 | Archerfield Airport Corporation environment policy | 277 | | | |
| 15.3 | Environmental Management System | 278 | 18.1 | Planning process and priorities | 390 |
| 15.4 | Environmental roles and responsibilities | 279 | 18.2 | Key initiatives | 390 |
| 15.5 | Environmental aspects and potential impacts | 285 | 18.3 | Planning and building approvals process | 400 |
| | | | 18.4 | New facilities/applications | 406 |
| 15.6 | Environmental objectives and targets | 288 | 18.5 | Assessment | 407 |
| | | | 18.6 | Consultation on development applications on the airport | 410 |
| | | | 18.7 | Building approval requirements | 410 |

| Page | | | Page | | |
|--|-----------------------------------|------------|--|---|-----|
| 18.8 | Permission to commence works | 411 | 20. | Development precincts | 230 |
| 18.9 | Property management | 412 | 21. | Beatty PSP | 239 |
| 18.10 | Building presentation standards | 412 | 22. | Mortimer PSP | 244 |
| 18.11 | Implementation of the AES | 412 | 23. | Beaufighter PSP | 247 |
| 18.12 | Other consultative processes | 417 | 24. | Boundary & Wirraway PSPs | 252 |
| 18.13 | External infrastructure | 422 | 25. | Ashover PSP | 256 |
| APPENDIX A-GLOSSARY OF TERMS | | 424 | 26. | Barton PSP | 258 |
| APPENDIX B-LEGAL REGISTER | | 426 | 27. | Overview of environmental management process at Archerfield Airport | 280 |
| APPENDIX C-REFERENCES | | 428 | 28. | Heritage Management Plan | 304 |
| APPENDIX D-ENVIRONMENT PROTECTION ACTION PLAN | | 432 | 29. | Heritage curtilage | 308 |
| APPENDIX E-LAND USE PROVISIONS | | 442 | 30. | Groundwater | 345 |
| FIGURES | | | 31. | 2031 vision | 399 |
| 1. | Airport location | 17 | 32. | Overview of development approvals process | 402 |
| 2. | Master Plan vision | 32 | TABLES | | |
| 3. | Airport context | 48 | Table 1: Summary of achievements 1998-2023 (MP) | | |
| 4. | Existing airport layout | 114 | 38 | | |
| 5. | Fixed wing approach flight paths | 120 | Table 2: Estimated developed land by precinct | | |
| 6. | Fixed wing departure flight paths | 121 | 99 | | |
| 7. | Helicopter approach paths | 122 | Table 3: Aircraft movements | | |
| 8. | Helicopter departure paths | 123 | 104 | | |
| 9. | Training circuits | 124 | Table 4: Primary taxiways | | |
| 10. | Airport land use context | 140 | 115 | | |
| 11. | Current OLS/PANS-OPS surfaces | 147 | Table 5: Two-way traffic volumes on surrounding road network | | |
| 12. | Future OLS/PANS-OPS surfaces | 148 | 175 | | |
| 13. | Light and wildlife zones | 153 | Table 6: Existing daily traffic from each airport precinct | | |
| 14. | 20 year ANEF | 160 | 184 | | |
| 15. | N70 contours (2042) | 161 | Table 7: Current key intersection performance | | |
| 16. | Windshear and turbulence | 165 | 185 | | |
| 17. | Ground transport plan | 172 | Table 8: Forecast additional daily traffic from each airport precinct (2031) | | |
| 18. | Site drainage | 203 | 186 | | |
| 19. | Airport land use zoning | 215 | Table 9: Forecast key intersection performance (by 2031) | | |
| | | | 186 | | |
| | | | Table 9: Summary of achievements 1998-2023 (AES) | | |
| | | | 268 | | |
| | | | Table 11: Environmental responsibilities | | |
| | | | 283 | | |
| | | | Table 12: Summary of environmental aspects and potential impacts | | |
| | | | 285 | | |
| | | | Table 13: Underground storage tanks | | |
| | | | 341 | | |
| | | | Table 14: Above ground storage tanks | | |
| | | | 341 | | |
| | | | Table 15: Potential effect of acid sulfate soils | | |
| | | | 348 | | |
| | | | Table 16: Proposed developments and planning initiatives | | |
| | | | 391 | | |

Foreword

This Master Plan and Environment Strategy outlines the framework for the next phase of the redevelopment of Archerfield Airport, Queensland's principal General Aviation airport.

It has been prepared against the backdrop of Covid 19 disruptions and the subsequent path to recovery. Those disruptions sorely tested the resilience of our staff and wider community, but they have confirmed the soundness of the General Aviation business model at Archerfield, and given confidence in the future. We delight that our clients have survived the recent economic challenges, and in notable cases have not only survived, but thrived.

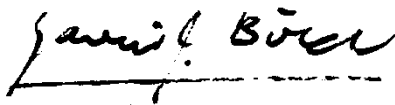
This plan is the fifth in a series of airport master plans and environment strategies prepared by Archerfield Airport Corporation since 1998.

It builds on the strong foundations established by the preceding iterations, and it boldly declares a determination to accelerate the reinstatement and transformation of this significant national site.

It confirms our commitment to the continued upgrade of critical infrastructure and the provision of purpose-built amenities. It provides for the opportunities that our traditional General Aviation services will enjoy in the coming Olympic decade, and it welcomes engagement with the exciting aviation disruptors that are emerging.

Thank you for your interest in our planning for the future. We are mindful of the privilege and responsibility entrusted to us to guide the restoration and renewal of the national treasure that is Archerfield.

We invite you to embrace the vision and cherish the opportunities ahead.



Gavin J. Bird AM

Founding Director
Archerfield Airport Corporation
March 2025

Summary

INTRODUCTION

The *Archerfield Airport Master Plan 2023-2043* ('Master Plan') is the fifth master plan prepared for Archerfield Airport Queensland by Archerfield Airport Corporation ('AAC'). It was approved by the Minister for Infrastructure, Transport, Regional Development and Local Government on 26 March 2025.

The location of Archerfield Airport is shown in Figure 1.

PURPOSE OF THE MASTER PLAN

The Master Plan describes the planning framework for development of the airport over the next 20 years, and additional details on the initiatives that are planned to be implemented within the next 8 years.

The Master Plan must address a range of issues specified in the *Airports Act 1996*, and these are summarised in Chapter 1.

It seeks to grow General Aviation and facilitate the introduction of new emerging aviation technology.

It provides the basis for the timely and coordinated development of aviation facilities and infrastructure, aviation and non-aviation land use, and for appropriate management of the airport environment.

It also identifies the ground transport requirements for the airport, and the measures required to safeguard the continued operation of the airport, including an Australian Noise Exposure Forecast (ANEF) to the year 2042; obstacle clearances and navigation requirements for the prescribed airspace around the airport; and other matters addressed in the *National Airports Safeguarding Framework* (NASF).

The Master Plan sets out the key issues facing the airport, concepts or options for addressing these issues, and defines the consultative and decision making processes that will be followed as the airport develops over the coming years.

Key development initiatives, and the catalyst for these, are described in Chapter 18.

This Master Plan includes in Chapters 13-16 and 18 the *Archerfield Airport Environment Strategy 2023* (AES).

ACHIEVEMENTS: 1998-2023

AAC has over the period 1998-2023 implemented a range of projects that were foreshadowed in the first four Master Plans.

These include:

- road network improvements including an extension to Beaufighter Avenue, the redevelopment of Wirraway Avenue, and the creation of the Barton Street link (joining Balham Road and Beatty Road, across the north of the airport);
- relocation of Queensland Government Air Wing (QGAir) to a new purpose built facility on Wirraway Avenue;
- decommissioning of the former QGAir helipad (in the south east part of the airport) and a second helipad north of the Control Tower;
- purchase and refurbishment of the historic Airport Administration and Terminal building, which is now the headquarters for AAC administration, offices, terminal and home to the Airport history room (the office refurbishment received a commendation in the categories of Interior Architecture and

- Heritage in the 2015 Brisbane Regional Architectural Awards);
- restoration of the former Shell building (2001);
 - continued support for the conservation works by Friends of God's Acre cemetery;
 - overlay and subsequent sprayed seal of Runway 10R/28L;
 - part reconstruction and overlay of taxiways Alpha, Bravo and Juliet, and aircraft parking areas;
 - overlay of Qantas Avenue, Ditchmen Avenue and Lores Bonney Drive, to upgrade the road access to the Beatty, Mortimer and Beaufighter precincts;
 - reconstruction of the airport turbine pad;
 - upgrading of airport security, including additional measures to control access to airside areas;
 - construction of a long-term car park in the Beatty precinct;
 - preparation of an overall drainage strategy and development of major stormwater management basins, drains and related infrastructure in the central, north-west, south-west and western parts of the airport;
 - upgrading of electricity supply to the airport and development precincts, including the installation of a new high voltage pad mounted transformer;
 - ongoing grounds and building maintenance and regeneration, including asbestos removal and building/hangar upgrading;
 - completion of a Cultural Heritage Management Plan for the airport (2001);
 - development of new corporate hangars, adjacent to the main runway and accessible from Wirraway Avenue;
 - development of a new office and warehouse on Beaufighter Avenue;
 - purchase of a number of hangars, and construction of a new hangar complex in the Beatty precinct (site 235);
 - remediation of known contaminated sites;
 - implementation of rainwater collection measures in new developments (QGAir, corporate hangars and office/warehouse), changes to irrigation practices, upgraded water meters, and installation of water efficient fittings in new developments and refurbishments (including the Airport Terminal) in accordance with a *Water Efficiency Management Plan* (WEMP) prepared in consultation with tenants and Brisbane Water;
 - specification of energy efficient services (air conditioning, lighting, etc) in new and refurbished developments;
 - major refurbishment of Building 9, in the Beatty precinct (in Archerfield Square, adjacent to Grenier Drive) to incorporate the Airport's first on site student accommodation and training operations;
 - major upgrade and renewal of Hangar 6 in the Beatty precinct, including installation of a new domed roof and refit of the interior to provide a modern workshop and offices, for LifeFlight Australia Heavy Maintenance (2015);
 - upgrade and renewal of Hangar 5 in the Beatty precinct, including a new domed roof and improvements to drainage on southern side, for Archerfield Jet Base Fixed Base Operations (FBO) (2016);
 - construction of roads and services for the Transition – Archerfield Logistics Estate (Transition Estate), in the Boundary precinct (2012 to present);
 - transition from Registered Airport to Certified Airport on 12th April 2013;
 - implementation of the Fly Neighbourly program (launched November 2015, and reviewed and updated in 2022 in consultation with stakeholders);
 - optimisation of the airport's airspace to cater for instrument approaches and departures, and Category C Aircraft;
 - installation of a 86kW solar electricity generation system on building 111 in the Beatty precinct, providing renewable energy;
 - development of the 300 sites, and Ashover Circuit in the Ashover precinct;
 - construction of the centralised fire sprinkler tank infrastructure for the Transition Estate and future aviation precincts;
 - completion of a Heritage Management Plan for the airport (2021);

- implementation of Project AIM (Airside Infrastructure Modernisation), including reconstruction, strengthening and extension of the main runway (10L/28R), related taxiways and the Eastern Apron; reconstruction, widening and strengthening of Taxiway Bravo to Code B standard; and installation of upgraded lighting and navigation aids; to cater for up to Code C aircraft (2019-23);
- redevelopment of Hangar 4 in the Beatty precinct to provide modern aircraft maintenance, engineering, and related facilities for a long-established airport tenant (2021);
- facilitating the upgrade and renewal of Hangar 3 in the Beatty precinct by a long standing airport tenant, to provide modern accommodation whilst conserving identified heritage values (2021);
- construction of the first warehouse and office facility in the Transition Estate (site 581 in 2022);
- implementation of landscaping works in Qantas Avenue;
- redevelopment of sites 13 and 14 to provide a new hangar and office for an aviation tenant, in Archerfield Square adjacent to Taxiway Hotel;
- construction of site 580 in Transition Estate (2023);
- construction of a cold store development on site 560, and a logistics warehouse on site 570 in Transition (2023); and
- commencement of a hangar and maintenance facility at site 409, in the Wirraway precinct, for LifeFlight (2023).

Further details are provided in Chapter 2.

AIRPORT CONTEXT

Location

The airport is located approximately 11 kilometres by car south west of the Brisbane City Centre. The airport site covers approximately 257 hectares, and is generally flat. Most of the site slopes gently west and south west to Oxley Creek.

History

Archerfield Airport served as Queensland's main airport between 1931 and 1949 and played a strategic role during World War II.

After the war, Eagle Farm dominated aviation activity and resources in the Brisbane Basin, and the role of Archerfield shifted to catering for general aviation.

Lack of investment caused a gradual decline in serviceability, such that by the late 1980s much of the infrastructure had declined towards disrepair. Environmental standards had deteriorated, and commerciality had eroded.

Throughout the 1990's determined efforts were made by the Federal Airports Corporation to restore the airport to viability, but a lack of investment capital hindered those endeavours.

In 1998, Archerfield was privatised.

It now operates as the major general aviation airport in Queensland, and the metropolitan airport for greater Brisbane. More detail on the history and heritage of the site is provided in Chapter 16 of the Master Plan.

Land use

The airport is surrounded to the north, north-west, east and south by mostly industrial and related uses. Some residential areas are located at Acacia Ridge to the south-east, Durack and Oxley (to the west side of Oxley Creek), and further to the north in Rocklea and Salisbury.

To the west and south west is the Oxley Creek. This, in conjunction with the nearby Blunder Creek forms part of a regional habitat link and waterway running through the south west urban area of Brisbane, to the Brisbane River. The land use context is shown in Figures 3 and 10.

The Archerfield/Acacia Ridge area is one of the fastest growing industrial areas of Brisbane, and is part of the *South West Industrial Corridor Regional Economic Cluster* (SWIC REC) identified in the State regional strategy *Shaping SEQ*, and the *South West Industrial Gateway* (SWG) which is Brisbane's second most important industrial area (after the Australia TradeCoast).

As identified in 1998 during the privatisation process, there was over 75 hectares of undeveloped land on the airport that could be developed for non-aviation, aviation and aviation compatible purposes. There are also opportunities for infill developments and the progressive renewal of some of the established parts of the airport, to better meet existing and future needs.

Accessibility

The airport is highly accessible to ground transport. It is close to the Ipswich Motorway, with direct access via a full interchange at Granard Road 500 metres to the north of Balham Road; and on and off ramps for south-west bound traffic at Randolph Street, which is approximately 500 metres to the north of Boundary Road.

Access is also available from Beaudesert Road, which is between 900m and 1.3km to the east of the airport (via Boundary Road, Kerry Road or Mortimer Road).

The regional road system provides arterial linkages north to Brisbane via South East Freeway or Gateway Motorway, south east to the Gold Coast via the Pacific Highway or inland to Sydney via Ipswich.

The airport is close to the main National Rail freight intermodal terminal on the Brisbane to Sydney line. Catering for rail and trucks, the intermodal is located 1.6km to the east of the airport, at the end of Kerry Road. The rail line provides freight access linking the Port of Brisbane to Sydney's freight and port network.

The airport is also serviced by a number of bus routes, and is close to the Coopers Plains railway station. The railway is part of the metropolitan passenger network, carrying services north to the Brisbane CBD, and the Airtrain that links Brisbane Airport to the Gold Coast.

THE VISION

To be a premier enterprise and transport hub, with great people and aviation at its core.

Archerfield is Brisbane's metropolitan airport. It will always be the focus of general and corporate aviation in South East Queensland. It will become a sustainable aviation and enterprise hub,

integrated with, and serving the growing needs of Brisbane.

It will continue to develop as a centre of excellence for aeronautical and related activities, catering for corporate aviation, flying training, charter, freight, aeromedical and emergency services, Advanced Air Mobility and emerging technologies; supported by a range of allied businesses.

The airport infrastructure will be developed progressively to meet the changing needs of aviation and associated growth in Queensland.

The recent completion of Project AIM, and a series of aviation and complementary developments has set the foundation for the next phase of development of the airport and growth of aviation.

The upgraded main runway complex, associated taxiways and Eastern Apron will support existing and new aviation operations, and has created immediate opportunities for new aviation developments, for fixed wing and helicopter operators.

A range of different opportunities have been identified, including optimisation and redevelopment of existing serviced aviation sites in the Beatty, Mortimer, Beaufighter and Wirraway precincts; and the progressive release of strategic aviation development areas adjacent to the main runway complex (Wirraway and Eastern Apron), and in the Beatty North precinct adjacent to the secondary runway, taxiway complex and helicopter facilities.

The planned reconfiguration, modernisation and optimisation of the secondary runway complex will further consolidate the capacity of the airport to meet emerging needs, and offer new opportunities for the progressive development of aviation, technology, education and transport services, and complementary uses. The priorities for the initial 8 years of the Master Plan are summarised in Table 16, and shown in the *Ground Transport Plan* (Figure 17) and *2031 vision* (Figure 31).

AAC will continue to work with existing aviation businesses on the airport to encourage their long-term sustainability, and will seek to attract new viable aviation businesses, where these are compatible with the vision for Archerfield.

Archerfield will also continue to play a strategic role in the development of the *South West Industrial Gateway* of Brisbane, which is designated by the Queensland State Government and Brisbane City Council (BCC) as one of the most important industrial areas in South East Queensland.

AAC will seek to build on the strengths of existing enterprises, facilities and infrastructure; and facilitate the development of industrial and appropriate commercial activities on land that is not required for aviation purposes.

AAC will work with BCC and the State Government to identify opportunities to attract and foster business investment that is complementary to the airport, and meets the emerging needs of the metropolitan and rural community and economy of Brisbane. These initiatives will be complementary to the continued development of the regional growth corridors which extend to the south and west of the airport.

DEVELOPMENT OBJECTIVES

AAC has set the following overarching objectives for development of the airport:

- to nurture, maintain and develop airport facilities;
- to provide facilities for the safe, reliable and efficient operation of the airport; and cater for complementary development and uses that contribute to the continued success of Archerfield Airport as a strategic asset for Brisbane, South East Queensland and the national aviation network;
- to establish a complementary balance between aviation, aerospace, industrial and commercial developments;
- to enhance, promote and support the aviation image of the airport;
- to achieve best practice with significant developments;
- to be a good neighbour;
- to complement key objectives identified by State and Local Government authorities;
- to work with government and the local community to achieve the ecologically sustainable development of airport land;

- to attract commercially viable developments to aeronautical and non-aeronautical sites;
- to contribute to the regeneration of the South West Industrial Gateway of Brisbane by providing additional land required for industrial developments, services and facilities compatible with the continued operation and growth of the airport; and
- to advocate for the enhancement of the surrounding road network.

LAND USE ZONES

The four land use zones that apply to the airport are shown in Figure 19 and discussed in Chapter 12.

The zones are:

- ASP5 Special purpose (Archerfield Airport)
- AIN2 Archerfield Airport General industry B
- ACF3 Archerfield Airport Community facilities (God's Acre Cemetery)
- ACN1 Archerfield Airport Conservation (Local).

The land use plan for the airport is consistent with AAC's vision for the airport, its development objectives, State Planning Policy, and the relevant provisions of Brisbane City Plan.

The Master Plan provides in Chapter 12 details of the development and use outcomes sought in each zone. These have been adopted from the relevant provisions of comparable zones in City Plan. Appendix E details the land use provisions for each zone, and Chapter 18 sets out how development applications are assessed, and planning decisions implemented.

Precinct Structure Plans (PSPs) in Chapter 12 provide guidance on the preferred uses in each part of the airport, and access arrangements. The concepts illustrated in the PSPs respond to the conditions and opportunities in each location at the airport, the current and future needs for aviation and complementary land use, and the interfaces to surrounding land.

AAC, when deciding whether to approve a proposed use or development of airport land will assess the proposal against the land use provisions of the Master Plan, including its

development objectives, the zone outcomes in section 12.3, the land use provisions in Appendix E, the relevant precinct concept (12.5-12.12) and Environmental Management Procedure AA1-*Environmental assessment of new tenancy or lease renewal*.

The issues to be addressed, and the information that will be considered by AAC in determining whether to approve proposals on the airport is set out in Chapter 18.

AVIATION, LAND USE AND DEVELOPMENT PRECINCTS

The Master Plan divides the airport into eight precincts as shown in Figure 20 and discussed in Chapter 12.

These precincts are:

- **Runway**—which comprises all of the land used for runway and primary taxiway purposes.
- **Beatty**—this comprises land between Beatty Road and the secondary runways, north of the eastern most end of Runway 10/28.
- **Mortimer**—which is in the south east corner of the airport and extends to both sides of Beatty Road.
- **Beaufighter**—including land along Mortimer Road and Lores Bonney Drive, west to Oxley Creek, and north to the main runway complex.
- **Wirraway**—which is on the north side of the main runway complex and west of the secondary runways.
- **Boundary**—located along the south side of Boundary Road, between Beaufighter Avenue and the secondary runways;
- **Ashover**—located along the east side of Ashover Road, and bounded to the north by Balham Road and to the east by the secondary runway complex; and
- **Barton**—extending along the Barton Street frontage, and south along Beatty Road, to Boundary Road.

The primary functions and future plans for each of these precincts are discussed in Chapter 12.

AVIATION FACILITIES AND FUTURE NEEDS

Existing facilities

The airport has a multi-runway configuration comprising two parallel runways in two directions. The main runway complex is oriented 10/28, and the secondary grass runways are oriented 04/22. Helicopter operations are facilitated with two helipads and separate parking areas including three parking bays east of the central helipad, and parking areas within some tenancies. Helicopters with a maximum take off weight (MTOW) greater than 3,175kg utilise the Runway 10L/28R thresholds. Aircraft parking is currently available for 200 fixed wing aircraft in sealed and grass tie down spaces.

The airport currently has 169 sites, of which 120 are developed with structures. There are 72 hangars and aero port sites (most being able to accommodate multiple aircraft), and there are over 150 aviation and non-aviation businesses on site employing hundreds of people.

These features are shown in Figure 4.

Forecast aviation needs

The Master Plan forecasts that by Year 2042, Archerfield Airport will be catering for up to 295,000 aircraft movements per year. More detail on trends, influences and assumptions behind the forecast is provided in Chapter 5.

Aviation projects

The Master Plan identifies a number of projects planned to improve the operation of the airport over the next 20 years, and describes the priorities for the initial 8 years (to 2031).

Building on the foundation of the main runway, taxiway and apron upgrading completed recently, the Master Plan identifies the reconfiguration, modernisation and optimisation of the secondary runway complex and helicopter facilities (Project ARROW) as a key strategic initiative which will unlock further aviation and complementary development opportunities at Archerfield.

For master planning purposes, a pair of new grass runways aligned north-south has been shown. The final runway configuration and characteristics (including the runway orientation, the position and number of runways, construction materials, and taxiway configuration; and the provision made for helicopter operations) will be resolved through further investigation and design, and the preparation and approval of a Major Development Plan (MDP).

More information about the next steps planned for the implementation of this project is provided in section 7.2.1.

Currently there is capacity for further aviation development on 1.4 ha of serviced land in the western part of the Wirraway precinct, and 0.8ha of development adjacent to the Eastern Apron, in the Beatty precinct.

The runway reconfiguration will release an estimated 4ha of additional prime aviation land with frontage to the main runway complex, 4.6ha of aviation land between taxiways Hotel and Juliet, 1.4ha of land for a mix of aviation and industrial uses adjacent to the northern end of the realigned secondary runway complex, and approximately 8ha of land adjacent to the east side of the realigned runway complex for aircraft parking, helicopter operations and related purposes.

These proposals are discussed in Chapters 7, 8 and 12. The project priorities, and how these will be implemented are set out in Chapter 18.

The Master Plan does not commit AAC to implementing all projects, but rather sets out its vision and intentions based on its current understanding of the airport, the aviation and non aviation activities, and the emerging trends that impact on its operation.

Visual and non visual navigational aids

Global Positioning Systems (GPS) are becoming a primary navigational aid for aircraft operations. Two GPS approach procedures RNAV-Z_(GNSS) have been prepared for airport operations.

The Non-Directional Beacon was decommissioned by Airservices Australia (AsA) in May 2016 and replaced by a RNAV-Z_(GNSS) procedure for Runway 10L (Category C). Runway 28R has an existing RNAV-Z_(GNSS) procedure.

As part of the works implemented for Project AIM, AAC in 2021 installed new pilot activated landing lights to the 10L/28R runway and associated taxiways, Runway Threshold Identification Lights (RTILs), and a new Precision Approach Path Indicator (PAPI) system. Lighting for the Eastern Apron can also be controlled from the pilot activated system.

These upgrades have enhanced flying operations in a broad range of meteorological conditions, and will also provide to the flying training industry a more marketable product when promoting the airport as the preferred location to learn to fly.

Details of these aspects are given in Chapters 6 and 7.

Opportunities to improve the district and regional road network

The State Government and BCC continue to identify progressive improvements to the regional and district road network, to better cater for growth in the region. AAC is participating in this process.

As discussed in Chapter 10, there is also scope to improve the efficient operation of the road network in the vicinity of Archerfield Airport, and where these initiatives relate to actions that could be taken on airport land, they have been incorporated into the PSPs described in Chapter 12.

AAC made available the airport land that BCC required to construct Barton Street. This new link between Balham Road and Beatty Road addressed a significant shortcoming in the suburban road network, and facilitates the movement of vehicles east-west through Archerfield and Rocklea.

BCC has for many years recognised the need to upgrade Beatty Road, including the section adjacent to the airport. AAC is increasingly concerned about the limited capacity of the road to carry existing (and growing) volumes of through traffic, passing the airport and the impacts these flows have on the safe and efficient access to the airport and to other properties along the road.

The solutions include road widening, construction of an appropriate road cross

section (with appropriate lane widths, drainage and other infrastructure, to reflect the important role of this road), and upgrading of intersections, to better handle traffic passing the airport.

Where these solutions involve the airport, there is also the opportunity to consider how they could be fairly and reasonably implemented, and the role (if any) that Archerfield Airport could play in this.

In anticipation of the road and intersection upgrading works planned by BCC, the Master Plan shows locations where (subject to further investigation and design) airport land could be set aside for road widening by BCC. AAC will continue to work with BCC to enable the upgrading to take place.

AIRPORT SAFEGUARDING

Chapter 9 describes how AAC will seek to ensure the continued protection of the airport airspace, consistent with the *National Airports Safeguarding Framework* (NASF) prepared by the National Airports Safeguarding Advisory Group (NASG) and adopted for implementation by all levels of government in 2012.

The NASF guidelines are reflected in State Planning Policy, and in the provisions of Brisbane City Plan.

Prescribed airspace

Prescribed airspace at Archerfield is shown in Figure 11—*Current Obstacle Limitation Surfaces (OLS) and Procedures for Air Navigation Services—Operations surfaces (PANS-OPS)* (OLS/PANS-OPS). The OLS and PANS-OPS for the reconfigured runways is shown in Figure 12.

Restricted Light Zones

Pilots rely on aeronautical ground lights, such as runway lights and approach lights to guide their safe landing during inclement weather and outside daylight hours.

It is important that other lighting in the vicinity of airports is specified, configured and maintained so it does not distract pilots, or confuse them.

Significant new lighting on land within 6km of the centre point of each 10/28 runway has the potential to conflict with aeronautical ground

lights, and requires detailed assessment and approval.

The primary area of concern is shown in Figure 13. Within the 6km area, four light control zones have been mapped, extending beyond each end of the 10/28 runways. These are designated 'A', 'B', 'C' and 'D'. For each area, a maximum allowable intensity of light is specified, to allow pilots to safely navigate and land at Archerfield.

The zones have been mapped consistent with CASA guidelines and NASF Guideline E. All proposals for significant lighting within 6km of the 10/28 runways must be assessed, and advice from CASA may be required to ensure that lighting meets the requirements of the NASF and Civil Aviation Regulations.

Wildlife buffer zones

Wildlife buffer zones have been defined for each runway and are shown in Figure 13. In accordance with the NASF guideline C, three zones are specified, at 3km, 8km and 13km from the runways. Within each zone, the NASF guidelines provide recommendations on appropriate land use, and mitigation measures required to minimise the hazard of wildlife strike to aircraft.

Forecast noise impact—ANEF and N70

A 20 Year Australian Noise Exposure Forecast (ANEF) (Figure 14) has been endorsed for Archerfield.

The ANEF illustrates noise associated with use of the main and secondary runways, and helipads. The secondary runway complex, modelled as two parallel grassed runways have been assessed both in their current 04/22 alignment, and at a realigned orientation to a bearing of 01/19, in anticipation of the implementation of Project ARROW - the secondary runway reconfiguration, modernisation and optimisation project.

The ANEF is based on an estimated 294,112 aircraft movements per annum by 2042. These are broken down as 261,090 fixed wing and 33,022 helicopter movements.

The ANEF takes into account current standards, the projected aircraft movement patterns, and the likely total number of aircraft movements and aircraft mix in 2042. It includes provision for the potential reintroduction of RPT services to Archerfield, comprising 12 arrivals and 12 departures per day using the 10L/28R runway. Section 18.12.2 sets out the process that AAC will facilitate should an RPT operator commit to providing this service.

The final configuration of the runway complex and helicopter facilities for Project ARROW will be determined through further investigations, design, consultation and the preparation and approval of a MDP. If there are any changes to the alignment, layout or other characteristics that have been assumed for the endorsed ANEF, these will be addressed with the preparation of an additional noise forecast.

AAC has also prepared N70 mapping. This shows how many aircraft movements with noise levels over 70 dB(A) are forecast per day by the year 2042. This mapping (Figure 15) assists with assessing the potential noise effects of aircraft on land around the airport, in the longer term. More details on the ANEF and the N70 mapping are provided in Chapter 9.

Current and proposed noise management initiatives and procedures adopted by AAC, and specific measures for land in the 30 ANEF contour are discussed in section 9.4.5 and in the AES (Chapter 13, and sections 16.10, 17.2.4 and 18.12.2).

Windshear and turbulence

Buildings in proximity to the runways have the potential to cause turbulence or windshear, which can impact on the safe operation of aircraft.

NASF guideline B is referred to by AAC when it evaluates building proposals on the airport, or provides advice on proposals in the immediate vicinity.

Buildings that could pose a safety risk are those located within a rectangular 'assessment trigger area' around the runway ends. These are shown in Figure 16.

Within this area, buildings are allowed provided their height is no greater than 1m for each 35m setback from the runway centreline. Any

proposed buildings that exceed the 1 in 35 ratio are subject to further detailed assessment.

Public Safety Areas

State Planning Policy calls for the identification of public safety areas (PSAs) at the end of the runways at 13 airports in Queensland including Archerfield.

Within these areas which extend over neighbouring land 1000m from each end of the runway, planning decisions need to take into account the higher risk of aircraft accidents.

The PSAs for Archerfield are shown in the *Master Plan Vision* (Figure 2) and the 20 Year *ANEF* (Figure 14).

ENVIRONMENT STRATEGY

AAC recognises the importance of maintaining, restoring, and where practical, enhancing the quality of the environment on Archerfield Airport and neighbouring areas.

These matters are addressed in the Airport Environment Strategy (AES) in Chapters 13-16 and 18.

It sets out AAC's environment policy and management arrangements, describes existing environmental conditions and issues, achievements over the past 26 years, and future plans and priorities.

REALISING THE VISION AND IMPLEMENTING THE MASTER PLAN

The ways in which this vision can be achieved are explored in more detail in the various concepts presented in the Master Plan.

Plans are in place for projects including:

- Further improvements to the aprons, taxiways and other aviation facilities, capitalising on the Project AIM works which have lengthened and strengthened the main runway and associated taxiways to cater for freight, corporate, aeromedical/emergency rescue and RPT aircraft;
- Project ARROW, which will include reconfiguration modernisation and optimisation of the secondary runway complex and helicopter facilities, to provide

opportunities for more aviation uses to be accommodated adjacent to the main runway complex, accommodate future expansion for aviation and related development, and improve usability;

- creation of new aviation opportunities in the Wirraway, Beatty, Barton, and Mortimer precincts; close to the main runway complex, and the proposed realigned and upgraded secondary runway complex;
- further development of aviation and other tenancies in the areas adjacent to the upgraded Eastern Apron, in a prime location adjacent to the eastern end of the main runway, and accessible from taxiways Bravo and Hotel;
- provision of additional aviation tenancies and supporting uses in the area between Apron Juliet and the secondary runways, with the full potential to be realised following reconfiguration of the runway complex, helicopter facilities, and upgrading of Taxiway Hotel;
- reservation of land to facilitate Council's planned works for widening and upgrading of Beatty Road, and improvements to access to the airport from adjacent roads, and at the main intersections;

- further improvements to stormwater drainage; and
- creation of serviced sites suitable for a range of industrial, commercial and aviation compatible purposes in the Boundary, Ashover, Barton, Beatty, Mortimer and Beaufighter precincts.

The success of these ideas will be underpinned by AACs philosophy of pragmatic commercial management, and sound environmental management.

In conjunction with servicing agencies and relevant development interests on airport and in the district, AAC will develop progressively the airport infrastructure.

This will facilitate the continued safe and successful operation of the aviation and non-aviation aspects of the airport enterprise.

To assist with the implementation process, AAC facilitates the *Archerfield Airport Community Aviation Consultation Group*, and the *Planning Coordination Forum*. More details on the role and function of these is provided in Chapter 18 (section 18.11).





Chapter 1

Introduction



1.1 ARCHERFIELD AIRPORT

Archerfield Airport is Brisbane's metropolitan airport. Located only 11kms from the Brisbane city centre, it hosts a wide variety of aviation services including fixed and rotary wing operations, general and corporate aviation. The airport is used primarily for flight training, air transport, charter, medical retrieval, emergency rescue and jet bases.

Today it remains Queensland's largest general and corporate aviation airport, and it has a strategic and growing role in the network of aviation facilities serving Queensland.

This role is complementary to the activities of Brisbane Airport. Archerfield provides relief for Brisbane Airport from smaller aircraft, and valuable aviation services to the City. The airport operates 24 hours per day, throughout the year and is positioned to remain one of Australia's premier metropolitan airports. The Master Plan will guide our growth over the next 20 years with the capability to attract and host aviation businesses.

1.2 ARCHERFIELD AIRPORT CORPORATION

Archerfield Airport Corporation (AAC) has operated and managed Archerfield Airport, Brisbane since 19 June 1998 and actively governs the strategic and day-to-day direction of the airport.

AAC, as Airport Leasing Company (ALC), is a wholly owned subsidiary of Miengrove Pty Ltd.

AAC has over the past 26 years injected over \$164 million into the repair, restoration, and renewal of the airport, supporting our vision for continuous improvement in capacity and capability.

Today, the airport business is a robust economic entity. It contributes hundreds of thousands of dollars to public coffers through rates paid to Brisbane City Council (BCC) and payments in lieu of State land taxes. Additional information about the contribution of the airport to the economy is provided in Chapter 4.

These contributions will continue to rise as more of the available land mass is brought to commercial purpose, and wider use is made of the existing and upgraded aviation infrastructure.

This will be achieved by encouraging 'best practice' for both aviation and non aviation activities, by progressively improving the aviation facilities, operations and airspace and by the Corporation being proactive in attracting complementary developments, uses and activities to Archerfield Airport.

1.2.1 Objectives

AAC is committed to:

- expand the aviation activities, capacity, and capability of the airport to cater for existing and emerging general aviation needs;
- to provide facilities for the safe, reliable, and efficient operation of the airport; and cater for complementary development and uses that contribute to the continued success of Archerfield Airport as a strategic asset for Brisbane, South East Queensland and the national aviation network;
- encourage and work with the aviation community to ensure that Archerfield Airport is recognised as an aviation centre of quality and is positioned to experience its share of healthy growth;
- apply appropriate pricing policies for recovery of aviation related costs;
- restore, protect and where possible enhance the airport environment;
- attract quality commercial developments to land that is not required for aviation purposes in the long term, consistent with land use planning for this part of Brisbane; and
- build partnerships with government, industry and the local community to facilitate the realisation of this vision.

These core values underpin the vision for Archerfield Airport, and the actions proposed to implement the features of this Master Plan.

1.3 PURPOSE OF THE MASTER PLAN: A FRAMEWORK FOR THE FUTURE

The Master Plan is a high level, strategic business plan that sets the overall direction for the efficient and economic development of the airport for the next 20 years (2023-2043) with some elements planned to ultimate capacity.

A key purpose of it is to demonstrate to the public AAC's intended uses of the land at the airport. It describes also priority actions for the initial 8 year planning period, to 2031.

It provides the basis for the timely and coordinated development of aviation facilities and infrastructure, aviation and non aviation land use, and for appropriate management of the airport environment (in conjunction with the *2023 Airport Environment Strategy* (AES)).

It indicates to the public and other stakeholders the intended uses of the airport site, and its relationship to the surrounding area. It seeks to minimise where possible conflicts between uses on the airport site, and between the airport and surrounding land. It also seeks to highlight opportunities for compatible use and development to the mutual benefit of the airport and the wider community,

consistent with the *National Airports Safeguarding Framework* (NASF) which has been adopted by all levels of government.

The Master Plan:

- describes the overall vision and development objectives for the airport;
- looks back on the past 26 years, and also identifies the emerging factors that are shaping the future of the airport;
- sets out the key issues and opportunities facing the airport;
- identifies ways for addressing these issues and embracing these opportunities;
- describes key development initiatives, and the catalyst for these; and
- defines the consultative and decision making processes that have been, and will continue to be, followed as the airport develops over the coming years.

This is the fifth master plan prepared by AAC.

The first was approved in 1999 and was revised in 2000 to incorporate an updated ANEF. The second master plan was approved in 2005, and addressed the period 2005-2025. The third master plan was approved in 2012 for the period 2011-2031, and the fourth master plan (for the period 2017-2037) was approved by the Minister for Infrastructure and Transport on 15 July 2017.

The current master plan was approved by the Minister for Infrastructure, Transport, Regional Development and Local Government on 26 March 2025.

1.4 LEGISLATIVE FRAMEWORK

Commonwealth laws and regulations about land use planning and development controls, environmental management, airspace protection and building and construction approvals apply to Archerfield Airport.

In summary:

- the *Airports Act 1996* (and regulations) and the *Airports (Protection of Airspace) Regulations 1996* provide the regulatory framework for Federally leased airports;
- the *Airport Master Plan* provides a framework for land use and aviation infrastructure development decisions according to a 20 year vision;
- the *Airport Environment Strategy* identifies the environment protection issues that relate to the airport, and actions and procedures that will be followed to ensure that the environment is restored and managed appropriately;

- there are clearly defined roles and responsibilities for AAC and the Airport Building Controller (ABC) to ensure that all development meets relevant standards and is consistent with the long term vision for the airport;
- major developments (as defined in the *Airports Act*) require additional approval in the form of a *Major Development Plan* (MDP). A MDP is prepared in consultation with the public and other stakeholders and is ultimately assessed by the Minister responsible for the Act; and
- sensitive developments (as defined in S71A of the *Airports Act*) are also subject to a MDP. A new sensitive development, or proposed increase in the capacity of an existing sensitive development can only be allowed if:
 - it is identified in the airport master plan, and
 - the Minister approves the preparation of a *preliminary draft MDP* (pdMDP) for the proposed sensitive development; and
 - the MDP application is prepared, exhibited, assessed and approved in accordance with the requirements of the *Airports Act*.

The Minister may approve the preparation of a pdMDP for a proposed sensitive development if satisfied there are exceptional circumstances that support its preparation.

The airport is on Commonwealth land, so any proposal that is likely to have significant impact on the environment also requires assessment under the *Environment Protection and Biodiversity Conservation Act* (EPBC Act). Guidance on the assessment of environmental values (including heritage and ecological values), likely impacts (and mitigation), and whether approval is required under the EPBC Act is provided in *Significant Impact Guidelines* published by the Commonwealth (Guidelines 1.1 and 1.2).

A list of key legislation relevant to planning and environmental management at Archerfield is included in Appendix B. Commonwealth guidelines on the application of the EPBC Act are included in the list of references in Appendix C.

1.4.1 Airport operators and airport regulators

The *Airports Act 1996* establishes the framework for the regulation of leased Federal airports.

The Act provides a system for separating the roles of the airport operator and airport regulator.

In the case of Archerfield Airport, the Commonwealth Department of Infrastructure, Transport, Regional Development, Communications and the Arts (DITRDCA) and the Civil Aviation Safety Authority (CASA) provide the regulator role.

AAC, being the Airport Leasing Company (ALC) undertakes the airport operator role. It is primarily responsible for activities that take place on the ground and within airport confines and the protection of the airport airspace.

The principal responsibility for airspace management is held by Airservices Australia (AsA). AsA provides terminal services from the Archerfield Tower and en route services around the airport from Brisbane Centre.

Operational issues are addressed jointly by AAC and AsA, and AAC is proactive in identifying relevant aspects and potential solutions as appropriate to ensure the ongoing safety and operational efficiency of the airport for users.

Following the sale and privatisation of Archerfield Airport under the *Airports Act 1996*, the Commonwealth became both the landlord with responsibility for facilitation of the businesses it had transferred to private ownership, and the regulator of those same businesses.

Moreover, the Commonwealth established a common framework for the future operation of those businesses. The framework was designed with sufficient robustness to control the national interest at the major ports of Sydney, Melbourne, Brisbane and Perth. The *Airports Act 1996* identifies those airports as 'core regulated' airports.

During the sale process, it was projected that a light handed regulatory regime within the framework would apply to lesser economic entities like Tennant Creek, Archerfield, Alice Springs and Parafield. As such, these airports were not defined as 'core regulated' airports within the *Airports Act 1996* or associated regulations.

1.4.2 Scope and content of the Master Plan

Section 71 of the *Airports Act 1996* and *Regulation 5.02* stipulate the matters that must be addressed in an airport master plan. The requirements are addressed in the following sections of the Master Plan:

- AAC's development objectives for Archerfield Airport (Chapters 2, 3, and 12);
- AAC's assessment of the future needs of civil aviation users of the airport, and other users of the airport, for services and facilities relating to the airport (Chapters 2-7, 10 and 11);
- AAC's intentions for land use and related development of the airport site, where the uses and developments embrace airside, landside, surface access and land planning/zoning aspects (Chapters 2, 7, 10-12, and 17; and Figures 2, and 19-26);
- an Australian Noise Exposure Forecast (ANEF) for the areas surrounding the airport (Chapter 9 and Figure 14);

- flight paths at the airport (Chapter 6 and Figures 5-9);
- AAC's plans, developed following consultation with airlines using the airport and local government bodies in the vicinity of the airport, for managing aircraft noise intrusion in areas forecast to be subject to exposure above the significant ANEF levels (Chapters 9 and 13-16; sections 17.2.5 and 18.12.2, and Figures 14 and 15);
- AAC's assessment of environmental issues that might reasonably be expected to be associated with the implementation of the master plan (Chapters 13-16);
- AAC's plans for dealing with any identified environmental issues (Chapters 14-16 and 18, and the *Environment Protection Action Plan* in Appendix D);
- A ground transport plan for the first 8 years of the master plan (Chapters 10, 12 and 18; Figures 2-4, 17 and 31; and the PSPs in Figures 21-26) describing a ground transport system on the landside of the airport that details:
 - a road network plan;
 - the facilities for moving people and freight at the airport;
 - the linkages between those facilities, the road network and public transport system at the airport and the road network and public transport system outside the airport; and
 - the arrangements for working with the State or local authorities or other bodies responsible for the road network and the public transport system;
 - the capacity of the ground transport system at the airport to support operations and other activities at the airport; and
 - the likely effect of the proposed developments in the master plan on the ground transport system and traffic flows at, and surrounding, the airport;
- detailed information on the proposed developments in the initial 8 year term of the master plan that are to be used for:
 - commercial, community, office or retail purposes;
 - any other purpose that is not related to airport services; (Chapter 12, section 18.2, Table 16, and Figure 31)
- the likely effect of the proposed developments in the initial 8 years of the master plan on:
 - employment levels at the airport; and
 - the local and regional economy and community, including an analysis of how the proposed developments fit within the planning schemes

for commercial and retail development in the area that is adjacent to the airport (sections 3.3-3.7, Chapters 4 and 12 and section 18.5);

- an environment strategy for the initial 8 years of the master plan (Chapters 13-16 and 18, and Appendix D) that details:
 - the airport-lessee company's objectives for the environmental management of the airport;
 - the areas (if any) within the airport site which the airport-lessee company, in consultation with State and Federal conservation bodies, identifies as environmentally significant;
 - the sources of environmental impact associated with airport operations;
 - the studies, reviews, and monitoring to be carried out by the airport-lessee company in connection with the environmental impact associated with airport operations;
 - the time frames for completion of those studies and reviews and for reporting on that monitoring;
 - the specific measures to be carried out by the airport-lessee company for the purposes of preventing, controlling, or reducing the environmental impact associated with airport operations;
 - the time frames for completion of those specific measures; and
 - details of the consultations undertaken in preparing the strategy (including the outcome of the consultations); and
 - any other matters that are specified in the regulations;
- if an environment strategy has been approved—the date of that approval (Chapters 1, 13 and 14);
- any other matters (if any) as are specified in the regulations.

The approved master plan relates to a planning period of 20 years, with additional detail provided on initiatives planned for the first 8 years. It remains in force until a fresh master plan is approved by the Minister.

1.4.3 Additional approval requirements for major projects

For major projects, the *Airports Act 1996* requires the preparation and approval of a *Major Development Plan* (MDP). The types of projects requiring a MDP include:

- constructing a new runway;
- extending the length of a runway;

- altering a runway (other than in the course of maintenance works) in any way that significantly changes flight paths, or the patterns or levels of aircraft noise;
- constructing a new passenger terminal building with a gross floor space greater than 500 square metres in area;
- extending a passenger terminal, where the extension increases the building's gross floor space by more than 10%; and
- development that is likely to have significant environmental or ecological impact, including one which affects an area identified as environmentally significant in the *Airport Environment Strategy*.

A MDP is also required for projects that have a value in excess of \$25 million (or an alternative prescribed amount) and involve construction of:

- a new building; or
- construction of a new taxiway or extensions to a taxiway, a new road or new vehicular access facility (or extensions), a new railway or new rail handling facility (or extensions), that significantly increase the capacity of the airport to handle movements of passengers, freight or aircraft.

The requirement for a MDP applies also to:

- a development of a kind that is likely to have significant environmental or ecological impact; or
- a development which affects an area identified as environmentally significant in the environment strategy; or
- a development of a kind that is likely to have a significant impact on the local or regional community; or
- a *sensitive development* in relation to which the Minister has given an approval under section 89A.

The *Airports Regulations* (made under the *Airports Act 1996*) can also specify the kinds of development requiring approval via a MDP.

If a MDP is required, it is prepared by the airport leasing company (AAC), in consultation with a range of stakeholders and must cover a wide range of matters as set out in the Act. The Minister responsible for the Airports Act makes the final decision on whether to approve a proposed MDP.

1.4.4 Airport Environment Strategy (Chapters 13-16 and 18, and Appendix D)

Scope

The *Archerfield Airport Environment Strategy 2023* (AES):

- sets out AAC's objectives for the environmental management of the airport;
- identifies environmentally significant areas within the airport;
- identifies sources of environmental impact associated with airport operations;
- defines studies, reviews and monitoring to be carried out in relation to the environmental impact of the airport;
- sets timeframes for completion of audits and reviews;
- sets out specific measures to be implemented by AAC to address existing or potential impacts, and timeframes for completion of these; and
- provides details of consultation undertaken in preparing the AES.

Contents of AES

The current AES was approved on 15 July 2017 and remains in operation until replaced by another approved AES.

In accordance with the *Airports Act*, the AES planning period commences simultaneously with the Master Plan, and runs for at least 8 years.

The AES comprises:

- a statement of environmental responsibilities that apply to Archerfield Airport;
- a description of the Airport Environmental Management System, including the process by which AAC will implement the AES and related environmental management procedures;
- the AAC corporate environment policy;
- a summary of existing conditions for each aspect of the environment, environmental issues, management responses to those issues, and an action plan to address them (with priorities identified for each aspect, and key actions summarised in the *Environment Protection Action Plan* in Appendix D); and
- details of the ongoing monitoring, review, and reporting process (including annual reviews and reporting to DITRDCA); continuous improvement; and consultative processes that AAC adopts in implementing the AES.

Principal environmental management issues

The principal environmental management issues at Archerfield Airport are:

- management of new development works to minimise and ameliorate impacts on the environment;
- conservation of any significant flora and habitat values along Oxley Creek;
- protection of storm water and groundwater quality from contamination by pollutants from the airport;

- encouraging the efficient use of water and energy;
- ensuring that all chemicals on airport are appropriately stored, handled, used, and disposed of;
- encouraging the prevention, containment and management of spills;
- appropriate containment and handling of all asbestos in buildings and plant on airport (as identified in the asbestos register and management plan);
- protection of any cultural and heritage values (pre and post contact); and
- ensuring that airport tenants are aware of their environmental obligations and comply with all relevant requirements.

1.4.5 Aviation Transport Security Act 2004 and Aviation Transport Security Regulations 2005

This legislation, administered by DITRDCA, requires AAC to take account of security requirements in its planning processes. A summary of the security measures implemented at Archerfield in recent years is provided later in the Master Plan.

1.4.6 Airspace Protection and National Airports Safeguarding Framework

The airspace around leased Federal airports is protected under Part 12 of the *Airports Act 1996* and the *Airports (Protection of Airspace) Regulations 1996*.

The *National Airports Safeguarding Framework* (NASF) first adopted by all levels of government in 2012 provides guidance for planning and development decisions that could affect aviation operations.

The framework applies to all airports in Australia, and land around airports. The framework promotes a consistent approach to assessing and managing land use and development in the vicinity of all airports.

AAC aims to minimise the potential encroachment of activities and development in the vicinity of the airport, where these have the potential to impact on airport operations, capacity and capability, now and into the future.

It will continue to work with BCC and other authorities to ensure that land use and development in the vicinity of the airport is undertaken such that:

- noise sensitive land uses are only carried out in areas subject to aircraft noise impacts if they are sited in accordance with the relevant standards and include appropriate noise protection measures;
- there are no intrusions into the protected operational airspace;
- the potential for wildlife strikes is minimised;
- the potential for distractions to pilots from lighting is minimised;

- building generated wind shear and turbulence is addressed in the siting and design of nearby development; and
- public safety is addressed, in accordance with the relevant policies and standards, including State Planning Policy.

With this in mind, the Master Plan includes mapping and details of:

- the endorsed 20 year 2042 ANEF for Archerfield;
- the current and future airspace for the airport, which is protected under the *Airports (Protection of Airspace) Regulations* and the *Airports Act 1996*. This mapping shows the maximum allowable height of any structures, objects (including trees) or other features to protect the airspace from any intrusions that could compromise the safe and efficient operation of the airspace;
- wildlife buffer zones;
- areas where windshear and turbulence assessments may be required;
- the public safety areas for each end of the main runway, in accordance with State Planning Policy;
- zones where light emissions need to be restricted, to avoid dazzling pilots or confusing them about the location of approach or runway lighting; and
- information about AACs interest in windfarm or wind monitoring tower proposals.

From a planning perspective, the NASF principles have been encapsulated in State Planning Policy (SPP), codes and related guidelines. Consistent with SPP, planning provisions to safeguard the airport are included in the Brisbane City Plan and the planning schemes for relevant neighboring areas in Ipswich City and Logan City.

AAC also assesses proposals for cranes or other temporary obstacles, which are 'controlled activities' under the *Airports (Protection of Airspace) Regulations 1996*. AAC issues approval where the proposal meets airspace height and operational requirements, and other provisions of the regulations.

More detail is provided in Chapter 9.

1.4.7 Civil Aviation Safety Regulations (CASR) 1998

CASR 139.065 and 139.355 specify that aviation facilities and obstacle limitation surfaces (OLS) at a Certified aerodrome must meet the standards set out in the associated *Manual of Standards Part 139-Aerodromes* (MOS 139).

1.4.8 Other government planning policy requirements and guidelines

Other government policy and planning requirements and guidelines impacting on the preparation of this plan are considered in Chapter 3.



Chapter 2

The Vision



Archerfield AIRPORT

2.1 THE VISION – AN AIRPORT WITH A SUSTAINABLE FUTURE

Archerfield plays a significant role in Queensland. It is Queensland's primary general aviation airport, a major airport in south-east Queensland, and is Brisbane's metropolitan airport.

AAC's corporate vision is for Archerfield Airport to be a premier enterprise and transport hub, with great people and aviation at its core.

The airport will become a sustainable aviation and enterprise hub, integrated with and serving the growing needs of Brisbane. The *Master Plan vision* is illustrated in Figure 2.

2.1.1 A centre of aviation excellence

Archerfield will continue to develop as a centre of excellence for aeronautical and related activities.

It will continue to be the base for significant flying training activity, corporate, charter, aeromedical and emergency services. It will also serve the needs of aircraft maintenance, sales, insurance and specialist aviation businesses, and activities relating to the development and implementation of emerging technologies including those related to Advanced Air Mobility (AAM).

The aviation infrastructure will be developed progressively to meet the changing needs of the airport.

AAC will continue to work with existing aviation businesses on the airport to encourage their long-term sustainability, will encourage the upgrading and development of new facilities, and will seek to attract new viable aviation businesses, where these are compatible with the vision for Archerfield.

2.1.2 Diverse aviation activity

To continue to attract investment for development, AAC will promote growth and diversification in aviation activity by planning facilities for established and new types of general aviation, including:

- supporting the continuing growth of traditional general aviation;
- heavier general and corporate aviation aircraft;
- operations under instrument flight rules (IFR);
- aeromedical and emergency rescue aircraft;
- flying training, including facilities for learning and student accommodation;
- Advanced Air Mobility and emerging technologies;
- charter and RPT operations, and supporting services; and
- specialist air freight activity.

2.1.3 Serving the growing needs of Brisbane and regional Queensland

AAC's vision includes catering for niche corporate aviation including business, charter, aeromedical/emergency rescue, Advanced Air Mobility and emerging technologies, fixed base operations (FBO) and Regular Public Transport (RPT) service providers seeking to take advantage of the airport's unique position in one of Brisbane's most important industrial and commercial growth centres, its position close to the newly designated western and south western growth corridors, and its proximity to the Brisbane City centre, hospitals and commercial hubs.

The recent completion of Project AIM, and a series of aviation and complementary developments has set the foundation for the next phase of development of the airport. The upgraded main runway complex, associated taxiways and Eastern Apron will support existing and new aviation operations, and create immediate opportunities for new aviation developments.

The planned reconfiguration, modernisation and optimisation of the secondary runway complex and helicopter facilities will further consolidate the capacity of the airport to meet emerging needs, and offer new opportunities for the progressive development of aviation, technology, education and transport services, and complementary uses.

These further improvements can be made progressively, and can be accommodated in a manner which is compatible with the airport's existing range of services.

2.1.4 A place for enterprises to grow

Archerfield will also play a strategic role in the development of the *South West Industrial Gateway* of Brisbane. The Gateway has been designated by the Queensland State Government and Brisbane City Council (BCC) as one of the most important industrial areas in South East Queensland.

AAC will work with BCC and the State Government to identify opportunities to attract and foster new industrial and commercial business investment that is:

- complementary to the airport and its users;
- meets the emerging needs of the community and economy of this part of Brisbane and the designated regional growth corridors which extend to the south and to the west; and
- is consistent with the aviation activities and the use and development of land in the surrounding area.

The promotion and development of new aviation and non-aviation business at Archerfield is necessary to discharge the responsibility entrusted by the

Commonwealth to AAC and to underpin growth in aviation and the efficient provision of improved infrastructure at the airport.

It will strengthen the facilities and services that are provided, and the contribution that the airport makes to the community, environment and economy of Brisbane and South East Queensland.

It will also help to harmonise the airport with off-airport development and appropriately integrate the airport with the rest of the south-west gateway to Brisbane.

2.1.5 An environmentally sustainable airport

AAC will also pursue sustainability principles, in the operation and management of the airport, and in new development.

These address:

- protection of the Oxley Creek corridor;
- protection of air quality;
- capturing and reuse of rainwater;
- appropriate management of stormwater to protect downstream areas from excessive peak discharges, and from water quality impacts;
- protection of soil and groundwater from contamination;
- handling and storage of hazardous materials and waste;
- conservation of heritage values;
- efficient use of potable water;
- efficient use of energy by AAC and its tenants;
- maximising where feasible the use of renewable energy;
- management of noise from land based activities at Archerfield; and
- working with AsA and aviation users to minimise noise from aircraft operations.

These matters are addressed in the AES, the *Environment Protection Action Plan* and in AAC's *Environmental Management Procedures* (EMPs).

2.2 REALISING THE VISION

The Master Plan shows how the current and long term aviation development will be accommodated.

It describes the proposed improvements to aviation infrastructure that AAC has identified in consultation with stakeholders over the past 26 years as being desirable to foster sustained aviation activity at Archerfield.

The aviation infrastructure development projects have been designed to be implemented progressively as the airport develops.

The Master Plan also details the plans for areas that were identified by the Commonwealth prior to privatisation as being available for complementary new business development. It shows how this will be integrated with the other activities (existing and planned) on the site, and land use and development in the surrounding area.

2.2.1 Aviation infrastructure development

The recent implementation of Project AIM has resulted in significant upgrading of the main runway and associated taxiways, now able to cater for frequent movements by Code C aircraft. The works have also included improvements to lighting and navigation aids, and upgraded drainage.

The recently completed final stage has included upgrading of the Eastern Apron and the southern part of Taxiway Hotel, both of which are in close proximity to the main runway.

These works represent a once in a generation modernisation and optimisation of the main aviation infrastructure, and will be a catalyst for further aviation development at Archerfield.

The Master Plan anticipates the continuation of the renewal process, with the following proposals for development of aviation infrastructure and facilities:

- providing opportunities for new and expanded aviation uses including aeromedical and emergency operations and maintenance, and for potential niche RPT operations or other significant aviation users (within 1.8ha of land in the Wirraway precinct, adjacent to the main runway, and 0.8ha of land in the Beatty precinct between Beatty Road and the Eastern Apron shown as 'additional aviation capacity' in the *Master Plan vision*, and in the PSPs);
- reconfiguring and modernising the secondary grass parallel runway complex to improve overall runway usability in cross wind conditions, particularly for flying training;
- following reconfiguration of the secondary runway complex, facilitating the development of approximately 4ha of additional aviation land in the Wirraway precinct having a 500m frontage to the north side of the main runway complex for high-end aviation uses, including terminal and apron facilities for potential niche RPT operations, air taxi or other significant aviation users;
- following reconfiguration of the secondary runway complex, providing in the Beatty precinct a range of new aviation opportunities including more than 4.6 ha of aviation development land in the area between Taxiways Juliet and Hotel, approximately 8ha of land for aircraft parking between Hotel and the

realigned runway complex, and 1.4ha of multi purpose hangarage and industrial developments at the northern end of the precinct (adjacent to the realigned secondary runway complex and helicopter facilities, with airside and ground access);

- augmenting the taxiway system to maximise runway capacity and efficient ground movement of aircraft;
- strengthening and expanding apron facilities to cater for increased aircraft numbers, and potentially heavier aircraft;
- investigating the feasibility of relocating facilities such as the fuel farm and control tower, if, because of their locations, they constrain future aviation development or their relocation would improve airport operations;
- maintaining a long term option to construct a new longer runway between the existing 10/28 parallel runways, potentially crossing Beaufighter Avenue;
- identifying and reserving terminal and apron facilities for potential niche RPT operations, with a focus on opportunities in the Wirraway, and Beatty precincts;
- identifying and where feasible catering for Advanced Air Mobility and other emerging aviation technologies; and
- facilitating improvements to, or redevelopment of existing facilities available to tenants to cater for modernisation, changing business needs and expansion.

2.2.2 New business development

AAC will seek to attract new business to the airport that will complement the existing aviation uses on the site and be compatible with State and BCC planning for the Archerfield area.

Potential new uses that could take advantage of the airport's unique location and facilities include:

- manufacturing industries (such as specialised fabrication and engineering, servicing and repair, refinishing);
- industries associated with waste reduction and materials recycling;
- research and development (such as equipment testing; prototype development and evaluation; facilitation of emerging technologies associated with Advanced Air Mobility, including design, proof of concept, and assembly);
- transport and logistics enterprises (such as distribution centres, container services, bulk handling, storage, warehousing, cold stores, fleet management, servicing etc.);

- education and training for aeronautical and transport related sectors (such as flying schools, vehicle driver training and assessment);
- facilities for conferences and events;
- retailing of the type currently conducted in the vicinity of the airport, and retail outlets that serve the growing needs of the airport and surrounding community, workers, airport users and other visitors;
- recreation and leisure, including aeronautical, entertainment and other land based recreation activities;
- office and administration uses;
- accommodation for flying training students, tourism and visitor support services;
- aeromedical and emergency services operations and training; and
- fixed base operations.

The Master Plan identifies a range of opportunities for the expansion of existing businesses, and the introduction of new business to the airport.

2.2.3 Implementation strategies

AAC will undertake the proposed developments in response to demand triggers and/or timeframes described in Chapter 18, and summarised in Table 16.

AAC will be proactive in attracting complementary developments, uses and activities to Archerfield to strengthen the viability of the airport in the short to medium term, and secure its long term success.

In conjunction with servicing agencies and relevant development interests on airport and in the district, AAC will develop progressively the infrastructure serving the airport. This will facilitate the continued successful operation of all aspects of the airport enterprise.

The planning and timely delivery of the required infrastructure will involve a commitment from a variety of organisations, including BCC and the State Government. AAC will work with these agencies to realise the vision.

All initiatives will be underpinned by AAC's philosophy of pragmatic commercial management.

2.3 OVERVIEW OF ACHIEVEMENTS 1998-2023

Over the period 1998-2023, AAC has implemented significant projects foreshadowed in the successive airport master plans.

These initiatives have contributed to the realisation of AAC's vision for the airport. Key achievements over the planning period include:

TABLE 1: SUMMARY OF ACHIEVEMENTS 1998-2023 (MP)

| Activity | Date |
|---|------|
| Aviation infrastructure | |
| Repairs and reseal of aircraft parking area adjacent to Gate 1. | 1999 |
| Repairs and reseal of Taxiways Alpha 1-9, Alpha to Bravo, and Bravo 2 to 5. | 2001 |
| Repair and reseal to shoulders of Taxiway Alpha 1-5. | 2002 |
| Installation of a triple interceptor to treat water from the aircraft washdown bay, adjacent to taxiways Hotel and Juliet. The washdown bay has been signed to encourage its use. | 2004 |
| The second wash down bay (at the eastern end of Taxiway Bravo) was decommissioned in 2004. The works were removed as part of Project AIM Stage 3 in 2022. | 2004 |
| Repairs to Apron Hotel tie down area. | 2004 |
| Reprofiling and resurfacing of Runway 28L/10R with a high quality hot bitumen cement seal, and overlay of Taxiways Alpha 1 to 5. | 2005 |
| Reconstruction of the airport turbine pad. | |
| Repairs to northern taxiways and Taxiway Juliet. | 2006 |
| Installation of new security fencing, automated gates, optical fibre cabling and CCTV around the perimeter of the airside area. | 2007 |
| Reconstruction of Taxiway Juliet. | 2008 |
| Reseal of 28R run up bay. | 2008 |
| Repair and reseal of Taxiway Echo, Taxiway Alpha 7 and the engine test pad. | 2009 |
| Reconstruction of apron drainage (west) near Hangar 113. | 2010 |
| Construction of a new stormwater drain running along Taxiway Hotel adjacent to the terminal building. | 2011 |
| Repairs and reseal of Taxiways Alpha 8 to 9. | 2013 |
| Installation of Movement Area Guidance signs beside the major runways and taxiways to assist trainee pilots conduct ground operations. | 2013 |
| Profiling and asphalt overlay of Taxiway Juliet (concrete section). | 2014 |
| Reseal of Central Helipad. | 2015 |
| Replacement and installation of a new lighting control system with future capacity for Runway, Taxiway and Apron LED and approach lights. | 2015 |
| Crack sealing of concrete joints outside Hangar 6. | 2015 |
| Reconstruction of apron drainage (east) near Hangar 113. | 2016 |
| Implementation of Project AIM, including reconstruction, strengthening and extension of the main runway (10L/28R) and related taxiways, improvements to drainage to the south of the main runway, relocation of fill material to the west of runway 10R/28L, relocation of the Airport Lighting Equipment Room (ALER) from the terminal building to a new purpose-built portable building adjacent to the Fuel Farm; commissioning of a new backup generator for essential power to the runway/taxiway lighting system and ALER, extension of the Jet Turbine parking area and adjacent run up bay; and installation of upgraded lighting and navigation aids to cater for up to Code C aircraft. | 2021 |
| Implementation of subsequent stages of Project AIM; including reconstruction, widening and strengthening of taxiway Bravo to Code B standard; reconstruction and upgrading of the Eastern Apron to facilitate up to Code C aircraft parking; installation of apron lighting for night time operations; and | 2022 |

| Activity | Date |
|---|---------|
| reconstruction, strengthening and widening of Taxiway Hotel to cater for Code C aircraft south of the Terminal Building. | |
| Maintenance | |
| Ongoing monitoring, repairs and maintenance works completed throughout the aviation infrastructure network, as part of AACs cyclical maintenance program. | Ongoing |
| Complementary development | |
| Construction of a new hangar and headquarters for QGAir (previously known as EMQ) on Wirraway Avenue. | 2003 |
| Development of new corporate hangars on Wirraway Avenue. | 2006 |
| Construction of Site 235 hangar complex. | 2006 |
| Development of a new warehouse, office and hardstand on Beaufighter Avenue by AAC. | 2008 |
| Repair and seal Access A at the 500 sites. | 2008 |
| Refurbishment by AAC of the top floor of the Airport Administration and Terminal building, which is now the headquarters for AAC, reinstating it once again as a key operational feature of the airport, and an historic landmark. | 2009 |
| Construction of a new purpose-built office and aviation parts storage facility for Aviall/Boeing in the Beatty precinct (building 111). | 2012 |
| Relocation of the high pressure gas transmission pipeline to the verge adjacent to Transition-Estate in preparation for works along Boundary Road. | 2012 |
| Civil works for Transition Estate including earthworks, relocation underground of existing overhead powerlines and gas mains along Boundary Rd, construction of entry statement walls, pylon signage, diplomat fencing, installation of drainage and Gross Pollutant Trap and construction of stormwater detention basins 3, 4, and filtration basin 5. | 2013 |
| Purchase and refurbishment of the two-storey building 9 in the Archerfield Square part of the Beatty precinct, transforming it into the airport's first aviation student accommodation facility. | 2014 |
| Refurbishment of Hangar 6 for LifeFlight helicopter maintenance including a new domed roof, internal offices, refurbished windows and painting internally and externally. | 2015 |
| Refurbishment of Hangar 5, including a new domed roof, refurbished windows and drain along the southern side for Archerfield Jet Base's Fixed Base Operations (FBO). | 2016 |
| Conversion of site 676 from an office and warehouse, to a hangar and aviation facility, including two helicopter parking bays. | 2017/18 |
| Civil works for Transition Estate including construction of the Boundary Rd/Transition Drive intersection and associated turn lanes and median strips along Boundary Road, street lighting and landscaping along Boundary Road, and the initial section of Transition Drive running to the west. | 2017 |
| Civil and electrical works to establish Ashover Circuit and create a series of sites in the Ashover precinct. | 2019 |
| NBN infrastructure installation completed at Archerfield Airport | 2019 |
| Demolition of Air BP site 121, and removal of a 55kl underground storage tank. | 2020 |
| Civil works for Transition Estate including: benching of sites; construction, lighting and landscaping of Transition Drive and Logistics Drive and associated | 2021 |

| Activity | Date |
|---|--------------|
| temporary cul-de-sacs; stormwater drainage; HV pad mount transformer and electrical conduit installation; pressurised sewer system installation and connection to Wirraway Avenue; comms and NBN conduit installation; and construction of a centralised fire tanks (700kl) and pumps system to cater for the majority of tenants in Transition Estate. | |
| Construction of a new Hangar 4 complex for a long-standing airport tenant involved in flying training, charter, engineering and maintenance. | 2021 |
| Demolition of ageing hangars in the Beatty precinct to facilitate the Eastern Apron upgrade. | 2021 |
| Facilitating the upgrade and renewal of Hangar 3 by Tisdall Aviation Group, to provide modern facilities whilst conserving identified heritage values. | 2021 |
| Refurbishment of the Air Archer café. | 2021 |
| Construction of a new 4,500m ² logistics warehouse and office on site 581 in Transition Estate. | 2022 |
| Landscaping improvements along Qantas Ave and installation of tenant pylon signage and building numbering. | 2022 |
| Construction of a new hangar and related office and warehouse on sites 13 and 14 (adjacent to Apron Hotel), for an aviation tenant. | 2022 |
| Construction of a new 9,400m ² logistics warehouse and office on site 580 in Transition Estate. | 2023 |
| Commencement of construction of a cold store on site 560 and a warehouse on site 570 in Transition Estate. | 2023 |
| Commencement of a new hangar and aviation maintenance facility on site 409 in the Wirraway precinct for LifeFlight Engineering. | 2023 |
| Environmental management system | |
| Preparation of new airport Environmental Management Procedures (EMPs). | 2003 onwards |
| Maintenance of a site register that records the environmental condition of the airport, including identification and management of contaminated sites. | Ongoing |
| Continued implementation and review of AAC's Environmental Management Procedures and tenant Environment Management Plans. | Ongoing |
| Flora and fauna | |
| Fire Ant control undertaken by helicopter and motorcycle broadcasting. | 2001 onwards |
| Creation of a conservation zone in the south west part of the airport, adjacent to Oxley Creek to provide a permanent buffer. | 2009 |
| Weed control and revegetation works in the conservation zone adjacent to Oxley Creek (in conjunction with BCC) | 2018 onwards |
| Facilitating mosquito surveillance program by QLD Health. | Ongoing |
| Groundwater | |
| The annual groundwater monitoring program by AAC has continued, with progressive updating and enhancement of the sampling wells, and ongoing review of findings. | Ongoing |

| Activity | Date |
|---|--------------|
| Hazardous materials and waste management | |
| AAC has maintained since 2003 an up to date register of asbestos (ACM) in AAC buildings on the airport. Buildings have been added to the register as they have come into AAC ownership. | 2003 onwards |
| Management plan and risk assessment added to the asbestos register. | 2006 |
| The asbestos register was subject to a full review, and updated in 2017, and subsequently in 2022. | Ongoing |
| AAC has included in its tenant inspections consideration of materials storage, handling, waste management, and disposal. | Ongoing |
| Significant quantities of ACM have been removed from developments as part of demolition activities at: 004, 021, 025, 105, 110, 013, 014 and 219-A in addition to the internal demolition and removal of all ACM from hangar 003 and the removal of ACM windbreaks located north west and south east of site 020. | Ongoing |
| Ongoing annual re-inspection and maintenance of low-density ACM board. | Ongoing |
| Heritage | |
| AAC has supported the restoration works by Friends of God's Acre, including with donation of funds and provision of maintenance services over the past 24 years. | 1998 onwards |
| AAC restored the Shell building. | 2001 |
| The initial Cultural heritage assessment and management plan for the airport was completed. | 2001 |
| AAC purchased in 2000 and refurbished the 2nd floor of the neglected Airport Administration and Terminal building and relocated its administration offices from building 20 to the upper floors of the building. | 2009 |
| Brisbane Regional Commendation awards for both Heritage and Interior Architecture for refurbishment of the middle floor of the Airport Terminal building. | 2015 |
| Refurbishment of the ground floor public areas, and painting and waterproofing of the exterior of the Airport Administration and Terminal building. | 2015 |
| Preparation of a Heritage Management Plan for the airport, and incorporation of the findings and recommendations into the current master plan and environment strategy. | 2022 |
| Establishment of the Airport History Room, in the Administration and Terminal building. | 2022 |
| Infrastructure | |
| Electricity supply upgraded to better cater for existing users, and new projects on the airport. | |
| Installation of new Fire Pump Station to service the Corporate Hangars. | 2012 |
| Installation of new 300mm water main to cater for the Corporate Hangar fire pump station and future tenants in Transition Estate. | 2012 |
| Installation of new fire hydrants, opposite building 9, adjacent to the main carpark, opposite the Airport Administration and Terminal building, and adjacent to the carpark beside the Shell building. | 2015 |
| Installation of an 86kW solar electricity generation system on building 111 in the Beatty precinct, providing renewable energy. | 2020 |

| Activity | Date |
|---|--------------|
| Construction of a new stormwater detention basin in the Ashover precinct, adjacent to Balham Road, to manage the flows discharged northward from the airport. | 2021 |
| Installation and commissioning of fire services tanks in Transition Estate, to cater for future development in the estate, and aviation developments in the Wirraway precinct. | 2022 |
| Installation of a new pad mounted high voltage transformer and low voltage distribution for Transition Estate, and expanding and updating the HV infrastructure at Wirraway, Boundary and Beaufighter precincts. | 2022 |
| Noise | |
| The former QES (now QGAir) helipad and the second helipad previously located in the central part of the Beaufighter precinct (near the Control Tower) were decommissioned. The new helicopter landing pad is located near Wirraway Avenue, which is at least 1.2km away from the nearest residential properties on the south side of Mortimer Road and more than 1.4 km from the nearest house to the south-west (on the other side of the Oxley Creek/Blunder Creek valley). Previously one of the former helipads was 150 m from the nearest house. | 2003 |
| Noise emissions from tenancies on airport are managed in accordance with the EMPs and any site environmental management plan in place for their operation. | Ongoing |
| Implementation of Archerfield's <i>Fly Neighbourly</i> Program. | 2015 onwards |
| Roads and car parking | |
| Wirraway and Beaufighter Avenues were reconstructed and extended and stormwater drains and underground piping were installed to cater for surface water runoff. | 2000 |
| Barton Street was created, linking Beatty Road to Balham Road across the north of the airport. The land was gifted by AAC to BCC with the agreement of the Commonwealth. | 2007 |
| The long-term carpark in the northern part of the Beatty precinct was constructed. | 2007 |
| Qantas Avenue, Ditchmen Avenue and Lores Bonney Drive were resurfaced. | 2008-9 |
| Street lights installed on Lores Bonney Drive, Beaufighter Avenue and Wirraway Avenue. | 2008 |
| Extension of Beaufighter Avenue for approximately 100m to the east. | 2012 |
| Expansion of car park area outside Hangar 6 for LifeFlight. | 2015 |
| New power and telecommunications infrastructure installed, and High Pressure Gas Transmission Pipeline in Boundary Road relocated in preparation for the construction of the initial stage of Transition Drive, in Transition Estate. | 2015 |
| Construction of the initial stage of Transition Estate, including a new intersection at Boundary Road, and installation of street lighting along Boundary Road and in the new intersection. | 2017 |
| Construction of Ashover Circuit, through the Ashover precinct. | 2020 |
| Construction of Transition Drive and Logistics Drive and associated temporary cul-de-sacs and street lighting, and associated utility services. | 2021 |

| Activity | Date |
|--|---------|
| Soil contamination | |
| The underground storage tanks at the Shell Building were decommissioned and the site remediated. These works followed on from the closure and remediation of the former Airport Rescue and Fire Training Area (1994) and the former battery recycling site (1997). | 1998 |
| Underground fuel tanks at the BP Truckstop have been replaced by BP and remediation undertaken (with ongoing monitoring in place). The requirements in the management plan were met in 2019/20, and BP is now in a monitoring and maintenance phase. | 2006 |
| Underground storage tanks removed and soil remediation for sites 108 and 109 completed. | 2018 |
| Soil testing for environmental condition completed for all new developments | Ongoing |
| Surface water management | |
| The former open drainage line through the Beaufighter, Boundary, Runway and Beatty precincts (which was subject to significant scouring) has been piped, and silt traps and dissipation structures installed to moderate peak flows and manage water quality prior to discharge to Oxley Creek. | 2001 |
| A significant new stormwater detention basin was constructed in the Beaufighter precinct, treating stormwater prior to its discharge to the Oxley Creek. | 2001 |
| A sedimentation basin was incorporated in the Alex Fraser Group facility on Beaufighter Avenue to treat runoff from the stockpile areas prior to discharge to the main drainage system on airport. Water is recycled for dust suppression and irrigation purposes. | 2001 |
| The open drain running north-west from the Runway precinct, under the 04/22 runways to Boundary Road was upgraded with the piping of the section near the runways, and the creation of new basins 3, 4 and 5 in the Boundary precinct (adjacent to Transition Drive and Boundary Road). This modulates peak flows, and treats water quality entering the drainage system through Rocklea, which ultimately discharges to Oxley Creek approximately 2 km downstream of the airport. | 2008 |
| Stormwater tanks provided for the new corporate hangars and EMQ premises on Wirraway Avenue, and the new warehouse constructed by AAC on Beaufighter Avenue to retain stormwater for use on site, and assist with reducing peak discharge volumes to Oxley Creek. | 2007-8 |
| Basins 3,4 and 5 constructed (in Transition Estate), to cater for runoff from Transition Estate and the central part of the airport. | 2014 |
| Construction of headwall north of Site 205 to assist managing stormwater flows along Qantas Ave. | 2015 |
| A new detention basin constructed adjacent to Balham Road in the northern part of the Ashover precinct, to manage stormwater before it is discharged off airport. | 2020 |
| A new stormwater swale constructed adjacent to Ashover Road in the southern part of the Ashover precinct, to manage stormwater before it is discharged off airport. | 2020 |

| Activity | Date |
|--|---------|
| A new stormwater swale running between Taxiway Alpha and Runway 10L/28R was created as part of the Project AIM works, to facilitate better drainage away from the main runway. | 2020 |
| A shallow swale perpendicular to Taxiway Hotel was introduced between the Eastern Apron and the fuel farm and a dome grate installed as part of the Project AIM works to divert water runoff and reduce scouring to the north of the Terminal and west of Taxiway Hotel. | 2023 |
| Small rock landscaping has been introduced to localised sections of open drains to address minor soil erosion. | Ongoing |
| The annual surface water monitoring program by AAC has continued, with progressive updating and enhancement of the scope of sampling, and ongoing review of findings. | Ongoing |

Sustainable use of natural resources and energy

| | |
|---|--------------|
| The airport has secured a number of businesses that recycle materials and equipment for reuse in construction and manufacturing. These include Veolia Environmental Services, and Alex Fraser Group, which has a concrete recycling operation in the Beaufighter precinct. These operations promote the reuse of resources, and reduce the energy required to produce construction materials. | 1998 onwards |
| Rainwater tanks have been installed by AAC for the corporate hangar development and QGAir premises on Wirraway Avenue, and the warehouse and office at site 676 on Beaufighter Avenue. | 2007-8 |
| Efficient water fittings have been installed in AAC buildings, including the refurbished Airport Administration and Terminal. | 2008 |
| Water meters have been upgraded to improve monitoring of consumption. | 2008 |
| AAC developed a Water Efficiency Management Plan (WEMP) in accordance with Queensland Water Commission requirements, in consultation with tenants and Brisbane Water. Efficiency measures were implemented progressively. | 2008 |
| AAC implemented energy efficient air conditioning, lighting, and specified low VOC paint and sustainable floor coverings for its refurbishment of the Airport Terminal. | 2009 |
| Installation of rainwater tank for the new Boeing facility at building 111. | 2012 |
| Installation of movement activated lights in the public area and toilets of the Airport Terminal building. | 2015 |
| Installation of a 86kW solar electricity generation system on building 111 in the Beatty precinct. | 2020 |
| Installation of a 5kl slimline rainwater tank for the new Hangar 4 facility | 2021 |
| Replacement of all runway and taxiway lights with LEDs as part of the Project AIM works. | 2021 |
| Installation of a 35kl rainwater tank as part of the new site 581 warehouse facility. | 2022 |
| Provision for the installation of a 7.5kl rainwater tank as part of the new Hangar 13 development. | 2022 |
| Other key achievements | |
| AAC's Airport Operations Manager, Donald Foy was chosen from a field of 40 nominees to be named Australian Airports Employee of the Year by the Australian Airports Association – Australia's peak industry body representing airport operators. | 2012 |

| Activity | Date |
|---|------|
| Brisbane Regional Commendation awards for both Heritage and Interior Architecture for refurbishment of the middle floor of the Airport Terminal building. | 2015 |
| Archerfield Airport was awarded Australian Metro Airport of the Year 2021 by the Australian Airports Association – Australia's peak industry body representing airport operators. | 2021 |
| Archerfield Airport was awarded Australian Metro Airport of the Year 2024 by the Australian Airports Association. | 2024 |



Chapter 3

Regional Context



This chapter describes the strategic context of the airport; and highlights the factors that influence its role and function as part of the national aviation network, and as a significant land use and transport hub in South East Queensland.

3.1 AIRPORT LOCATION

The airport is located close to the heart of Brisbane, and is approximately 11 kilometres south-west of the Brisbane City Centre.

The airport is also near major hospitals, Griffith University, sporting fields and technology centres.

It is in one of the larger, mainly industrial areas of Brisbane, at the south—west gateway to the City. It also has interfaces to residential areas, and to the Oxley Creek.

The location of Archerfield in a regional context is shown in Figure 1 *Airport location*. The airport and its surroundings are shown in Figure 3 *Airport context*. Surrounding land use is shown in Figure 10 *Airport land use context*.

3.2 ROLE AND FUNCTION RELATIVE TO OTHER SOUTH EAST QUEENSLAND AIRPORTS

The airfields within approximately 100 km of Archerfield Airport are shown in Figure 1 *Airport location*.

Archerfield is a strategic resource of irreplaceable value to greater Queensland.

As a reliever of the congestion of incompatible aircraft operations at Brisbane, and to a lesser extent at Gold Coast and Sunshine Coast airports, it plays a vital role in the integrated operation of aviation within the region.

Experience shows that Archerfield rarely receives aircraft originally destined for Brisbane, Gold Coast or Sunshine Coast airports, and when it does, the aircraft are not larger than a 20 seat commuter plane.

As Brisbane's metropolitan airport, Archerfield ensures that smaller aircraft traffic is reduced at Brisbane Airport. This complementary role allows Brisbane Airport to utilise to maximum efficiency its airspace for larger aircraft involved in domestic and international travel thereby improving on time arrivals and departures.

3.2.1 Brisbane Airport

Brisbane Airport is the capital city and main airport for the region. It is located on the north—eastern side of Brisbane, and is 14 kilometres from the Brisbane City Centre.



The airport operates as a hub for interstate, intrastate and international airline routes. The airport is a significant gateway to South East Queensland and is also a major business centre, consistent with its vision as being both a 'city airport' and an 'airport city'. It is also the Australian base for Virgin Airlines with their head office at Bowen Hills. Brisbane Airport is primarily driven by tourism as a destination for South East Queensland and attracts increasing international markets.

Archerfield is vital to the efficient operation of Brisbane Airport and is an essential component to the Brisbane aviation basin. This complementary role allows Brisbane Airport to reduce congestion and ensure better performance for scheduled domestic and international travel and freight.

3.2.2 Gold Coast Airport

This airport is located at Coolangatta on the Gold Coast, approximately 80 kilometres south of Archerfield. It caters for domestic services and low cost carrier international passenger and commuter services.

Gold Coast Airport has recently implemented a new Instrument Landing System (ILS) to provide guidance to pilots when landing in low visibility weather conditions, reducing flight delays and diversions including at peak tourism times. The airport is also in the process of completing Project LIFT, which includes terminal expansion, additional aircraft parking stands and a consolidated ground transport facility.

3.2.3 Sunshine Coast Airport

Sunshine Coast Airport is located near Maroochydore some 107 kilometres north of Archerfield and is the gateway for holiday destinations. It currently carries significant commuter traffic between Brisbane Airport and the Sunshine Coast and interstate providing connections to domestic trunk services and to a lesser extent international services.

The airport has recently completed construction of a 2,450m Code E second runway to enable direct flights to more destinations across Australia, Asia and the Western Pacific.

3.2.4 RAAF Base Amberley

Amberley is a Commonwealth Defence facility for the RAAF located approximately 30 kilometres south-west of Archerfield. It is the Air Force's largest base, employing more than 5000 people and can accommodate and provide services for the rapid expansion of air power capability.

3.2.5 Toowoomba Wellcamp Airport

Wellcamp is located approximately 15km west of Toowoomba, 130km west of Brisbane City Centre, and 120km from Archerfield.

The airport caters for RPT services to regional Queensland and interstate (Sydney and Melbourne), general aviation to a lesser degree, and domestic and international freight with up to Code E aircraft.

3.2.6 Small airports to the north and north-west of Archerfield

Small airports servicing recreational and general aviation activity are located at Redcliffe (41km north of Archerfield), Watts Bridge (75km north-west), Caboolture (55km north), and Caloundra (85km north).

Redcliffe, Caboolture and Caloundra airports are owned and operated by their local councils. Watts Bridge is privately owned and operated and its focus is on recreational and sports aviation.

3.2.7 Small airports to the west and south-west of Archerfield

Toowoomba and Warwick airports, and Boonah and Southport airfields service recreational and general aviation activity.

3.3 STRATEGIC INFLUENCES – SHAPING THE FUTURE

The current and future form, role and operation of Archerfield Airport are shaped by:

- the overall objective that the airport provides a key aviation service as part of the network of metropolitan airports across Australia;
- demand in aviation services and growth opportunities for expansion outside of capital city airports;
- State policies for aviation; road, sea and air transport; the development of communities in Queensland; and for land use and development (in SEQ in particular);
- its location 11km from Brisbane City Centre, and strategic position in the South West Industrial Corridor Regional Economic Cluster; which is home to employment, business and industrial activities of regional significance;
- regional and local planning policies, strategies and controls;
- the site conditions, opportunities and constraints;
- the history of the development and use of the airport (landside and airside), and current occupation/leases of airport land;
- any constraints arising from surrounding land use, or environmental conditions;

- changes arising from the environment, including the influence of climate change on the site and the airport operation; and
- market opportunities, in aviation, and in complementary land use and development including emerging possibilities for growth in various aviation services, and development of new enterprises that will contribute to Archerfield being a strategically significant airport with a sustainable future.

The following describes the relevant provisions of state, regional and local planning policies and strategies, and highlights key factors that are relevant to the airport now and into the future, and have informed and shaped the Master Plan.

3.4 QUEENSLAND STATE GOVERNMENT

3.4.1 Aviation and aerospace

In addition to the airport-related provisions in State Planning Policy, the Queensland Government has adopted the following strategies and plans relevant to aviation, emerging opportunities in autonomous flight, aerospace and other technologies:

- Tourism and Events Queensland's *Aviation Framework 2018-2025*;
- *Queensland Drones Strategy* (2018); and
- *Queensland Aerospace 10 year Roadmap and Action Plan* (edition 2 updated April 2022).

The Queensland government recognises the critical role of airports in supporting Queensland's economic growth, linking Queensland industries to workforces and national and international supply chains, markets and customers; the development and connection of communities (including in regional and remote areas); and the key role that airports play in supporting the operation of emergency and other services.

The Government in 2022 released an updated *Queensland Aerospace 10 Year Roadmap and Action Plan 2018-2028* which has the following vision:

By 2028, the Queensland aerospace industry will be recognised as the leading centre in Australia and South-East Asia for aerospace innovation in training; niche manufacturing; maintenance, repair and overhaul (MRO); and uncrewed aerial systems (UAS) applications for military and civil markets.

The key strategies for the next 10 years are:

Grow Queensland's aerospace industry and create high-value, knowledge-based jobs

Enhance Queensland's level of industry capability to access new national and global supply chain opportunities and international markets

Promote Queensland as a preferred destination for aerospace capability, servicing both national and global markets

3.4.2 State Planning Policy (2017) and related state interest guideline (2021)

The *State Planning Policy 2017* (SPP) and related guideline includes provisions that seek to protect airports and aviation facilities. Archerfield is identified as a 'strategic airport' under the SPP.

The SPP has the following statement of the State interest in strategic airports and aviation facilities:

The operation of strategic airports and aviation facilities is protected, and the growth and development of Queensland's aviation industry is supported.

The SPP describes the importance of airports as follows:

Strategic airports and aviation facilities play a key role in facilitating economic growth in Queensland. All sectors of the Queensland economy including tourism, trade, logistics, commercial business and extractive industry rely on the efficient movement of people and freight through strategic airports. The continued growth and development of Queensland's aviation industry is also dependent on access to strategic airports.

Strategic airports are also a vital part of Queensland's passenger transport infrastructure network, ensuring communities can access employment and recreation opportunities, and vital services such as health and welfare.

.....

The strategic airports and aviation facilities to which the SPP applies are essential elements of the national and state air transport network and the national defence system. Ensuring development does not impact on the safe and efficient operation of these facilities will support continued growth of the state's economy, regional communities and national defence.

The SPP requires that planning schemes must integrate the State interest as follows

- (1) *Strategic airports and aviation facilities are identified, including the associated Australian Noise Exposure Forecast (ANEF) contours, obstacle limitation surfaces or height restriction zones, public safety areas, lighting area buffers, light restriction zones, wildlife hazard buffer zones, and building restricted areas.*
- (2) *The safety, efficiency and operational integrity of strategic airports are protected. Development and associated activities:*
 - (a) *do not create incompatible intrusions, or compromise aircraft safety, in operational airspace*
 - (b) *avoid increasing risk to public safety in a public safety area*
 - (c) *are compatible with forecast levels of aircraft noise within the 20 ANEF contour or greater [as defined by Australian Standard 2021-2015: Acoustics—Aircraft noise intrusion—Building siting and construction (AS 2021), adopted 12 February 2015] and mitigate adverse impacts of aircraft noise.*

- (3) *Development complements the role of a strategic airport as an economic, freight and logistics hub, and enhances the economic opportunities that are available in proximity to a strategic airport.*
- (4) *Aviation facilities are protected by avoiding development and associated activities within building restricted areas that may affect the functioning of the aviation facilities.*
- (5) *Key transport corridors (passenger and freight) linking strategic airports to the broader transport network are identified and protected.*

The policy applies to land in the vicinity of Archerfield Airport and in particular:

- the operational airspace (including as shown in the OLS/PANS-OPS);
- land in the vicinity of the aviation facilities that are located on and off airport;
- within the area defined by the 20 ANEF; and
- within public safety areas defined at the ends of each main runway.

The policy does not however apply to the airport itself (which is Commonwealth land), or to aviation facilities off the airport.

The policy is applied in relation to:

- assessment of development applications;
- making or amending of planning schemes; and
- designating land for community infrastructure.

Planning schemes are required to show the airport location, and include an *Airport environs overlay* that shows the following (where known):

- operational airspace (OLS/PANS-OPS);
- lighting area buffer zone, including lighting intensity zones;
- wildlife hazard buffer zone;
- building restricted areas for aviation facilities (communication, navigation or surveillance), protecting against physical obstructions, competing radio transmissions or significant electrical/electromagnetic emissions;
- public safety areas; and
- ANEF contours.

The policy seeks to ensure that planning schemes and development approvals for land around airports protect airport efficiency and viability, avoid limitations to aircraft operations, protect development (and occupiers) from adverse effects of airport operations, and protect public safety.

The policy requires that planning schemes have regard to the approved ANEF for each airport.

The policy guideline also seeks to ensure that planning schemes show key transport infrastructure and corridors (including key freight routes) linking a strategic airport to the broader transport network, and protect these from development which would compromise the function of the transport route. The Master Plan includes this information in section 3.5, and in the *Ground transport plan* (Chapter 10).

The State Planning Minister needs to be satisfied that planning scheme changes and development approval decisions reflect this policy.

Chapter 9 of the Master Plan includes details of the operational airspace, the lighting area buffer zone and lighting intensity zones, the wildlife hazard buffer zones, guidance for assessment of windshear and turbulence, public safety areas, and ANEF contours. It also describes the role that AAC plays in communicating airport safeguarding requirements, and providing technical advice to stakeholders on these issues.

To ensure that the latest noise forecast is taken into account in planning decisions for land in proximity to the airport, the ANEF contours in the City Plan will need to be updated to show the current endorsed 20 year ANEF.

3.4.3 South East Queensland Regional Plan 2023

From a regional perspective, the *South East Queensland Regional Plan (2023)* (also known as ShapingSEQ) sets out a 50 year vision and a 25 year strategic plan to guide the future growth of the SEQ region. It provides the principles and priority actions to cater for an anticipated population of 6 million people, and protect and enhance the region's environmental, social and economic assets to the year 2046.

SEQRP is the Queensland Government's plan to manage growth and protect the region's lifestyle and environment. It has been prepared in consultation with the Commonwealth, and Local Governments in the region (including BCC).

The vision for the region is a future that is sustainable, affordable, prosperous, liveable and resilient to climate change. This is expressed in five themes: **Grow, Prosper, Connect, Sustain and Live.**

The plan provides the framework for managing growth, land use and development in the region. It responds to issues such as continued high population growth, traffic congestion, climate change and employment generation. The plan balances population growth with the need to protect the lifestyle that residents of South East Queensland value and enjoy.

From the perspective of Archerfield Airport, the regional plan includes important guidance on such matters as the preferred location of urban growth in the SEQ region, optimising the use of existing infrastructure, ensuring efficient freight

services, and coordinated air and sea transport, and ensuring that key infrastructure including Archerfield Airport is protected.

Growth areas

Urban development will be confined within a defined footprint which will contain urban growth and promote a higher density urban form, separated by areas of non urban land.

The regional plan identifies the need to cater for an additional 462,400 people and 210,800 additional dwellings in the Brisbane metropolitan sub region by the year 2046.

The majority of this additional growth will be focused on regional activity centres outside the Brisbane City Centre, however the plan also identifies opportunities for additional infill development.

Outside the Brisbane City Centre, the plan identifies two major growth corridors south-west from Goodna (about 10km west of Archerfield) to Ipswich and beyond, and south-east through Logan.

In the south-west, approximately 89,800 new dwellings will be required by the year 2046, with the Ipswich CBD strategically located to function as the principal administrative, cultural and community centre. The growth area will be supported by employment at Springfield, Ripley, Ebenezer-Willowbank, Swanbank, New Chum, Bundamba, Wulkuraka industrial area, Carole Park, the RAAF Base Amberley, and the Amberley aerospace and defence support centre.

The south-eastern corridor is located to the south of Archerfield Airport in Logan City. It is between the existing urban area of Logan and the southern boundary of Logan City. This growth corridor is adjacent to existing urban services, the Mount Lindesay Highway and the Brisbane to Sydney rail corridor. It is expected to cater for regionally significant levels of residential and employment growth, in a series of communities linked by a subregional public transport network and roads to Greater Logan, Brisbane, the Gold Coast and Ipswich. The plan estimates that 110,200 additional dwellings will be required by 2046.

These corridors will make use of significant areas of available land and reduce development pressure on the coast. New development in these areas is expected to incorporate significant new employment precincts.

Archerfield Airport is well placed to accommodate the aviation requirements for these growing areas, and the transport, services and other business needs that will be generated.

The Master Plan caters for anticipated growth in aviation, including aircraft movements, additional aviation tenancies, and sites for complementary

developments that will sustain the airport and contribute to the facilities and services for the South West Industrial Gateway of Brisbane.

Employment

The plan seeks a diversified regional economy that retains local jobs and builds on regional and subregional competitive advantages and specialisations.

It also seeks to provide sufficient land for business and industry to enable diversified, broad-based, future economic and employment growth across the region.

It identifies Regional Economic Clusters (RECs) to support a globally competitive economy.

RECs are described in ShapingSEQ as:

RECs are important because they contain significant levels of high value or trade-focused economic activity. They also support the connection of SEQ to other regions, states and countries through sophisticated supply chain relationships and a range of infrastructure networks that enable the transmission of goods, services, information and knowledge.

RECs are areas that demonstrate synergies across important economic and employment areas as they contain a concentration of significant economic activity. These areas support:

- *Significant levels of employment*
- *Groupings of employment precincts, including centres, knowledge and technology precincts and/or MEIAs, where significant business-to-business activity/connections occur*
- *High levels of specialisation in one or more high-value industry sectors that have an outward trade focus, including:*
 - » *knowledge and corporate*
 - » *energy and resources*
 - » *high-value manufacturing*
 - » *tourism and events*
 - » *creative and cultural.*

Archerfield is in the *South West Industrial Corridor REC* (SWIC REC).

ShapingSEQ highlights the importance of strategically located land in areas with good motorway, regional arterial, airport or rail access. This is a description that fits comfortably with Archerfield Airport and the surrounding employment precinct. It says that this land should be secured for business and industry serving the wider region, or importing and exporting goods and services outside South-East Queensland.

The South West Industrial Corridor is identified as a regional economic cluster (REC), supported by significant state and national transport infrastructure. The core components of the SWIC REC are summarised as:

Knowledge and technology precincts: Nathan/Coopers Plains; Griffith University, Nathan and Mount Gravatt campuses; Forensic and Scientific Services campus; Health and Food Sciences Precinct, Coopers Plains; Queen Elizabeth II Jubilee Hospital

Major Enterprise and Industrial Areas: Archerfield: Acacia Ridge; Bundamba/Riverview; Carole Park; Coopers Plains; Rocklea/Brisbane Markets; New Chum; Redbank; Richlands; Salisbury; Sumner/Darra; Swanbank; Wacol; Willawong

Regional activity centre: Goodna

Economic-enabling infrastructure: Acacia Ridge Intermodal Terminal; **Archerfield Airport;** Ipswich Motorway; Heavy rail network; Warrego Highway; Cunningham Highway; Logan Motorway.

Archerfield, Acacia Ridge and Rocklea are within a 'Major enterprise and industrial area' (MEIA) in the REC. These areas:

- accommodate medium- and high-impact industries and other employment uses associated with, or with access to, state transport infrastructure;
- are major drivers of economic growth; and
- are either significant in size or have the potential to expand to provide for industry and business activity clusters of regional and state significance.

The plan includes the outcomes and strategies that are of relevance to Archerfield (and the surrounding employment area):

Outcome 1 High-performing outward-focused economy

SEQ responds to the transitioning economy by focusing on export-oriented and business-to-business transactions that drive productivity and growth while continuing to enhance population-serving activities that support growing communities.

Foster high levels of economic activity and employment in export oriented and high-value sectors to strengthen the region's economic relationships.

Investigate and plan for existing or potential economic relationships between RECs, regional activity centres, MEIAs, knowledge and technology precincts and other employment areas to maximise economic output and productivity in the region.

Protect and enhance major national and international gateways for SEQ including the Port of Brisbane, its airports, high-speed digital technology and the strategic road, freight and passenger transport systems.

Plan for and support continued growth in population-serving employment and traditional economic industries.

Support the shift to an innovative and knowledge-intensive region enabled by world-class digital connectivity.

Plan for and deliver sufficient land and local infrastructure to accommodate, as a minimum, the employment planning baselines (Table 3 in Shaping SEQ) including an adequate supply in the interim

Outcome 2 Regional Economic Clusters

High-value and outward facing economic opportunities and synergies within SEQ's RECs are accelerated.

Recognise RECs as regionally significant agglomerations of economic activity, and:

a. prioritise investment and service delivery within RECs.

b. plan for the intensification and/or expansion of RECs consistent with their role in accommodating concentrated economic activity (Map 7 (inset 1, 2 and 3), Map 8 and Table 4 in ShapingSEQ).

Identify and protect core economic components within RECs (Table 4) and their enabling infrastructure from encroachment by incompatible land uses.

Facilitate synergies between core economic components within RECs.

Encourage First Nations business development and economic participation within RECs, including identifying and facilitating opportunities.

Invest in enabling infrastructure that support RECs including the port and airports, intermodal terminals, public transport, active transport links, freight linkages, road networks, and data and energy.

Ensure that planning frameworks provide sufficient flexibility to respond to the dynamic and evolving nature of RECs and support growth and investment in their core economic components.

The following strategies apply to land in *Major enterprise and industrial areas* (Page 76):

Establish a regional industrial land framework to monitor regional industrial land supply, project industrial land demand and plan for projected regional industrial land demand in SEQ.

Ensure development in MEIAs facilitates their role in accommodating medium and high-impact industries and other employment uses associated with, or with access to, state transport infrastructure.

Accommodate a mix of commercial uses in MEIAs to give workers and enterprises an appropriate level of access to shops, amenities and facilities to reduce trips out of the area without compromising their role and function or encroaching on significant and established nearby industrial uses.

Plan for new and existing MEIAs, including associated connections to freight, intermodal and supply chain networks, to ensure they can accommodate regionally or state significant agglomerations of industry and business activity and respond to projected local and regional industrial land demand.

Protect planned and existing MEIAs, including associated transport infrastructure, from encroachment by incompatible land uses (Map 7 (inset 1, 2 and 3), Table 4 and Table 5 in ShapingSEQ).

Enable the intensification and expansion of MEIAs, where appropriate, to improve their capacity and functionality, including through the delivery of supporting infrastructure.

Plan for a local supply of suitable land for industrial uses that considers anticipated demand within the LGA, constraints of the land, surrounding land uses and proximity to essential infrastructure required to service industrial development.

The strategies for tourism and events are:

Build upon the region's international brand to promote tourism opportunities that will enhance economic, environmental, social and cultural benefits.

Plan for accessible socially, culturally and environmentally sustainable tourism and recreational activities in rural areas.

Facilitate tourism opportunities by enhancing enabling infrastructure and services, particularly airports, maritime infrastructure (such as cruise terminals), major roads and rail, public transport, personal mobility devices and digital technology.

The outcomes and strategies under the 'connect' theme that are of relevance to Archerfield are:

Outcome 1 An efficient and sustainable movement system

People and freight move efficiently around the region, maximising community and economic benefits and prioritising more sustainable travel modes.

Deliver reliable high frequency public transport services and connect these with active transport infrastructure (Map 10 (inset 1, 2 and 3)).

Increase and enhance opportunities for seamless integration of journeys across the transport system with interchange opportunities between transport modes across the network, maximising integration of transport infrastructure and allowing for easy travel.

Prioritise best use of existing assets with targeted infrastructure investment to support the desired regional growth pattern (refer to Grow) and growth in RECs and MEIAs (refer to Prosper).

Prioritise efficient and reliable freight movement on key corridors to increase the efficiency of the movement of goods and minimise conflicts with other transport modes and land uses (Map 11).

Accelerate Queensland toward a cleaner, greener transport future, by implementing the Queensland Zero Emission Vehicle Strategy 2022-2032, while ensuring energy networks support the transition to zero emission vehicles.

Outcome 4 Integrated planning

Infrastructure and land use planning and delivery are integrated.

Investigate, plan and deliver a strategic transport system that connects people, places and employment efficiently with high frequency passenger transport services (Map 10 (inset 1, 2 and 3)).

Investigate, plan and deliver transport solutions to enable the growth of RECs by connecting regional activity centres, knowledge and technology precincts and MEIAs.

Coordinate and integrate the planning and delivery of infrastructure and services at regional, sub-regional and local levels using a consistent set of regional plan growth

assumptions, including the 2031 and 2046 dwelling supply targets (Figure 2) and employment planning baselines (Table 3).

Harness emerging technology, such as MaaS and connected and autonomous vehicles, to maximise shared use of vehicles and encourage e-mobility options.

Investigate, plan and deliver terrestrial and aquatic wildlife movement and threat-reduction solutions where roads and infrastructure intersect with the regional biodiversity network (including corridors) to protect and provide for the safe movement of wildlife.

The outcomes and strategies under the 'sustain' theme that are of relevance to Archerfield are:

Outcome 2 Biodiversity

The regional biodiversity network and MSES are protected and enhanced to support the natural environment and contribute to a sustainable region.

Maintain and enhance the value and connectivity of regional biodiversity corridors, and identify opportunities for regeneration of new corridors, to maximise biodiversity conservation outcomes (Map 15, Table 10).

Avoid fragmentation of regional biodiversity corridors and rehabilitate degraded areas to maintain habitat and support fauna movement.

Protect, restore, and manage regional terrestrial and aquatic biodiversity values and the ecological processes that support them from inappropriate development. For example, the Moreton Bay (Quandamooka) Ramsar-listed wetland of international importance.

Focus coordinated planning, management and investment, including offset delivery, in the regional biodiversity network.

Minimise the need to clear vegetation to mitigate bushfire hazard by using already cleared areas to achieve appropriate buffers between urban development and infill sites, and areas of environmental significance

High risk biosecurity sites (such as waste management facilities, areas cleared of native vegetation and areas undergoing development) are planned for in a way that manage the risks of pests and diseases.

Outcome 5 Water-sensitive communities

Water management in SEQ will use best practice and innovative approaches in urban, rural and natural areas to enhance and protect the health of waterways, wetlands, coast and bays.

Protect and sustainably manage the region's catchments, through a coordinated approach to catchment management under the Resilient Rivers Initiative.

Ensure urban land development and its construction avoids impacts on the natural hydrological function, quality and quantity of water in our waterways, aquifers, wetlands, estuaries, Moreton Bay and oceans to meet the needs of the environment, industry and community, including for future generations.

Promote water-sensitive urban design principles in catchment wide water management (such as total water cycle management planning) to increase the efficient use of water (including stormwater and wastewater), security of supply and to address climate change.

Outcome 7 Climate change

Greenhouse gas emissions are minimised, and the unavoidable impacts of climate change are managed to protect and enhance the safety and resilience of communities and the natural environment.

Reduce greenhouse gas emissions by adopting patterns of urban development that reduce the need and distance to travel and that encourage the use of active and public transport.

Incorporate zero waste and circular economy measures into the design, planning and development of communities, infrastructure, buildings and transport systems.

Support local strategies and initiatives that reduce greenhouse gas emissions, contribute to the region's transition to a low-carbon future and implement effective climate change adaptation measures.

Enhance the resilience and capacity of natural assets to adapt to climate change impacts including chronic stress and extreme weather events.

Identify and manage physical climate change risks through planning and development including through incorporating nature-based solutions, for example, to buffer people, infrastructure and biodiversity from the impact of extreme events.

The outcomes and strategies under the 'live' theme that are of relevance to Archerfield (acknowledging that the majority in this part of the plan apply to residential use, so have limited application to the airport) are:

Outcome 2 Working with the weather

SEQ's climate derived character delivers new models of subtropical, energy-efficient living.

Ensure all design outcomes are adaptive and responsive to SEQ's climate, applying a subtropical design approach.

...

Create urban places that contribute to activity and life on the street through building layout design and architectural features. ...

Outcome 7 Embedding opportunities for adaptation and change

Buildings, streets and spaces have inbuilt flexibility and adaptability for long-term use, including accommodating new uses.

...

Create flexible buildings, streets and spaces that are capable of adapting to new uses and user needs over time.

...

Design places to be resource efficient, durable and low maintenance to reduce energy demand and costs in construction and maintenance in the long-term.

Leverage Brisbane 2032 to showcase opportunities and build the legacy for adaptation and change.

Infrastructure

Supporting infrastructure will be developed progressively, in accordance with the *State Infrastructure Strategy*, (2022-42) (SIS). With the adoption of the 2022 State strategy, and the updated *ShapingSEQ 2023*, the State released a State infrastructure strategy supplement for SEQ (SEQIS 2023). SEQIS seeks to maximise the benefits of the 2032 Brisbane Olympics, support the transforming economy of SEQ, and the creation of connected and accessible centres. It sets out implementation actions in five areas:

- digital-driven infrastructure planning;
- infrastructure coordination to support growth;
- facilitating infrastructure to underpin industrial land use;
- improving centre accessibility; and
- infrastructure planning and design (to optimise density objectives).

It is an interim statement, pending the preparation of a new regional infrastructure plan which currently is being developed for South East Queensland. This is anticipated to be completed in 2025, replacing the *South-East Queensland Infrastructure Plan and Program* (SEQIPP).

The following summarises key elements of the State Strategy and the SEQIPP and SEQIS relevant to Archerfield.

The Strategy focuses on the following themes: renewable energy superpower, building a Brisbane 2032 Olympic and Paralympic games legacy, connecting the regions, creating livable communities, and driving infrastructure performance.

Renewable energy generation, storage and use is a priority for a sustainable future.

The 2032 Olympic and Paralympic games will provide a catalyst for upgrading the transport system in South East Queensland, including the traditional elements of roads, cycleways, rail, bus and water transport; and the new and emerging areas of on-demand transport, cooperative and automated vehicles, and mobility as a service.

AAC anticipates that in the coming years the airport will play an important role as a home for advanced air mobility and for facilitation and development of new and emerging transport technologies that complement the traditional networks. This will reinforce the long standing role of the airport as a transport and logistics hub; and a place for research and development, engineering, and services for both aviation and non aviation purposes.

SEQIPP identifies plans for further upgrading of the Ipswich motorway (which passes Archerfield), and providing additional capacity for the Ipswich railway line.

The Strategy seeks to build on the benefits that are anticipated from the Cross River Rail project which is now in the construction phase, Brisbane Metro bus network enhancements, and the Gold Coast light rail.

The Cross River Rail project comprises a 10.2 kilometre rail line from Dutton Park to Bowen Hills, and will include new underground stations at Boggo Road, Woolloongabba, Albert Street, Roma Street and an upgraded station at Exhibition. It will also be integrated with new bus services at key points in the network, and road network improvements. When complete, the project will provide additional rail capacity between Salisbury and Woolloowin, enabling significant improvements to south east Queensland's regional rail network and enhancing rail and other public transport access to the South West Industrial Gateway.

Transport and freight

The transport component of the State strategy prioritises investment in maintaining and strengthening the existing transport infrastructure networks (with growth to service increasing demand, and resilience to address climate change); implementation of Cross River Rail and integration with an improved bus network; and embraces the possibilities of emerging technologies and new service models to meet growth in service demand.

It recognises that innovations such as on-demand transport, cooperative and automated vehicles and Mobility as a Service can enhance the state's established modes and help it embrace new ways of transporting people and goods. Digitisation of infrastructure and utilisation of smart transport systems are also identified as ways to enhance the delivery, management and operations of the transport network.

The SEQIPP seeks to enhance South East Queensland's position as the major national and international freight logistics centre servicing the Australian east coast.

It recognises that there will be rapid growth in freight movements in South East Queensland with expanding import and export activities in the Australia TradeCoast area (including Brisbane Airport and Port of Brisbane). It notes that the ability to easily move freight into and around South East Queensland will be essential for economic growth.

The rail freight initiatives (in part 12.5 of the plan) include expanding the capacity of the Acacia Ridge rail terminal, and increasing rail capacity through the metropolitan network to the Port of Brisbane. The Acacia Ridge rail terminal is approximately 1.6 km to the east of Archerfield Airport.

The initiatives for coordinated air and sea transport in part 12.6 of the plan seek to provide efficient air and sea transport to service both freight and passenger needs in South-East Queensland.

The policies that underpin it include:

- supporting development of regional airports as significant economic and social links for regional communities;
- providing transport infrastructure to support the primary role of regional air and sea ports; and
- protecting and enhancing the freight routes to the Australia TradeCoast.

The plan recognises the important role that airports play in the economic and social fabric of South-East Queensland, and that increasingly the airports are a focus for a range of employment and land use activities.

3.4.4 South East Queensland Principal Cycle Network Plan

The State government in 2016 published a plan showing the existing and desired future principal cycle network in South East Queensland.

Principal routes form the spine connecting local cycle networks. They link residential areas to major trip attractors such as public transport nodes, universities, schools, shopping and commercial centres, industrial areas, and regional recreational facilities.

At the regional scale, they provide key connections between activity centres or towns.

The Plan shows the most important routes and known missing links for cycling within the region. These are represented as 'desire lines', that indicate generally the connections that are sought to encourage safe and efficient movement of cyclists. The routes are therefore indicative only, and guide further planning and design that will determine the precise route and design of cycle facilities.

Council has further refined this network in the *Bicycle Network Overlay Map* in the City Plan.

The existing and future principal routes within the roads in the vicinity of the airport are shown in Master Plan Figure 17 *Ground transport plan* and in the relevant Precinct Structure Plans (PSPs). The Master Plan recognises that the State (and BCC) are committed to protecting existing principal routes, and developing improved and new access, through the area.

3.4.5 Implications for the Master Plan

The Queensland Government is committed to the continued operation and growth of Archerfield Airport. It has identified the airport as being of State

significance and recognises its important role in the delivery and operation of aviation/transport infrastructure for South East Queensland.

The State Planning Policy seeks to protect the continued operation of the airport. It encourages a cooperative approach between airport operators, all levels of government and other relevant stakeholders. It recognises the need to balance airport activities with surrounding land use, taking into account both local safety and amenity issues, and the safety and operational requirements of the airport operator.

Principles underpinning the State agenda include:

- BCC is expected to consult with AAC, airline operators, adjacent local authorities, other government agencies and the community when considering planning scheme provisions for land adjacent to Archerfield Airport;
- any strategic plans, planning schemes or amendments, or development approvals relating to land around Archerfield Airport should provide for adequate control over land use and development to protect the ongoing operation of the airport. These should take into account issues such as height control and noise so that the present and future operational requirements of the airport and the safety and amenity of the community are not compromised;
- BCC is expected to safeguard through its strategic planning and implementation of land use and development controls, sites for future aeronautical facilities based on an assessment of future needs and roles;
- BCC is expected to provide for aviation-related industries and services to locate on land adjoining airports. In the case of Archerfield, past planning initiatives by Council have ensured that there are many opportunities for industry and related activities to establish around the airport;
- as was foreshadowed by the Commonwealth and the FAC prior to privatisation, the industrially zoned land in the Acacia Ridge/Rocklea/Archerfield industrial precinct is now largely developed (or otherwise committed). The airport is a substantial landholding, and offers a range of opportunities for non-aeronautical land on the airport to be developed progressively for purposes that complement the aviation activities at Archerfield, and those in the South West Industrial Gateway;
- BCC and neighbouring councils are also expected to take into account Archerfield's operational requirements, including obstacle clearances, safety, protection from light emissions, protection from wind turbulence (from buildings, structures, and emissions from facilities), management of wildlife, and provision of appropriate buffers from noise when considering

planning applications (for rezoning, land use, development or subdivision);
and

- local authorities are required under SPP to ensure that the planning scheme includes appropriate provisions to ensure that any adverse effects of aerodrome operations on adjacent residents or other sensitive uses are minimised.

3.5 BRISBANE CITY PLAN AND LOCAL PLANS

The Brisbane City Plan 2014 provides a performance based planning scheme for the City, and is prepared under the Queensland *Planning Act 2016*.

The City Plan adopts the relevant Queensland Planning Provisions, including all of the State Planning Policy. It describes the strategic framework for Brisbane, identifies priority infrastructure, zones, overlays and development codes.

The *Strategic framework* sets the policy direction for the planning scheme. It states the vision for the City and broad policy, and sets the parameters for general development policy.

Neighbourhood Plans provide a local vision for an area. They identify and address local issues and detail the desired character for the area.

The outcomes sought for development and use is described in the *zones, overlays, and applicable codes*. The requirement for the approval of specific development and use is set out in the *tables of assessment*.

The *Airport environs overlay* in City Plan ensures that new development in the vicinity of the airport is consistent with this land use strategy. It includes measures to safeguard the continued operation of Archerfield Airport. The airport safeguarding information, including noise forecasts and obstacle clearance requirements, is part of the State Planning Policy mapping system managed by the State government, and implemented through provisions in local planning schemes.

The *Local Government Infrastructure Plan* (LGIP) integrates land use planning and infrastructure planning, with the objective of ensuring that trunk infrastructure is planned and provided in an efficient and orderly manner. Notably, the current 2016-2026 LGIP identifies the upgrading of the Beatty Road corridor between Mortimer Road and Granard Road, and associated intersections as a priority infrastructure project.

3.5.1 Strategic framework

The policy intent for Greater Brisbane is described under five themes being:

- Brisbane's globally competitive economy;

- Brisbane's outstanding lifestyle;
- Brisbane's clean and green leading environmental performance;
- Brisbane's highly effective transport and infrastructure; and
- Brisbane's CityShape.

The Strategic framework identifies for each theme, the strategic outcomes sought.

The effective operation of airports and the importance of major transport infrastructure to economic activity are reflected in City Plan's *Strategic framework*.

The theme 'Brisbane's globally competitive economy' includes the following specific outcomes:

***SO4** The Brisbane Airport, Port of Brisbane and Archerfield Airport are key locations of economic activity and provide key access points supporting the city's economy.*

This outcome is supported by the following land use strategies:

***L4** Planning for the air and sea ports is undertaken by respective entities to enable these locations to:*

- a) be key centres for economic activity related to the functions of these locations;*
- b) complement major economic activity in the city;*
- c) integrate with the city's transport network; and*
- d) develop and operate safely and efficiently.*

and:

***SO5** Brisbane's industrial areas have a high degree of connectivity which is protected and enhanced.*

which is supported by the following land use strategies:

***L5.1** Development optimises the use and efficiency of freight routes and they are protected from encroachment by sensitive land uses*

***L5.2** Development optimises and integrates with the use of airspace of the Brisbane and Archerfield airports and limits the intensification of sensitive land uses in proximity to existing and future runway approaches.*

Archerfield is located within the South-West Industrial Gateway (SWIG), which is identified as a Major Industrial Area and is one of the SEQ region's main freight gateways. The airport's strategic role in the City and the region is recognised with the following specific outcome under the Brisbane's CityShape theme:

***SO12** Archerfield Airport's long-term role is enhanced by development.*

supported by the following land use strategy:

***L12** Development enhances the functioning of Archerfield Airport.*

The gateway role is being enhanced by the modernisation, optimisation and growth of Archerfield Airport, and the delivery of inland rail to the Acacia Ridge Intermodal Terminal.

AAC has in recent years made a significant investment in the modernisation and optimisation of aviation and related infrastructure, and in new and upgraded facilities to cater for a diverse range of aviation and complementary activities. This investment is facilitating current and new aviation operations including corporate aviation, flying training, regular passenger flights, charter, freight, aeromedical and emergency services, Advanced Air Mobility and emerging technologies; supported by a range of allied businesses including student accommodation for flying schools, aircraft engineering, maintenance, research and development, and related services.

The long-term investment by BCC and other stakeholders in the Oxley Creek Transformation project will enhance ecological and open space values in the SWIG and will improve the interface between the creek corridor and the urban uses in the SWIG.

Land use

The airport is positioned to cater for research, development, and operation of emerging technologies in aviation, engineering, and technology; and strengthening its key role in facilitating the distribution of high value and time critical freight across the country.

Archerfield Airport also offers substantial opportunities for development of new industrial and distribution/logistics, technology, engineering and service facilities on serviced land, accessible via the established trunk road network. These uses are being realised progressively with greenfields and infill developments in a variety of precincts at Archerfield.

Zoning

The zoning of land in the vicinity of the airport shown in Figure 10 *Airport land use context*.

Conservation and open space

The land to the south-west of the airport, that forms the wedge between Oxley Creek and Blunder Creek is an open space corridor, that extends south from the Brisbane River, widening towards the southern outskirts of the urban area of Brisbane.

A *CN1 Conservation (Local)* zone applies to the creek corridor along the north side of Oxley Creek adjacent to the airport, and this zoning has been adopted for the creekside land on the airport. Elsewhere along the creek corridor, a mix of

conservation, open space and industrial zones have been applied, reflecting the intended long term use and ownership of that land.

Low density residential

To the south and east of the south-east corner of the airport, residential land in Acacia Ridge is zoned *Low Density Residential*. This provides for a variety of low density dwelling types; and community uses, and small-scale services, facilities and infrastructure, to support local residents.

General industry

All other land abutting the airport is designated for industrial purposes, generally consistent with its current use.

The *General industry zone* is broken down into three precincts (or sub areas) in the vicinity of Archerfield Airport.

The land on the west side of the airport is in the *General industry C* zone (IN3, Category C - high impact uses). The section to the north-west (at Ashover Road and Balham Road) is in *General industry B* (IN2, Category-B - medium impact uses), and the *General industry A* (IN1, Category-A - low impact uses) has been applied to the land along the north side of Balham Road and Barton Street, at the interface to the low density residential area further to the north. Along Beatty Road, the *General industry B* zone has been applied opposite the Beatty precinct.

Along Mortimer Road, west of Beatty Road, the zoning of land neighbouring the south boundary of the airport transitions from *Low impact industry*, adjacent to the residential zoned land near Beatty Road, *General industry B* adjacent to Lores Bonney Drive, and then *General industry C* closer to Oxley Creek.

Special purpose zone

The City Plan includes a *Special purpose zone* to identify land that is used for airports, defence, detention facilities, ports, transport infrastructure, and utility services.

As noted above, the zoning has no statutory effect on land use and development on the airport. The zoning is however helpful to the extent that it identifies the airport in its district context, and highlights a number of issues that are relevant to planning decisions on land in the vicinity of the airport, strategies for infrastructure priorities (including ground transport upgrading projects such as the BCC plans for the Beatty Road corridor), and airport safeguarding.

The SP5 *Special purpose (Airport)* zoning in City Plan recognises that airports are a special mix of activities and development which does not conform to a single land use classification (such as 'industrial' or 'business'), and require flexibility to

allow the airport to develop and evolve as its business and operational needs change.

The *Special purpose zone code* in the City Plan sets out the following outcomes relevant to airports:

Development location and uses overall outcomes

The overall outcomes sought for development location and uses are:

- a. Development provides for the continued use of land for a special purpose identified in the relevant zone precinct, together with anticipated, compatible and necessary complementary uses.*
- b. Development provides for special uses and works that are owned or operated by federal, State, local government or public sector entity and may include defence establishments, airports, seaports, rail lines, rail stations, intermodal stations, major road infrastructure, major public transport infrastructure or the provision of water supply, sewerage, electricity, gas, telecommunications, transport, drainage or other like services.*
- c. Development contributes to the specific mix or type of uses envisaged in the zone precinct in an integrated and co-located manner to maximise site multifunctionality, efficient use of land and physical and social infrastructure, particularly where the proposed special purpose is not intended or cannot be easily accommodated in other centre zones at the scale or concentration required for optimal functioning.*
- d. Development enables the re-use of land in the Special purpose zone to occur in an integrated manner should a special purpose cease.*
- e. Development that may limit the ongoing operation and expansion of existing uses or prejudice establishment of new uses appropriate to the specific nature of the relevant zone precinct is not accommodated.*
- f. Development for a use not anticipated in the relevant zone precinct may be accommodated where it is demonstrated that the proposal is safe, well designed, integrated with the surrounding area and offers compensatory community benefits.*

Development form

The overall outcomes sought for development form are:

- a. Development is appropriately located according to the proposed use, and building and landscape design are of a scale, height and bulk that is generally compatible with the surrounding area and transitions sensitively to surrounding uses.*
- b. Development creates a variety of building forms, materials and facade treatments.*
- c. Development is provided with servicing and utilities infrastructure that are commensurate with the level of service demands of the use.*
- d. Development is supported by complementary uses of an appropriate scale and purpose to directly serve the employees and activities of the zone precinct, which do not compromise the commercial, retail or community service role and function of nearby centre activities.*
- e. Development minimises adverse impacts (including glare, odour, light, noise, traffic, parking, servicing and hours of operation) on the health, safety and amenity of adjoining*

sensitive land uses, predominantly through maintaining adequate buffering between these land uses.

f. Development achieves a satisfactory standard of environmental performance by principles of innovative, sustainable and efficient design, construction and operation, to encourage water conservation and responsiveness to climate.

g. Development maximises road, rail, public transport and transport connections and accessibility between the Special purpose zone and key destinations to ensure efficient and safe movement of people, goods and freight and accessibility for visitors, patrons and employees.

h. Development for a special purpose that is a major economic driver, such as a port or airport consolidates its role in facilitating trade growth via bringing allied industries, freight and tourism to the region and functioning as a major employment generator.

i. Development is designed, constructed and operated to maintain the safety and security of people and property.

j. Development responds to land constraints, mitigates any adverse impacts on environmental values and natural features, and addresses other specific characteristics, as identified by overlays affecting the site or in codes applicable to the development.

Airport precinct outcomes

The overall outcomes sought for airports in the SP5 are that development provides areas for:

- i. housing, servicing, maintenance and repair of aircraft;*
- ii. landing and departure of aircraft;*
- iii. assembly and dispersal of passengers and goods on or from aircraft;*
- iv. ancillary activities serving the needs of workers, passengers and visitors to an airport, such as shopping, food and drink outlets and tourism services;*
- v. associated training, education and aviation facilities.*

The zoning that has been applied to the airport land through this Master Plan is shown in Figure 19, and detailed in section 12.3 and in the Precinct Structure Plans.

South West Industrial Gateway

The Brisbane City Plan identifies the South-West Industrial Gateway (SWIG), Northern Industrial Area, and the Australia TradeCoast as the three major industrial areas for Brisbane (in addition to industry in Strategic Inner City Industrial Areas). The South-West Industrial Gateway includes Archerfield, Acacia Ridge and the developing areas of Wacol and Darra.

BCC has in recent years made provision for expansion of the South-West Industrial Gateway at Lower Oxley Creek (to the south of the airport).

In 2013, it adopted the Lower Oxley Creek South neighbourhood plan which applies to an area commencing 4km south-east of the airport. It provides for

industrial development in locations where land use conflict can be avoided. In 2016 BCC adopted the Lower Oxley Creek North neighbourhood plan which provides for low and medium impact industry in an area commencing 2.5km south of the airport.

Retail facilities and activity centres

Multi purpose centres (which typically comprise retailing, office, community facilities and other compatible activities) in the Acacia Ridge/Archerfield areas include:

- the Elizabeth Street Shopping Centre (at the intersection with Beaudesert Road, approximately 2 km from the airport); and
- the Acacia Market Place Shopping Centre (on the east side of Beaudesert Road, approximately 1.2 km from the airport).

There is also a bulky goods complex 1km west of the airport on Ipswich Road. This includes Harvey Norman, Bunnings, JB Hi Fi, Super Amart, R.T. Edwards, The Good Guys, Officeworks, and other similar retail outlets.

Local, smaller convenience centres in the general vicinity of the airport include the shops on the south-west corner of Mortimer and Beaudesert Roads (1.2km from the south-east corner of the airport); the corner of Granard and Beatty Roads (500m to the north); and at Boundary Road, Coopers Plains (2.1km to the east, near the railway station).

There are no convenience or multi-purpose retail facilities within walking distance of most of the airport.

The Master Plan identifies the opportunity to provide some retail facilities, which will cater for the needs of people using, visiting or working at the airport. These include a small supermarket (with a gross floor area of not more than 2000m²) which would be located either in the Beatty Central or Barton precinct, food and drink outlets, and convenience shops. Large supermarkets, or department stores will not be allowed.

These retail facilities are modest in scale, and are aimed at meeting current and emerging needs in the services and facilities available to the local area.

In the Barton precinct, provision has been made for showroom uses as part of the mix of uses at the interface to Beatty Road and Barton Street.

These uses are compatible with existing and future aviation uses and airport operations, the planned reconfiguration of the secondary runway complex, and with current and planned aviation and complementary development in the Beatty and Ashover precincts. They will support the economic activity on the airport.

All car parking, loading and other supporting infrastructure for these developments will be provided within the airport, and a concept for this is shown in the Barton PSP.

The uses are also consistent with land use and development proposals in the current and past master plans, and compatible with existing uses on adjacent land off the airport.

Transport

The City Plan includes a road hierarchy overlay map. The road network serving Archerfield is categorised as follows:

Motorways which include Ipswich Road, to the north west of the airport, Logan Motorway (further afield to the south) and South East Freeway (to the north east of the airport).

Ipswich Motorway, Granard/Riawena Road and the Gateway Motorway are National Highways under the management of the Queensland Department of Transport and Main Roads (TMR) and provide a strategic link to the Port of Brisbane. Their strategic importance to south-east Queensland is also highlighted in the *South East Queensland Regional Plan 2017*.

Arterial roads provide intra-city connections between the major designations within Brisbane and surrounding areas including the principal regional activity centres and major employment areas. These carry 20,000+ vehicles per day and in the vicinity of the airport are:

- Granard/Riawena Road;
- Beaudesert Road;
- Boundary Road, east of Beaudesert Road;
- Blunder Road;
- Inala Avenue/Learoyd Road.

Suburban roads, which connect arterial roads through and around suburbs constitute a lower order of road to the arterial routes, and carry 10,000 to 20,000 vehicles per day, include:

- Boundary Road, between Beatty Road and Beaudesert Road;
- Boundary Road, on the west side of the airport;
- Mortimer Road, between Beatty and Beaudesert Roads;
- Kerry Road;
- Barton Street;
- Balham Road, between Barton Street and Ashover Road;
- Ashover Road; and

- Beatty Road.

District roads which carry through traffic between suburbs and provide access between minor roads, local centres and suburban and arterial roads include:

- Mortimer Road/Lombank Street west of Beatty Road, and
- The north-south section of Balham Road (from the intersection with Barton Street).

With respect to freight movement in the vicinity of the airport, the road hierarchy map identifies the following 'primary freight routes' (direct road connections for non-standard vehicles between regionally significant industrial areas and inter-regional destinations):

- Ipswich Motorway,
- Granard Road, and
- Beaudesert Road;

and the following roads that are 'primary freight access' routes (connecting primary freight routes and freight dependant development):

- Boundary Road (east and west of the airport),
- Ashover Road,
- Balham Road,
- Barton Street,
- Beatty Road (north of Mortimer Road),
- Kerry Road, and
- Mortimer Road.

Council is pursuing an integrated approach to transport, including addressing road network requirements, provision of improved public transport (including public transport interchanges), increasing the proportion of cycling and pedestrian trips (by encouraging the provision of bikeways and pedestrian ways linked to centres and public transport), and management of car parking.

It seeks also to protect Archerfield Airport and other major strategic transport infrastructure from incompatible development and land use, and to ensure that Brisbane's industrial areas have a high degree of connectivity for people and freight (including by road, air, rail, and sea).

The City Plan includes guidance for the development of three major Queensland Government projects:

- the Intermodal freight terminal (rail and road) at Acacia Ridge (1.6km east along Kerry Road);

- the Postle Street logistics sub precinct which is envisaged as an extension to the Intermodal Freight Terminal as an industry/warehousing precinct; and
- the Technical and Trades Training (SkillsTech) Campus.

Pedestrian and cycle network

Existing and potential cycle routes are shown in in the *Bicycle Network Overlay Map* in the City Plan.

These are intended to facilitate access to retail and commercial services, public transport, education and recreation facilities.

The main routes are along Ipswich Road, Granard Road, and Beaudesert Road. Secondary cycle routes are shown along Beatty Road, Mortimer Road (east of Beatty Road), Boundary Road, Barton Street/Balham Road, and Ashover Road.

The overlay map shows also a 'potential' route through the south-west corner of the airport, near Oxley Creek. AAC has considered this proposal and found that it is not feasible for several reasons. BCC confirmed following exhibition of the pdMP that if this potential secondary route is required, it will be accommodated on land to the south of the airport. This is addressed in section 10.4.

Heritage

The City Plan encourages the conservation of heritage places and heritage precincts to retain their significance for the benefit of present and future communities.

Council has a *Heritage Overlay* that applies to heritage places. The Overlay identifies the airport site (apart from the land on the east side of Beatty Road) as a 'local heritage place'.

However, the Commonwealth retains jurisdiction to decide heritage matters on airports, and this is administered under the *Airports Act* and regulations, and the *Environment Protection and Biodiversity Conservation* (EPBC) Act. This has been done to ensure that heritage management is addressed in the airport master plan and environment strategy, and to facilitate the regeneration of airport infrastructure. Under this system, God's Acre Cemetery and the Airport Administration and Terminal building are identified as places of historic significance.

Prior to preparing this Master Plan, AAC commissioned heritage specialists to undertake an independent assessment of the heritage values of the airport, and develop a heritage management plan. This work was foreshadowed in the Airport Environment Strategy, and the findings have been incorporated into the 2023 Master Plan and Environment Strategy.

The findings of the 2022 Heritage Management Plan have been taken into account in preparing the land use and development provisions in the Master Plan and Environment Strategy. More information about heritage management is provided in section 16.2 of the AES.

Environment

The City Plan identifies a network of waterway corridors and wetlands.

The principal elements of relevance to the Master Plan are the main diagonal drainage system that runs south-east to north-west through the middle of the airport, and the Oxley Creek open space system that abuts the airport to the south west.

AAC recognises that the Oxley/Blunder Creek system is a regionally important open space and fauna habitat and has included in the Master Plan an open space buffer on airport land adjacent to the creek.

The boundaries of the buffer area were determined in consultation with the Commonwealth departments of Infrastructure and Transport (now DITRDCA); and Sustainability, Environment, Water, Population and Communities (DSEWPC – now Climate Change, Energy, the Environment and Water) during the preparation of the 2010 version of the Airport Master Plan and Environment Strategy, and have been maintained in the master plans and environment strategies that have been approved since then.

The land is designated as an 'open space buffer' in Figure 2 *Master Plan vision*, and zoned 'ACN1 Archerfield Airport Conservation (Local)' in Figure 19 *Airport land use zoning*. The zone purpose has been adopted from the Conservation (local) zone in Brisbane City Plan. That zone applies to the land adjacent to the airport, along Oxley Creek.

The cleared airport land in the buffer area will continue to be used for grazing. The area will also continue to accommodate important stormwater management works including a major detention basin and outfalls. This will provide an appropriate long term interface between airport activities and the Oxley Creek open space corridor.

3.5.2 Airport environs overlay and code

The City Plan includes an *Airport environs overlay* and related code.

The purpose of the Airport environs overlay code is to:

Implement the policy direction in the Strategic framework, in particular:

- *Theme 1: Brisbane's globally competitive economy and Element 1.2 – Brisbane's industrial economy;*

- *Theme 5: Brisbane's CityShape and Element 5.1 – Brisbane's City Centre and Element 5.2 – Brisbane's Major Industry Areas.*

Provide for the assessment of the suitability of development in the Airport environs overlay.

The outcomes sought are:

- (a) Development protects the safety and functioning of operational airspace of the Brisbane, Archerfield and Amberley airports.*
- (b) Development protects the functioning of aviation facilities from incompatible land uses, buildings, structures and works.*
- (c) Development for a sensitive use within the vicinity of the Brisbane and Archerfield airports is appropriately located to prevent exposure to very high levels of aircraft noise and designed to adequately attenuate expected aircraft noise to protect the health and wellbeing of occupants.*
- (d) Development ensures that operational airspace of the Brisbane, Archerfield and Amberley airports is not put at risk from light sources or wildlife interference generated by development.*
- (e) Development minimises potential hazards to the safety and functioning of airport operations resulting from emissions from smoke, dust or any other airborne particulate or the creation of air turbulence.*
- (f) Development does not materially increase the number of people or the storage and handling of dangerous goods or combustible liquids within public safety areas.*
- (g) Development minimises the potential hazard to safety of airport operators resulting from reflection of sunlight, and other potential threat of interference to pilot vision.*
- (h) Development avoids increased risks to public safety near airport runways.*

The code includes assessment criteria that if satisfied will ensure consistency with the State Planning Policy; and the relevant aspects of the NASF including airspace protection, ANEF contours, lighting intensity restrictions, limitations on reflectivity of materials, public safety areas, bird and bat strike zones, and other requirements.

The airport safeguarding measures (and the overlay mapping) are subject to ongoing review and refinement to address changes in airport operations and standards, and the evolution of the NASF guidelines themselves. The following points relevant to land in Brisbane City (and in some cases to the adjoining municipalities of Ipswich and Logan) have been identified in the course of preparing the 2023 Master Plan.

Airspace protection

The *Airport environs overlay* mapping in the City Plan shows Obstacle Limitations Surfaces (OLS) and Procedures for Air Navigation Services–Aircraft Operational Surfaces (PANS-OPS) for Archerfield, Brisbane and Amberley airports. These surfaces show the maximum permissible height of structures or other obstacles within the airport's prescribed airspace.

If there are any changes to airspace protection requirements for Archerfield Airport, AAC will work with CASA, State and local government to ensure that the SPP mapping (which is used by BCC to prepare the overlay) is updated and remains current.

Public Safety Areas

Under State Planning Policy, a public safety area (PSA) can be defined for land that is at the end of runways at Archerfield Airport (and all other strategic airports in Queensland). Within the defined PSA new development and storage of hazardous materials are restricted, to protect the safety of people and property in aircraft and on the ground in the event of an aircraft incident during landing or take-off.

The PSA requirements apply only to new development, or material changes of use. Existing development and use is not subject to a PSA, provided any safety requirements that were applied when the development was approved continue to be followed.

The public safety area for Archerfield is shown in Figure 2 *Master Plan vision*, and in Figure 14 (2042 ANEF) and the relevant PSPs. It applies to the 10L/28R runway, and follows the dimensions in the SPP and NASF guidelines.

Exposure to aircraft noise

The *Airport environs overlay* mapping relies upon the ANEF for Archerfield Airport to identify areas where forecast aircraft noise exposure has implications for acceptable land use. The ANEF mapping currently in the City Plan has been superseded by the current version, endorsed following the review completed for this Master Plan (as required by the Airports Act).

The current endorsed ANEF for Archerfield (to the year 2042) is shown in Figure 14. Consistent with normal practice, the overlay mapping in the State Planning Policy Interactive Mapping System and Brisbane City Plan will need to be updated to show the current endorsed ANEF.

Depending on the location of the land and the location and characteristics of proposed land use, new developments, or material changes in use on land external to the airport may be required to incorporate noise attenuation measures to prevent adverse impacts from aircraft noise in accordance with *AS2021 Acoustics—Aircraft Intrusion—Building Siting and Construction*.

AAC will continue to provide advice to landholders and BCC on the application of the ANEF to specific sites, or proposals for changes in use or development.

Lighting

Restricted light zones are used to minimise the risk to pilots of glare or distraction from ground lights in the vicinity of the airport, especially when approaching or departing the airport at night.

The 6km radius lighting assessment area and the restricted light zones that have been applied to the areas around the airport, on the alignment of the main runways are generally consistent with the lighting assessment area and restricted light zones shown in Figure 13.

The City Plan also shows restricted light zones for the 04/22 runway complex, however AAC would support these being removed, as the secondary runways are not used at night, and there are no plans to change these arrangements, now, or following the planned reconfiguration, modernisation and optimisation of the secondary runway complex.

Wildlife buffers

Wildlife buffer zones shown in Figure 13 have been prepared in accordance with Guideline C in the *National Airports Safeguarding Framework*. The buffer zones identify wildlife management requirements for existing and proposed uses, to minimise the risk of bird or other flying wildlife strike.

Within the airport, the risk of terrestrial wildlife hazards to aviation operations is managed by maintaining perimeter fencing to the airside of the airfield, and undertaking ongoing surveillance to identify and address any wildlife within the operational area.

The NASF guidelines include advice on appropriate land use, and requirements for wildlife management measures to be implemented for specific uses.

The guidelines include advice on acceptable land uses (and management of these to minimise the risk of wildlife strike) in three zones: 0-3km, 3-8km, and 8-13km from the runways.

The three buffer zones are shown in Figure 13 of the Master Plan. The zone boundaries follow the geometry of the main and secondary runway layout, with the buffer distances taken from each runway end, and from the sides of each runway.

Land use provisions and related management requirements vary, depending on the buffer zone. The risks of wildlife strike are highest within the first 3km of each runway, and this zone is subject to the most stringent land use requirements to minimise risks from existing and proposed land use.

The buffer zones apply to land in the municipalities of Brisbane, Ipswich and Logan.

AAC supports the consistent application of these guidelines to land within the buffer zones, to mitigate the hazard to pilots in the Archerfield airspace. It will continue to work with State and local authorities to ensure that the relevant provisions are included in planning schemes, and will provide referral advice to support the assessment and management of wildlife in accordance with the NASF.

For master planning purposes, the buffers shown for the secondary runway complex have been derived from the preliminary concept for the proposed new runway facilities. The concept shows dual grass secondary runways on an alignment of approximately 01/19. The final configuration of the modernised secondary runway complex will be determined following further investigation, consultation, and the preparation and approval of a Major Development Plan. If the configuration differs from the current concept, AAC will revise the buffer zones for the secondary alignment, and seek to have the amended version included in the relevant planning schemes.

Windshear and turbulence

The relevant windshear and turbulence risk areas for Archerfield Airport operations have been mapped in accordance with the NASF guidelines, and are shown in Figure 16 *Windshear/turbulence assessment area*.

At present the planning schemes for Brisbane, Logan and Ipswich do not address specifically the requirement for assessment of windshear and turbulence, in accordance with the NASF guideline. AAC advocates for its inclusion in the relevant planning schemes to ensure nearby developments are assessed with this guideline in mind.

Wind farms and monitoring towers

Guideline D in the NASF *Managing risks to aviation safety of wind turbine installations (wind farms)/wind monitoring towers* applies to one or more wind turbines and/or wind monitoring towers that have an overall height above ground level of 150m or more and are sited within 30km of a certified or registered aerodrome (which includes Archerfield Airport), or could intrude into the OLS/PANS-OPS surfaces of an airport.

Section 9.7 of the Master Plan includes further details of the airport safeguarding requirements, and the relevant provisions of Queensland State code 23: *Wind farm development* and related planning guideline that address aviation safety, operational integrity and efficiency of air services and aircraft operations.

Implementation of safeguarding requirements

AAC supports the inclusion of airport safeguarding provisions in the City Plan, and the planning provisions for Logan City and Ipswich City, where applicable.

AAC will continue to work with local and state government to ensure that all relevant safeguarding measures are applied consistently to land in the vicinity of the airport, and will assist with referral advice on land use and development proposals, and on the implementation of safeguarding measures.

AAC will also ensure that once the final details of the secondary runway realignment and optimisation project are resolved, any refinements to the safeguarding requirements are identified and communicated to the relevant authorities.

3.5.3 Acacia Ridge-Archerfield Neighbourhood Plan

The *Acacia Ridge - Archerfield Neighbourhood Plan* describes the area as being:

....comprised of a number of distinctive established areas of industrial uses and residential communities. The industrial uses include a variety of manufacturing, transport, light aircraft and commercial airport operations and technical and trades training employment opportunities of regional significance. Established residential areas consist of households with a strong emphasis on affordable homes, accessible parks and a strong community character.

It describes the airport as:

Archerfield Airport provides a focus for light aircraft and commercial aircraft activities

The plan acknowledges the ongoing operation of Archerfield Airport and related aviation activities and services.

It highlights that the airport is within an industrial and transport services corridor of regional significance. Future industrial development that has a nexus with and supports the function of the airport and surrounding industrial/transport services corridor is supported.

It recognises also that the airport is privately operated under an agreement with the Commonwealth Government and the site is regulated by Federal legislation.

The provisions relevant to the airport are summarised below.

Industry

With respect to industry, the plan notes that this area supports a major industrial and freight transport node of citywide and regional significance that provides a broad range of industrial and transport employment.

It supports future industrial development that supports the function of the airport and has a nexus with the surrounding industrial/transport services corridor.

The Neighbourhood Plan acknowledges the need to provide appropriate buffers between industrial and more sensitive uses (such as residential).

This is of particular relevance to the south-east corner of the airport, where there are existing houses on Mortimer Road, opposite the airport industrial areas and the vacant airport land that is on the north east corner of Mortimer Road and Beatty Road.

Activity centres

The plan highlights two suburban activity centres near the airport. These are:

- a convenience centre on the east side of Beaudesert Road between Kerry Road and Mortimer Road (approximately 1.2 km from the airport); and
- the higher order centre developed around the intersection of Elizabeth Street and Beaudesert Road, approximately 2 km to the south-east of the airport.

There are no activity centres shown in the areas immediately adjacent to the airport, including the employment areas to the north (to Granard Road) or to the north-west and west (to Ipswich Road).

Given the distance separating the airport from these centres, and the plans for growth in employment and visitors to the airport (and to the surrounding employment areas), there is scope for shop facilities to be provided on the airport to cater for day to day needs of the airport, and the adjacent employment and residential areas.

These facilities would include convenience shops and food and drink outlets, and will be complementary to those provided in the established centres in Beaudesert Road. In terms of other shop uses, the land use provisions in the Master Plan limit the supermarket use to a gross floor area to a maximum of 2000m². The Master Plan also only allows one supermarket, which can be located in either the Beatty Central or Barton precinct recognising the local function of this facility. Large supermarkets and department store uses are prohibited.

Oxley Creek

The City Plan highlights the importance of Oxley Creek as a regional open space and habitat corridor.

This is addressed by the designation in the Master Plan (and the AES) of a buffer zone along Oxley Creek, the implementation by AAC of stormwater management measures, and the ongoing environmental management initiatives that are included in the AES and EMPs.

3.6 BRISBANE: OUR PRODUCTIVE CITY

Brisbane City Council in 2022 released *Brisbane: Our Productive City* which outlines its strategy to improve and adapt how industrial areas are used to remain globally competitive.

With respect to Archerfield Airport, it:

- recognises that the airport is a significant strategic feature (and landholding) in the South West Industrial Gateway (SWG) of Brisbane;
- describes the SWG as a regionally significant economic cluster which is recognised under *ShapingSEQ* (South East Queensland Regional Plan 2023) as being a high-value employment area that generates significant economic activity (the SWIC REC). Industrial areas across the region provide additional capacity and flexibility to adapt to future changes in the use of industrial land in Brisbane;
- highlights that Brisbane's key industrial precincts are evolving and increasingly rely on other elements of the city and wider area. These elements include accessibility to infrastructure networks that connect to the city centre and higher density areas, Brisbane's Knowledge Corridor, tertiary and health institutions, and lifestyle destinations;
- describes the airport as a major centre for general aviation activities, operating 24/7 and located only 11 kilometres from the city centre in the strategically important SWG. Archerfield Airport has a growing role in the network of aviation facilities serving Queensland, providing training facilities and precincts for high-tech jobs in aviation;
- recognises that the airport currently delivers 450 jobs, and that this contribution to economic activity and employment will continue to grow;
- highlights that Acacia Ridge includes the main intermodal terminal for Brisbane and surrounds. The proposed future Inland Rail dedicated freight route will connect Brisbane to Melbourne via regional Victoria and New South Wales, significantly reducing Brisbane's export and non-export freight volumes across the road network. The volume of freight that passes through this intermodal terminal is expected to increase, raising the importance of the area for industrial uses;
- states that Brisbane's industrial activity will become cleaner and add more value. Industrial activities with limited off-site impacts are projected to employ the most workers (64,000), demand the most land, and contribute the most to industrial Gross Regional Product (GRP) (\$9.84 billion) by 2041;
- finds that as land supply is constrained, particularly in the inner-city, industrial precincts will need to evolve to create additional floor space and make better use of land to maximise productive capacity and accommodate more jobs;
- anticipates that industry workers will become more skilled, and the GRP produced by each worker will increase 30% by 2041;
- describes the new industrial workforce, trained in science, technology, engineering and mathematics (STEM), as working alongside those with

vocational qualifications, and will be attracted by lifestyle factors, amenities and convenience; and

- identifies the importance of a network of high-quality infrastructure that enables enterprise and removes access barriers for businesses and their workforce.

The strategic importance of the network of viable airports (including Archerfield and Brisbane) to the successful operation and growth of Brisbane and the broader region is recognised.

The strategy states that SEQ has access to multiple international gateways, including four airports and an extensive network of freight infrastructure. Brisbane is home to Queensland's largest curfew-free international airport, one of Australia's largest capital city ports, and critical road and rail freight infrastructure to support the industrial sector.

The future for the SWIG is described as follows:

By 2041, the South West Industrial Gateway (SWIG) precinct will contribute \$6.5 billion to Brisbane's industrial GRP and will employ 41,000 industry workers. As the largest of Brisbane's industrial areas, the SWIG extends a broad reach over the south-west of Brisbane and is one of SEQ's main freight gateways.

This gateway role will be heightened by the delivery of Inland Rail to the Acacia Ridge Intermodal Terminal and the growth of Archerfield Airport from which high-value and time-critical freight will continue to be distributed across the country.

In outer locations where land is more readily available, the SWIG will continue to accommodate industrial parks with large distribution centres. This will include locations like Heathwood, where new larger and taller automated warehouses will demonstrate the power of innovation and technology in achieving efficiencies in industrial operations. The Woolworths distribution centre at Heathwood has demonstrated the advantages of co-locating with the adjoining Hilton Foods Australia meat supplier where they are physically connected, providing an example of industrial integration.

Elsewhere, the SWIG will support clusters of industrial activity, including food and agribusiness at Rocklea, logistics, distribution and aviation at Archerfield, and service industries and mixed industry business in parts of Salisbury and Moorooka. Precinct renewal opportunities in transport-rich locations will encourage a mix of uses with employment generating and industry activities predominant.

Council's significant long-term investment in the Oxley Creek Transformation project will dramatically shape ecological and open space values in the SWIG and will improve the interface between industry, established residential areas and the adjoining natural environment. New development will improve streetscapes and create attractive spaces with services and facilities for workers and visitors.

The strategies to achieve this intent are described as:

Unlocking opportunity

Undertaking precinct improvements and renewal to unlock opportunities, including the right balance of zone precincts.

Creating great places

Making sure workers have access to services and facilities, public transport and appealing walking and cycling paths will ensure the SWIG can continue to attract and retain workers.

Culture of innovation

Promoting scale-up opportunities and taking a regional approach to land supply within the SWIG will enable the most efficient use of land and support the growing niche-manufacturing market.

Environment to prosper

Completing the connection to the Port of Brisbane and undertaking precinct improvements will unlock opportunities for industrial renewal and create an attractive environment for investment.

The strategy aims to achieve:

- \$6.5 billion SWIG contribution to Brisbane's industrial GRP in 2041.
- 41,000 SWIG industry workers in 2041.

3.7 STRATEGIC STRENGTHS OF ARCHERFIELD AIRPORT

This analysis highlights the following key strategic strengths of Archerfield Airport.

- Archerfield Airport is a strategic aviation facility, being a key part of the national network of airports. Its importance to Queensland, the South East Queensland region and to Greater Brisbane is recognised in State Planning Policy; aviation, transport and economic development strategies; and in the Brisbane City Plan;
- Archerfield is soundly positioned as the Brisbane metropolitan airport hub for flying training, corporate aviation, charter, aeromedical, emergency rescue and related services, specialised freight, air taxi, Advanced Air Mobility and emerging technologies, and privately operated aircraft in South East Queensland;
- the range of aviation uses at Archerfield complement those at Brisbane Airport, and the other airports in South East Queensland;
- the scale and quality of airside facilities and the opportunities for future expansion provide the airport with the flexibility to continue to accommodate a range of aviation and aerospace activities for government and private sectors;
- it has long established airport safeguarding measures in place to ensure that the operation is not constrained by surrounding land use or development;
- the safeguarding provisions in the planning scheme include measures to maintain obstacle clearances to airspace, identify public safety areas associated with the operation of the main runway, show potential noise

impacts and appropriate land use in areas subject to forecast aircraft noise, protect the airport from adverse light impacts, and manage the risk of wildlife strike. The Master Plan also identifies areas that require assessment for windshear or turbulence, or implications of proposals for wind farms or wind monitoring towers, in accordance with the NASF;

- the airport is a large strategic site in the SWIC REC/SWIG, with a range of existing developments and future development sites that cater for aviation needs, for other uses that are complementary to the airport, and uses that are appropriate in this part of the SWIC REC/SWIG;
- it is on the 'inboard' side of the Western and South Western growth corridors of Brisbane, which will accommodate the planned growth of Brisbane over the next 20 or more years.
- the airport is positioned to service the air transport needs of a growing residential population, as well as the transport and business needs of the range of enterprises that are being sought in these areas;
- the metropolitan location attracts aircraft operators and their clients, pilots, instructors and trainees, and aviation business operators; due to the central location, the amenities, and access to high quality aviation facilities;
- there are opportunities to develop more accommodation for trainee pilots on the airport site, further strengthening the attractiveness of the airport to interstate and overseas students;
- Griffith University is linked both traditionally and by proximity. Undergraduate and postgraduate aviation courses, like the Bachelor of Aviation, are offered at the nearby Nathan campus;
- its proximity to the Brisbane CBD hospitals and other facilities, and excellent road access makes it an attractive base for aeromedical and emergency services;
- it is the home of established aviation businesses and organisations which all contribute to the richness of the airport community;
- the airport is positioned to cater for research, development and operation of Advanced Air Mobility and other emerging technologies in aviation and engineering; and strengthening its key role in facilitating the distribution of high value and time critical freight across the country;
- Archerfield Airport also offers substantial opportunities for development of new industrial and distribution/logistics, technology, engineering, and service facilities on serviced land, accessible via the established trunk road network. Consistent with State, regional and local planning policies for the SWIC REC/SWIG, the Master Plan will facilitate these uses with greenfields and infill developments in a variety of precincts at the airport;

- it makes a significant economic and social contribution to the SWIC REC/SWIG, Greater Brisbane and the South East Queensland region, through employment and business activity; and by facilitating transport, aeromedical and emergency services, industry, technology, education and training;
- the contribution will continue to grow over the master planning period, supported by existing and planned substantial investments at the airport in infrastructure and developments for aviation and complementary uses;
- the airport has unique characteristics that make it an appropriate base for niche RPT services which may not require access to, or may not be welcomed at, the major airports in the region. It is in a convenient location close to the Brisbane CBD, and to the substantial existing enterprises in the South West Industrial Gateway;
- AAC is committed to driving growth in sustainable aviation activity at Archerfield, and to attracting compatible activities that will underpin this;
- the potential environmental impacts of the airport are well managed, in accordance with the AES;
- the airport is addressing sustainability aspects in new development, and in its own projects that include refurbishment and adaptive reuse of historic buildings, and development of new facilities;
- the airport can be accessed by public transport, and BCC has in place plans to further improve this through refinements to bus services; and enhancement of the cycling and pedestrian network throughout the Acacia Ridge/Archerfield area, and links to Coopers Plains railway station, which in turn connects to greater Brisbane; and
- the airport is close to significant open space areas, including the Oxley Creek corridor (to the south) and the district open space on Mortimer Road, that serves the Archerfield/Acacia Ridge area.

The Master Plan and AES provide a framework to build on these strengths, and meet emerging needs.

3.8 CONSISTENCY WITH STATE, REGIONAL AND LOCAL PLANNING PROVISIONS

3.8.1 Consistency of the Master Plan with the State and regional framework

The Master Plan is consistent with the State and regional planning framework.

The Master Plan:

- provides for the sustainable future of the airport as a base for aviation, with an emphasis on flying training, corporate, charter, emergency rescue, aeromedical, Advanced Air Mobility and emerging technologies, RPT and related aviation activities; supported by a range of complementary land uses;
- will add essential economic stimulus to the airport business, and in turn support the outcomes sought for the SWIC REC/SWIG;
- provides a strategic framework for the timely and efficient development of airport infrastructure, yet retains the flexibility to respond to future developments in aviation that will emerge in the volatile marketplace over the 20 year planning horizon;
- promotes an integrated approach to airside and non-airside land use planning;
- includes information about the operational requirements and effects of the airport, including details concerning airspace protection, public safety areas and anti-aircraft noise management, to assist Council with the responsible management of surrounding land use;
- has full regard to conservation of the natural and built environment; and protection of soil, air and water quality (in conjunction with the AES);
- identifies actions to further improve the sustainability of the airport, including through generation and use of energy from renewable sources; facilitation of research, development and use of alternative energy for aviation and other purposes; efficient use of water; effective management of stormwater runoff quality and peak volumes (optimising on site reuse and minimising potential effects of discharges), recovery, reuse and recycling of waste; conservation of natural and identified heritage values; optimising efficient aviation operations through a program of continuous improvement to aviation infrastructure and site operations; and other measures set out in the AES;
- facilitates environmental awareness by all who conduct business on the airport (through the AES and related procedures);
- sets out the airport protection requirements, including the prescribed airspace, restricted light zones, forecast noise mapping, wildlife hazard buffer areas, and windshear and turbulence assessment areas to ensure that landholders and authorities proposing or undertaking off airport development can avoid encroachment of activities and development in the airport vicinity that could impact on airport operations; and
- will ensure environmental accountability for actions on site, through the Environmental Management Procedures, Environmental Management Plans

(for construction, and operation where appropriate) and regular reviews and reporting to the Commonwealth Government.

The Master Plan sets out the ongoing role and function of Archerfield as a major general aviation airport in its metropolitan, state and national context; and as a significant hub for transport, industrial and related commercial enterprises serving the south east region of Queensland for the long term.

The Master Plan guides the staged upgrading of aviation infrastructure and the release and development (and redevelopment) of non-aeronautical land on the airport for a range of purposes that complement the aviation activities at Archerfield, and the role it plays in the SWIC REC and South West Industrial Gateway.

It identifies the planned airside facility requirements for Archerfield. It identifies priority aviation infrastructure projects and key aviation development sites, including land currently available and the additional opportunities that will be created with the planned reconfiguration of the secondary runway complex and helicopter facilities. It confirms that there is no immediate requirement to expand the aeronautical facilities beyond the current airport boundaries.

AAC is committed to maintaining its long established good working relationship with the Queensland Government, to ensure that there is a full appreciation of all relevant issues, and a coordinated approach is taken on matters of common interest.

AAC will continue to work cooperatively with State Government in applying the latest relevant Queensland State Planning Policy on planning for aerodromes and other aeronautical facilities, and associated guidelines, where these are generally consistent with the principles and concepts underpinning the Master Plan.

3.8.2 Consistency with local planning provisions

The provisions of the Brisbane City Plan do not apply to the airport land. Instead, the Commonwealth through the *Airports Act* ensures that planning decisions on the airport are guided by the Master Plan, which includes a framework for land use and development.

As discussed in the preceding sections, the land use and development aspects of the Master Plan have had regard to State, regional and local planning provisions.

Vision and strategy

The continued and sustained operation of Archerfield Airport, as set out in the Master Plan is consistent with *City Plan*, and other strategies adopted by BCC (including *Brisbane: Our productive city*).

The land use strategy for the airport facilitates the ongoing operation of the airport, and accommodates the current and forecast future needs of aviation.

It identifies areas for existing and future aviation infrastructure and aviation developments, and AACs priorities for implementation of aviation projects, including Project ARROW (Archerfield Runway Realignment and Optimisation Works – which will reconfigure, modernise and optimise the secondary runway complex, helicopter facilities and associated aviation infrastructure), and aviation developments on existing sites and in designated strategic development areas.

The types, location and scale of complementary and non-aviation uses have been determined based on consideration of the pattern of land use in the areas in the vicinity of the airport (and appropriate interfaces to these areas), the strategic direction set by SPP, ShapingSEQ, the current Master Plan, and the strategies in City Plan (including for the SWIG, Oxley Creek and for ground transport improvements).

Zone provisions

In formulating the planning provisions for airport land, AAC has had regard to the planning provisions that apply to the wider area, and to the strategic policies and plans of State and local government.

The Archerfield Airport zones adopt the relevant provisions of the *Special purpose*, *General industry*, *Conservation*, and *Community facilities* zones from City Plan, with refinements that address the specific requirements of the airport.

The *ASP5 Special purpose (Archerfield Airport)* zone has been applied to the Runway precinct, the northern part of the Ashover precinct, and the Barton, Beatty and Mortimer precincts.

The *AIN2 Archerfield Airport General industry B* zone has been applied to the balance of the Ashover precinct, and to the Boundary and Beaufigther precincts.

The open space and services utilities land along Oxley Creek is zoned *ACN1 Archerfield Airport Conservation (Local)*, and God's Acre is zoned *ACF3 Archerfield Airport Community facilities - Cemetery*.

Each zone follows the *Queensland Planning Provisions* format, and includes a zone purpose, development location and uses overall outcomes, and development form overall outcomes. The zones are provided in section 12.3.

Land use terms

The Master Plan incorporates in Appendix E a comprehensive schedule of land use terms, drawn from the *Airports Act*, *Queensland Planning Regulation 1997*, *Queensland Planning Provisions*, and *Brisbane City Plan*.

Consistent with the Queensland Planning Provisions, the schedule provides a definition for each land use term and examples.

It also specifies for each land use whether it is accepted development, assessable development, or prohibited. The terminology aligns with that used in the administration of planning schemes in Queensland.

Consistent with the planning provisions that apply in City Plan

- Stand alone office uses are prohibited in the Archerfield Airport General industry B zone;
- Shop uses are limited to those that serve the needs of the airport and immediate area (for example; one small supermarket, located in either the Beatty Central or Barton precinct; no department stores);
- Industry uses (low-, medium-, high impact and special industry) follow the hierarchy in City Plan and will be assessed in accordance with the *Industry code*).

Neighbourhood plans

Under the *Airports Act*, the Master Plan (including the *Master Plan vision development objectives*, *Ground transport plan*, the *PSPs* and the *heritage management provisions* in the AES), provides the strategic framework to guide the coordinated use and development of land at the airport. The provisions of the *Acacia Ridge-Archerfield Neighbourhood Plan* and related *code* in City Plan do not apply to airport land.

The Master Plan includes comparable information to a neighbourhood plan about the long term plans for the airport, land use, heritage management, ground transport, utility services, drainage, and other elements.

Airport safeguarding

The Master Plan includes comprehensive measures to safeguard the airfield infrastructure and operations from incompatible use and development, consistent with the *NASF*, Queensland SPP, and the *Airport environs* overlay in City Plan.



Chapter 4 Economic Significance



Archerfield AIRPORT

4.1 ECONOMIC ROLE AND POTENTIAL OF ARCHERFIELD AIRPORT

Archerfield is a strategic airport serving South East Queensland.

It serves as the base for corporate and private flying, a number of pilot training schools; engineering, technology and maintenance providers; charter flight companies; government and emergency services (including QGAir, Polair and LifeFlight), Royal Queensland Aero Club, Archerfield Jet Base (FBO), and a range of supporting businesses.

The airport is a significant transport infrastructure asset for Brisbane and South East Queensland. It provides economic benefits to the state and regional economy, including:

- providing key economic infrastructure to enable other industries;
- reducing the pressure of General Aviation on RPT airports in the region, allowing for more efficient and safe passenger management;
- providing vital community aviation services such as aeromedical, rescue and emergency services helping to facilitate better patient outcomes;
- creating aviation jobs to sustain a skilled workforce for industry;
- facilitating efficient trade of goods and logistics;
- supporting economic development through efficient intermodal transport; and
- supporting regional and offshore resource development through freight logistics and fly-in, fly-out workforces.

The airport has an important role as a transport hub that facilitates regional and remote development.

Archerfield is an airport of strategic significance to the state's economic growth.

It plays a critical role in industry development, and in the resources, tourism, construction and agriculture sectors in particular.

It has a current and future role in industry development of aviation and aerospace, at the forefront of training and skills delivery, and its location in close proximity to industrial precincts with the potential to attract businesses and aviation links to industries that require air services.

Businesses at Archerfield Airport fulfil significant maintenance, repair and overhaul (MRO) functions. This sector provides an important contribution to the state economy, and also to exports.

The *Queensland Aerospace 10-Year Roadmap* discussion paper released by the State government in 2016 stated that over 30% of Australian aircraft manufacturing and repair businesses are in Queensland. In 2014–15 aerospace generated approximately \$1.3 billion of revenue and contributed around \$600

million to the Queensland economy. At that time, the sector provided over 4500 direct jobs in aircraft manufacturing and repair services. It indirectly supports many more across the state.

The State government in its 2022 edition of the *Queensland Aerospace 10 Year Roadmap and Action Plan 2018-2028* reinforces the importance of the aerospace industry with the following vision:

By 2028, the Queensland aerospace industry will be recognised as the leading centre in Australia and South-East Asia for aerospace innovation in training; niche manufacturing; maintenance, repair and overhaul (MRO); and uncrewed aerial systems (UAS) applications for military and civil Markets.

and the following key strategies for the next 10 years

Grow Queensland's aerospace industry and create high-value, knowledge-based jobs

Enhance Queensland's level of industry capability to access new national and global supply chain opportunities and international markets

Promote Queensland as a preferred destination for aerospace capability, servicing both national and global markets

As discussed in section 3.5, the Brisbane City Plan recognises that Archerfield Airport (and Brisbane Airport and Port of Brisbane) is a key location of economic activity and provides key access points supporting the city's economy.

The land use strategies that support this are for Archerfield Airport to:

- be a key centre for economic activity related to the functions of its location;
- complement major economic activity in the city;
- integrate with the city's transport network; and
- develop and operate safely and efficiently.

Air training is expected to grow as a share of industry revenue and strengthen the contribution of airports with a focus on training. Archerfield Airport is a key player in the economic growth of Queensland and provides opportunities to attract innovation, technology, education, training and specialist aviation and aerospace services.

4.1.1 Airport enterprises

The airport currently accommodates 150 businesses operating on 166 sites, and employing hundreds of people.

The flying training activities cater for both domestic and international flying students.

The international flying students are estimated to contribute approximately \$3.5M per annum in export earnings for the state, and for Australia.

There are also many external businesses that provide services to the enterprises based on the airport, and to the people working or visiting Archerfield.

4.1.2 Investment as a catalyst for growth

AAC has not only transformed the airport business from operating at a loss, it has also made significant capital investments totalling \$164m in the airport since privatisation in 1998. These investments have improved aviation infrastructure, attracted new enterprises to the airport, and strengthened its role as Brisbane's metropolitan airport.

The experience at metropolitan airports around Australia is that this investment leads to growth in on-airport employment, and increased indirect employment.

The Australian Airports Association, in its report *Securing the future of Australia's Metropolitan Airports* (November 2014) summarised the amount of capital investment made by the ALCs of metropolitan airports since privatisation. The report also provided on-airport employment figures as follows:

- Archerfield Airport-\$38m, and 668 staff in aeronautical businesses (total staff in non-aeronautical not available);
- Bankstown /Camden Airport-\$37m, and 2070 on-airport staff;
- Essendon Airport- \$200m, and 4200 on-airport staff;
- Jandakot Airport- \$251m, and 1950 on-airport staff;
- Moorabbin Airport- \$250m, and 3300 on-airport staff; and
- Parafield Airport-\$21m, and 850 on-airport staff.

4.1.3 South-West Industrial Gateway

In conjunction with the preparation by AAC of the 2011 Master Plan, BCC undertook an analysis of the role of Archerfield as part of this strategic industrial area of Brisbane.

The analysis found that the airport is a key asset to the South-West Industrial Gateway (SWIG). It complements the freight connections at the Acacia Ridge rail freight terminal and the expected growth of industrial activity in this part of Brisbane.

The Gateway area overall is considered by BCC to be a strategically important area for future industry serving the needs of Brisbane and the region, and is identified as one of three 'major industrial areas' in the City. Further industrial development in the Gateway is complementary to the other two major industrial areas of Brisbane, being Australia TradeCoast, and the Northern Industrial Area.

The strategic role of the airport for industry, logistics and other enterprises is assessed by BCC as being complimentary to the aviation activities at Archerfield, and to the SWIG.

BCC has advised that the airport is well placed to cater for freight and short haul business travel services that would be attractive to existing enterprises in the Acacia Ridge/Archerfield/Rocklea area, distribution and logistics, and investors looking for strategic industrial locations in Brisbane.

The airport therefore has the potential to contribute to Brisbane's long-term economic growth and development by increasing the attractiveness of the City to domestic and overseas enterprises that are looking to invest in Brisbane, and by providing services and facilities that are complementary to economic activity in the metropolitan area and the broader South-East Queensland region.

4.2 ECONOMIC SIGNIFICANCE AND CONTRIBUTIONS

An assessment of the economic significance and economic contributions of Archerfield Airport was undertaken for AAC by Norling Consulting in 2017, and this has been updated for the 2023-43 Master Plan.

The 2017 and 2023 assessments include an appraisal of the strategic role and function of the airport, research into the existing operations and enterprises at Archerfield, and an assessment of the ultimate development potential of the airport, as provided for in the 2017-37 Master Plan and in the 2023-43 plan.

The report *Archerfield Airport – Economic Significance and Economic Contributions* (2023) found that:

4.2.1 Current employment

A total of 510 Full Time Equivalent (FTE) people are estimated to currently work directly within the Archerfield Airport tenancies. While the majority of jobs are dispersed across many small businesses, larger employers included the flying training schools, LifeFlight, Pickles Auctions and QGAir.

In 2023, a further 50 FTEs were working on a range of construction activities at Archerfield Airport, reflecting the significant investment and growth occurring at this airport. The current workforce is therefore estimated at 560 FTEs.

4.2.2 Training/Flying Schools

Archerfield Airport plays an important role with several flight training centres for students training to be pilots for both recreation and commercial purposes. Approximately 450 students utilised the training facilities in 2023. The largest facility at the Airport is Basair Aviation College. Basair is the largest flying college in Australia, with over 70 aircraft across three campuses (Bankstown, Cessnock and Archerfield).

4.2.3 Aircraft movements

In the 2022/23 financial year, Archerfield Airport was Australia's seventh busiest airport, Australia's fifth busiest general aviation airport and Queensland's second busiest airport.

4.2.4 Contribution to Gross Regional Product (GRP) and Gross State Product (GSP)

AAC tenants generated an estimated total of \$220 million in annual turnover/revenue in the 2022/23 financial year. When on-site construction activities are included, the total turnover is estimated at \$240 million for 2023.

With respect to the value added component, businesses located at the airport contribute to the economy by deriving revenue that pays wages and salaries, derives net profit and is not spent directly with other businesses. These components of annual turnover are considered to be value added economic contributions. The total estimate for all tenancies was \$62.5 million in 2017, and increased to \$90 million in 2023.

In the 2022/23 financial year, Queensland had a GSP of \$387 billion. Greater Brisbane's GRP was estimated at \$203 billion.

The recently released BCC strategy *Brisbane: Our productive City* anticipates that by 2041 the SWIG will make a \$6.5 billion contribution to Brisbane's industrial GRP, and support 41,000 SWIG industry workers.

The contribution from businesses on Archerfield Airport, which comprise a wide range of enterprises not limited to aviation and industry, is expected to grow significantly in the coming years.

4.2.5 Economic contributions 2017-2023

From an economic contribution perspective, since 2017 more than \$76M has been invested in aviation projects that are revitalising the airport.

Stages 1, 2 and 3 of Project AIM have been completed. The project has included a major upgrading of the main runway and associated navigation infrastructure, taxiways, Eastern Apron and pilot activated runway and apron lighting. It will facilitate flying training and other aviation operations at Archerfield, and will be a catalyst for a number of aviation projects, as set out in the dMP (and the 2017 and past master plans).

Recently completed aviation developments including the upgrading and renewal of Hangar 3, and redevelopment of Hangars 4 and 13 in the Beatty precinct have also contributed to the realisation of forecast economic activity.

Construction of the new LifeFlight Engineering facility on site 409 in the Wirraway precinct has commenced. When completed in 2024, it will be the largest hangar

in the history of the airport and will further consolidate the precinct as a home to high end aviation operations.

AAC is also implementing progressively a series of warehouse, logistics and industrial developments in Transition Estate, as foreshadowed in the 2017 master plan, and in the 2023-43 dMP. Buildings 560 (cold store and freezer facility), 570 (warehouse and ancillary office) 580 and 581 have been completed.

4.2.6 Future potential

The analysis of the potential future economic contributions of the airport has had regard to three planning horizons:

- at 2031 (being the initial 8-year period of the 2023-43 Master Plan);
- at 2043 (which is Year 20 of the Master Plan); and
- at the time the airport precincts are fully developed.

The methodology firstly developed economic metrics for the 'ultimate development' scenario. The intervening 2031 and 2043 years were interpolated based upon analysis of recent development activity, land availability, realistic development priorities, and timeframes for each precinct.

Future estimates were made based on consideration of the activities and performance of existing tenants, and the intended land uses within each precinct within which capacity for future development has been identified.

The assumptions have been applied on a precinct basis, to account for the differences in land use, development and operational constraints, anticipated future development forms in each part of the airport, and the likely staging of development activities in each precinct.

All future dollar values have been expressed in constant 2023 values, with no account taken of future inflation.

It is estimated that in the initial 8 years of the Master Plan (2023 to 2031), most development at the airport will occur within the Boundary, Mortimer, Beaufighter and Beatty precincts. Some initial development is likely to also occur in the Barton precinct towards the end of the initial 8 year period, assuming that the reconfiguration of the secondary runway complex is finalised by then.

During the 2031 to 2043 period, development is expected to occur over a wider number of precincts, with Boundary, Beaufighter and Ashover precincts most likely receiving the greatest levels of development activity.

The following table sets out the estimated level of business activity per precinct by land area (expressed in net terms), at the years 2023, 2031 and 2043, and to ultimate capacity.

It shows that in 2023 the developed land represents 29% of the total developable land at Archerfield Airport. This percentage is projected to increase to 53% by 2031 and 87% by 2043.

TABLE 2: ESTIMATED DEVELOPED LAND BY PRECINCT

| Precinct | 2023 (ha) | 2031 (ha) | 2043 (ha) | Ultimate capacity (ha) |
|--------------|-----------|-----------|-----------|------------------------|
| Ashover | 5 | 5 | 12 | 17 |
| Barton | 0 | 0 | 4 | 7 |
| Beatty | 4 | 7 | 10 | 10 |
| Beaufighter | 9 | 13 | 23 | 27 |
| Boundary | 7 | 20 | 30 | 30 |
| Mortimer | 5 | 10 | 12 | 13 |
| Wirraway | 2 | 3 | 5 | 6 |
| Total | 32 | 58 | 96 | 110 |

The economic significance and contributions assessment concluded that by 2031, Archerfield Airport is projected to:

- accommodate about 530 students;
- employ about 1,050 FTE staff;
- produce a turnover of \$371 million; and
- generate an economic value added contribution of \$155 million.

By 2043, the economic contributions of the airport would increase to about:

- 590 students;
- 1,870 FTE staff;
- a turnover of \$594 million; and
- an economic value added contribution of \$253 million.

Once the airport is completely developed its economic contributions are estimated at:

- 600 students;
- 2,100 FTE staff;
- a turnover of \$651 million; and
- an economic value added contribution of \$276 million.

This economic value added by the airport is more than three times the current 2023 level.



Chapter 5

Aviation Activity & Forecasts



Archerfield AIRPORT

5.1 AVIATION ACTIVITY AT ARCHERFIELD

Archerfield caters for all types of general aviation fixed and rotary wing aircraft operations including:

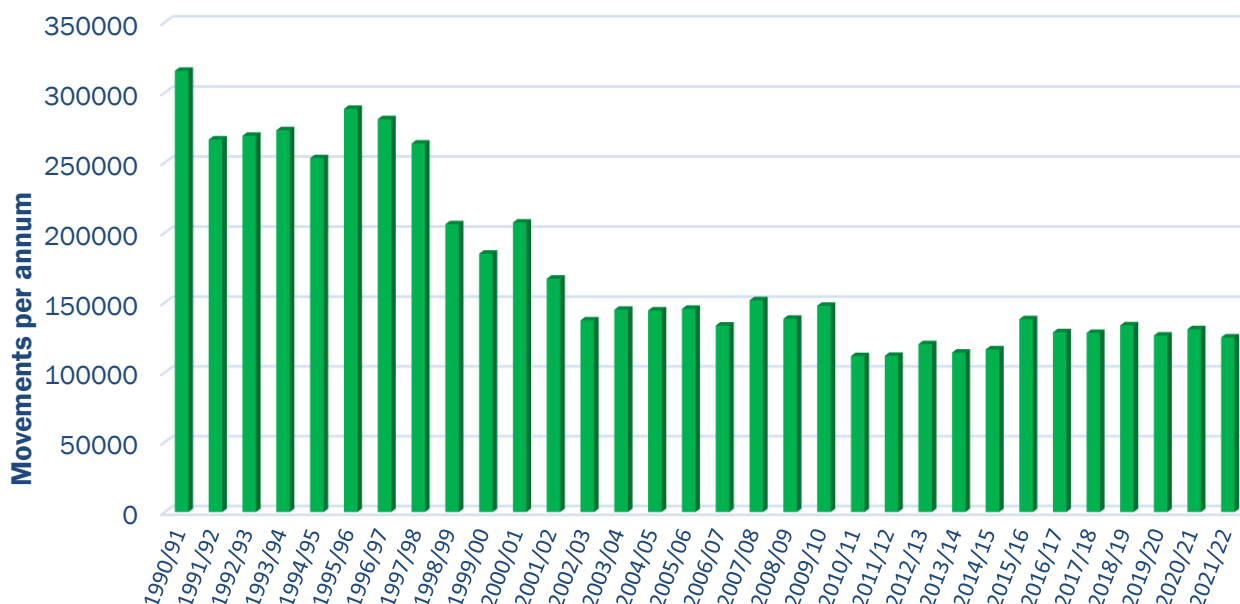
- flying training;
- charter, for passengers and freight;
- aerial work;
- aeromedical;
- emergency rescue;
- corporate and business aviation;
- private and business flying;
- recreational and sports aviation; and
- emergency services flying.

Flying activity is supported by a range of established on-airport businesses which provide:

- fuel supply services;
- student accommodation and training;
- aircraft maintenance (civil, emergency services, and military);
- non destructive testing and shot peening;
- research and development, including prototyping and testing for existing and emerging technologies;
- hangarage;
- warehousing;
- aircraft, components and materials sales;
- aircraft painting and refurbishment;
- communications;
- insurance services;
- fixed base operator services;
- facilities for clubs and organisations;
- office based services; and
- food and other retailing.

5.2 AIRCRAFT MOVEMENTS

Aircraft movements have been adopted throughout the developed world as one of several key indicators of the utilisation of aviation facilities when the usual criterion of passenger numbers cannot readily be applied.



Annual 24 hour aircraft movements, 1990-2022

Aircraft movement figures alone are fairly limited in their usefulness for airport master planning. Aggregated annual figures do not show changes in the composition of the aircraft fleet over the years, or changes in the type or purposes of flights. Indeed, until the introduction of Location Specific Pricing for full stop landings at Archerfield in 1998, there was no need or incentive to verify any of the data.

An independent analysis of official movement figures after the advent of Location Specific Pricing found that they consistently exceeded recorded movements by significant margins, so comparisons of pre-privatisation and post privatisation figures need to be conducted with circumspection.

At the time of privatisation (19th June, 1998), there were 226 aircraft recorded on the field. In February 2016 there were 288, so with that in mind as a moderator, there is still value to be gleaned from the records that are available.

Airport records show that in the late 1980's through to 1991 the annual aircraft movements at Archerfield peaked at over 300,000.

The annual rate fluctuated between 250,000 and 300,000 flights per annum during the 1990s, and has ranged between 111,000 and 151,000 over the period 2005 to 2019. The following graph shows total movements for each year over the past 32 years (to 2022, from AAC and tower data).

In 2002, AAC started recording aircraft movements on a 24-hour basis. Prior to then, movement data was only collected during tower hours.

To assist with comparing the data, the 1991-2001 tower counts have been adjusted by adding 10.4% to produce the estimated 24-hour count for each year over the period 1990 to 2002. This percentage increase is the average difference between 24 hour movements and the tower records since 2002.

Factors that have impacted on flight numbers at Archerfield since 1990 have included:

- the Asian economic crisis in 1997;
- the introduction of location specific pricing for Tower services by AsA in 1998, coinciding with privatisation;
- airport privatisation in 1998, and the necessity for Airports Act airports to recover costs for services provided and to comply with more comprehensive and ongoing requirements for airport planning, environmental management, and community consultation;
- the Global Financial Crisis in 2008-9;
- the Mobil Avtur fuel contamination event in early 2000 resulting in the grounding of thousands of piston engine aircraft across eastern Australia;
- terrorism and related security concerns in the aviation industry following the September 2001 attacks in the USA;
- the increasing use of simulators for pilot training;
- the quite remarkable growth of an interconnected network of low cost carrier services throughout the nation;
- the increase in recreational aircraft and licensing costs, resulting in the relocation of some aircraft to country airports with lower cost bases;
- volatility in the value of the Australian dollar (which has impacted on the attractiveness of Australia as a location for training of overseas pilots);
- the COVID19 pandemic; and
- changes in the types of aircraft flying at Archerfield.

Since the 2017 Master Plan was approved, the unpredictability of annual flight numbers has continued.

Annual fixed wing movements reduced by approximately 40,000 from 2009/10 to 2010/11 (following the Global Financial Crisis), and then remained relatively steady (in a range of 100,000 to 109,000/annum) to 2014/15. Fixed wing movements strengthened considerably in 2015/16 with a total of approximately 125,000. In the six years since then, the annual movements have been in the range of 108-118,000.

Over the same period, helicopter movements have increased from an average of around 4000-5000 movements per year to around 18,200 per annum by 2020/21, and then 16,400 in 2021/22. The overall trend to increased helicopter movements reflects an increase in operations by QGAir, Polair, LifeFlight, and in training activities at Archerfield.

TABLE 3: AIRCRAFT MOVEMENTS

| Year | Fixed wing | Helicopter | Other | Tower hours | AAC 24 hour |
|---------|------------|------------|-------|-------------|-------------|
| 1990/91 | 248,997 | 36,694 | 136 | 285,827 | 316,000 |
| 1991/92 | 217,394 | 23,943 | 52 | 241,389 | 266,000 |
| 1992/93 | 213,404 | 29,842 | 567 | 243,813 | 269,000 |
| 1993/94 | 231,172 | 15,553 | 657 | 247,382 | 273,000 |
| 1994/95 | 217,249 | 10,652 | 1,399 | 229,300 | 253,000 |
| 1995/96 | 241,585 | 18,778 | 805 | 261,168 | 288,000 |
| 1996/97 | 233,080 | 20,702 | 712 | 254,494 | 281,000 |
| 1997/98 | 218,862 | 18,862 | 1,044 | 238,768 | 264,000 |
| 1998/99 | 159,615 | 26,355 | 682 | 186,652 | 206,000 |
| 1999/00 | 147,682 | 19,566 | 336 | 167,584 | 185,000 |
| 2000/01 | 176,928 | 9,960 | 840 | 187,728 | 207,000 |
| 2001/02 | 147,360 | 3,358 | 724 | 151,442 | 167,000 |
| 2002/03 | 126,348 | 3,376 | 548 | 130,272 | 137,276 |
| 2003/04 | 119,660 | 2,748 | 552 | 122,960 | 144,942 |
| 2004/05 | 140,888 | 3,528 | | 128,777 | 144,416 |
| 2005/06 | 141,548 | 4,060 | | 127,403 | 145,608 |
| 2006/07 | 127,976 | 5,640 | | 119,465 | 133,616 |
| 2007/08 | 147,018 | 4,687 | | 135,502 | 151,705 |
| 2008/09 | 134,991 | 3,490 | | 119,276 | 138,481 |
| 2009/10 | 142,718 | 5,062 | | 125,137 | 147,780 |
| 2010/11 | 102,952 | 8,810 | | 95,250 | 111,762 |
| 2011/12 | 100,863 | 11,035 | | 97,832 | 111,898 |
| 2012/13 | 108,690 | 11,534 | | 101,425 | 120,224 |
| 2013/14 | 101,323 | 12,934 | | 95,362 | 114,257 |
| 2014/15 | 103,190 | 13,364 | | 100,485 | 116,554 |
| 2015/16 | 125,133 | 13,004 | | 120,311 | 138,137 |
| 2016/17 | 116,908 | 11,940 | | 112,581 | 128,848 |
| 2017/18 | 113,849 | 14,512 | | 110,796 | 128,361 |
| 2018/19 | 118,522 | 15,250 | | 117,932 | 133,772 |
| 2019/20 | 109,977 | 16,478 | | 109,684 | 126,455 |
| 2020/21 | 112,802 | 18,237 | | 115,152 | 131,039 |
| 2021/22 | 108,631 | 16,464 | | 109,754 | 125,095 |

NOTE: The 'AAC 24 hour' movements for the period 1991-2001 (shaded light green) are estimated and are provided for illustrative purposes only. The 'tower hours' and 'AAC 24 hour' movements from 2002 onwards (shaded blue) are from AAC records.

The constrained global financial conditions prevailing from mid 2007 to early 2009 affected aviation worldwide. It constricted discretionary spending, particularly on travel and leisure activities.

Although Australia fared well in a global context, the reduced availability of capital impacted on business investment, for both existing and new enterprises during that time, and this was reflected in limited investment in aviation, and non-aviation developments.

More recently, the COVID pandemic and associated travel restrictions have impacted some aspects of flying activity, however given the multi faceted nature of the airport operations, the continued strong demand for general aviation and the diversity of enterprises and usage, the outlook for growth remains sound, particularly in the key aviation areas that Archerfield serves, and the emerging opportunities arising from innovations in aviation and in the delivery of transport services.

5.3 FORECAST AIRCRAFT MOVEMENTS

The significant variation in flight numbers over the past 32 years shows how difficult it is to forecast future activity at Archerfield (or any other general aviation airport).

The overall trend of movement figures at Archerfield was downward during 1990-2000, levelled off during 2000-2020, and has shown a moderate increase overall in the period 2010-2022.

The flight numbers continue to fluctuate on a year by year basis, however the variation has occurred over a narrower range over the past 20 years.

The flying activity trends are sensitive to domestic conditions, and changes in the global, national and regional aviation industry.

Many of the factors influencing the activity levels are unpredictable, and it is conceivable that over the 20 year master planning period, there will be a resurgence in flight numbers.

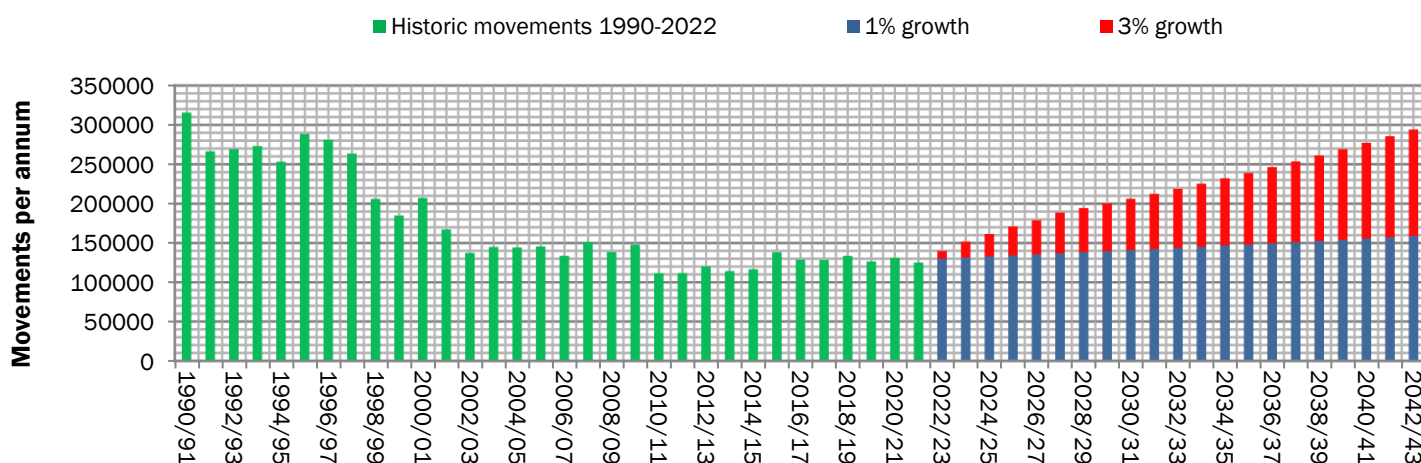
The airport is a rare and irreplaceable resource. The Master Plan seeks to preserve its capacity to cater for growth and the evolution of aviation over the next 20 years and beyond.

Archerfield is in the midst of a modernisation phase, with significant improvements being made to aviation infrastructure, facilities and buildings to meet current and emerging needs.

The Project AIM works, and the planned reconfiguration and optimisation of the secondary runway complex and helicopter facilities will improve the efficient use of aviation land, better cater for flying activity, and provide opportunities for a

wider range of aviation uses and enterprises that support them to operate at Archerfield.

The anticipated strong growth in movements to 2042, whilst unlikely to exceed the levels experienced in the early to mid 1990s, will be facilitated by the recent upgrading of the main runway and primary taxiways, and upgrading of the Eastern Apron. Archerfield is also anticipated to attract additional aviation activity; from innovations in Advanced Air Mobility and related aviation services and application of emerging technologies. To ensure that future potential remains protected, AAC has developed two growth scenarios as illustrated below.



Forecast annual aircraft movements, 2022-2042

Data from 1990 to 2022 is shown in green. A low growth scenario for the period 2022-2042 (at an annual rate of 1%) is shown in blue, and a higher growth scenario (at 3% overall) is shown in red.

For master planning purposes, the higher growth rate has been adopted for the assessment of any external effects of aviation activity. This is particularly relevant to the assessment of the potential noise exposure from aircraft in flight over the 20 year planning period.

5.3.1 Influences on forecasts, and outcomes for the planning period

Some of the significant variables that could influence the forecast for aircraft movements for the airport are:

- global and regional economic conditions;

- changes to Government regulations for the licensing of aircraft and operators;
- the pricing policy of AsA for control tower services at Archerfield;
- investment by existing flying schools in expansion and upgrading of their training fleet, and in other equipment including simulators;
- the strength of the flying training market, and the attractiveness of Archerfield to overseas students;
- the attractiveness of Archerfield for emerging air taxi and other aviation services, and as an interchange for other forms of on demand transport;
- growth in research and development;
- the application of emerging aviation technologies;
- the attractiveness of Archerfield for helicopter flying training, and for other helicopter uses;
- growth in aeromedical and emergency services operations at Archerfield; and
- other regional, local and community airports may wish to compete for the general aviation business that currently exists at Archerfield Airport.

AAC is committed to facilitating the continued success of the airport for the long term.

It has in place several strategies to strengthen the aviation business, attract appropriate airport users, and foster complementary uses of the airport where these will positively contribute to the improved viability of the airport.

In 2014, AAC invested over \$4M in the airport's first ever student accommodation complex. Located in a prime location on the airport on Grenier Drive, Building 9 accommodates up to 40 aviation students with motel style rooms on the top floor and a commercial kitchen, dining and lounge rooms, and four offices/training rooms on the ground floor.

The complex also includes a purpose-built viewing platform offering 360 degree views of the surrounding airspace to facilitate student's situational awareness and familiarity with radio procedures. Implementation of this initiative will assist with realising AAC's vision for the ongoing development of the airport into a world-class aviation facility.

AAC has also installed Movement Area Guidance signs beside the major runways and taxiways to assist trainee pilots conduct ground operations. It also plans to enhance cross wind flying opportunities by relocating the secondary runway complex away from low lying and flood-prone areas.

AAC and its tenants have invested heavily in a mix of new and refurbished facilities, including Hangars 3, 4, 5, 6 and 13; and refurbishment and adaptive

reuse of the historic Airport Administration and Terminal building, which is now reinstated as the headquarters for airport management and other administrative functions, operates as a terminal, and is home to the airport History Room.

Construction of the new LifeFlight Engineering facility on site 409 in the Wirraway precinct has commenced. When completed in 2024, it will be the largest hangar in the history of the airport and will further consolidate the precinct as a home to high end aviation operations.

AAC, has also recently invested more than \$20M in implementing Project AIM Stages 1-3, a major commitment to modernising the aviation infrastructure at Archerfield.

The works have included reconstruction and lengthening of the main 10L/28R runway, new drainage, provision of new runway lighting and new Precision Approach Path Indicator lights, upgrading the associated primary taxiways and installation of additional taxiway stubs to fit the upgraded runway, and reconstruction and upgrading of the Eastern Apron, and associated aircraft parking and lighting.

These works cater for a wider range of aircraft (up to Code C), improve aircraft parking facilities, improve the efficient operation of the runway complex, and provide opportunities for further aviation development including on strategic aviation sites in the Wirraway, Beatty and Mortimer precincts.

5.4 AIR FREIGHT

With its metropolitan location, positioned amidst a substantial and growing industrial area (and one of the largest in Brisbane), the airport is well placed to provide specialised air freight.

Accessible to the main road links to Brisbane and interstate, and the rail freight terminus at Acacia Ridge, the airport also has the potential to act as a transport interchange for land and air freight.

AAC, in consultation with BCC has identified an opportunity for growth in freight that services the needs of remote regional areas, including the mining industry. These customers require rapid response from expert technicians and a quick supply of replacement parts for plant and machinery breakdowns.

The 2042 ANEF has allowed for 80 freight movements per week in recognition of this and other similar uses.

The Master Plan also provides the opportunity for the progressive development of freight and supporting uses, including sites with direct airside access, in a number of the development precincts on the airport.

5.5 REGULAR PUBLIC TRANSPORT

In the early days of Archerfield Airport, it was Brisbane's main regular public transport (RPT) airport. With the establishment of Brisbane Airport in its current location, the role of Archerfield as a RPT facilitator was phased out.

Over the past 26 years a number of operators have proposed bringing RPT back to Archerfield. Their plans have included linking capital city secondary airports.

Consistent with previous master plans, the 2023 Master Plan continues to make provision for the introduction of RPT services. It is anticipated that aircraft capable of carrying up to 80 passengers could operate from the airport.

In line with the 2011 and 2017 Master Plans, the *2042 ANEF* (Figure 14) allows for up to 12 arrivals and 12 departures a day, or around 9000 movements per year, by Dash 8-Q400, Embraer 175 or similar aircraft.

If RPT is to occur at Archerfield, all RPT arrivals and departures will be confined to the main runway.

Passenger numbers for a RPT service could be around 400,000 to 500,000 per annum. This would represent less than 3% of the total airport flying activity, but would contribute significantly to the aviation services provided at Archerfield.

5.6 CORPORATE AND BUSINESS

At present the airport has a small but significant volume of passenger traffic from charter and corporate operations provided by existing businesses on the airfield.

Passengers are typically construction or mining crews travelling to a remote location, or small teams of executives travelling regionally or interstate. Politicians and VIPs also take advantage of the services provided by the businesses at Archerfield, and the convenient and readily accessible location of the airport.

5.7 AEROMEDICAL AND EMERGENCY SERVICES

In recent years, Archerfield has played an increasing role as the base for aeromedical and emergency services operations and maintenance for Brisbane and the greater region.

This is consistent with the experience of other metropolitan airports that have the capacity to cater for these uses, freeing the major capital city airports to facilitate RPT services carrying large volumes of international and domestic passengers.

Archerfield is well placed to cater for additional growth in aeromedical and emergency services operations and maintenance functions. A variety of opportunities in addition to the LifeFlight aircraft maintenance and hangar facility

currently being constructed at site 409 are provided in the Master Plan for further development of these facilities, now and following the reconfiguration of the secondary runway facilities.

5.8 ADVANCED AIR MOBILITY, AND AIR TAXI

Archerfield Airport is positioned to become a base for new and emerging aviation technology (including on demand services); research and development for the associated systems, technology and infrastructure; maintenance, and education and training.

AAC believes that the utilisation of both Advanced Air Mobility (AAM) and Remote Piloted Aircraft Systems (RPAS) has the potential to significantly enhance aviation support to South East Queensland, the regions, and the national aviation network.

The airport provides a significant opportunity to contribute to the safe and efficient operation of the emerging next wave of transport, while also optimising the sustainable use of resources and minimising the environmental impact of transport operations.

The airport is appropriately located close to the Brisbane CBD, in proximity to established ground transport networks, and is a long-established strategic asset of the South West Industrial Gateway and greater Brisbane.

AAC is committed to working proactively with potential operators, and with both CASA and AsA to ensure the safe introduction of this technology

5.9 IMPLICATIONS FOR THE MASTER PLAN

The Master Plan preserves the opportunity for RPT traffic and growth in air freight, aeromedical and emergency services, Advanced Air Mobility (AAM) and emerging technologies, and corporate and business air operations.

Building on the major works completed for Project AIM, it includes measures for the progressive upgrading of taxiways, aprons and related facilities if justified by a commitment by a viable RPT operator or other significant aviation user, along with a desire for such services by the community.

The Master Plan gives also the flexibility for a RPT operator to run the service from the existing terminal building, or potentially from a new purpose built terminal facility and car parking area.

New facilities could be developed in the Wirraway precinct adjacent to (and on the north side of) the main 10L/28R runway, following the reconfiguration of the secondary grass runway complex which would open up additional land for aviation related developments alongside it; or from the Airport Administration

and Terminal building (or other facilities in the locality), or in a new facility adjacent to the recently upgraded Eastern Apron, in the Beatty precinct.

These options are shown in the *Master Plan Vision* (Figure 2), the *Beatty Precinct Structure Plan* (Figure 20), the *Boundary and Wirraway Precinct Structure Plan* (Figure 24), and the *2031 vision* (Figure 31).

The *20 year ANEF* and the N70 plans include provision for RPT traffic and freight, and for the reconfiguration of the secondary runway complex.

It should be noted that the types of aircraft used for RPT services and freight will not use the secondary grass runways, so will not contribute to the forecast noise exposure from the secondary grass runway complex, either in their current location, or when reconfigured and modernised.

The Master Plan provides a range of opportunities for AAM and RPAS, including potential sites for operations, for research and development, and for training.

In addition, AAC will identify potential opportunities for research and investment in further new emerging technology, with the objective of establishing a Centre of Aviation Innovation.



Chapter 6

Aviation

Facilities



Archerfield AIRPORT

6.1 EXISTING AVIATION FACILITIES

The existing airport layout is shown in Figure 3 *Airport context* and Figure 4 *Existing airport layout*.

6.1.1 Runways

Archerfield Airport has two sets of parallel runways. The 10/28 parallel runways (aligned approximately east-west) and full-length parallel taxiways have sealed pavements. Runway 10L/28R and the supporting taxiway are equipped with pilot activated lighting.

The secondary direction 04/22 parallel runways (aligned approximately north-east/south-west) and taxiways are unsealed except for the runway thresholds.

The runway facilities are summarised as follows:

- runway 10L/28R is sealed, 1727 m long (including the starter extension), 30 m wide and has a Pavement Classification Number (PCN) of 16 (CASA Pavement Classification Rating (PCR) of 180), Pilot Activated Lighting (PAL) and Precision Approach Path Indicator (PAPI) lights;
- runway 10R/28L has an unrated pavement, 1100 m long and 30 m wide, the central 18 m of which is sealed, with 6 m of gravel on either side;
- runway 04L/22R has an unrated natural surface, 1245 m long and 30 m wide; and
- runway 04R/22L has an unrated natural surface, 1100 m long and 30 m wide.

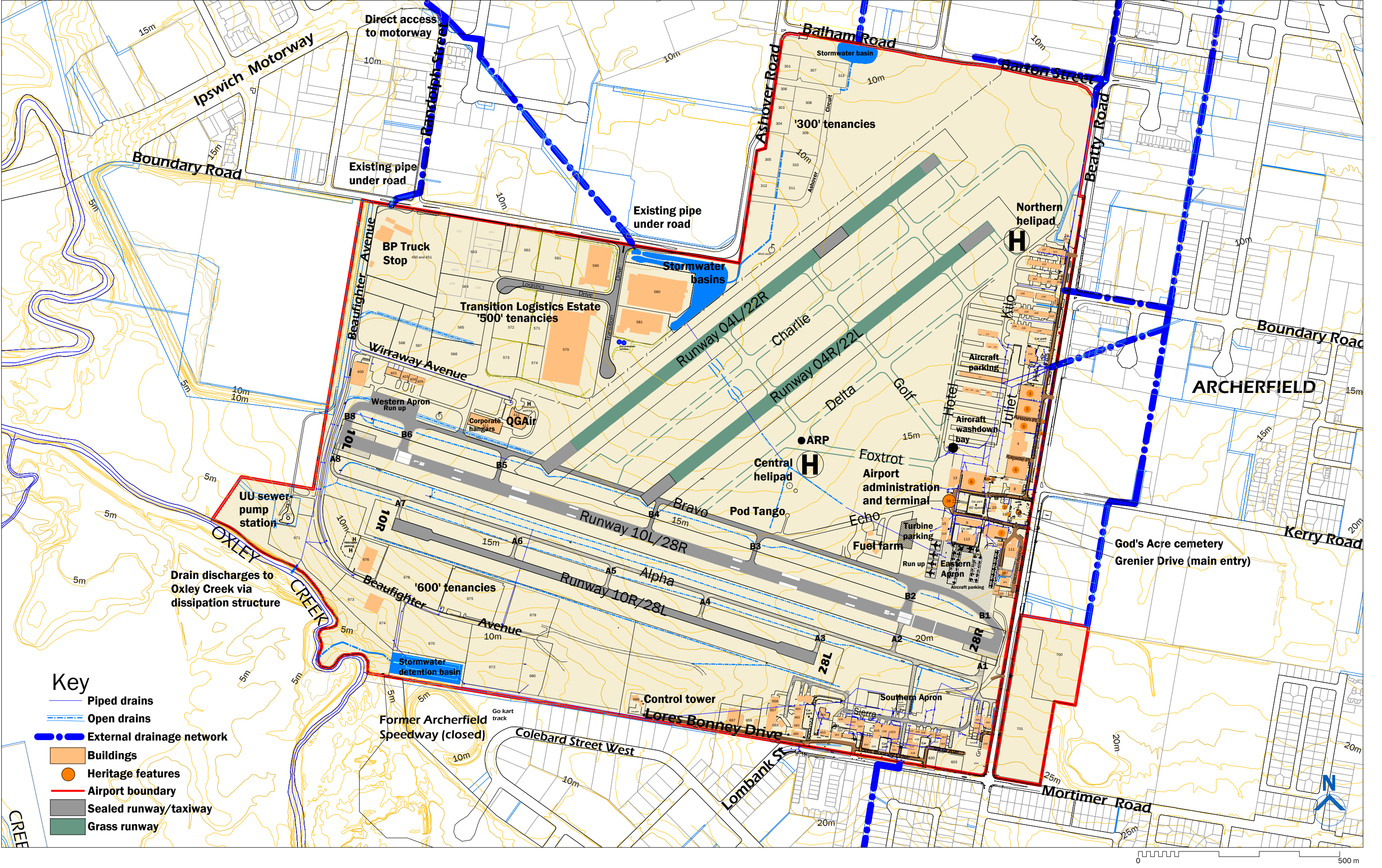
Runway thresholds are displaced as follows:

- 10L by 150 m;
- 28R by 228 m; and
- 22R by 290 m.

With the recent completion of stages 1, 2 and 3 of Project AIM, aircraft with an Aircraft Classification Number (ACN) of 16 (equivalent to an ACR of 180 for Archerfield's pavements) can operate on runway 10L/28R and the associated Taxiway Bravo subject to a pavement concession from AAC. The Eastern Apron, following the recent upgrading works is also suitable for these aircraft.

Due to their location in the low lying part of the airport, the natural surface 04/22 runways, particularly the central section of 04L/22R become wet and affected by heavy rainfalls, thereby rendering them unserviceable more than 25% of the time.

This is particularly evident for the 04L/22R runway which has steep grades at its southern end and its central section sits in one of the lowest areas of the airport.



AAC is seeking to address this issue with the proposed replacement of the 04/22 runways, with a realigned secondary runway system that caters throughout the year for aircraft requiring cross wind facilities.

6.1.2 Primary taxiways

Parallel taxiways serve each runway and there are connecting taxiways to other parts of the airfield.

The taxiway network is shown in Figure 4. The key dimensions and Code rating of the primary taxiway system are set out in the table below.

TABLE 4: PRIMARY TAXIWAYS

| | Length (m) | Width (m) | Code |
|--|------------|-----------|------|
| Alpha | 1,670 | 7.5 | A |
| Bravo (B1, B2, B6 and B8) | 645 | 15 | C |
| Bravo (B3, B4 and B5) | 920 | 10.5 | B |
| Charlie | 1,275 | 7.5 | A |
| Delta | 1,105 | 7.5 | A |
| Hotel (between the Terminal and Bravo) | 145 | 15 | C |
| Juliet | 305 | 7.5 | A |

6.1.3 Run up bays

Run up bays for the 10/28 runways are provided on the north side of Taxiway Bravo (in the vicinity of the thresholds to 10L and 28R) and on the west side of Taxiway Sierra (near Hangar 643).

Run up bays are also provided at each end of the secondary runways, and are accessed from Taxiways Charlie and Delta.

6.1.4 Aprons

There are four main apron areas on the airport.

The Eastern Apron, located adjacent to Taxiway Bravo, at the eastern end of the 10L/28R runway has an area of approximately 2.1ha. With the recent completion of the Project AIM stage 3 reconstruction and upgrading works, the apron is illuminated by pilot activated lighting on three floodlight towers for night use. It is sealed and linemarked with up to 56 parking bays for a combination of Code A, B and C aircraft.

Apron Hotel, adjacent to the Airport Administration and Terminal Building has an area of 1.4 ha. It has 34 aircraft tie down parking positions provided with steel cable supports, two with chain supports and two without supports.

Apron Juliet (Northern Apron) is 7,000 m² in area and is of concrete construction with an asphalt sealed surface in places. There are 67 grass aircraft tie down positions adjacent to Apron Juliet and 17 aircraft parking positions on asphalt/concrete along Juliet with 7 of these provided with steel cable supports and three with chain supports.

The Western Apron is located on the north side of Taxiway Bravo near 10L.

The grassed Southern Apron, in the Mortimer precinct is adjacent to Taxiways Alpha and Sierra and the aviation tenancies, and is in proximity to the eastern end of the 10/28 runways.

6.1.5 Aircraft parking

Aircraft parking with tie downs is currently available for just over 200 fixed wing aircraft. These parking areas include spaces with sealed pavement, and grass areas, and aero ports. General visitor parking is provided to the west of Taxiway Hotel, between Echo and Foxtrot.

A designated turbine parking area is provided adjacent to Taxiway Hotel, south of Taxiway Echo.

6.1.6 Helicopter facilities

There are two helipads on the airport. The central helipad is located south of Taxiway Foxtrot and the northern helipad is located adjacent to the north eastern end of Runway 04R/22L.

There are currently three helicopter parking bays to the east of the central helipad, and other parking areas for helicopters exist throughout the airport, including within tenancies.

6.1.7 Engine run-up locations

Jet engine testing is only allowed at the run-up bays to Runway 10L.

In dry weather truck based dynamic engine testbeds are directed to pod Tango, and in wet weather to the threshold of Runway 04R (via Taxiway Bravo).

6.1.8 Visual and navigational aids

Runway 10L/28R is equipped with pilot activated, medium intensity runway lighting, Runway Threshold Indicator Lights (RTILs), Precision Approach Path Indicator lights and an illuminated wind indicator.

In May 2016, AsA decommissioned the Non-Directional Beacon (NDB) previously located on land adjacent to the airport at the corner of Beatty and Kerry Roads. The NDB was part of a national network of 180. It previously operated as an aid

for Archerfield and the outer locator for Brisbane Airport instrument landing system (ILS) approach.

Following the decommissioning of the NDB, AsA introduced a new Visual Segment Surface (VSS) for Instrument procedures and RNAV-Z_(GNSS) approach procedure for runway 10L. These procedures complement the pre-existing approach and departure procedures for runway 28R.

6.2 AIRCRAFT CHARACTERISTICS

6.2.1 Based Aircraft

There are on average around 230 aircraft based on the airport. The number can vary and in early 2016 the total number reached 288.

Currently the type of aircraft that use the airport ranges from small Light Sport Aircraft (LSA) to Citation X and Latitude.

In the future it is expected that aircraft ranging from Jabiru to the ATR 72-600 and Embraer 175/Dash 8-Q400 or similar RPT aircraft could operate out of Archerfield. The airport is also likely to play an important role in meeting the needs of Advanced Air Mobility and other emerging technologies, as aviation operations evolve.

Over the coming years, it is anticipated that the aircraft fleet at Archerfield will be modernised progressively by users. It is expected that, consistent with trends around the world, as newer models replace old aircraft there will be an improvement in reduced operating noise and fuel consumption.

6.3 AIR TRAFFIC MANAGEMENT

6.3.1 Airservices Australia

Air Traffic Control (ATC) services are currently provided from Archerfield Control Tower from 7 am to 5 pm daily.

Tower operation allows for maximum usage of the runways. The continuation and consistency of these services is of key importance for the sustained success and growth of general aviation activity at Archerfield, and flying training in particular.

6.3.2 General Aviation Airport Procedures - Class D

On 3rd July 2010 Archerfield Airport transitioned to Class D Airspace. Prior to this, the airport operated under GAAP since the early 1980's. A number of minor changes were associated with this transition including the requirement for pilots to seek ATC approval before entering the manoeuvring area.

Fixed wing aircraft approach and departure paths are shown in Figures 5 and 6. Helicopter approach and departure paths are shown in Figures 7 and 8. Training circuits are shown in Figure 9.

6.3.3 Common Traffic Advisory Frequency

Outside of ATC hours Common Traffic Advisory Frequency (CTAF) procedures apply under which 10L/28R is the main active runway.

6.3.4 Future changes to Brisbane airspace

A number of potential changes to Brisbane airspace are under consideration by CASA and AsA to meet evolving operational requirements, taking into account significant projects including the recently opened new parallel runway at Brisbane Airport, the ILS at Gold Coast Airport, the new 13/31 runway at Sunshine Coast Airport; and changes to the number and types of aircraft at RAAF Base Amberley and Wellcamp Airport.

AAC has been involved in a number of discussions with AsA and CASA regarding airspace design. AAC seeks to ensure the airspace surrounding Archerfield is not inadvertently contracted to such an extent that future expansion opportunities for Archerfield to cater for larger aircraft, and to assist Brisbane Airport as a reliever for some of their smaller aircraft, is lost.

With this in mind, AAC anticipates that in the coming years there may be refinements including:

- the existing RNAV-Z_(GNSS) missed approach to runway 28R could be optimised to reduce the potential conflict with other traffic from Brisbane Airport by re-directing aircraft to the south;
- the Category C RNAV-Z_(GNSS) for runway 10L may be complemented with the redesign of the existing RNAV-Z_(GNSS) for runway 28R to also cater for category C aircraft;
- circling areas for category C aircraft may be realigned;
- Standard Terminal Arrival Routes (STARs) may be introduced, that connect to applicable initial approach fixes of each RNAV-Z_(GNSS) procedure and enable progressive clearance along a pre-planned path with appropriate lateral/vertical separation from other aircraft; and
- the existing Standard Instrument Departures (SIDs) may be reproduced to enable progressive clearance along a pre-planned path with appropriate lateral/vertical separation from other aircraft so that Instrument Flight Rules aircraft wishing to depart Archerfield outside ATC tower hours will be able to do so without waiting for a clearance from Brisbane ATC.
- the proposed introduction of simultaneous opposite direction parallel runway operations (SODPROPS) at Brisbane Airport has the potential to

impact current General Aviation operations and growth for both VFR and IFR movements.

6.4 AIRPORT CERTIFICATION AND STANDARDS

Archerfield Airport is a Certified aerodrome, having met the relevant CASA requirements in April 2013.

It has a long history operating as an RPT airport and is currently available for use by aircraft used in RPT or charter operations.

Aviation facilities have generally been provided to meet the standards required for Code 3A aircraft, which cater for aircraft with a reference field length between 1200 and 1800 m, a wingspan of up to 15 m and an outer main gear wheel span up to 4.5 m.

Aircraft up to Code 3C standard, such as the Douglas DC-3, have operated at the airport in the past providing passenger and freight services. With the completion of Project AIM, the 10L/28R runway, primary taxiways and Eastern Apron are all suitable for Code 3C operations, with aircraft having a wingspan of 29m.

This Master Plan preserves capacity for additional taxiway upgrading should the need arise in the future.

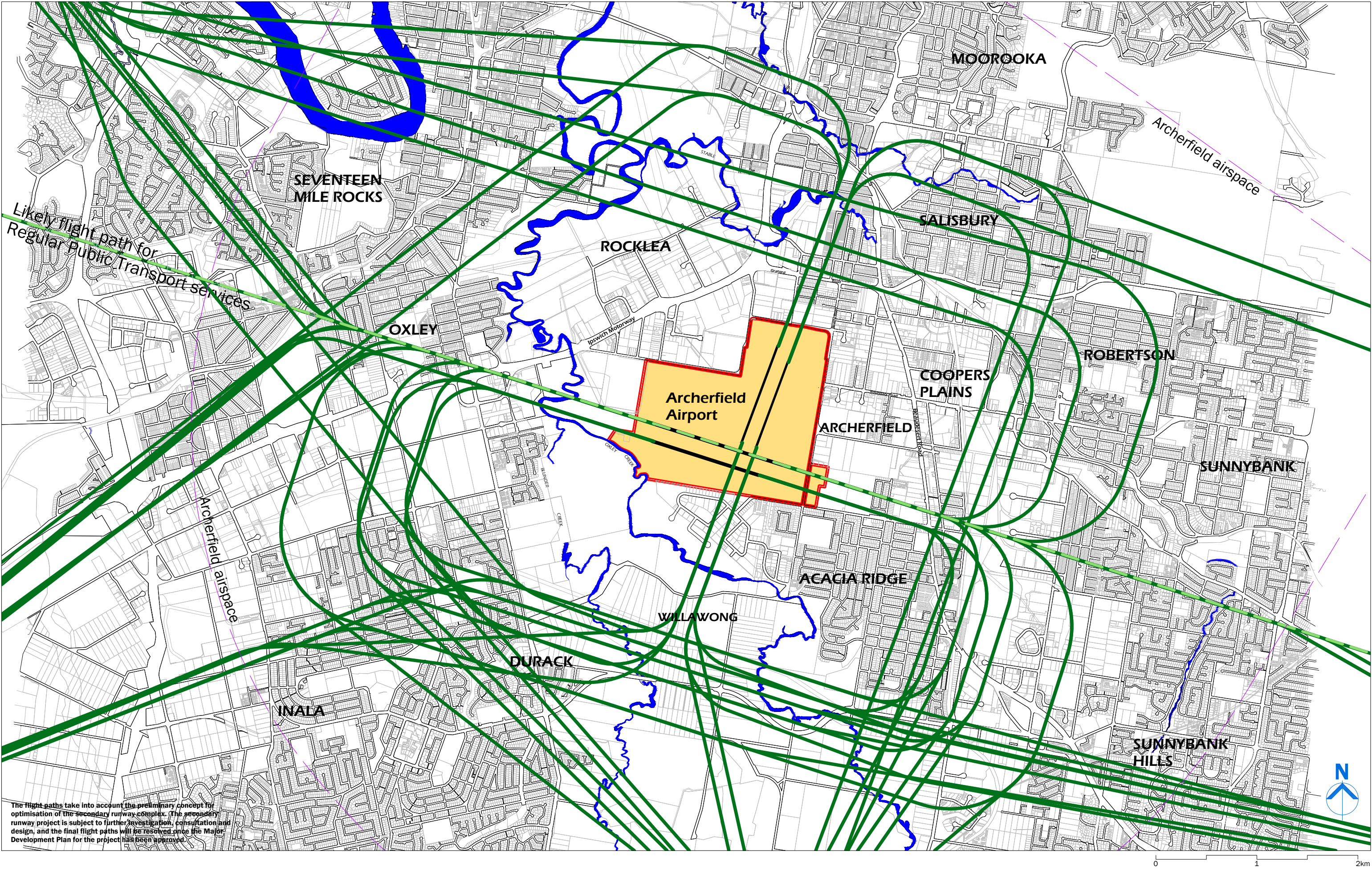
6.5 AIRPORT SECURITY

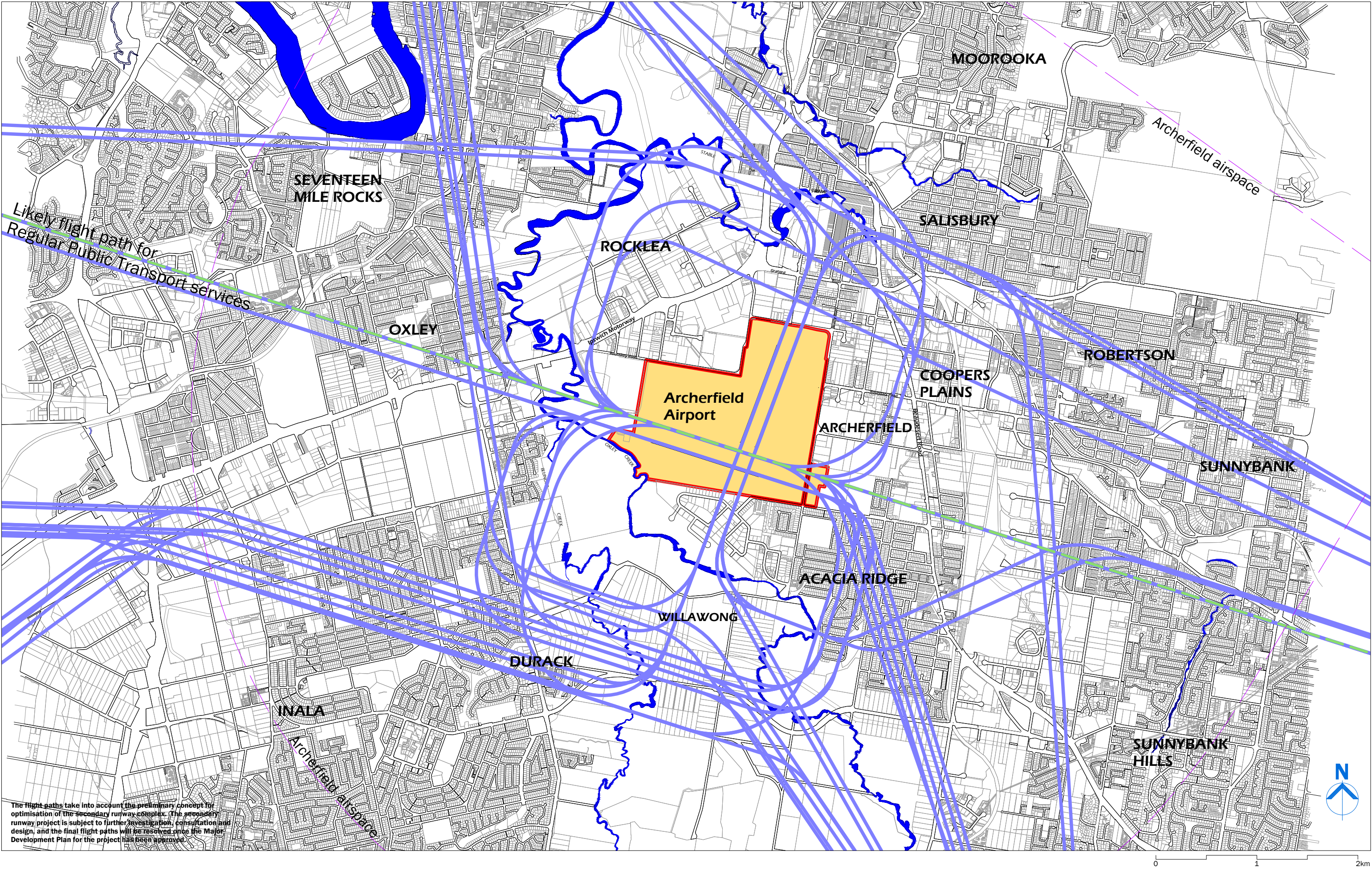
AAC has undertaken a risk assessment and developed and implemented a Transport Security Program (TSP) for the airport in accordance with the *Aviation Transport Security Act 2004*.

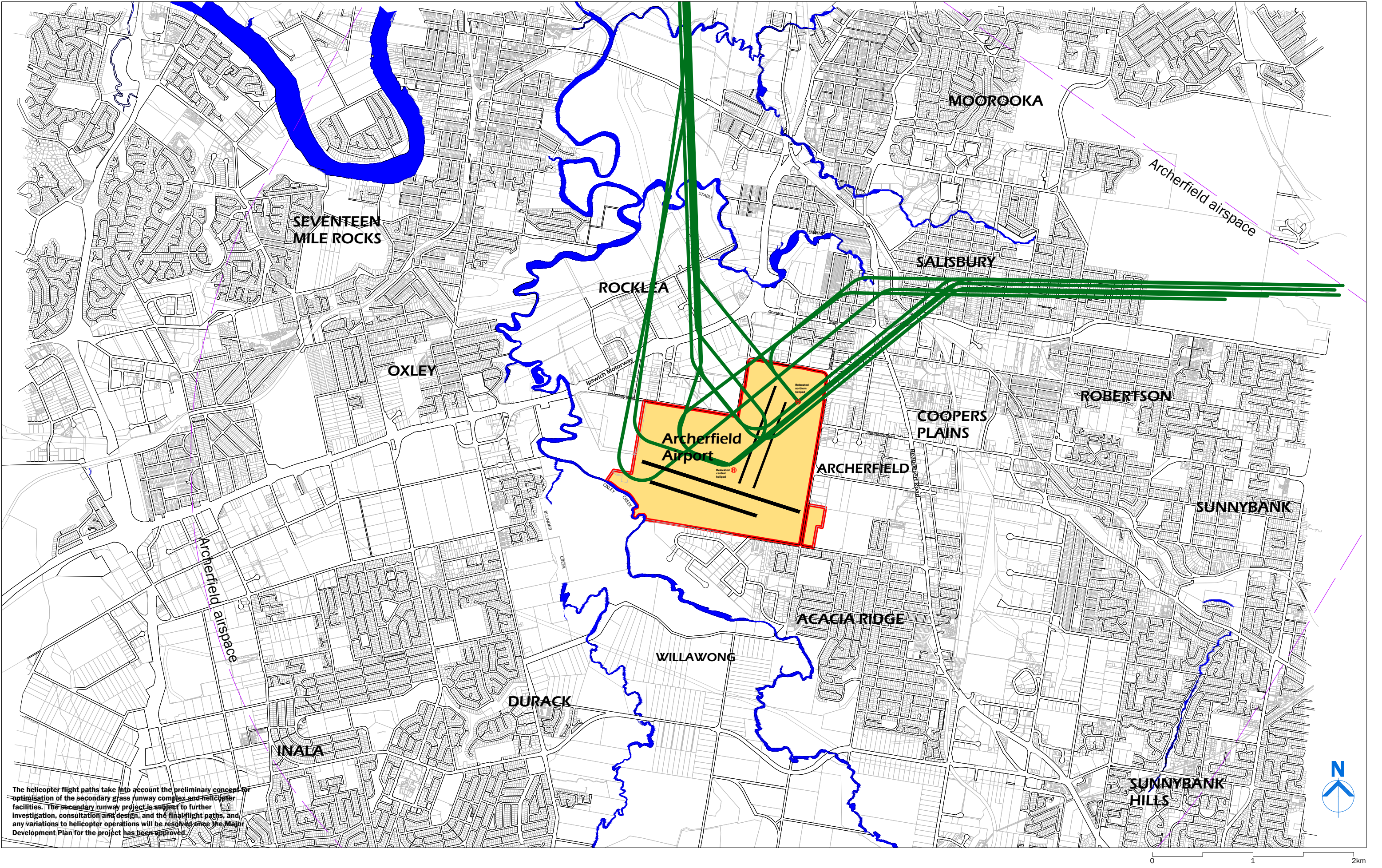
Security measures that have been put in place include:

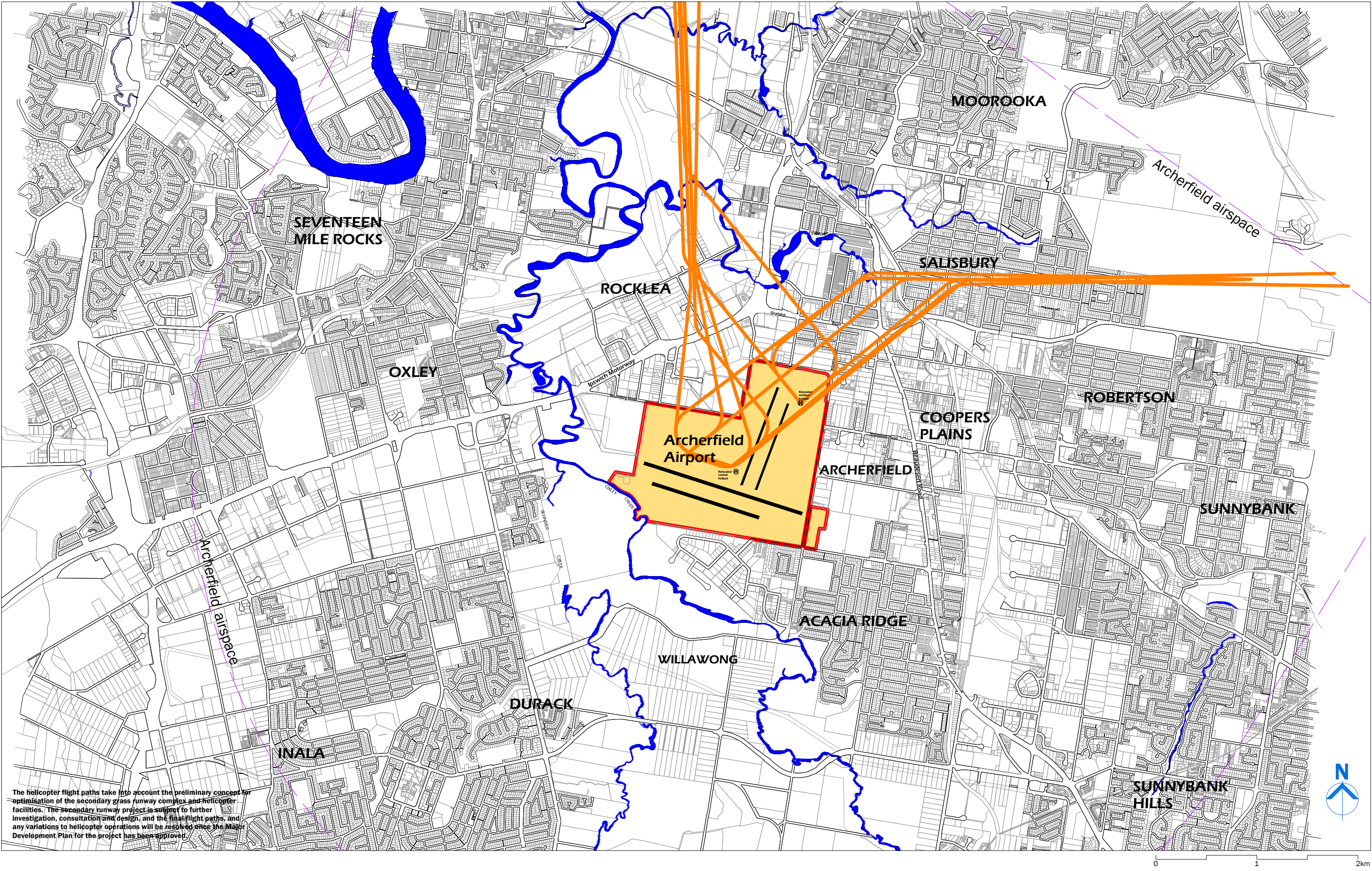
- 1.8 m high chainwire fencing topped with 3-strand barbed wire surrounding the entire airside area;
- 11 high security pedestrian gates;
- 4 high security automatic vehicle gates;
- closed circuit television (CCTV) day/night security cameras;
- optical fibre cabling;
- intelligent mobile phone pin code retrieval system; and
- monitoring by security personnel.

On 10th March 2005, Archerfield Airport was gazetted as a security controlled airport. Following amendments to the aviation security regulations that came into effect in December 2020, Archerfield was no longer included as a Security Controlled Airport. However, it continues to operate with the security measures in place.

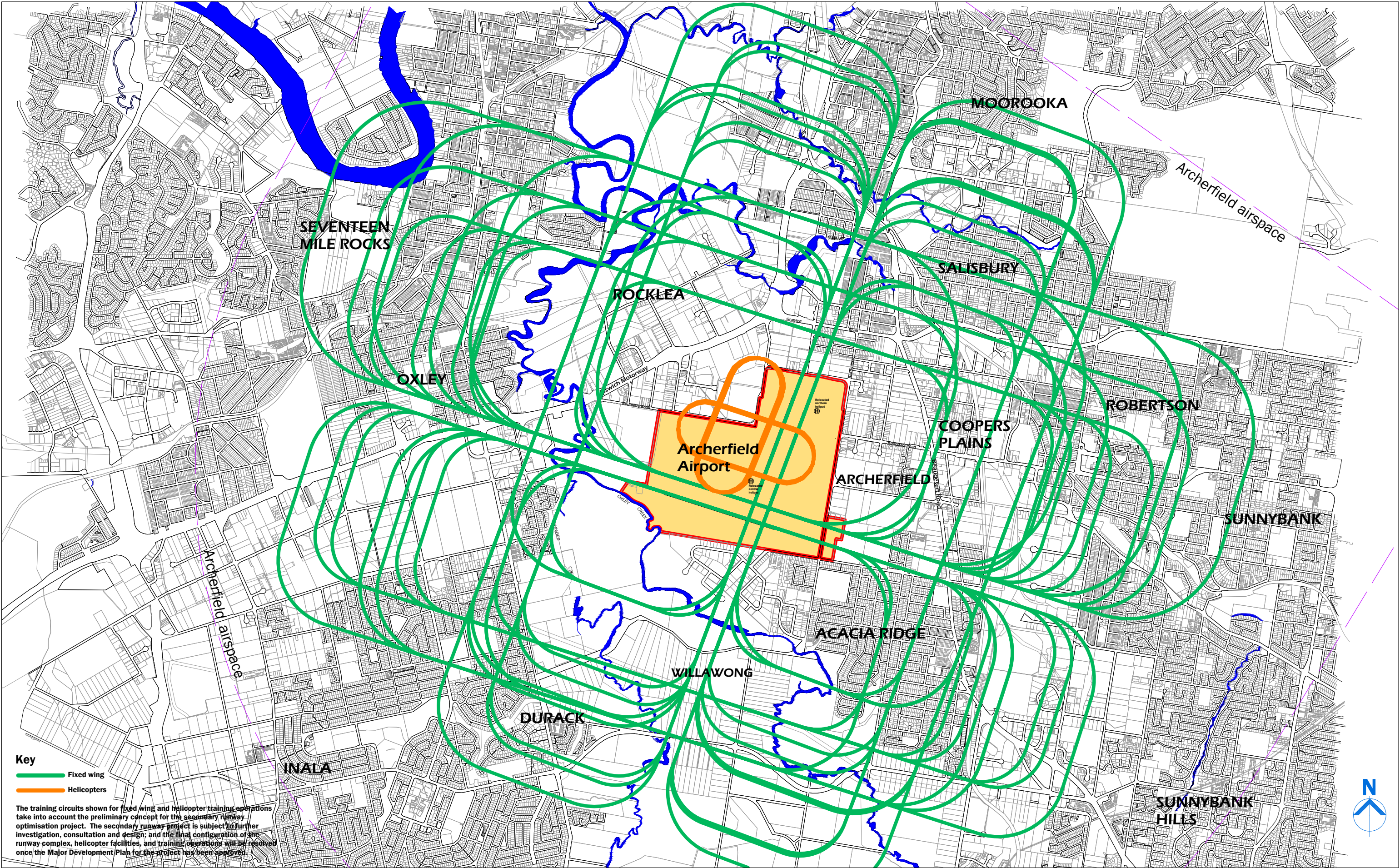








The helicopter flight paths take into account the preliminary concept for optimisation of the secondary grass runway complex and helicopter facilities. The secondary runway project is subject to further investigation, consultation and design, and the final flight paths, and any variations to helicopter operations will be resolved once the Major Development Plan for the project has been approved.





Chapter 7

Aviation Development



7.1 PROGRESSIVE IMPROVEMENTS

The Master Plan provides for the progressive development of the aviation facilities at the airport, consistent with the vision for the airport.

The vision for this is summarised in Figure 2, and more detail is provided in the Precinct Structure Plans.

The vision builds on the significant aviation infrastructure modernisation and optimisation works recently implemented by stages 1-3 of Project AIM which included:

- reconstructing, lengthening and strengthening the main 10L/28R runway and incorporating modern runway and taxiway lighting, and Runway End Safety Areas to cater for larger aircraft and potential niche RPT operations or other significant aviation users;
- upgrading visual and navigation aids (RTILs and PAPI) to provide an improved flying training environment;
- upgrading the associated primary taxiways, to facilitate efficient airport operations including by larger aircraft, and facilitating additional aviation developments including for aeromedical and emergency services; and
- upgrading the Eastern Apron, the Jet Turbine parking area and Hotel, to provide more aircraft parking and cater for potentially heavier aircraft, adjacent to the main runway complex and the existing Terminal.

A series of additional improvement projects has been identified. Each project will support one or more initiatives that will strengthen the capacity of the airport to support existing and future aviation and serve the changing needs of Brisbane and the growing SEQ region.

Proposed aviation infrastructure development includes:

- providing opportunities for new and expanded aviation uses including aeromedical and emergency operations and maintenance, and for potential niche RPT operations or other significant aviation users (within 1.4ha of serviced and available land in the Wirraway precinct, adjacent to the main runway, and 0.8ha of land in the Beatty precinct between Beatty Road and the Eastern Apron, shown as 'additional aviation capacity' in the *Master Plan vision*, and in the PSPs);
- reconfiguring and modernising the secondary grass runway complex and helicopter facilities to improve overall runway usability in cross wind conditions, particularly for flying training; provide greater capacity for future development of aircraft parking and other facilities, and optimise aviation development opportunities for facilities for fixed wing and helicopter operations on prime land proximate to the main and secondary runways;

- following reconfiguration and optimisation of the secondary runway complex and helicopter facilities, facilitating the development of approximately 4ha of additional aviation land in the Wirraway precinct having a 500m frontage to the north side of the main runway complex for high-end aviation uses, including aeromedical and rescue operations; and terminal and apron facilities for potential niche RPT operations, air taxi or other significant aviation users;
- following reconfiguration of the secondary runway complex and upgrading of associated taxiways, providing in the Beatty precinct a range of new aviation opportunities including premium aviation development sites on more than 4.6 ha of land in the area between Taxiways Juliet and Hotel, approximately 8ha of land for aircraft parking and helicopter operations between Hotel and the realigned runway complex;
- following reconfiguration of the secondary runway complex, providing in the northern part of the Beatty precinct, 1.4ha of multi purpose hangarage, industrial and research and development sites adjacent to the reconfigured and modernised secondary runway complex and helicopter facilities, with airside and ground access;
- augmenting the taxiway system to maximise runway capacity and efficient ground movement of aircraft;
- strengthening and expanding apron facilities to cater for anticipated growth in aircraft numbers, and potentially heavier aircraft;
- investigating the feasibility of relocating facilities such as the fuel farm and control tower, if, because of their locations, they constrain future aviation development or their relocation would improve airport operations;
- maintaining a long term option to construct a new longer runway between the existing 10/28 parallel runways, potentially crossing Beaufighter Avenue; and
- facilitating improvements to, or redevelopment of existing facilities available to tenants to cater for modernisation, changing business needs and expansion.

These initiatives are shown in Figure 2 *Master Plan vision* and Figure 31 *2031 vision*.

The timing of specific projects is dependent on the need being demonstrated, and completion of further investigations and design. The catalyst for, and anticipated timing of the main projects are set out in Table 16 in Chapter 18 *Implementation*, and will be monitored by AAC on an ongoing basis.

The detailed design and any approvals required for a specific project will be resolved in accordance with the processes described in Chapter 18, and the

relevant provisions of the AES. In a number of cases, the proposals will be subject to approval by the Minister of a Major Development Plan.

7.2 SECONDARY GRASS RUNWAY FACILITIES

Light aircraft are used extensively in recreational flying and flying training at Archerfield. These aircraft typically use the main runway complex for arrival and departure, and for touch and go training circuits (Figure 9).

A minority of cross wind limited light aircraft require an alternative runway alignment when prevailing wind conditions prevent their safe use of the main runways. Cross wind runway facilities increase the opportunities for these light aircraft to operate throughout the year, despite variations in wind direction.

Historical aerial photographs from the *Archerfield Airport Heritage Management Plan* (AHS 2021) show that a defined secondary grass runway has been provided since the mid 1940's. Initially a single strip, the facilities have over the intervening years included single and multiple strips, and associated taxiways. The runway alignments have ranged from the current diagonal position, to a north-south alignment.

The cross wind facilities are currently provided in the form of unrated parallel grassed runways, aligned diagonally across the northern part of the airport, and designated 04/22. These facilities are used during daylight hours only.

7.2.1 The issues

Meeting the needs of cross wind limited aircraft

The existing grassed runways are sited diagonally across the lower lying part of the airfield, north of the main 10/28 runway complex.

The runways and associated grassed taxiways run across the sloping landform, in an area bisected by a significant drainage line. The 04L/22R runway in particular has steep grades at its southern end and its central section sits in one of the lowest areas of the airport.

The susceptibility of the runways to being rain affected has implications for light aircraft usage of the airport and for recreational pilots and the flying schools in particular. There are times when recreational flyers, the schools and other members of the General Aviation community are unable to fly due to the combined effects of unfavourable wind direction, and waterlogging or scouring of the grass runways and associated taxiways.

Analysis of wind conditions shows that cross wind limited light aircraft require a secondary runway alignment for approximately 12% of the time, during daylight hours. However, due to their location in the low lying part of the airport, the existing grass 04/22 runways have historically been closed for more than 25% of

the time due to soft wet surface conditions following protracted rainfall, or damage from stormwater flows or flooding.

The limitation of the existing runways has been highlighted by a succession of rain and flood events in the Oxley Creek. During the flood peak in January 2011, a portion of runway 04L/22R (to 9.25m AHD) was submerged.

In conjunction with the 2011 flood, prolonged periods of heavy rain from 2010 to 2012 caused significant erosion and degradation of the grass runway complex. Continued rain prevented reconstruction works throughout this period, rendering the grass runways and taxiways unserviceable for all but two weeks between December 2010 and September 2012. In effect this quarantined approximately 60 hectares, or nearly one-quarter, of the airport's total land mass for almost two years.

Modernising the secondary runway facilities will bring them up to current design standards, move them away from low lying areas, decrease the likelihood of heavy rainfall induced degradation, increase safety and usability, and maximise the operating flexibility for cross wind limited aircraft at Archerfield.

Additionally, the reconfiguration will increase the amount of land usable for high end aviation purposes in the prime aviation areas along the north side of the main runway and Taxiway Bravo in the Wirraway precinct; and along the length of the east side of the secondary runway complex, in the Beatty precinct.

The reconfiguration of the cross wind facilities could also create opportunities for development of aircraft parking in proximity to the runway and taxiway system.

Catering for flying training (fixed wing and helicopters) and recreational pilots

As part of the process of optimising the cross wind facilities, consideration must also be given to catering for anticipated circuits and other flying training operations for both fixed wing aircraft and helicopters.

The Master Plan foreshadows the relocation of the northern helipad, and identifies opportunities for future aviation developments, for fixed wing aircraft and helicopters, and for new and emerging technologies such as Advanced Air Mobility.

Contemporary siting and design standards (including ATC siting requirements and obstacle clearances) will be applied to any new (realigned) runway, helipad and related facilities. This will broaden the usability of the airport by pilots with a range of skills and experience.

From an airport operations perspective, consideration will also be given to safe and efficient use of helipad and cross wind runway facilities, including any requirements for separation of helicopter training areas from fixed wing circuits.

New aviation tenancies will be planned, designed and implemented in accordance with the land use, siting, design, servicing, access and environmental requirements set out in the Master Plan.

Improving airside circulation, including taxiways and access to aprons and parking areas

Optimisation of the secondary runway facilities creates the opportunity to also improve the secondary taxiway system, including Taxiway Hotel.

Taxiway Hotel is the main north-south taxiway, serving the eastern part of the airport. In conjunction with Taxiway Juliet, it gives direct access between the aviation tenancies in Beatty Central and Beatty North and the main and secondary runways; and to Eastern Apron, the aircraft washdown bay, turbine pad, and refuelling facilities. The existing alignment of the secondary runway complex cuts across the northern end of the Beatty North precinct.

The Master Plan anticipates upgrading of Taxiway Hotel to Code B standard, and extension of the taxiway northward. The northward extension of Hotel is dependent on implementation of the secondary runway realignment.

The upgraded and extended taxiway will facilitate the release of 6ha of aviation development sites in the Beatty North strategic aviation development area adjacent to the upgraded taxiway network. It will provide efficient airside access to the proposed relocated northern helipad and associated training area, and to existing and additional fixed wing and helicopter parking areas in the Beatty North and Runway precincts.

The Beatty North strategic aviation development area will also benefit from planned improvements to ground access, via new and upgraded roads and site access points in the Beatty Central and North precincts (shown in the *Ground transport plan* and the *Beatty PSP*).

Optimising land for aviation developments

Land in proximity to the secondary runway complex at Archerfield is underutilised for aviation purposes.

At present this land is constrained to varying degrees by slope, flood and drainage limitations, servicing, and inadequate ground access. It has the potential to better cater for the current and emerging needs of aviation users, including for aircraft parking and aviation developments.

The diagonal alignment of the existing runways and taxiways impacts the efficient use of more than 10ha of aviation land, in prime locations adjacent to the

main runway in the Wirraway precinct and in the Beatty precinct. The alignment also cuts off ground access between potential aviation sites and the main runway complex and aprons.

Realignment closer to north—south will allow for creation of rectangular shaped aviation sites in the airport development precincts, as shown in the Master Plan. Regular site layouts will optimise the benefits of these prime aviation development opportunities.

The sites can be efficiently serviced, developed and used, and have good access to both airside infrastructure and ground transport connections. Obstacle clearances and other safety and design requirements can also be more efficiently addressed for regular shaped sites, making best use of the aviation infrastructure, and minimising constraints on adjacent and nearby land.

A north—south runway alignment will release approximately 4ha of prime aviation land in the Wirraway precinct with 500m of frontage to the recently upgraded taxiway Bravo and the 10L/28R runway for new aviation sites.

The realignment will also facilitate the northward extension of Taxiway Hotel, which will enhance access to the proposed upgraded runway and helicopter facilities, and to the strategic aviation development area between Taxiways Juliet and Hotel.

This will facilitate the release of more than 6ha of land in the Beatty North precinct strategic aviation development area. The Beatty North development area is suitable for new aviation developments for fixed wing and helicopter use, and for related engineering, manufacturing and research and development uses that support existing and emerging technologies.

In addition to optimising the usability of future aviation development sites, a realigned runway complex will facilitate the reclamation and use of approximately 8ha of airside land which will be available for helicopter facilities, the relocated helipad, and aircraft parking. This land will be accessible from Taxiway Hotel, and ground access will be available via proposed upgrades to the airport road network, and car parking areas.

Furthermore, it will create opportunities for industrial, commercial and service uses in the Ashover and Barton precincts. These developments will complement the facilities and services at the airport, and strengthen economic activity on the airport, and in the wider SWIC REC/SWIG.

Ongoing return from this currently underutilized part of the airport will provide additional capital required to improve aviation facilities at Archerfield, upgrade drainage in this area, provide opportunities for businesses to establish and grow in this part of the SWIC REC/SWIG, and to ensure the sustainable operation of the airport into the future.

Following reconfiguration and optimisation, the modernised secondary runway complex will continue to only be used by light aircraft, and only during daylight hours. If RPT aircraft are to once again operate at the airport, they will be confined to the main sealed (10/28) runway complex only.

More information about the benefits associated with the reconfiguration can be found in Chapter 17.

7.2.2 Project objectives

Realignment and optimisation of the cross wind runway facilities and helicopter facilities is a priority project for Archerfield Airport. Project ARROW (*Archerfield Runway Realignment Optimisation Works*) will be the catalyst for a series of projects that AAC plans to implement during the initial 8 years of the Master Plan (as listed in Table 16 in section 18.2). These include:

- upgrading and extension of Taxiway Hotel (to Code B);
- release of additional strategic aviation development sites in the Wirraway and Beatty North precincts;
- provision of upgraded and new aircraft parking facilities in the Beatty and Runway precincts;
- improvements to ground access to existing and planned tenancies in the Beatty precinct; and
- further upgrading of stormwater management facilities, addressing runoff from planned airport developments.

The objectives for Project ARROW are:

- improve the secondary runway facilities at Archerfield Airport, with the works designed and constructed to achieve a minimum of 95% usability in both dry and wet conditions for cross wind limited fixed wing aircraft operating at Archerfield during the daytime;
- provide infrastructure for current and anticipated future aviation needs, and include the flexibility for works to be implemented in stages to cater for new or emerging requirements;
- provide within the reconfigured airfield appropriate facilities for helicopter final approach and take off (FATO); and for flying training;
- provide the opportunity for replacement and additional aircraft parking in proximity to the secondary runway facilities, serviced by an efficient taxiway network;
- meet current siting and design standards in all new aviation infrastructure;

- meet air traffic control requirements and emergency response requirements in the design, construction and operation of the project works;
- satisfy applicable airport safeguarding requirements;
- provide appropriate stormwater management measures for the new works, to support improved usability of the cross wind facilities and all weather access to the helicopter facilities;
- optimise the efficient use of airport land required for runway, helipad, and supporting facilities;
- design the works to optimise the layout and yield of existing and planned aviation sites in the Wirraway precinct, adjacent to the main runway and taxiways, to facilitate the efficient use of this land for aviation purposes;
- design the works to optimise the layout and yield of planned aviation and related developments in the Beatty precinct, having regard to the guidance provided in the Master Plan; and the findings of any subsequent more detailed investigations, planning and design undertaken by AAC to progress the revitalisation of the Beatty precinct and related parts of the airport;
- identify and address environmental effects of the project, in accordance with the AES;
- ensure that constructability and construction impact are addressed in the selection and design of the project works; and
- ensure that the construction cost and ongoing operating costs of the project works are taken into account in the design and development of the project, to ensure that the project is commercially viable, and sustainable.

7.2.3 Initial concept, and consideration of further options

AAC during preparation of the 2012 Master Plan investigated various preliminary options for improving the usability of secondary grass runway facilities and decreasing the likelihood of their closure following heavy downpours. This included configurations with twin parallel grass runways, or a single sealed runway.

The preferred solution at that time, developed in consultation with stakeholders including the flying schools, CASA and AsA, was to move the runways out of the low lying flood prone areas and realign them closer to north–south to better cater for local wind conditions, and optimise other benefits of the project. The new runway alignment would be designated 18/36 to avoid confusion with runways at Brisbane Airport.

Opportunities for additional aviation developments and supporting infrastructure including aircraft parking areas were identified on prime land in the

Wirraway precinct (adjacent to Taxiway Bravo), and in the Beatty North precinct, in the area between Taxiways Juliet and Hotel, extending north from Beatty Central. This strategy was included in the 2012 and 2017 master plans, and has been carried forward into this master plan.

For master planning purposes, a pair of new grass runways aligned approximately north–south is shown in the current Master Plan. A potential location for a northern helipad is shown to the east of the runways, and a potential new location for a central helipad is shown to the west of the current position.

Opportunities for aircraft parking are highlighted on reclaimed land between Taxiway Hotel and the realigned runways.

The Master Plan concepts show the possible configuration of approximately 4ha of usable land adjacent to (and with approximately 500m of frontage to) the north side of the main runway complex which can be released for high-end aviation uses following implementation of Project ARROW. These sites will capitalise on the recent investments made through Project AIM by providing new hangar opportunities with direct access to the airport's main runway complex, creating efficiencies for operators in terms of reduced taxiing times, reduced fuel usage and subsequently reduced emissions.

The Beatty Precinct Structure Plan shows how the realigned secondary runway complex and new helicopter facilities will also be a catalyst for the development of new aviation facilities in the Beatty precinct, including:

- 4.6ha of future aviation development land between Taxiways Hotel and Juliet, with airside and landside access;
- 1.4ha of multi purpose hangars and industrial tenancies with airside and landside access, adjacent to the northern end of the realigned runway complex; and
- improved and more efficient use of approximately 8ha of land along the east side of the runway complex (in the Beatty precinct), for aircraft parking and other aviation purposes.

The precinct boundaries, and land use zoning in the Master Plan facilitate the realignment and optimisation of the secondary runway complex and the consequential development of aviation and other uses.

The Runway precinct boundaries encompass the operational land required for cross wind runway facilities. The zoning of the Runway precinct enables the reconfiguration of the runway facilities, and the planned upgrading of other aviation infrastructure including taxiways, helicopter facilities, and parking areas. The precinct can accommodate the layout shown for the initial grass runway concept, or alternative options including a single sealed cross wind runway.

The zone provisions and intended land use for the adjacent Wirraway, Beatty and Mortimer precincts anticipate the implementation of the Project ARROW works. In resolving the final design of Project ARROW, consideration will also be given to optimising land use in the adjacent precincts, consistent with the Master Plan vision, zoning and land use provisions.

As detailed in Section 9.4, the 20 year Australian Noise Exposure Forecast (ANEF) prepared for the Master Plan assumes that the secondary runway and helicopter facilities will be reconfigured within the initial 8 years of the Master Plan (and preferably by 2027). The modelling projects that at that time the airport will be catering for approximately 175,000 movements per annum.

The north–south parallel grass runway configuration shown in the Master Plan vision has been adopted as the basis for the noise forecast. It is likely that the final design of Project ARROW will vary from the initial concept. Any implications for forecast aircraft noise will be assessed as part of the preparation of the MDP for the project. If supplementary noise forecasting is required (for example for a possible single sealed runway) this will include comparative assessment against the current 20 year ANEF.

7.2.4 Project ARROW implementation process

As discussed below, AAC has confirmed that the implementation of Project ARROW is a priority for the initial planning period of the Master Plan.

On completion, Project ARROW will deliver the new secondary runway complex, helicopter facilities, and associated aviation infrastructure, improving runway usability for cross wind limited aircraft, and in wet conditions.

To progress the implementation of this key project, further investigations, design and consultation will be undertaken; issues and opportunities for improvement will be confirmed; options to address the issues identified; and the components of a preferred scope of project works and design will be determined.

The final location, alignment, configuration of the runway layout (and whether it is two grass runways or an alternative solution), provision for helicopter operations and other aspects of the project, will be further examined when a Major Development Plan (MDP) is prepared, assessed and approved for this project.

Related projects identified in Table 16 in section 18.2, including the planned upgrading of Taxiway Hotel, and the release of additional aviation sites in the Wirraway and Beatty precincts, are dependent on the runway realignment and optimisation of related aviation facilities.

The planning, design and implementation of these projects will be progressed by AAC once there is clarity about the final configuration of the Project ARROW works.

Further investigations

AAC will undertake additional investigations and design to optimise the project, and confirm the features of the preferred layout of reconfigured cross wind runway facilities, taxiways, helicopter facilities, and aircraft parking areas.

The investigations for Project ARROW will include consideration of a range of planning, environment, engineering, operational, airspace design, cost and other aspects. It is anticipated that options for two grassed runways, or a single sealed runway, various taxiway layouts, and provision for helicopter operations will be considered.

The alignment of the runway facilities will also be investigated, considering factors including safety and efficiency of aviation operations, usability by the specific aircraft that require cross wind facilities, airspace design, and integration with other aviation operations in the broader area.

These investigations will also inform the planning and design of the proposed strategic aviation development sites, which will be released in the Beatty and Wirraway precincts, once Project ARROW is implemented.

Preferred design

The final design for Project ARROW will provide capacity for current and future aviation needs, integrate with the design and operation of the main runway complex, meet air traffic control requirements, meet emergency response requirements, achieve improved operational efficiency and safety, and comply with current design standards.

In progressing the project design and determining the preferred features of Project ARROW, AAC will also have regard to:

- environmental effects;
- airport safeguarding requirements; including management of forecast aircraft noise, airspace protection, implications for prescribed airspace, wildlife strike, and windshear and turbulence;
- ground access;
- constructability and management of construction impacts;
- optimising aviation developments (for existing and emerging needs);
- the efficient use of airport land and infrastructure for aviation and complementary purposes; and
- construction cost; and ongoing operational requirements (including consideration of operating costs).

In developing the preferred project design which will be submitted for development approval, AAC will assess potentially feasible options (including for

grass runways, and a singled sealed runway configuration) against the project objectives, and the parameters outlined above.

The net benefits of any proposed variation from the broad concepts illustrated in the Master Plan will also be identified.

Project approval process – consultation, assessment and approval

The runway reconfiguration and a number of other aspects of Project ARROW constitute a 'major development' under the Airports Act, and require the approval of a Major Development Plan (MDP).

Further information about MDP requirements is provided in section 1.4.3. The MDP process will include further consultation with potentially affected stakeholders, and the components of the project that require MDP approval will be subject to assessment and approval by the Commonwealth.

7.3 LONGER TERM PROJECTS

The Master Plan also foreshadows the longer term option for a new runway aligned parallel to the existing main runway, to cater for larger aircraft should the need arise in the future.

This would replace a similar runway that was in place earlier in the airport's history, and may potentially extend west over Beaufighter Avenue which is an AAC road located on airport land.

Any new or extended runway would be confined to land under the control of AAC, and is not anticipated to be required during the 20 year planning horizon of the Master Plan.

An extension further to the west onto BCC owned land would only be possible if all three levels of Government, AAC and the community determined it appropriate and feasible.

Before any new runway could be constructed, the project would be subject to approval under the Airports Act. A Major Development Plan would have to be prepared and be approved by the Minister. Detailed plans and assessments would be required, and the plans would be subject to consultation with a range of stakeholders, including BCC.



Chapter 8

Airport Land Use



Archerfield AIRPORT

8.1 LAND USE CONTEXT

8.1.1 Existing conditions

The airport site has an area of approximately 257.7 hectares which is developed with facilities and infrastructure that accommodate a diverse and complex range of uses that support aviation operations, and other purposes complementary to the airport and the wider district and region.

It is an important part of the Archerfield/Rocklea/Acacia Ridge area, and is located in the South West Industrial Gateway of Brisbane - an industrial and transport services corridor of regional significance.

Surrounding land use is shown in the *Airport context* drawing (Figure 3) and the *Airport land use context* plan (Figure 10). Existing conditions on the airport are shown in Figure 4.

General industry

Most of the land use around the airport is industrial or commercial.

Industrial areas are located to the north, north-west, east, and south of the site. Along the north side of Boundary Road and west of Ashover Road is a general and heavy industrial area (zoned General Industry C, allowing high impact uses) that runs parallel with the Ipswich Motorway.

Industrial estates zoned General Industry B (for medium impact uses) are also adjacent to the eastern boundary of the airport, along Beatty Road.

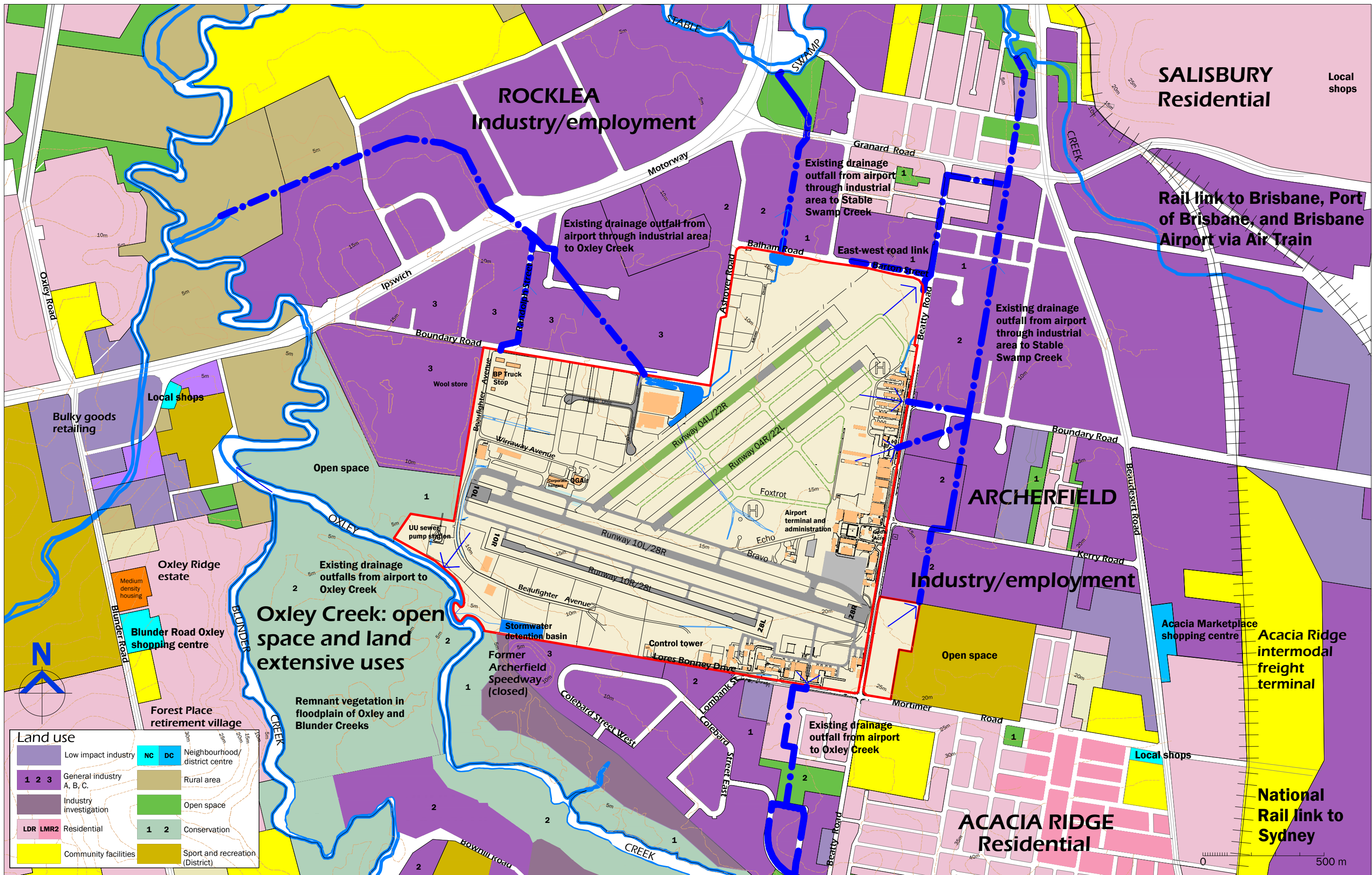
Along the north side of Barton Street and Balham Road, the land is in the General Industry A (with a focus on low impact uses) and General Industry B zone, and provides a transition to residential areas further to the north.

The industrial estate of Acacia Ridge is adjacent to the southern boundary. This area also contains a recently closed speedway and extends to the open space along the Oxley Creek.

The zoning ranges from General Industry C at the west end (adjacent to the Beaufighter precinct), to lower impact industrial uses, transitioning east to the residential area on Mortimer Road.

Residential

The main residential areas in the vicinity of the airport are Acacia Ridge, located to the south-east of the airport, across Mortimer Road and further east beyond Beatty Road; and the residential area of Durack, to the south of Oxley Creek. Most of the residential area is zoned for low density housing.



The residential suburb of Salisbury is located to the north east of the airport, beyond the industrial area. Some of the dwellings in Salisbury are located on a hillside facing the airport and are under the flight paths for the existing secondary grass Runways 04L and 04R. The closest dwellings are about 1km from the north-east corner of the airport.

To the west and south are the Oxley Creek and associated floodplains. This, in conjunction with the nearby Blunder Creek forms part of a regional habitat link and waterway running through the south–west urban area of Brisbane, to the Brisbane River. A Queensland Urban Utilities (UU) Sewer Pumping Station is also in this area, located on airport land.

Conservation and open space

Land along Oxley Creek is used for a mix of sand mining/industrial, open space and conservation purposes. The land is a focus for transformation as a regional open space and conservation corridor, and in recent years large sections in the vicinity of the airport have been rezoned to facilitate the Oxley Creek transformation project, and recognise existing long term industrial use of some parts.

The sections immediately adjacent to the airport are zoned Conservation 1 (Local), and the Conservation 2 (District) zone has been applied to the Council land on the south side of Oxley Creek.

Activity centres

With respect to activity centres, the airport is some distance from the existing centres, and is segregated from them by the main road network, the mass of industrial and related activity in the local area, and the Oxley Creek corridor.

The *Airport land use context* plan (Figure 10) shows the location of the Acacia Marketplace District centre, on Beaudesert Road (which includes supermarkets and a range of shops, and other services), and the lower order shops in the neighbourhood centre, on the corner of Beaudesert Road and Mortimer Road.

Acacia Marketplace is more than 1.1km from Archerfield Square, and approximately 3km from the western side of the airport.

To the south and south west, the nearest local shops are on Blunder Road in Oxley. This centre which includes a supermarket, liquor store, chemist, discount and specialty shops is 5.9km from the airport by road, and on the opposite side of the Oxley Creek.

To the north, at the corner of Beatty Road and Granard Road is a small centre providing local convenience shops.

The airport location is not well served by neighbourhood shops and services, such as convenience shops and food and drink outlets, necessary to meet the day to day needs of people using, visiting, or working at or near the airport.

Accordingly, the Master Plan provides for the development of local facilities, to serve airport needs and for the convenience of nearby areas. The timing of these facilities will be dependent upon completion of sufficient aviation and complementary developments required to provide the critical mass of people on site.

The area between the Oxley and Blunder Creeks is also an important sand resource, and there is active sand extraction underway on the south side of Oxley Creek, on Bowhill Road approximately 800 metres from Mortimer Road (to the south of the airport).

The airport has been operating in this location since the 1930's and has been well protected by the aviation, land use, transport and economic development policies, strategies and controls administered by Queensland State Government, and Brisbane City Council.

The airport forms part of the national network of airports in Australia, and the importance of its continued operation is recognised in the *National Airports Safeguarding Framework*, which is implemented with the support of local, State and Federal government across Australia. More information is provided in Chapter 9 of the Master Plan.

The strategic importance of Archerfield Airport is recognised in State Planning Policy, and airport safeguarding requirements are included in the Brisbane City Plan, including through the *Airport environs overlay*.

8.2 AVIATION DEVELOPMENT

The airport currently has 169 sites, of which 120 are developed with structures. 72 are hangar and aero port sites (most being able to accommodate multiple aircraft).

The facilities are mainly used as aircraft hangars and workshops. Facilities also include flying schools, the recently renovated historic Airport Administration and Terminal building, and the control tower which is located mid way along the southern boundary (off Lores Bonney Drive).

There are over 150 aviation and non-aviation businesses on site (with some occupying multiple facilities) employing hundreds of people.



Chapter 9

Airport Safeguarding



9.1 BACKGROUND

The Commonwealth *National Airports Safeguarding Framework* (NASF) provides guidance for planning and development decisions that could affect aviation operations.

The framework was developed by the National Airports Safeguarding Advisory Group (NASAG), comprising Commonwealth, State and Territory Government planning and transport representatives, the Australian Government Department of Defence, the Civil Aviation Safety Authority (CASA), AsA and the Australian Local Government Association (ALGA).

The framework applies to all airports in Australia, and land around airports. The framework promotes a consistent approach to assessing and managing land use and development in the vicinity of all airports.

The framework was adopted by the relevant Ministers in 2012 and now comprises a set of principles for airport safeguarding, and guidelines. It is being implemented by all levels of government.

There are seven principles;

***Principle 1.** The safety, efficiency and operational integrity of airports should be protected by all governments, recognising their economic, defence and social significance.*

***Principle 2.** Airports, governments and local communities should share responsibility to ensure that airport planning is integrated with local and regional planning.*

***Principle 3.** Governments at all levels should align land use planning and building requirements in the vicinity of airports.*

***Principle 4.** Land use planning processes should balance and protect both airport/aviation operations and community safety and amenity expectations.*

***Principle 5.** Governments will protect operational airspace around airports in the interests of both aviation and community safety.*

***Principle 6.** Strategic and statutory planning frameworks should address aircraft noise by applying a comprehensive suite of noise measures.*

***Principle 7.** Airports should work with governments to provide comprehensive and understandable information to local communities on their operations concerning noise impacts and airspace requirements.*

The principles acknowledge the importance of airports to national, state, territory and local economies, transport networks and social capital.

The framework includes guidelines on managing:

- **NASF Guideline A:** aircraft noise (including application of the *Australian Noise Exposure Forecast* for the airport);
- **NASF Guideline B:** building-generated windshear and turbulence;
- **NASF Guideline C:** wildlife strike in the vicinity of the airport;

- **NASF Guideline D:** wind turbine farms and monitoring towers;
- **NASF Guideline E:** distractions to pilots from lighting;
- **NASF Guideline F:** intrusions into protected airspace (interpretation and application of OLS/PANS-OPS to prevent intrusions by for example trees, buildings, poles, signs, or other structures or things);
- **NASF Guideline G:** protection of aviation facilities – communication, navigation and surveillance (not applicable to Archerfield Airport, as there are no relevant aviation facilities within the safeguarding area, outside the airport boundaries);
- **NASF Guideline H:** protection of strategically important helicopter landing sites (not applicable to Archerfield as the helicopter landing sites operated by the airport are within the airport land); and
- **NASF Guideline I:** Public Safety Areas, where applicable to runway ends.

The Commonwealth requires the adoption of the *Australian Noise Exposure Forecast* (ANEF) system for determining land use compatibility around Australian airports.

In addition, the maximum height of obstacles allowed in proximity to each airport is defined in the prescribed airspace for the airport.

9.2 PRESCRIBED AIRSPACE

Obstructions to airspace in the vicinity of an airport have the potential to create air safety hazards and to seriously limit the scope of aviation operations. The effects of individual obstacles may be relatively minor, but the combination of a number of obstacles may limit runway utilisation, cause airspace congestion and reduce the effective handling capacity of the airport.

While the most critical areas of concern are the immediate approach and take-off areas, objects 20 or more kilometres from the airport can cause problems for pilots.

In accordance with international standards, the protected airspace of Archerfield Airport is defined by a combination of the:

- *Obstacle Limitation Surface* (OLS); and
- *Procedures for Air Navigational Services—Aircraft Operations* (PANS-OPS) surface.

The OLS is generally the lowest surface and is designed to provide protection for aircraft flying into or out of the airport when the pilot is flying by sight. The PANS-OPS surface is generally above the OLS and is designed to safeguard an aircraft from collision with obstacles when the aircraft's flight may be guided solely by instruments, in conditions of poor visibility.

Figure 11 shows the current OLS/PANS-OPS for the airport. Figure 12 shows the OLS/PANS-OPS for the airport once the secondary runway complex has been realigned.

Any existing incursions into the OLS/PANS-OPS at Archerfield Airport, are documented in NOTAMs published for pilots.

9.2.1 Airspace protection

For the continued safe operation of the airport, surrounding development (including temporary structures or other potential incursions into the Archerfield airspace) must comply with the height maxima specified in the OLS/PANS-OPS.

Part 12 of the Airports Act and the *Airports (Protection of Airspace) Regulations* 1996 establish a framework for the protection of airspace at and around airports.

The Airports Act defines activities that intrude into an airport's protected airspace to be a 'controlled activity', and which cannot be carried out without approval.

Controlled activities include:

- constructing permanent structures, such as buildings, intruding into the protected airspace;
- temporary structures such as cranes intruding into the protected airspace; and
- activities causing non-structural intrusions into the protected airspace such as air turbulence from stacks or vents, smoke, dust, steam or other gases or particulate matter.

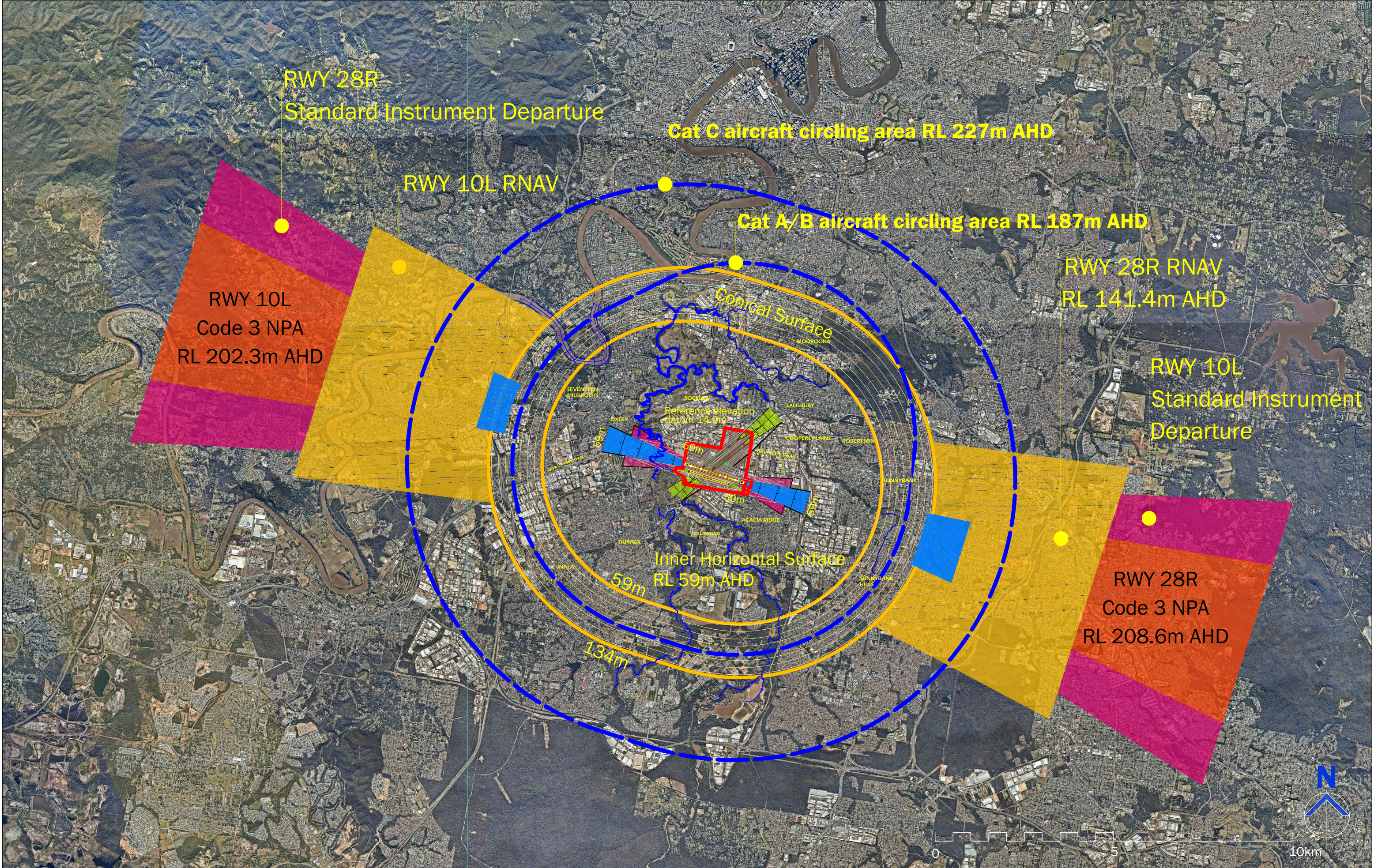
The Commonwealth through DITRDCA, or AAC as the airport operator assess applications to carry out controlled activities. They can impose conditions on an approval.

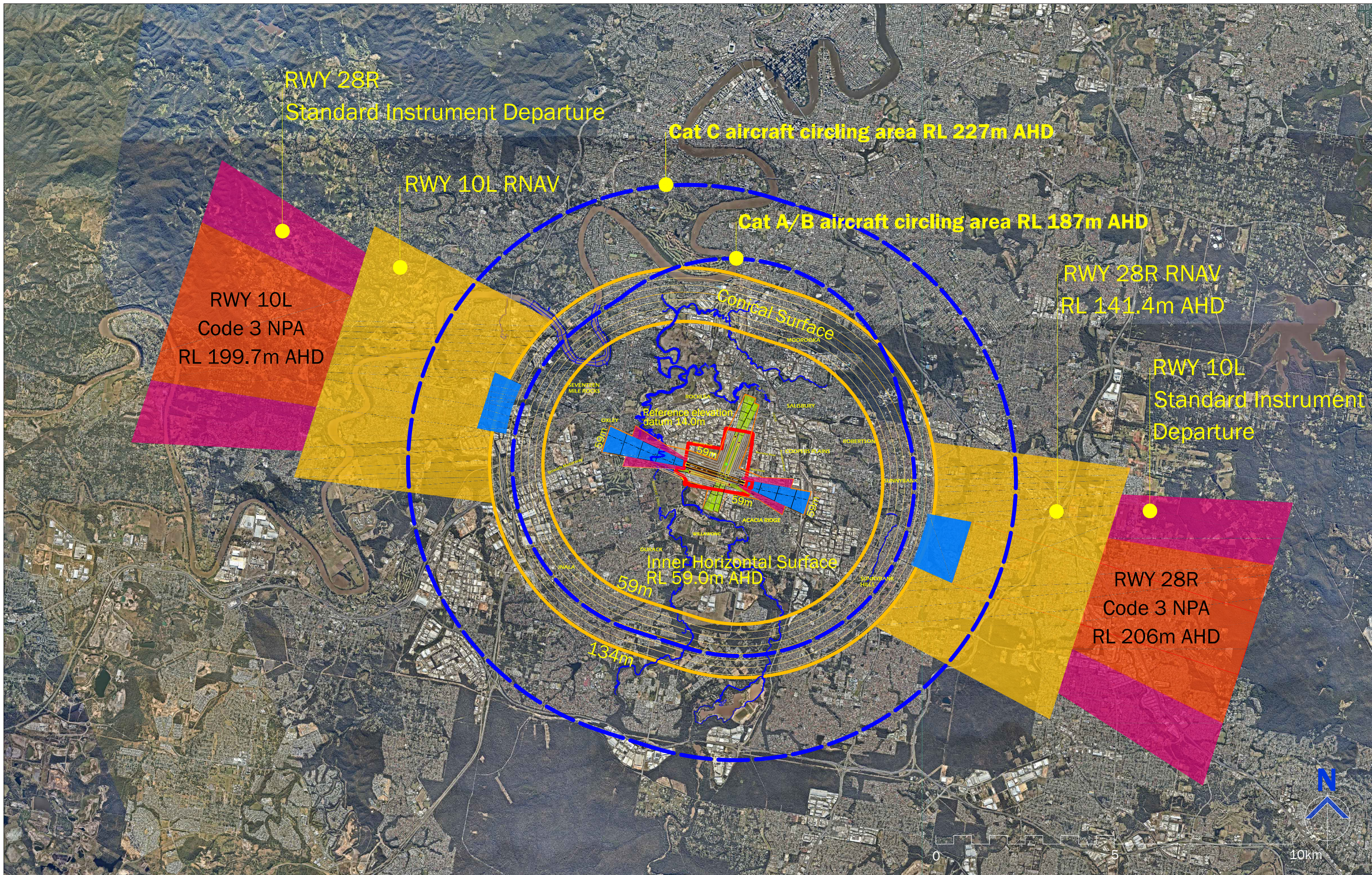
AAC can approve short-term (less than 3 months duration) controlled activities, excluding PANS-OPS intrusions.

DITRDCA is responsible for assessing and approving long-term controlled activities, or short-term controlled activities referred to it by AAC, including short-term intrusions of the PANS-OPS surface. However, long term intrusions of the PANS-OPS surface are prohibited.

Local councils in the vicinity of Archerfield Airport's protected airspace are required to review all building and development applications they receive for any intrusions of protected airspace.

Brisbane City Plan 2014 includes in the *Airport environs overlay* mapping of the OLS/PANS-OPS, and other provisions for airport safeguarding as set out in State Planning Policy.





The City Plan includes development controls that protect the airspace from incursions by limiting the height of any proposed development or other features.

If an intrusion is likely to occur, the proposal is referred to AAC. The proponent will then need to apply to AAC for approval.

9.2.2 Application process

Applications to carry out a controlled activity are made to AAC in writing. The information required in the application must include:

- a description of the proposed controlled activity (building construction, crane operation, tree planting, installation of poles or other items);
- its precise location;
- if the controlled activity consists of the erection of a building or structure, or planting of vegetation:
 - the proposed maximum height of the structure above the Australian Height Datum (including any antennae or towers), and
 - the anticipated height of vegetation, at maturity, and
 - the proposed maximum height of any temporary structure or equipment (e.g. cranes) intended to be used in the erection of the structure;
- the purpose of the controlled activity.

AAC will conduct an initial assessment of the application to determine:

- whether the activity results in an intrusion into the OLS or PANS-OPS surface
- the extent of the intrusion
- the precise location of the development or activity.

AAC is required to invite the following organisations to assess or comment on an application:

- the Civil Aviation Safety Authority (CASA);
- Airservices Australia;
- the local council authority responsible for building approvals.

For short term controlled activities, comments are only required from CASA and Airservices.

9.2.3 Approval process

The approval process varies depending on the type of controlled activity:

- short-term controlled activities which penetrate the OLS can be approved/refused by AAC after consultation with CASA and Airservices, or

referred by the airport to the DITRDCA for a decision. However, if the short term controlled activity penetrates the PANS-OPS, AAC is required to consult with CASA and Airservices and then refer applications to the Department for a decision. This referral is to include advice about whether the short-term penetration of the PANS-OPS has the support of AAC;

- long-term controlled activities penetrating the OLS are referred by the airport to DITRDCA for a decision after consultation with CASA, Airservices and the relevant building authority;
- long-term controlled activities penetrating the PANS-OPS airspace are not permitted, and AAC can notify the refusal of such controlled activities.

Any decision by AAC must be made in the interests of the safety, efficiency or regularity of existing or future air transport operations into or out of the airport.

An approval may be subject to specific conditions. These conditions may concern how the controlled activity is carried out (e.g. hours of operation of a crane), or may require the building or structure to be marked or lit in a certain way. These conditions must also be in the interests of the safety, efficiency or regularity of existing or future air transport operations.

The following timeframes apply to decisions on controlled activities:

- a decision on short term controlled activities is required to be made within 21 days of AAC receiving the application, unless the application is referred to the Department for a decision
- a decision on long term controlled activities is required to be made by the Department within 28 days of the Department's receipt of the application.
- If AAC, CASA, Airservices or the Department requires further information about an application, the decision must be made within 21 days (for short-term intrusions) or 28 days (for long-term intrusions) of the extra information being provided by the applicant.

9.2.4 Ongoing protection of airspace

Protection of airspace from unacceptable intrusions by obstacles or other features is of fundamental concern to AAC and DITRDCA.

Accordingly, AAC will continue to work closely with BCC, the State Government, landholders and proponents of temporary or permanent buildings or works (including landscaping) to:

- identify any existing or potential intrusions into the airport airspace;
- ensure that the planning controls relevant to areas around the airport contain sufficient safeguards; and

- ensure that the design, construction and operation of any future developments (including temporary works) does not compromise safe and efficient airspace and aviation operations.

AAC will continue to provide to these agencies and to the proponent of any proposal advice on obstacle clearances, airport operational aspects, and design and development requirements to ensure that all future development complies with these requirements.

AAC will also provide an assessment of proposed temporary incursions into the airport's airspace (for example by cranes or other equipment) as required under the *Airports (Protection of Airspace) Regulations 1996*, and issue approval for these where the relevant requirements for airspace protection are met.

Where intrusions into airspace are identified, AAC will work with the relevant authorities and landholders to confirm the airspace protection requirements and the actions that will be taken to rectify any incursion.

BCC is required under State Planning Policy to ensure that current airspace protection requirements are reflected in the planning scheme, and that any requirements specified in the planning scheme are enforced. Should there be any change to the airspace AAC will advise the State and BCC, and assist with timely amendments to the relevant planning provisions.

9.3 RESTRICTED LIGHT ZONES

Pilots rely on aeronautical ground lights, such as runway lights and approach lights to guide their safe landing during inclement weather and outside daylight hours.

It is important that other lighting in the vicinity of airports is specified, installed and maintained so it does not distract pilots, or confuse them.

Guideline E in the *National Airports Safeguarding Framework - Managing the risk of distractions to pilots from lighting in the vicinity of airports* aims to minimise the potential hazard to aircraft operations from lighting systems by protecting pilots from being dazzled or distracted by lights, or being confused by light patterns that look similar to approach or runway lighting.

Significant new lighting on land surrounding the airport has the potential to conflict with aeronautical ground lights, and requires detailed assessment and approval. Potential light sources include security lighting, illuminated signs, construction lighting, street and motorway lights and illuminated sports fields.

The primary area of concern is within 6km of the centre point of each of the 10/28 runways. This is shown in Figure 13.

Within the 6km area, four light control zones have been mapped, extending beyond each end of the 10/28 runways. These are designated 'A', 'B', 'C' and 'D'. For each area, a maximum allowable intensity of light is specified, to ensure that pilots can safely navigate to land on the main runways at Archerfield.

The zones have been mapped consistent with CASA guidelines and NASF Guideline E. All proposals for significant lighting within 6km of the 10/28 runways must be assessed, and advice from CASA may be required to ensure that lighting meets the requirements of the NASF and Civil Aviation Regulations.

The secondary runways do not require specific light intensity controls, as they are not used outside daylight hours.

Additional information about lighting is also contained in the airport environs overlay in the *Brisbane City Plan 2014*; and in relevant Australian Standards including AS4282-2019 *Control of the obtrusive effects of outdoor lighting* and AS 2560.1:2018 *Sports lighting* (general principles), and relevant guides in the series.

9.3.1 Future requirements

AAC will continue to work with BCC, CASA and landholders to minimise the potential hazard to aircraft operations of light emissions in the vicinity of the airport.

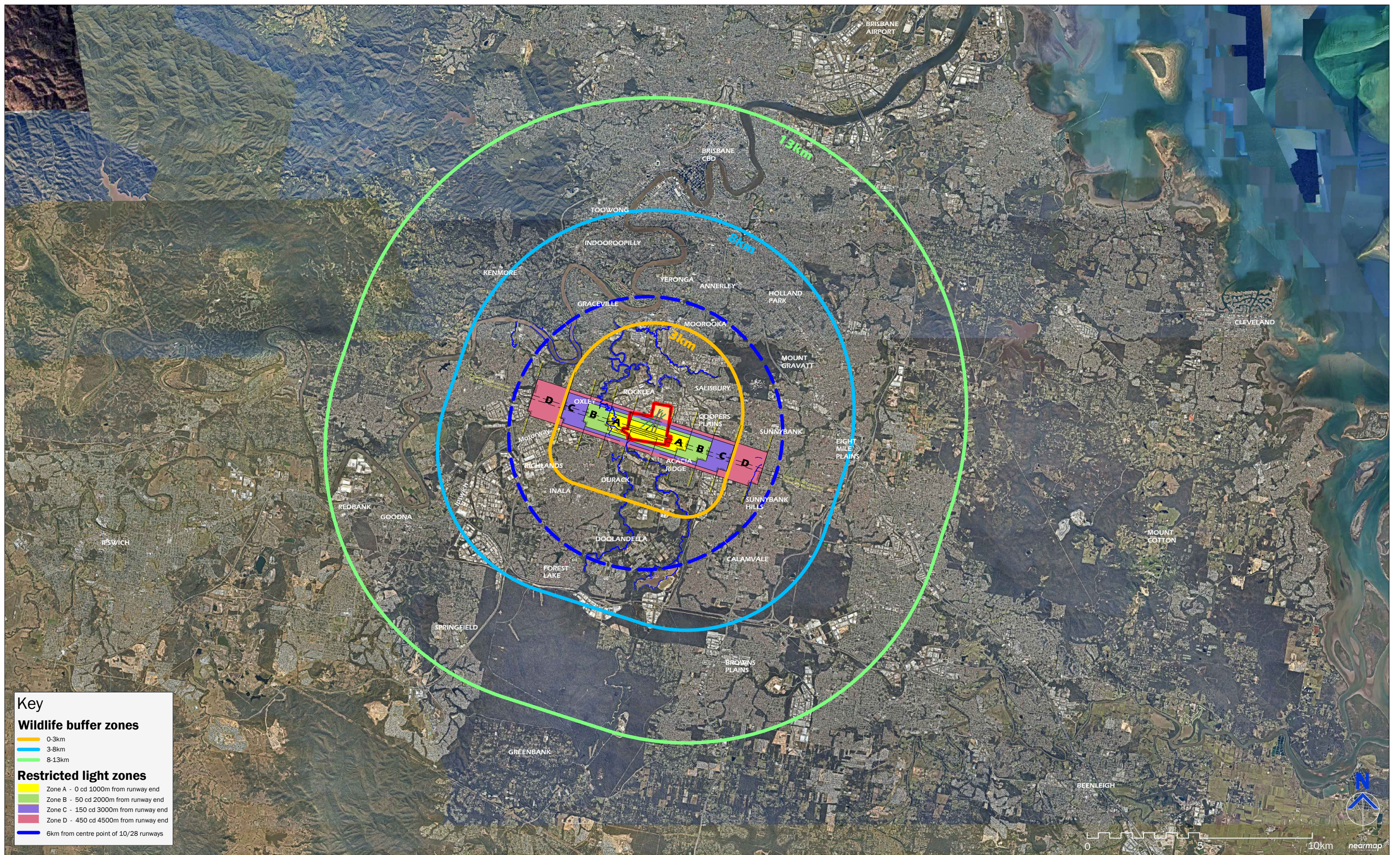
9.4 FORECAST NOISE IMPACT—ANEF

Aircraft noise forecasts are an important tool to protect the airport from unreasonable encroachment by incompatible, noise sensitive developments; provide for the ongoing operation of the airport and for future aviation use; and minimise the impact of aircraft noise on existing and future communities.

9.4.1 Aircraft noise emission standards

The *Air Navigation (Aircraft Noise) Regulations* 2018 require most aircraft operating in Australian airspace to comply with noise standards and recommended practices introduced under the *Convention on International Civil Aviation* (ICAO).

Exemptions apply to state aircraft; a hot air balloon; a propeller-driven aircraft that is specifically designed, and used exclusively, for: aerobatic purposes, firefighting purposes, agricultural operations, or environmental operations. All other aircraft must either have an international noise certification, a noise certificate (issued by AsA) or a permit to operate (eg for historical aircraft, adventure flights/air shows, or non scheduled/public interest flights).



AsA undertakes aircraft noise assessments, and those that are verified as complying with the ICAO Annex 16 standards are issued with a Noise Certificate. Under the Regulations, aircraft without a valid international or Australian noise certificate and those that have been noise certificated at Annex 16 Chapter 2 noise standards, are not permitted to operate in Australia.

In certain circumstances, conditional permission to operate without a noise certificate may be granted by the Secretary of the responsible Commonwealth department, for an aircraft that does not meet ICAO Annex 16 noise standards. Permits granted by the Secretary to undertake air navigation without a noise certificate are issued for specific purposes, such as adventure flight operations or air display participation. Most must be renewed annually and are issued subject to conditions.

9.4.2 ANEF mapping for Archerfield

The noise impact of aircraft in flight is illustrated by ANEF mapping, prepared for the larger metropolitan and regional airports Australia-wide.

The ANEF system is used determine whether proposed use and development in the vicinity of the airport is appropriate from a noise perspective, in accordance with State Planning Policy, the Brisbane City Plan and *Australian Standard AS 2021:2015 Acoustics-Aircraft noise intrusion-Building siting and construction*.

The ANEF for each airport is reviewed and endorsed by AsA to guide land use planning around airports. The modelling takes into account:

- the intensity, duration, tonal content and spectrum of audible frequencies of the noise of aircraft take offs, landings and flyover;
- the forecast frequency of aircraft types and movements on the various flight paths, including flight paths used for circuit training; and
- the average daily distribution of aircraft arrivals and departures in both day time (7:00am to 7:00pm) and night time (7:00pm to 7:00am).

Forecast noise levels are mapped as a series of contours extending out from the runways. The ANEF contours show land areas that are expected to be exposed to aircraft noise. The higher the ANEF value, the greater the noise exposure expected.

Aircraft noise contours are affected by many factors such as topography, runway geometry, aircraft types, movement numbers, runway utilisation, altitude restrictions, flight track geometry (and subsequent assignment of aircraft to individual flight tracks), and the day/night split in aircraft movements. These factors are taken into account in the noise modelling that is undertaken for an ANEF.

9.4.3 20 year ANEF for Archerfield Airport

For the 2023 Master Plan, AAC prepared a 20 year ANEF for the period to 2042 (2042 ANEF) and this is shown in Figure 14. The ANEF was endorsed by AsA on 16 March 2023.

ANEF modelling

The ANEF has been prepared using the *Aviation Environmental Design Tool* (AEDT) modelling software, and data that is specific to Archerfield Airport. The AEDT software is provided and maintained by the *US Federal Aviation Administration* (FAA), and is the industry-standard software for aircraft noise modelling in Australia. AsA requires that the AEDT is used when preparing an ANEF.

The 2042 ANEF prepared for Archerfield Airport takes into account:

- the elevation of the airport, and the topography of the site and surrounding areas;
- the configuration of the airport's operational airspace;
- the layout and geometry of the airport runways, including a conceptual layout for the planned reconfiguration of the secondary runway complex. The reconfiguration is scheduled to be implemented within the next 8 years (and preferably by 2027), once the final layout and design has been resolved and approved through the MDP process. The proposed reconfiguration, modernisation and optimisation has been foreshadowed in the 2011-31 and 2017-37 master plans, and in the ANEFs and other provisions prepared over that time;
- local meteorological conditions, and wind, cloud and rain in particular. These affect the flying performance of aircraft, and which runways are used by them;
- the types of fixed wing aircraft and helicopters using the airport, and the fleet mix (now, and by the end of the 20 year planning period);
- flight paths, mapped for arriving and departing aircraft and for training, taking into account airspace characteristics and operational requirements. Separate analysis has been undertaken for fixed wing and helicopter operations, and the findings are incorporated into the ANEF. The flight tracks have been reviewed and confirmed as representative of aircraft operations by the Archerfield Airport air traffic controllers;
- the number of aircraft movements forecast by 2042; and
- the times of day that the movements will occur (noting that the secondary runways will not operate at night time), and the frequency of movements on

a daily basis. This ensures that the modelling recognises that people are generally more sensitive to aircraft operations at night.

The AEDT model draws upon an extensive database which has details of the operating characteristics of each type of aircraft that will be operating at Archerfield. This includes information about the thrust setting, airspeed and altitude of aircraft when taking off and landing.

Noise impacts are calculated by applying aircraft flight profiles, performance data and noise-power-distance (NPD) curves to the runway configuration and flight tracks specific to the airport.

The ANEF takes into account existing standards, the projected aircraft flight numbers by 2042, the projected movement patterns (including the planned re-alignment of the secondary runways), and the likely aircraft mix over the next 20 years.

The ANEF contours reflect a total of approximately 294,000 aircraft movements per annum at Archerfield by the year 2042 (with approximately 261,000 of these being fixed wing aircraft and just over 33,000 being helicopters).

The airport is currently catering for approximately 125-130,000 flights per annum, and over the course of the next 20 years is expected to handle between 187,000 and 295,000 flights.

The ANEF also assumes that:

- the reconfiguration of the grass runways occurs around the time that the airport is catering for approximately 175,000 movements per annum;
- the central helicopter landing pad could, if still required, be relocated to the west of the realigned secondary runway complex, and the northern helipad will be relocated west of its current position. The final location of the helipad(s) and other helicopter facilities, and any changes to helicopter operations will be resolved as part of the detailed design and approvals process for the secondary runway reconfiguration and optimisation project;
- the new secondary runway(s) will be used during the day, and by light aircraft only. No night movements will be associated with these runways;
- the noise emissions from any aircraft flights at night-time (7pm to 7am) are multiplied by a factor of four in the ANEF modelling, in recognition that people are generally more sensitive to aircraft operations at night;
- freight and potential Regular Public Transport (RPT) movements are included in the modelling for the 10R/28L runway only (and these aircraft will not use the secondary runway complex);
- the aircraft fleet will be modernised progressively over the next 20 years, and the ANEF reflects the noise emissions from newer aircraft that are currently available; and

- although it is possible that over the next 20 years some aircraft may use alternative propulsion with reduced noise emissions, (for example with electric motors), this has not been factored into the noise modelling for the 2042 ANEF.

The 2042 ANEF mapping shows that by the year 2042, some residential and light industrial properties in the vicinity of the eastern end of the 10/28 runway complex are anticipated to be within the 30 ANEF contour. The modelling indicates that those properties are forecast to be exposed to additional aircraft noise at that time.

Under previous ANEF modelling at Archerfield, these properties were in the 20 or 25 ANEF contour.

There are a number of reasons why the 2042 ANEF contours differ from the previous noise exposure forecasts, and more land is within the 30 ANEF contour. Key factors that have impacted the shape and extent of the ANEF contours, compared to the previous endorsed ANEF for Archerfield include:

- the change in modelling software (from INM to AEDT);
- the change to the categorisation of aircraft (into groupings, rather than as individual aircraft) in the model;
- assumptions made about the aircraft types that will be operating at Archerfield by 2042, including selecting an Embraer 175 (in place of the E170 modelled previously) for 50% of the RPT movements (the other 50% of RPT movements were previously modelled using a Dash 8-Q400, and this aircraft has also been adopted for the current 2042 ANEF and N70);
- the forecast aircraft flight numbers and movement patterns by the year 2042 (which assume a 3% annual growth in movements, which is at the higher end of the range of 1-3% in growth that has been modelled); and
- differences in the way that the noise contour lines are mapped by the modelling software (the curves in the contour lines are larger than previously, and take in more land particularly in locations along the alignment of the runways and flight paths).

Longer term options for the 10/28 runway complex

With the recent upgrading of the main 10L/28R runway and related aviation infrastructure, the current pair of 10/28 runways will meet the anticipated aviation needs of the airport for the 20 year planning period of this Master Plan.

The possibility of an additional 10/28 runway has not been included in the 20 year forecast as it is a long-term (> 20 years) preliminary concept only. In addition, it is not possible at this time to be definitive about the likely location or length of any future runway, or the aircraft characteristics and operations that would be accommodated.

Before the concept could progress, it would be subject to a range of investigations and consultation with potentially affected people and organisations. It would also be subject to additional approvals including a Major Development Plan, under the Airports Act.

Management of aircraft noise exposure

A range of authorities and other stakeholders have a role in management of aircraft noise, and in ensuring that the airport continues to fulfil its strategic role as part of the national network of airports, and as a facility of State significance.

The stakeholders include AAC, aviation operators, AsA, and CASA. Each also play important roles in safeguarding the continued operation of Archerfield Airport; through development and implementation of planning policy and strategies, and making decisions about land use and development on land in the vicinity of the airport.

Within the scope of its responsibilities as airport operator, AAC engages with a range of stakeholders on management of aircraft noise emissions related to airport operations.

Current and proposed aircraft noise management initiatives and procedures adopted by AAC are discussed in sections 16.10.3 to 16.10.5. Section 16.10 also sets out actions related to management of noise emissions from land based activities on the airport.

Community and stakeholder engagement on management of aircraft noise is an ongoing process, and the Master Plan and AES set out how this is implemented on a continuing basis.

The process that AAC will follow in planning and implementing the reintroduction of a RPT service, with the objective of facilitating the aviation operation and where feasible minimising noise exposure to residential land in the vicinity of the airport is discussed in section 18.12.2.

Management within the 30 ANEF contour

Archerfield Airport was once Brisbane's primary and international RPT airport before operations relocated to Eagle Farm in the late 1940's.

With completion of Project AIM, the main runway and related infrastructure can now cater for RPT services at Archerfield with modern aircraft.

The 2042 ANEF safeguards the ability of the airport to cater for a range of existing and new aviation operations by the year 2042.

The ANEF includes modelling of RPT services with 12 arrivals and 12 departures per day, including departures from both ends of the main runway. These movements, and take offs in particular, contribute to the forecast aircraft noise

exposure footprint, including the extent of the 30 ANEF contour anticipated in 2042.

This scale and frequency of services included in the modelling reflects the likely requirements for RPT, based on advice from potential operators, current industry practices and likely future needs in the region. The operating requirements for a RPT service will be dependent on a number of factors that will be unique to the operator, including the characteristics of their aircraft, the routes operated, and the timetable for their service.

The timing for a possible recommencement of an RPT service at Archerfield is dependent on industry requirement for the service, a genuine commitment from an operator, and any lead time involved in establishing the service, for example if new or upgraded terminal or other supporting facilities are required by the operator.

AAC will continue to engage with the State government, BCC and landholders within the 30 ANEF contour to provide information about forecast aircraft noise; the implications that aircraft noise exposure has for land use and development; and actions that can be taken to ensure that new land use and development is planned, sited, constructed and operated to minimise the impact of aircraft noise.

Further information about how AAC will work with a RPT operator and AsA to minimise aircraft noise exposure in the 30 ANEF area, and engage with landholders who may be impacted by a specific RPT service is set out in section 16.10.5. The implementation steps for reintroduction of RPT services are also set out in section 18.12.2.

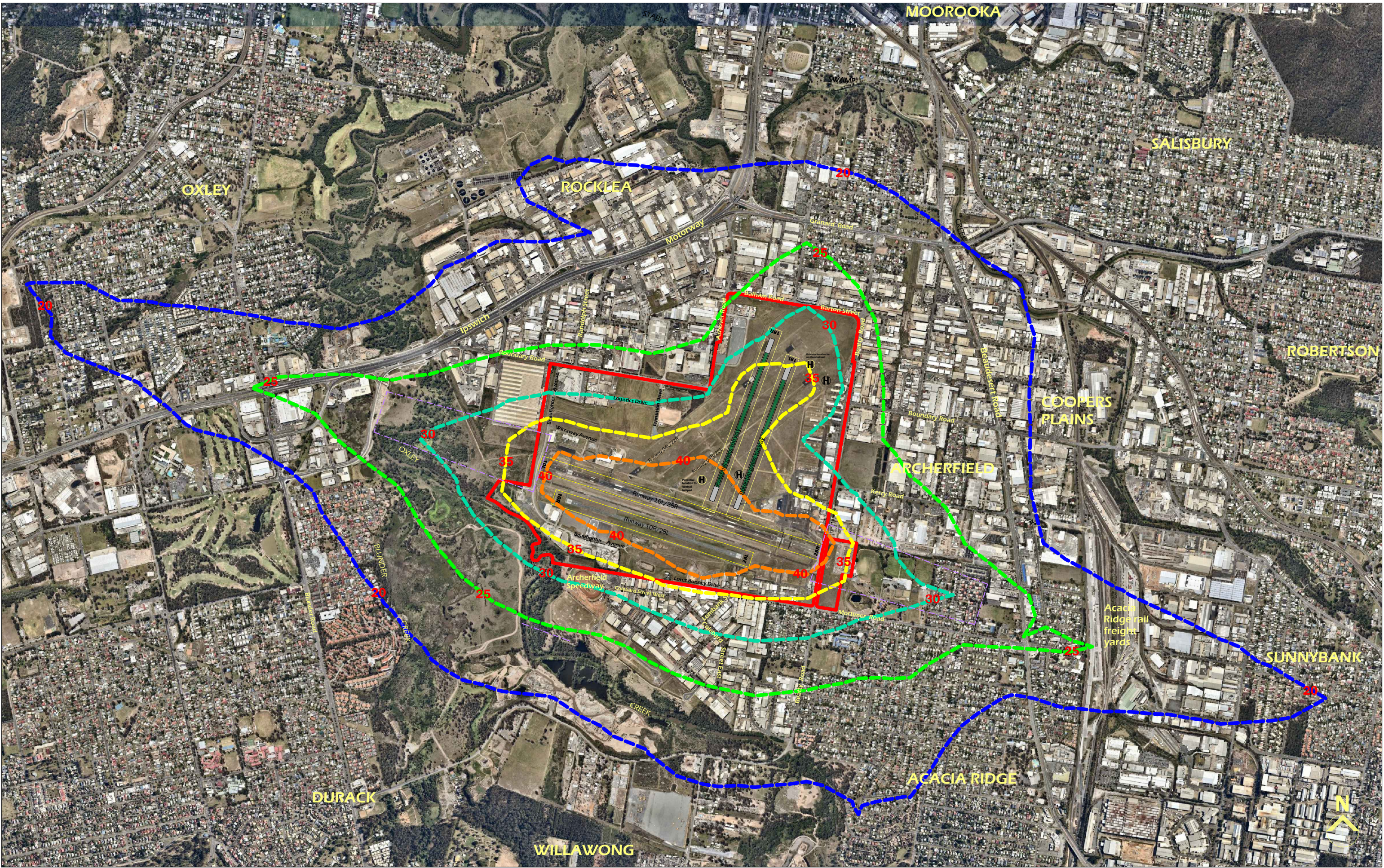
ANEF and N70 review

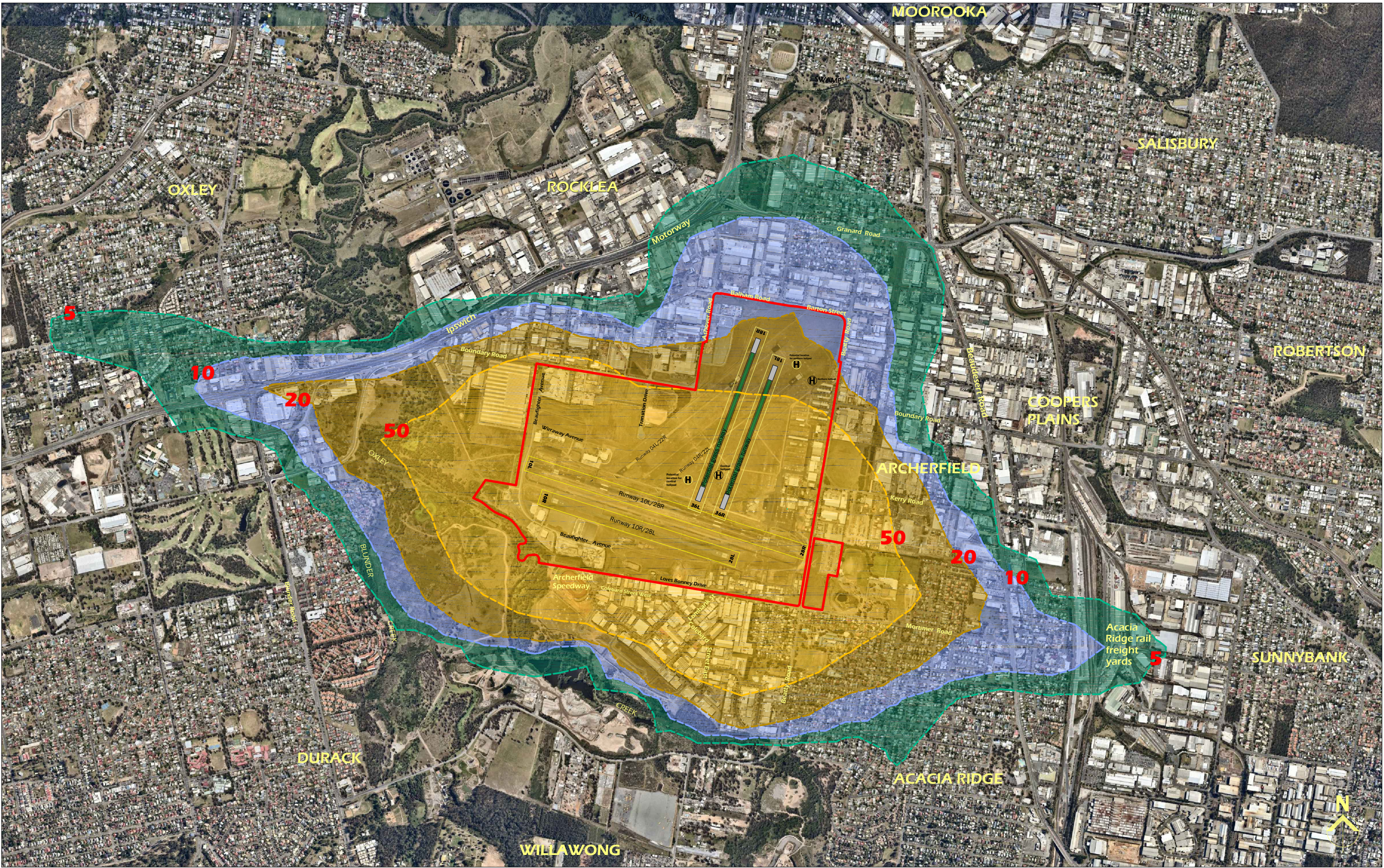
Under the Airports Act, a new ANEF must be prepared for each new master plan. In the case of Archerfield Airport, this will occur on an eight year cycle. This gives the opportunity for the ANEF to take into account the aviation operations, aircraft characteristics, and technology in use at that time. AAC anticipates that the next ANEF and N70 will be prepared in 2031-32.

9.4.4 N70 modelling

To assist with interpreting potential noise impacts from aircraft, an 'N70' model has also been prepared. The model is used to create a map of the predicted average number of noise events per day above 70 dB(A) from aircraft flights.

The 70dB(A) level is the industry standard used for assessing noise events that are likely to cause interruptions to conversation or with listening to the radio or the television.





Number of flights of 70dB(A) and above in a 24 hour period
 NOTE: The secondary runways are only used during daylight hours

| | |
|--------|--------------------|
| Yellow | 50 or more flights |
| Orange | 20-49 |
| Blue | 10-19 |
| Green | 5-9 |

5 Number of flights per day
 Red line Airport boundary

Archerfield Airport Master Plan 2023-2043
 Figure 15 **N70 (in 2042)**

Australian Standard AS2021 *Acoustics—Aircraft noise intrusion—Building siting and construction* specifies 60 dB(A) as the indoor design sound level for normal domestic dwellings. External noise will be reduced by approximately 10 dB(A) by the fabric of a house with open windows.

Typical conversations occur around the 60-65 dB(A) range. Aircraft noise is less likely to be noticeable where background noises are present, for example from domestic air conditioners, nearby traffic, or during winter when windows typically are closed.

The N70 map, in Figure 15 shows the expected frequency of noise events in excess of 70dB(A) in the year 2042. The modelling assumes that by 2042 the secondary runway complex will have been realigned, and the helipads relocated as provided for in the Master Plan.

The N70 modelling recognises that people are generally more sensitive to noise at night time.

To ensure that potential impacts are appropriately represented in the mapping, the model applies a four-fold increase when calculating noise levels for any aircraft flights during the period 7pm to 7am.

It is important to note that the secondary runway complex (either in its current alignment, or following the proposed reconfiguration) is not used at night time and therefore does not contribute to night-time noise from aircraft at Archerfield. The secondary runway complex is also not used by larger aircraft, such as for RPT or freight, as these operate only from the main 10/28 runway complex.

The majority of aircraft movements at Archerfield are light aircraft, and most are used in flying training. The training usually includes a series of 'touch and go' take off and landing movements, undertaken in circuits.

9.4.5 Management

Initiatives by AAC relating to management of airport noise include:

- implementing the *Archerfield 'Fly Neighbourly'* program and code of conduct (first implemented in 2015, and updated following a review in 2021);
- educating aircraft operators and pilots through the airport Safety Management System;
- providing residents, other landholders and developers with information and advice about airport activities, and the management of noise impacts on the use or development of their land;
- meeting quarterly with AsA to identify and implement actions to optimise airport operations, including addressing noise management aspects;

- working with ASA to identify and implement solutions to any noise complaints, where these relate to AAC's areas of direct responsibility as airport operator;
- directing ground running aircraft and testing activities to appropriate locations to minimise potential impact on surrounding areas;
- monitoring and reviewing airport facilities with the view to minimising the noise impact on the community;
- ensuring if a significant issue arises, that appropriate consultation processes are put in place to resolve the issue; and
- working with BCC, Queensland State government and relevant government agencies to ensure that structures built near the airport have taken aircraft noise into consideration and that land in proximity to the airport is appropriately zoned, taking into account the aircraft noise patterns that are anticipated around the airport.

In the event that a RPT service involving aircraft with greater than 40 passenger capacity and operating more than six arrivals and/or departures per day on the 10L/28R runway is proposed, AAC will engage with the operator and other stakeholders to identify and implement any feasible measures to minimise aircraft noise within the 30 ANEF contour to the east of the 10L/28R runway.

Further information about the steps that will be taken is provided in section 18.12.2.

For management of noise from sources other than aircraft, the current and proposed initiatives and procedures adopted by AAC are discussed in section 16.10.

9.5 WILDLIFE BUFFER ZONES

Wildlife buffer zones shown in Figure 13 have been prepared in accordance with Guideline C in the *National Airports Safeguarding Framework*.

The buffer zones identify wildlife management requirements for existing and proposed uses, to minimise the risk of bird or other flying wildlife strike.

The potential for terrestrial wildlife to cause hazards for aviation operations on the airport is managed by maintaining perimeter fencing to the airside of the airfield, and undertaking ongoing surveillance to identify and address any wildlife within the operational area.

The NASF guideline includes advice on acceptable land uses (and management of these) in three zones: 0-3km, 3-8km, and 8-13km from the runways. The risks of wildlife strike are highest within the first 3km of each runway, and this zone is

subject to the most stringent land use requirements to minimise hazards from existing and proposed land use.

The City Plan acknowledges the requirement for wildlife buffers, and includes in the *Airport Environs Overlay* the following provisions:

The performance outcome sought in the designated buffers is:

PO4 Development does not attract birds and bats into operational airspace in significant numbers likely to cause a safety hazard to airport operations.

The 'acceptable outcomes' for this provision are:

AO4.1 Development within the Bird and bat strike zone sub-categories area ensures that waste is covered and collected so that it is inaccessible to birds and bats.

AO4.2 Development involving landscaping or drainage works, including artificial water bodies located within the distance from airport 0-3km sub-category, are designed and installed to minimise the potential to attract birds and bats.

The NASF guidelines include advice on appropriate land use, and requirements for wildlife management measures to be implemented for specific uses. AAC supports the consistent application of these guidelines to mitigate the hazard to pilots in the Archerfield Airport airspace.

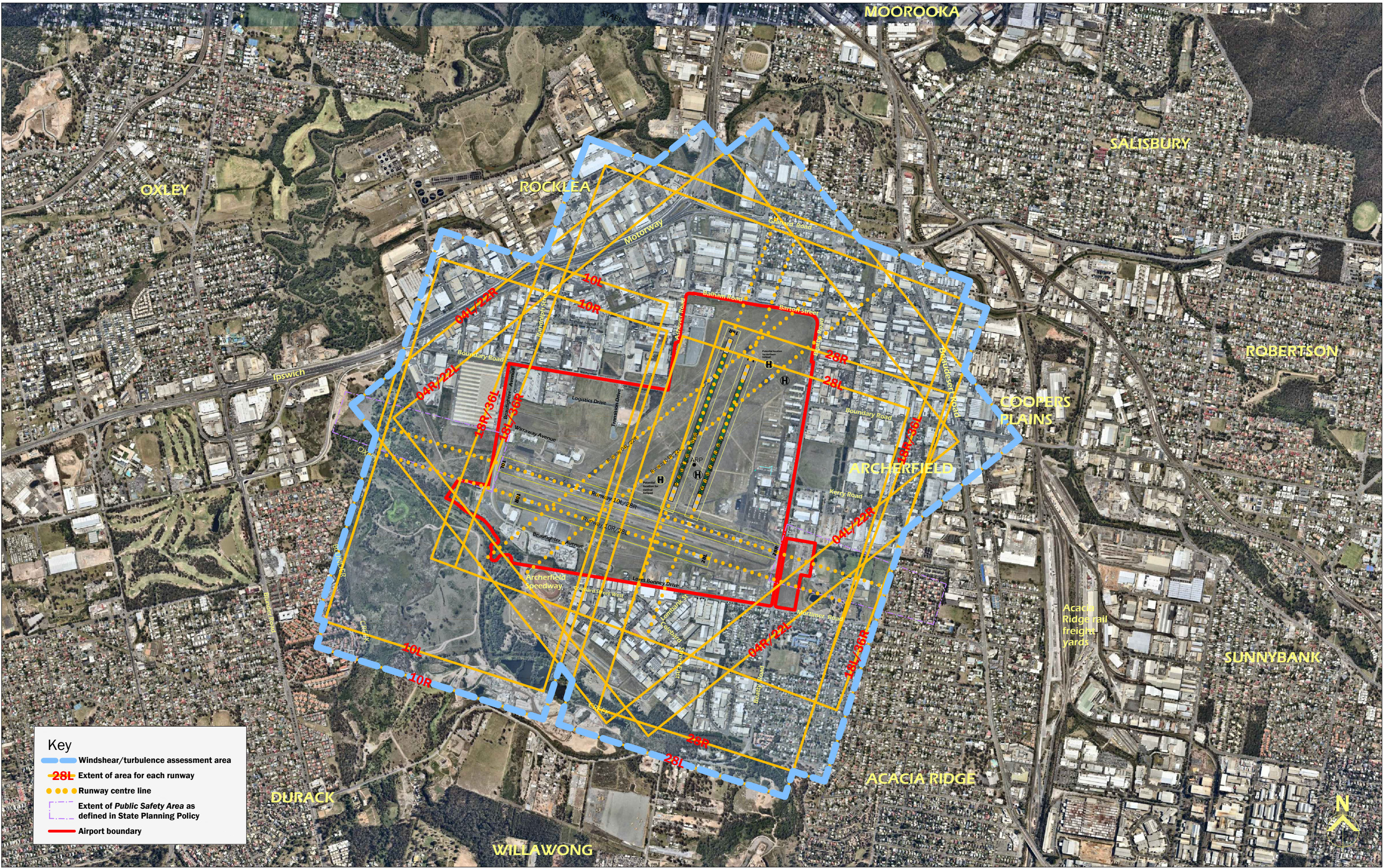
AAC supports the inclusion of the relevant airport safeguarding provisions in the City Plan (and the planning provisions for Logan City and Ipswich City, with respect to wildlife management requirements), and will continue to work with local and State government to ensure that wildlife related hazards are appropriately managed and all other relevant airport safeguarding requirements are implemented.

9.6 WINDSHEAR AND TURBULENCE

Buildings in proximity to the runways have the potential to cause turbulence or windshear, which can impact on the safe operation of aircraft.

NASF guideline B is referred to by AAC when it evaluates building proposals on the airport, or provides advice to proponents or authorities on proposals in the immediate vicinity.

Buildings that could pose a safety risk are those located within a rectangular 'assessment trigger area' around the end of each runway. These assessment areas, and the extended runway centrelines are shown in Figure 16. The Figure shows also a consolidated boundary that encompasses all of the trigger areas.



Within the defined assessment area, buildings are allowed provided their height is no greater than 1m for each 35m the structure is set back from the runway. The setback is measured as the horizontal distance, perpendicular to the runway centre line. For example, a 10m high building is allowed without further windshear or turbulence assessment if it is set back at least 350m from the runway centre line.

It is possible that there will be structures that penetrate the 1 in 35 surface but do not create an unacceptable risk to aviation safety.

Proposed buildings that exceed the 1 in 35 ratio may be allowed, subject to further detailed assessment of windshear and turbulence effects.

The building proponent must satisfy the approval authority/decision maker that the building will not create an unacceptable hazard to aircraft operations.

9.7 WIND FARMS AND MONITORING TOWERS

Guideline D in the NASF *Managing risks to aviation safety of wind turbine installations (wind farms)/wind monitoring towers* applies to one or more wind turbines and/or wind monitoring towers that have an overall height above ground level of 150m or more and are sited within 30km of a certified or registered aerodrome, or could intrude into the OLS/PANS-OPS surfaces of an airport.

Under the guideline, the proponent should notify CASA, AsA and other stakeholders of any proposal that meets these criteria. Archerfield Airport should be engaged for proposals within 30km of the airport.

The guideline sets out a planning and design process, which includes consultation with Archerfield Airport, CASA, AsA and other stakeholders; identification of risks and potential issues (with specialist advice); assessment of the acceptability of the proposal; and specification of measures including marking and lighting of the wind farm or monitoring towers.

The Queensland State code 23: *Wind farm development* includes performance outcomes that address aviation safety, operational integrity and efficiency of air services and aircraft operations.

The code and associated planning guideline require that proposals address location, siting, design and operation of wind farms; and include lighting and marking measures.

The code includes the following performance outcomes for wind farms:

PO1 Development does not adversely affect the safety, operational integrity and efficiency of air services and aircraft operations as a result of its:

- 1. location;*
- 2. siting;*

3. design;

4. operation.

PO2 Development includes lighting and marking measures that ensure the safety, operational integrity and efficiency of air services and aircraft operations.

The State code is currently under review. A consultation draft (which carries over the same performance outcomes for identifying and mitigating aviation impacts) was released in August 2023.

AAC supports the continued application of planning and development provisions that safeguard the continuation of airport operations, and will work with relevant authorities and proponents to provide advice on any aspects of planning provisions, approvals processes or assessment of proposals relevant to the airport.



Chapter 10

Ground Transport



Archerfield AIRPORT

10.1 OVERVIEW

The airport is highly accessible to ground transport, including by road and the passenger and goods rail network (Figure 3 *Airport context*).

It is roughly in the middle of a triangle bounded by Beaudesert Road, Granard Road, the Ipswich Motorway and the Oxley Creek.

It is within 500 m of the Ipswich Motorway (to the west and north west) which is part of the national highway network and connects to Brisbane City, and to Ipswich (and ultimately to Sydney and beyond).

The airport is also approximately 1.6 km to the west of the National Rail main rail freight terminus at Acacia Ridge, on the Brisbane to Sydney line. It is also approximately 2.2km from Coopers Plains railway station, which is on the Brisbane – Gold Coast line.

The existing and planned landside transport network within and surrounding the airport is shown in Figure 17 *Ground transport plan*. The plan shows:

- existing and planned roads and parking areas on the airport (used for car, commercial vehicle access, on demand public transport (taxi and car share/ride), goods, and cycle access);
- the existing and planned road network, principal and secondary cycle routes, and public transport services (including bus stop locations by route) in the vicinity of the airport; and
- locations of potential new or upgraded access to the airport to cater for future needs (subject to detailed investigations and design, in consultation with BCC).

The arrangements for working with the State government, BCC or other bodies responsible for the road network and the public transport system are set out below, and in Chapter 18.

This section of the Master Plan also includes an assessment of:

- the capacity of the ground transport system at the airport to support operations and other activities at the airport; and
- the likely effect of the proposed developments in the Master Plan on the ground transport system and traffic flows at, and surrounding, the airport.

The ground transport plan sets out how airport access arrangements are integrated into the road network, and how these cater for current and anticipated future ground transport access requirements.

The Master Plan responds to the road hierarchy described in the Brisbane City Plan. The relevant provisions of City Plan are summarised in section 3.5.2 of this master plan, and discussed below.

10.2 ROAD NETWORK

10.2.1 Regional roads

The regional road system comprises Beaudesert Road (to the east), Granard/Riawena Roads (to the north), and Ipswich Motorway (to the west). These roads are planned and controlled by the State Department of Transport and Main Roads (TMR) and are shown in Figure 3.

Granard Road and Ipswich Motorway are part of the National Highway system. These highway corridors are of national strategic importance and receive funding from the Commonwealth Government. Granard Road and Beaudesert Road are designated in the City Plan as 'arterial roads', and 'primary freight routes'. The 'arterial roads' provide intra-city connections between the major designations within Brisbane and surrounding areas including the principal regional activity centres and major employment areas. These carry 20,000+ vehicles per day.

The regional road system provides linkages north to Brisbane via South East Freeway or Gateway Motorway, south east to the Gold Coast via the Pacific Highway or inland to Sydney via Ipswich. The interchange at Randolph Street (approximately 500m to the north of Boundary Road) provides access to the airport from the Ipswich Motorway.

10.2.2 District and local network

From a district and local perspective, the road network has developed around the airport and the natural feature of the Oxley Creek.

The roads surrounding the airport are owned and managed by BCC.

The airport has direct access to Barton Street; and Mortimer, Beatty, Balham, Ashover, and Boundary Roads. Except for Mortimer Road (which is a 'district road', west of Beatty Road); all of the roads adjacent to the airport are designated as 'suburban roads' in the City Plan.

'Suburban roads' connect arterial roads through and around suburbs, and are a lower order of road to the arterial routes. They typically carry 10,000 to 20,000 vehicles per day. 'District roads' are at the next level in the City Plan hierarchy. They carry through traffic between suburbs and provide access between minor roads, local centres and suburban and arterial roads.

On the east side of the airport, Mortimer Road, Kerry Road and Boundary Road provide additional direct routes east to Beaudesert Road. These roads are also designated as 'suburban roads' in the City Plan.

The current road network around the airport is summarised as follows:

- Barton Street runs east-west along the north-east end of the airport, between Beatty Road and Balham Road. It is a three lane road, and comprises two traffic lanes in the eastbound direction, one in the westbound. It joins to Balham Road via a priority-controlled T intersection, and to Beatty Road via a four-way signalised intersection. Barton Street allows access to the airport site, and to industrial developments opposite the airport and is categorised as a suburban road.
- Balham Road takes the shape of an 'L', extending from Granard Road in the north to Ashover Road in the west. The 450m long section between Granard Road and Barton Street has two traffic lanes and carries two-way traffic. It is a district road, offering access to industrial developments and residential streets. The segment between Barton Street and Ashover Road features three lanes (two lanes in the eastbound direction, and one westbound) and provides access to industrial areas. This segment is categorised by BCC as a suburban road.
- Ashover Road is a two-way, suburban road extending from Ipswich Motorway, 450m north of the airport, along the west side of the Ashover precinct to Boundary Road. The airport has a frontage to Ashover Road of just over 580m. The road has two traffic lanes and provides access to industrial developments and multiple entry points to the Ashover precinct on the airport site.
- Boundary Road on the west side of the airport runs 2.7km from the southern end of Ashover Road generally west and then south to connect to Blunder Road. It has two traffic lanes carrying two-way traffic, is a suburban road, and provides access to the Boundary, Wirraway and Beaufighter precincts. The airport has an approximately 950m frontage to Boundary Road west, including intersections at Transition Drive, Randolph Street and Beaufighter Avenue, and multiple access points to sites both on airport and along the opposite side of the road. Ipswich Motorway is 500m to the north of the airport, via the signalised intersection at Randolph Street (opposite the BP Truckstop in the Boundary precinct).
- Boundary Road, east of the airport runs from a signalised T-intersection at Beatty Road, 880m east to a signalised four-way intersection at Beaudesert Road. It is categorised as a suburban road and comprises two traffic lanes carrying two-way traffic, providing access to many industrial developments via individual crossovers and additional protected turn lanes at intersecting streets.
- Kerry Road is a two-lane, two-way, suburban road extending between Beatty Road in the west (priority-controlled T-intersection) and Beaudesert Road 1km to the east (four-way signalised intersection). Kerry Road runs in an east-west direction and provides access to industrial developments.

- Beatty Road is a two-lane, two-way, suburban road extending along the east boundary of the airport, between Granard Road in the north and Bowhill Road in the south. Bowhill Road extends west from the south side of Oxley Creek and joins ultimately to Blunder Road. Beatty Road is a major north-south connecting road which provides direct access to abutting properties along its length (including sites on the airport), and multiple access points to the airport (including the main terminal and other public facilities at Grenier Drive).
- The key intersections with Beatty Road in the vicinity of the airport are:
 - Granard Road (to the north) – four-way signalised intersection;
 - Barton Street – four-way signalised intersection;
 - Boundary Road – signalised T-intersection;
 - Kerry Road – priority-controlled T-intersection (which was modified in 2023 to facilitate development on the north-east corner of Beatty Road and Kerry Road; and includes provision for a future connection point to Archerfield Airport as a four-way signalised intersection); and
 - Mortimer Road – four-way signalised intersection.
- Mortimer Road runs along part of the southern boundary of the airport, from Lombank Street, east across Beatty Road (a four way signalised intersection) to Beaudesert Road (four-way signalised intersection, 1.2km from Beatty Road). It generally consists of a two-lane, two-way road, with on road cycle lanes in the section east of Beatty Road. West of Beatty Road it is classified as a district road providing frontage access to multiple sites, and to the road network serving the Acacia Ridge industrial precinct centred on Colebard Street. East of Beatty Road, it is a suburban road providing access to low density housing, sports and recreation, and school facilities. The Mortimer precinct has frontages of approximately 510m to Mortimer Road west of Beatty Road, and 110m east of Beatty Road.

Land used for the creation of the Barton Street link between Beatty Road and Balham Road was gifted by AAC to BCC in 2007 with Commonwealth approval. The road link has provided significant improvements to east-west connectivity in the vicinity of the northern part of the airport, with 2021 traffic counts showing in excess of 12,600 vehicle movements on a mid week day.

This project was implemented with the involvement of AAC, BCC, TMR and the Commonwealth (as owner of the land required for the road).

This has been beneficial to traffic movements through the Archerfield area, particularly in providing some relief to east-west movements on the heavily congested Granard Road.

It has also provided additional options for access to Ipswich Motorway. East-west traffic can now access the motorway at either Randolph Street (500m north of Boundary Road) or at Granard Road (500m to the north of Balham Road).

10.2.3 Freight routes

BCC has in City Plan identified the following roads as 'primary freight routes':

- Ipswich Motorway,
- Granard Road, and
- Beaudesert Road.

These routes provide direct road connections for non-standard vehicles between regionally significant industrial areas and inter-regional destinations.

With respect to freight movement in the vicinity of the airport, the road hierarchy map in City Plan categorises all of the roads surrounding the airport as serving a primary freight access function, connecting primary freight routes and freight dependant development.

These roads are vital transport corridors in the area, often experiencing congestion during peak times. Counts undertaken in 2021 show that Granard Road near the airport recorded an Average Annual Daily Traffic (AADT) of 45,700 in 2021, and Beaudesert Road carried an AADT of 39,100.

In 2015 Council closed the eastern section of Mortimer Road to use by B-Double trucks. This closure has redirected B-Double traffic to Kerry Road and the increase in truck movements along Kerry Road has contributed to traffic delays at the intersection of Kerry Road and Beatty Road.

10.2.4 Network traffic volumes and distribution

Table 4 shows two-way traffic volumes on the road network in the vicinity of the airport.

The right-hand columns summarise 24 hour traffic volumes from 2020-23 TMR, BCC and AAC commissioned counts (as listed). The TMR counts represent average weekday traffic for the 2020 year. The BCC counts are taken on a mid week day in May, 2021. Data from 2005 (BCC 24 hr counts) and 2010 and 2015 (TMR Annual Average Daily Traffic (AADT), and also TMR 12 hour counts taken from 6am to 6pm) are also shown.

TABLE 5: TWO-WAY TRAFFIC VOLUMES ON SURROUNDING ROAD NETWORK

| Location | Total vehicles (both directions) | | | | | |
|---|----------------------------------|-----------------------|-----------------------|--------------------|-------------------------|----------------------|
| | 2005 (BCC 24hr) | 2010 (TMR 24hr) | 2015 (TMR 24hr) | 2015 (TMR 12hr) | 2020-21 (24hr) | 2022-23 (24hr) |
| Beaudesert Road (north of Mortimer Road) | 29,638 | 31,014 | 35,140 | 29,548 | 33,095 (TMR 2020) | 37,115 (TMR 2022) |
| Beaudesert Road north of Boundary Road | | 42,864 | 42,609 | | 39,759 (TMR 2020) | 38,446 (TMR 2022) |
| Granard Road (at Beaudesert Road) | 36,599 | 42,185 | 40,439 | 36,585 | No data | No data |
| Granard Road (at Balham Road) | | 42,185 | 40,439 | 38,665 | 44,776 (TMR 2020) | 44,978 (TMR 2022) |
| Ipswich Motorway north of Granard Road | | 40,796 | 77,692 | | 83,145 (TMR 2020) | 48,877 (TMR 2022) |
| Ipswich Motorway (south of Granard Road) | | 55,443 | 79,808 | | No data | No data |
| Ipswich Motorway (at Randolph Street) | | 71,367 | 79,808 | | 79,134 (TMR 2020) | No data |
| Ipswich Motorway (at Boundary Road Rocklea) | | 69,982 | 88,474 | | 95,871 (TMR 2020) | No data |
| Beatty Road/Mortimer Road intersection total | | | | | 22,277 (BCC 2021) | 23,065 (BCC 2023) |
| Mortimer Road east of Beatty Road | 12,500 | | | 8,620 | No data | 9,500 |
| Mortimer Road west of Beatty Road* | | | | 5,512 | 4,615 (BCC 2021) | 5,400 |
| Beatty Road south of Mortimer Road | | | | 10,129 | 15,430 (BCC 2021) | 15,869 (BCC 2023) |
| Beatty Road north of Mortimer Road | | | | 15,441 | 15,772 (BCC 2021) | 16,734 (BCC 2023) |
| Beatty/Kerry intersection total | | | | | No data | 19,000 |

| Location | Total vehicles (both directions) | | | | | |
|--|----------------------------------|-----------------------|-----------------------|--------------------|-------------------------|----------------------|
| | 2005 (BCC 24hr) | 2010 (TMR 24hr) | 2015 (TMR 24hr) | 2015 (TMR 12hr) | 2020-21 (24hr) | 2022-23 (24hr) |
| Beatty Road between Kerry Road and Boundary Road | | | | 16,558 | No data | 17,500 |
| Kerry Road east of Beatty Road | 9,700 | | | 5,445 | No data | 4,000 |
| Beatty Road/ Boundary Road intersection total | | | | | 25,824 (BCC 2021) | 26,330 (BCC 2023) |
| Beatty Road between Boundary Road and Barton Street | | | | 19,709 | No data | 21,200 |
| Boundary Road (east of airport) at Beatty Road | 8,750 | | | 9,197 | No data | No data |
| Beatty Road/Barton Street intersection total | | | | | 24,759 (BCC 2021) | 24,000 |
| Beatty Road north of Barton Street | | | | 11,274 | 12,846 (BCC 2021) | 11,100 |
| Barton Street | | | | 10,752 | 12,691 (BCC 2021) | 11,500 |
| Balham Road west of Barton Street | | | | 8,615 | No data | 7,500 |
| Balham Road north of Barton Street | | | | 5,617 | No data | 7,600 |
| Ashover Road south of Balham Road | 4,190 | | | | No data | 6,300 |
| Boundary Road near Transition Drive | | | | | | 6,000 |

NOTE: *In 2015, BCC closed Mortimer Road east of Beatty Road to B-Double trucks

The counts show continued growth in vehicle movements on most parts of the network around the airport over the period 2020-23. This increase is attributable to growth in externally generated traffic, given that less than 5% of traffic on the network is generated by the airport and there has not been a significant change in airport land use or traffic generation in that time.

On the east side of the airport, Beatty Road and the intersections between Mortimer Road and Barton Street are carrying high traffic volumes, and these continue to grow due to factors external to the airport including an increase in urban development to the south and east.

In terms of total daily movements, the section of Beatty Road north of Kerry Road carries more traffic than the section south to Mortimer Road (and beyond to Bowhill Road).

The Beatty Road/Boundary Road intersection was in 2021 carrying approximately 25,800 vehicles per day mid-week, and this increased to 26,330 in 2023.

The intersection of Beatty Road and Barton Street carried 24,700 vehicles in 2021, and the traffic split at the intersection shows that approximately half of the vehicles used Barton Street, and half were passing to the north.

At Mortimer Road, the intersection carried a total of approximately 22,200 vehicles per day, and of these, 15,772 were in Beatty Road, north of Mortimer Road. In 2023, the total intersection count increased to 23,000.

The road infrastructure in Beatty Road at several locations along the airport frontage is currently inadequate and raises concerns about safety and efficiency, particularly regarding access to the airport and other properties along Beatty Road, by cars, commercial vehicles, cyclists and pedestrians.

The recent reconfiguration of the north-east side of the Kerry Road/Beatty Road intersection resulted in immediate detrimental impacts on access to the airport at both the north and south legs of Grenier Drive.

Previously, southbound vehicles on Beatty Road turning east into Kerry Road were accommodated in a 110m+ long slip road, that allowed for turning vehicles to queue without holding up the through traffic on Beatty Road. In addition, the left turn lane entered Kerry Road at a point approximately 70m to the east of the intersection with Beatty Road, providing additional separation between vehicles in the Beatty Road intersection, and those travelling along Kerry Road.

The long slip road has been replaced by a shorter turning lane that enters Kerry Road adjacent to Beatty Road. Vehicle congestion at the Beatty Road/Kerry Road intersection increased, as the southbound vehicles on Beatty Road are being obstructed by those queuing to turn east into Kerry Road. The queuing of vehicles on the southern approach in Beatty Road also increased, and there are now reduced opportunities for vehicles to enter or leave the airport. Of particular concern are the movements for vehicles needing to travel:

- from either leg of Grenier Drive, heading north into Beatty Road and then east into Kerry Road (this is also causing additional queuing within Grenier Drive, as vehicles exiting the airport are delayed by the limited capacity in the northbound lane of Beatty Road);

- from the southern leg of Grenier Drive, heading south (right) into Beatty Road;
- from Kerry Road, south into Beatty Road and then west (right) into the southern leg of Grenier Drive; and
- from Beatty Road southbound and then turning right (west) into Grenier Drive.

In addition, some northbound vehicles on Beatty Road are using the shoulder to pass queues of vehicles turning east into Kerry Road. This manoeuvre brings vehicles close to an electricity pole in the verge, just north of Kerry Road, which provides supply to the Beatty precinct. This pole is also potentially in the path of trucks heading west on Kerry Road and turning northbound into Beatty Road.

AAC is committed to working with BCC to resolve these issues, and to see the upgrading of Beatty Road and the key intersections along it, to better cater for through traffic and ensure that safe and efficient access to the airport is always provided.

It has had discussions with BCC over the years, and understands that Council is now in the process of developing a design for the widening of Beatty Road and is progressing the design of upgraded intersections at Kerry Road, Boundary Road (east of the airport) and Mortimer Road.

This design process will assist with confirming the land requirements (including any proposed widenings onto airport land), and will allow AAC to progress plans to implement a realigned airport access at Kerry Road, as shown in the current and previous master plans and in BCC's plans provided to AAC over 20 years ago.

BCC has confirmed in the latest *Local Government Infrastructure Plan 2016-2026* (LGIP) its commitment to the upgrading of Beatty Road and associated intersections, between Mortimer Road and Granard Road to four traffic lanes, however the timing was amended recently from 2021 to 2026.

AAC will continue to work with BCC to see the successful implementation of the upgrade to the road corridor and intersections. To assist with this, the master plan shows the preferred locations for upgraded and new access to the airport, and the locations where, subject to further investigation and resolution of design and land access requirements, airport land could be available for road widening by BCC.

10.3 PUBLIC TRANSPORT

10.3.1 Existing facilities and services

Bus services

The airport is served by a number of bus routes including:

- the 110 and 115 cityxpress routes that provides weekday services from Inala (110) and Calamvale (115), through Acacia Ridge, Archerfield, Salisbury, Moorooka, Annerley and central Brisbane (connecting to rail and bus interchanges); with bus stops on Beatty Road adjacent to God's Acre and on the east side near Kerry Road; and on Mortimer Road, to the east of the airport. The 110 weekday service generally operates at a 30 minute service frequency at peak times and 60 minute frequency off peak. The 115 service operates on a 60-minute frequency;
- the 110 cityxpress route also runs between Inala and the City via Archerfield on weekends and public holidays at a frequency of approximately 60 minutes;
- the 117 service that runs from Acacia Ridge, along Beaudesert Road to the City operates weekdays only servicing Acacia Ridge, Archerfield, Moorooka, Annerley and Woolloongabba. The nearest bus stops are located along Desgrand Street (between Boundary Road and Kerry Road) and along Beaudesert Road. This route operates on a low frequency service with 17 services provided across the day in each direction between 5:40am and 6:10pm; and
- the 122 service that runs from Inala to Garden City Shopping Centre via Beatty Road, Coopers Plains Train station, QEII Hospital (and close to Griffith University), with bus stops in Kerry Road near the intersection of Beatty Road, and on Mortimer Road, to the east of the airport. This route operates 7 days a week with a frequency of 60 minutes.

The bus stops are shown in the *Ground transport plan* (Figure 17).

Passenger rail

The Beenleigh Rail Line passes approximately 2km to the north east and east of Archerfield Airport, and the closest stations are at Salisbury and Coopers Plains. This rail provides access to the Gold Coast, Brisbane CBD and to Brisbane Airport (via the regular Airtrain service).

On demand services

Taxi and ridesharing services are an on-demand public transport service offered at the airport.

10.4 PEDESTRIAN AND CYCLE NETWORK

The Brisbane City Plan identifies, in the *Bicycle network overlay*, priority cycle routes in the vicinity of the airport. These accord generally with the routes shown also in the *South East Queensland Principal Cycle Network Plan* (TMR, 2016), which are shown in Figure 17.

In the area to the west and north of the airport, Ipswich Motorway and Granard Road are shown as primary cycle routes. Beaudesert Road is also shown as a primary cycle route. Beatty Road, Barton Street, Balham Road, Ashover Road and Boundary Road (on the west side of the airport) are shown as 'secondary cycle routes'. This classification applies also to both Mortimer Road and Boundary Road, east of Beatty Road.

The east-west routes shown along Boundary Road and Mortimer Road would facilitate cycle movement through the Archerfield and Acacia Ridge neighbourhood, and have the potential to also provide links to Coopers Plains railway station, 2km to the east.

There are currently limited active transport facilities (for pedestrians and cyclists) on the road network surrounding the airport site.

Footpaths are provided on the north side of Barton Street and Balham Road, some segments along the east side of Beatty Road, and along the south side of Mortimer Road.

Mortimer Road east of Beatty Road includes on road cycle lanes, linking to Beaudesert Road. Although no dedicated on-road cycle facilities are provided along Mortimer Road west of Beatty Road, along Beatty Road, Barton/Balham, or Ashover and Boundary roads, cycling within the traffic lanes is possible. However, it is important to note that the current condition of Beatty Road in particular, having gravel shoulders and high heavy vehicle volumes, may deter cyclists. Traffic counts in Beatty Road indicate low to no volumes of on-road cyclists.

Within the airport, most of the landside areas have very low vehicle traffic volumes. The established local road network in the Beatty and Mortimer precincts caters for local access by vehicles and pedestrians, in a shared environment. Path links are provided between the main off street car parking areas and adjacent developments (for example between the Administration and Terminal building and the central car park off Grenier Drive), and individual buildings have defined pedestrian entries, consistent with other industrial and commercial developments.

The City Plan currently also shows in the *Bicycle Network Overlay* a proposed 'secondary cycle route' through Archerfield Speedway and the south-west corner of the airport (adjacent to Oxley Creek).

AAC does not consider that it is practical to provide a link along this part of Oxley Creek through the airport land, due to airport security requirements, topographic features, existing land use (on the airport, and adjacent land), the substantial stormwater management basins and associated drainage works in this part of the airport, environment conservation, and runway protection issues. BCC has subsequently acknowledged this, and confirmed that if a secondary link is required within the Oxley Creek corridor in the vicinity of the airport, it will not run through airport land. AAC understands that the reference to the potential route will be deleted from the City Plan in a future amendment to the Plan.

AAC has identified with BCC the opportunity to encourage pedestrian and cycle access to, and within the airport.

This could include integration of pedestrian and cycle facilities in the upgraded road network planned around the airport perimeter (including within the BCC planned upgrading of Beatty Road, between Mortimer Road and Granard Road, and potentially also along Barton Street/Balham Road, Ashover Road and Boundary Road west) and within some parts of the airport.

These opportunities follow the overall strategy in the Brisbane City Plan, and are included in the *Ground transport plan* (Figure 17) and in the PSPs in Chapter 12.

AAC will as part of the more detailed planning and design for each precinct, consult with BCC to clarify Council's proposals for developing cycle routes along the roads adjacent to the airport.

The consultation will seek to confirm the intended location and type of any new cycling facilities (such as on road lanes or segregated paths), any anticipated land requirements (eg for road widening to accommodate the facilities), and the likely timing of the land acquisition and works by BCC.

AAC has considered options for extending paths within the airport. The main and secondary runway complexes and airside areas constrain north-south or east-west connections through the middle of the airport site, so it is not feasible to develop cross-airport linkages.

Any upgraded pedestrian or cycle access within the airport would therefore be for trips from the surrounding road and path network, into sections of the airport. This would be achieved through the existing road and path network within the airport. Where appropriate, opportunities for improving local access can also be considered in new developments on a precinct by precinct basis.

Consideration will be given to including local cycle routes in appropriate locations in the Barton, Ashover and Boundary precincts (potentially within the new local roads), when more detailed planning and design is undertaken for airport developments.

10.5 RAIL FREIGHT SERVICES

The national freight line between Brisbane and Sydney runs to the east of the airport. The main National Freight rail yards are located at Acacia Ridge, approximately 1.6 km to the east of the airport. There is an existing main truck access point to the rail yards, off the eastern end of Kerry Road.

Sections of the 49km Kagaru to Acacia Ridge and Bromelton track need to be modified to provide sufficient height and width to support the safe running of double-stacked freight trains along the existing interstate route. The Kagaru to Acacia Ridge and Bromelton project is currently in the design stage, and anticipated for completion in 2027.

The airport supports some freight activities, but these are at present not a significant component of the airport business. There is potential for this to grow. The location, flat topography and good road access available to the airport provide opportunities for development of freight storage, handling and distribution facilities.

The airport, and the rail yards are both designated as 'critical assets' in the *Critical infrastructure and movement network overlay map* in the Brisbane City Plan.

10.6 INTERNAL ROAD NETWORK AND SITE ACCESS

10.6.1 Existing network

The existing road network on the airport, and the main intersections to surrounding roads are shown in Figure 4 *Existing airport layout* and Figure 17 *Ground transport plan*.

These are private roads that are owned and maintained by AAC and include:

- Grenier Drive, which forms a loop road off Beatty Road, just south of the intersection with Kerry Road. It has a local access function providing direct property access including to the Airport Administration and Terminal building and the main car parking area, in addition to God's Acre Cemetery and the range of tenancies in Archerfield Square. It is fully constructed, with kerb and channel and an asphalt sealed carriageway. It caters for low volumes of vehicles and the design promotes slow speeds. Other local access roads including Stinson Place, Hudson Place, Pitt Street, Ditchmen Avenue, and Qantas Avenue all extend from Grenier Drive;
- Lores Bonney Drive, which extends west from Mortimer Road to the control tower and also provides access to the tenancies in the eastern part of the Beaufighter precinct is constructed and sealed. It has a local access function providing direct property access to developments within the Mortimer and Beaufighter precincts. It is a sealed road with varying

pavement widths with kerb and channel only constructed in the eastern parts of the road. This road provides intersection points with Mortimer Road and other local access roads within the airport being Rockwell Drive, Bonanza Avenue, and Victa Avenue;

- Beaufighter Avenue, which extends south from Boundary Road to Wirraway Avenue and then south east into the middle of the Beaufighter precinct, has a district function providing for local freight and development access to the Beaufighter, Wirraway and Boundary precincts. It is fully constructed with kerb and channel and an asphalt sealed carriageway with a 10m pavement width. The road is sign posted with a speed of 40km/h, and is approximately 1.4km long;
- Wirraway Avenue extends east of Beaufighter Avenue and provides access to the Wirraway aviation precinct (which includes the corporate hangars, the new building 409 aviation development, and the QGAir facility); and the south side of the Boundary precinct. It has a local access function providing direct property access and catering for low volumes of vehicles. It is fully constructed with kerb and channel and a 6.5m wide asphalt sealed pavement. The road runs in an east-west direction and is approximately 400m long. Shortly following privatisation, AAC reconstructed and resurfaced the road and installed stormwater drains and underground piping to cater for surface water runoff. New infrastructure services (including upgraded power and water) have also been provided;
- Transition Drive currently has a local access function providing direct property access and catering for low volumes of vehicles. It is a fully formed road currently ending at a cul-de-sac 320m from the intersection at Boundary Road, has a 14m pavement width and kerb and channel. The road runs in a north-south direction and provides access to the lots in the initial stages of Transition Estate, with provision for the road to be extended to join to Wirraway Avenue as the precinct develops further;
- Logistics Drive also has a local access function providing direct property access and catering for low volumes of vehicles. It is a fully formed road extending 280m from Transition Drive, has a 14m wide pavement width and kerb and channel. The road runs in an east-west direction through the Boundary precinct, and provision has been made for a potential southward extension to Wirraway Avenue or future connection to the south side of the Boundary Road/Randolph Street intersection if required.
- Ashover Circuit is a two-way loop road off Ashover Road that provides a local access to industrial and commercial sites in the Ashover precinct;
- Qantas Avenue, which forms a service road along the west side of Beatty Road, and north of Grenier Drive is fully constructed with kerb and channel and an asphalt sealed carriageway; This 620m long road runs parallel to

Beatty Road providing internal access through the Beatty precinct. It is a two-way road with speed control devices providing direct property access and on-street car parking. The road runs in a north-south-direction and provides connections to other local access roads being Rapide Place and Anson Place as well as intersection points with Beatty Road; and

- Ditchmen Avenue which is a service road along the west side of Beatty Road, south of Grenier Drive is fully constructed with kerb and channel and an asphalt sealed carriageway.

Qantas Avenue and Ditchmen Avenue run parallel to the Beatty Road frontage of the airport, adjacent to the more intensively developed areas. These function as service roads and provide frontage access to the tenancies along Beatty Road.

They allow for development to face to Beatty Road without constraining property access, congesting the main thoroughfare with parked vehicles or causing traffic safety problems along Beatty Road. They also cater for a large number of indented car parking spaces.

AAC develops and maintains the on-airport roads and access points that link to the external road network, including the intersection works within the airport land. The internal roads are designed to allow access to existing facilities within the site, and provide all-weather access to the airport facilities, tenancies and parking and loading areas.

10.6.2 Existing traffic generation

An assessment of existing daily vehicle trips for each airport precinct, taking into account the scale and mix of existing land use has been undertaken by PSA Infrastructure Pty Ltd (2023), and is summarised as follows:

TABLE 6: EXISTING DAILY TRAFFIC FROM EACH AIRPORT PRECINCT

| Precinct | Vehicles per day |
|-------------|------------------|
| Beatty | 1,600 |
| Barton | 0 |
| Ashover | 160 |
| Boundary | 1,600 |
| Wirraway | 190 |
| Beaufighter | 560 |
| Mortimer | 740 |

The airport has multiple entry and exit points onto the BCC road network along each boundary including at road intersections, and at access points to individual sites. This facilitates the dispersal of traffic, and minimises the concentration of traffic movements.

The existing low traffic volumes have minimal impacts on surrounding road traffic flow which is dominated by through and passing traffic.

Traffic volumes generated by airport activities has remained relatively unchanged in the past years based on a comparison of historical and 2023 traffic count data. Conservatively, current operations contribute less than 5% of traffic movements to the peak directional flows.

PSA Infrastructure Pty Ltd also assessed the capacity and operation of key intersections surrounding the airport. SIDRA traffic intersection modelling software has been used, and the analysis is based on 2023 surveyed traffic counts. Intersection performance has been determined, consistent with traffic engineering standards. The following terms apply:

- *degree of saturation* (DOS) is the ratio of traffic demand volumes to capacity (v/c);
- *capacity* is reached where the DOS is nearing to or equals 1. [$0.9 < v/c = 1$];
- *over capacity* occurs where the DOS is greater than 1. [$v/c > 1$];
- *spare capacity* exists where the DOS is less than 1 and greater than 0.5 [$0.5 < v/c < 0.9$]; and
- *substantial spare capacity* exists where the DOS is less than 0.5 [$v/c < 0.5$]

The findings are summarised in the following table.

TABLE 7: CURRENT KEY INTERSECTION PERFORMANCE

| Intersection | Existing performance |
|----------------------------------|---|
| Beatty Road/Mortimer Road | Capacity |
| Beatty Road/Kerry Road | Over capacity |
| Beatty Road/Barton Street | Spare capacity (for approximately 10 years) |
| Balham Road/Ashover Road | Substantial spare capacity |
| Boundary Road/Transition Drive | Substantial spare capacity |
| Boundary Road/Beaufighter Avenue | Substantial spare capacity |

The assessment confirms that under current conditions the Beatty Road intersections are running at, or over capacity, apart from at Barton Street. This is consistent with the findings of traffic engineering assessments prepared for recent development proposals on other land in the vicinity of the airport, including the development now under construction on the north-east corner of Beatty Road and Kerry Road.

10.6.3 Traffic generation by future developments

The following table summarises for each precinct the forecast additional vehicle trips that will be generated by planned airport developments in the initial 8-year period of the Master Plan, to 2031.

The traffic generation has been calculated by PSA Infrastructure Pty Ltd, taking into account the location, type and floor area of the developments. Traffic generation rates have been determined by use of traffic count surveys and *Institute of Transportation Engineers Trip Generation Manual*.

TABLE 8: FORECAST ADDITIONAL DAILY TRAFFIC FROM EACH AIRPORT PRECINCT (2031)

| Precinct | Land use | Floor area (m ²) | Additional daily traffic (vpd) | Total forecast vpd |
|-------------|-----------------------------|------------------------------|--------------------------------|--------------------|
| Beatty | ASP5 | 9,500 | 350 | 1,950 |
| Barton | ASP5 | 4,500 | 160 | 160 |
| Ashover | ASP5 and General industry B | 6,500 | 180 | 340 |
| Boundary | General industry B | 66,500 | 2,410 | 4,010 |
| Wirraway | ASP5 | 7,500 | 180 | 370 |
| Beaufighter | General industry B | 35,000 | 490 | 1050 |
| Mortimer | ASP5 and General industry B | 8,000 | 260 | 1,000 |

The following table highlights the capacity and operation of the key intersections surrounding the airport by 2031, including traffic generated by planned airport developments.

TABLE 9: FORECAST KEY INTERSECTION PERFORMANCE (BY 2031)

| Intersection | Existing performance | Performance by 2031 |
|----------------------------------|---|---|
| Beatty Road/Mortimer Road | Capacity | Airport developments not expected to affect intersection operation |
| Beatty Road/Kerry Road | Over capacity | Airport developments not expected to affect intersection operation |
| Beatty Road/Barton Street | Spare capacity (for approximately 10 years) | Airport developments not expected to affect intersection operation |
| Balham Road/Ashover Road | Substantial spare capacity | Airport developments not expected to affect intersection operation |
| Boundary Road/Transition Drive | Substantial spare capacity | Current intersection arrangement will cater for forecast traffic demand |
| Boundary Road/Beaufighter Avenue | Substantial spare capacity | Current intersection arrangement will cater for forecast traffic demand |

10.7 CAR PARKING

The airport currently has eight main on site car parking areas, in addition to parking within, or dedicated to individual tenancies.

The main parking areas are:

- the long-term carpark, accessed from Qantas Avenue (approximately 56 cars);
- the off street car park adjacent to Hangar 1 in Qantas Avenue (68 spaces);
- 'on street' parking, particularly in Qantas Avenue and Ditchmen Avenue (currently comprising 90° indented bays for about 125 cars, and room for additional parking if necessary);
- between the Airport Administration and Terminal building and God's Acre cemetery (approximately 110 cars and space for taxis and ride share with a drop off zone adjacent to the Terminal);
- 12 cars in Grumman Place (adjacent to tenancies 640-643), accessed off Beatty Road;
- in Victa Avenue, adjacent to Buildings 612 and 618 (approximately 24 cars);
- in the parking area between tenancies 621 and 632 (24 spaces accessed from Lores Bonney Drive); and
- in Bonanza Avenue, off Lores Bonney Drive, (approximately 30 cars).

The on and off street car parking areas are shown on the *Ground transport plan*.

10.8 FUTURE REQUIREMENTS AND TIMING

10.8.1 Future requirements for regional road access

The sustainable growth of the airport, and its continued adaptation to changing aviation needs is reliant on there being direct, safe and efficient road access to the site.

The Master Plan has not identified any regional road upgrading projects required specifically to support the operation and development of the airport over the next 8 years.

AAC will continue to work with BCC, the State and Commonwealth to encourage improvements to the regional, district and local road network to enhance the accessibility of the airport and the SWIC REC/SWIG, and ensure that ground transport links meet current and future requirements.

AAC facilitates the *Archerfield Airport Planning Coordination Forum* (PCF) which provides an ongoing opportunity for AAC and the participating agencies to identify issues and emerging projects, prioritise actions to address existing and

emerging access requirements, and facilitate the involvement of the airport in relevant transport planning and infrastructure improvement projects.

10.8.2 Future requirements for the surrounding district and local road network

Upgrading of Beatty Road (2023-31)

In the late 1990's, BCC identified the need for Beatty Road to be upgraded to cater for existing and projected network traffic, through road widening and intersection improvements. This need has increased over the ensuing years, with growth in traffic volumes and more intensive development in the areas around the airport, and in the wider district.

AAC supports the implementation of works to improve the traffic capacity and operation of Beatty Road, and is keen for this to be realised in the short term to address existing capacity limitations on through traffic, and to maintain (and improve) an acceptable standard of access to the airport.

Beatty Road adjacent to the airport is at present an undivided two-way road. The road pavement width varies, and some sections have kerb and channel, while others have gravel shoulders.

Most existing airport developments along Beatty Road were constructed decades ago, and the volume of airport traffic utilising Beatty Road to access this part of the airport has remained relatively unchanged since the 1970/80's. This is not expected to change significantly unless RPT once again begins operating from the current Airport Administration and Terminal building, or from elsewhere in the Beatty precinct.

The adjacent industrial area on the east side of Beatty Road is now largely developed and residential development is continuing in the areas further to the south. Beatty Road is well used by local and district traffic making its way through the Archerfield area, and east-west along Barton Street and Balham Road to Ashover Road.

In more recent years, residential and industrial developments to the south and east of the airport have substantially increased traffic along Beatty Road, making it difficult and sometimes hazardous for airport users and visitors to access the site.

With the projected increase in background traffic volumes (expected at a typical 2% growth rate) on the external road network and in the absence of upgrades, the intersections at Beatty Road/Mortimer Road and Beatty Road/Kerry Road are anticipated to see further capacity issues, resulting in further traffic delays.

Based on projected network traffic growth, it is anticipated that by 2033 the Beatty Road/Barton Street intersection will also be approaching its capacity threshold, in the absence of upgrading.

The recent remodelling of the eastern side of the intersection of Beatty Road and Kerry Road has also impacted detrimentally on airport access at both the north and south legs of Grenier Drive, the principal public address for the airport and for Archerfield Square.

The *Local Government Infrastructure Plan (LGIP) 2016-2026* in the Brisbane City Plan confirms that Beatty Road will ultimately be upgraded by BCC to four lanes, and the intersections along the route will also be upgraded. The LGIP identifies:

- Archerfield Airport and the wider area as being in a Priority Infrastructure Area;
- Beatty Road, Mortimer Road (east of Lombank Street), Boundary Road (east and west of the airport), Ashover Road and Kerry Road as 'existing trunk roads';
- Beatty Road, between Mortimer Road and Granard Road as a 'future road corridor project', planned for upgrading to four lanes, and broken down into the following parts: Granard to Barton (LGIP project reference AFD-RC-002), Barton to Boundary (AFD-RC-006), Boundary to Kerry (AFD-RC-005), Kerry to Mortimer (AFD-RC-004); and
- the intersections of Beatty Road with Mortimer Road (ACR-R1-003), Kerry Road (AFD-R1-002), Boundary Road (AFD-R1-001) and Barton Street (AFD-R1-003) as 'future road intersection projects'.

The proposed road widening along Beatty Road and improvements to the intersections at Barton Street, Boundary Road, Kerry Road and Mortimer Road have implications for the operation of the airport and development and use of airport land.

With this in mind, AAC continues to engage with BCC to advance the corridor and intersection upgrading and identify how this can be achieved in a timely and equitable manner to ensure safe and efficient access to the airport is not further compromised.

Investigation areas for potential future road widenings on airport land have been identified in the *Ground transport plan*, and in the *Mortimer, Beatty and Barton* PSPs, and are discussed in Chapter 12. The precinct plans show also opportunities for safe and efficient access to the developing areas of the airport, from the surrounding road network.

The locations and dimensions of the investigation areas follow those shown in the 2011-31 and 2017-37 master plans.

The investigation areas have been determined by AAC from an assessment of the existing conditions on the airport land; and consideration of significant issues or constraints to the land being available for road widening (including the location of key airport infrastructure, operational requirements, heritage values, and long standing plans for the specific part of the airport). Overall, a 25m wide corridor is shown along Beatty Road (plus any land that BCC may acquire from other landholders on the opposite side of Beatty Road).

In late 2023 BCC provided to AAC preliminary plans showing proposed road widening areas for the Beatty Road corridor. The locations of these widening areas generally accord with the investigation areas shown in the current and past airport master plans. In some locations however the indicative width of road widening on airport land is greater than AAC considers is feasible, based on the assessments it has undertaken to date.

To progress the road corridor upgrading investigations with AAC, BCC will need to undertake a more detailed assessment of the issues and opportunities along the corridor adjacent to the airport, and then resolve the following issues with AAC and the Commonwealth:

- ensure that any changes to Beatty Road and the identified intersections do not impact detrimentally on safe and efficient pedestrian, cycle and vehicle access to the airport from Beatty Road;
- determine the appropriate design of the upgraded road and intersections, to cater for current traffic and the ultimate development envisaged for the airport and surrounding areas;
- ensure appropriate access to each of the airport precincts that are adjacent to or accessed from Beatty Road, consistent with the structure plans that AAC has prepared for each precinct;
- confirm the location and extent of airport land that could feasibly be used for Council's road widening and intersection upgrading projects, subject to:
 - not unreasonably compromising the development and use of the airport overall, and individual airport sites;
 - maintaining airport site access, circulation, tenancy access, and on site car parking; during construction and following implementation of the road widening;
 - ensuring that any impacts on features of heritage value are addressed appropriately;
 - ensuring ongoing access to and usability of airport tenancies (eg along Mortimer Road, Beatty Road, and Qantas Avenue);
 - maintaining (and improving) the presentation of the airport in the Beatty Road and Mortimer Road streetscapes; and

- ensuring that the airport infrastructure including electricity substations and reticulation, sewer, drainage, etc is protected (or replaced) without impacting the ongoing viability of the airport operations; and
- equitable and timely funding of land acquisition and road construction.

As a key landholder in the locality, AAC will participate in any properly convened process that facilitates an equitable solution to this much needed upgrading of the district road network to ensure safe and efficient access to the airport is not further compromised.

In terms of the potential land requirements, AAC will ensure that any agreed road widening is taken into account in the more detailed planning to be undertaken for the precincts along Beatty Road.

AAC will continue to work with BCC to progress these road improvements.

Potential future widening of Ashover Road, Balham Road and Barton Street (longer term)

There is also scope to improve the operation of the road network at the northern and western sides of the airport, if required by BCC in the longer term to cater for growth in through traffic, or for airport access.

With this in mind the *Ground transport plan* also identifies road widening investigation areas along the airport frontages to Ashover Road, Balham Road and Barton Street.

The investigation areas are highlighted in the Precinct Structure Plans (Chapter 12). Their implementation will be subject to further assessment, preparation of feasible design options, consideration of existing and future airport operations and infrastructure requirements, and negotiations between the relevant authorities and AAC.

The potential future road widenings have not been included by BCC in the current 2016-2026 LGIP. Therefore, this a longer term concept, which is unlikely to be implemented within the initial 8 years of the Master Plan (2023-2031).

10.8.3 Access to the airport from existing intersections

PSA Infrastructure Pty Ltd has undertaken a traffic engineering assessment of the capacity of existing internal roads and their intersections with the surrounding road network.

The assessment found that, apart from the known operational limitations of the Grenier Drive access at Beatty Road, the existing airport roads and intersections

with the external network have capacity to cater for airport traffic from existing uses and developments planned for the initial period of the Master Plan (to 2031).

AAC constructed the new intersection at Boundary Road and Transition Drive and the initial sections of Transition Drive and associated turning lanes, traffic islands, landscaping, street lighting and signage along Boundary Road; and the first section of Logistics Drive.

These works have included services relocations, installation of underground conduits for power, traffic signals and telecommunications, construction of drainage works, construction of boundary fencing and the entry treatment, improvements to drainage, and relocation of a high pressure gas transmission pipeline along the airport frontage to Boundary Road.

The Boundary Road/Transition Drive intersection has the capacity to cater for development planned within the initial 8-year period of the master plan.

Signalisation of the intersection of Transition Drive and Boundary Road will be undertaken by AAC once 65% of the sites in Transition Estate are developed, and those sites are generating, or are likely to generate, the traffic volumes that necessitate the requirement for signalisation. The signalisation will be completed prior to the occupation of the site or sites that trigger the traffic generation threshold for signalisation.

From analysis of the rate of development in the Boundary and Wirraway precincts, signalisation may be required within the initial 8 years of the Master Plan. AAC will continue to monitor traffic movements, and will review the timing of signalisation if it is found that the Transition Drive intersection is carrying significant traffic movements from the Boundary, Wirraway or Ashover precincts.

10.8.4 Priorities for new access to the airport

2023-2031

In addition to utilising existing roads and access points, the following new works are anticipated over the next 8 years:

- creation of a new airport access at Kerry Road (and rationalisation of the Grenier Drive access);
- creation of a western leg to the intersection of Beatty Road and Boundary Road, to provide access to the southern end of the Barton precinct and to the future aviation area in the Beatty precinct (following reconfiguration of the secondary runway complex); and
- a new vehicle access from Beatty Road into the proposed new aviation development adjacent to the Eastern Apron (at the southern end of the Beatty precinct).

2032 onwards

In the longer term, (after 2031), AAC anticipates the following additional access improvements:

- creation of a southern leg to the Balham Road/Barton Street intersection, to provide access to the northern end of the Barton precinct (following reconfiguration of the secondary runway complex), and link south to the extension of Boundary Road;
- an access from Ashover Road/Boundary Road into the Boundary and Wirraway precincts; and
- consideration of a road link from the south leg of the Randolph Street/Boundary Road intersection, south and east to Logistics Drive.

The PSPs in Chapter 12 show concepts for providing new access to the airport from the adjacent road network, and these are discussed below.

The detailed design, timing and funding of these proposed works will be resolved in consultation with BCC and other relevant authorities.

Airport entry from Beatty Road (by 2031)

AAC, in conjunction with BCC is planning to reconfigure the main entry to the Airport Administration and Terminal building, and Archerfield Square, off Beatty Road. The objective is to improve ease of access for vehicles, and simplify traffic flows (and turning movements) in this part of Beatty Road.

In the 1990's the airport confirmed with BCC that the preferred location for the new entry was at the Kerry Road intersection. This is to the north of the existing access at the northern leg of Grenier Drive, and is shown in the *Master Plan Vision*, the *Ground transport plan*, and in the *Beatty Precinct Structure Plan*.

AAC has subsequently assembled airport land opposite Kerry Road (including site 8 and adjacent land) to facilitate the creation of a new western leg to the Kerry Road/Beatty Road intersection.

In the next 2 to 8 years AAC anticipates implementing in conjunction with BCC the new airport entry at Kerry Road, the internal road linking to Grenier Drive, and working with BCC to resolve any alterations that are required to the existing intersections of Grenier Drive (north and south legs) and Beatty Road.

The timing of these works is subject to the completion of further engineering investigations by AAC and BCC, and preparation of the design of the western leg to the intersection at Kerry Road.

Access to southern part of the Beatty precinct (by 2031)

The land between the recently upgraded Eastern Apron and Beatty Road has been identified in the Master Plan as a strategic redevelopment site, for aviation and related uses, potentially including Charter or RPT.

Subject to commitments to new aviation uses in the area between the Eastern Apron and Beatty Road, AAC will progress with BCC the creation of direct road access from Beatty Road to the southern end of the Beatty precinct. This access is anticipated to be required within the next two years, and certainly within the initial 8 years of the master plan.

The indicative location for the access point is shown in the *Beatty PSP*, and in the *Ground transport plan*.

The final location, and design of works will be resolved by AAC in consultation with BCC.

Western leg to Beatty/Boundary intersection (by 2031)

A new western leg to the Boundary Road/Beatty Road intersection will also be constructed by 2031. This will provide access from Beatty Road to the southern end of the Barton precinct, and to the future aviation area between Taxiways Juliet and Hotel.

AAC will continue to work with BCC to progress the intersection design and resolve the timing and funding of the required works.

Southern leg to Balham Road/Barton Street intersection (longer term)

The proposed southern leg to the Balham Road/Barton Street intersection will be implemented following reconfiguration of the secondary runway complex.

The planning and design for this is likely to progress from 2028-29, with construction anticipated from 2031 onwards, subject to completion of the reconfiguration of the secondary runway complex, and market demand for the tenancies in the precinct.

Proposed access from Ashover Road/Boundary Road (longer term)

Where there is a direct link between an AAC development proposal resulting in additional airport users and the need for adjacent road upgrades, AAC will negotiate an appropriate contribution towards the improvement works. This contribution could include the setting aside of land required for road widening and intersection upgrades, subject to the agreement of the Commonwealth.

In consultation with BCC, AAC facilitated the reservation of land for the new intersection of Boundary Road (west) and Transition Drive, to provide access to

Transition Estate. AAC constructed the new intersection and associated turning lanes and street lighting along the adjacent section of Boundary Road.

AAC will take a similar approach to resolve the implementation of the extension of Ashover Road south into the Boundary and Wirraway precincts, to facilitate access to the planned aviation facilities on the north side of the main runway, and development of the adjacent parts of the Boundary and Ashover precincts.

This access is likely to be a longer term project (after 2031). It will be dependent on reconfiguration of the secondary runway complex, release of new strategic aviation sites in the eastern part of the Wirraway precinct, and commitments to aviation developments in that area.

10.8.5 Internal roads

The internal roads are owned and maintained by AAC and provide appropriate access to existing tenancies. They have the capacity to cater for planned development in the majority of precincts (or can be extended to do this).

Existing internal roads will be upgraded progressively, when required to carry traffic generated by new developments in the airport precincts. Future road design within the airport boundary will account for the design vehicle of the development and will provide road and driveway connections as needed to achieve internal connectivity.

AAC will continue to monitor the condition of the internal roads and will implement maintenance works as required to ensure serviceability.

Priority actions for the period to 2031

The PSPs in Chapter 12 and the *Ground transport plan* (Figure 17) show conceptually the layout of new or upgraded internal roads anticipated to be required for the ultimate development of each precinct. These layouts are subject to more detailed planning and design which will confirm the optimum format to meet the needs of tenancies.

The detailed design of road access requirements from the external road network for each development precinct will be resolved in consultation with BCC. This will be undertaken as each precinct is nearer to being developed.

For the next 8 years, the primary focus for the Boundary and Wirraway precincts is on extending Transition Drive (and Logistics Drive if required) to provide access to the next stages of Transition Estate, distribute traffic internally through the Boundary and Wirraway precincts, and enhance access to the aviation areas along the north side of the main runway and Wirraway Avenue.

The extension of Transition Drive to Wirraway Avenue is dependent on market demand but is anticipated to occur within the initial 8 years of the master plan. The timing will be subject to progress with development of Transition Estate,

reconfiguration of the secondary runway complex, and/or significant aviation developments being completed in the Wirraway precinct. The extension of Logistics Drive to Wirraway Avenue is dependent on tenant requirements, and the final configuration of sites and future developments in this part of the Estate. If the extension is to proceed, it is anticipated to be constructed within the coming 10 years.

In the Beaufighter precinct, Beaufighter Avenue will be extended progressively eastward to release the next stage of industrial sites. The next stage is planned for construction in 2024-26.

The majority of future development in the Mortimer precinct will be accessed via existing internal roads and driveways. Where new driveway crossovers are required to the BCC controlled roads adjacent to the airport, their siting and design will be resolved in consultation with BCC.

Vehicle access to future development on the sites on the east and west sides of Beatty Road at Mortimer Road will be resolved in the planning and design phase for those parts of the Mortimer precinct, in consultation with BCC. These projects are anticipated within the first 8 years of the Master Plan.

Within the Beatty precinct, the priorities will be:

- resolving with BCC the access at the Beatty Road/Kerry Road intersection;
- reconfiguration of the internal road layout, to optimise the benefits of the Kerry Road intersection access;
- progressing the internal access for the Beatty South strategic aviation site between the Eastern Apron and Beatty Road; and
- facilitating ground access to the new aviation sites in Beatty North (in the area between Taxiways Hotel and Juliet), and to the future multi purpose aviation and industry sites to the north (the timing of both will be tied to the reconfiguration of the secondary runway complex).

Over the next 2-8 years, the priorities for provision of access to developments in the Barton precinct are:

- provision of a new road access from Beatty Road aligned with Boundary Road (east);
- provision of a left in/left out vehicle access from Beatty Road, approximately mid way between Boundary Road and Barton Street;
- provision of left in/left out vehicle access from Barton Street (west of Beatty Road);
- extension of Qantas Avenue, north to tie in with the internal road network planned for the precinct; and
- progressive development of local roads linking the main access points.

The planned new southern leg to the Balham Road/Barton Street intersection, to give multi directional access to the northern end of the Barton precinct is likely to be implemented after 2031.

10.8.6 Car parking and service vehicle facilities

The airport aims to provide adequate parking and service vehicle facilities for airport users, visitors and workers, and for these to be located on airport land.

It will continue to offer a mix of parking facilities, tailored to each precinct and each tenancy, including shared car parking areas (as currently established in the Beatty precinct), and on-site or designated on-street parking areas for individual tenancies.

AAC has in recent years included car parking in the lease for the new student accommodation facility in Grenier Drive (building 9), the Hangar 4 redevelopment on Qantas Avenue, the LifeFlight facilities (Hangar 6), building 111 on Ditchmen Avenue, and buildings 580, 560 and 581 in Transition Estate. This has resulted in a net increase in parking spaces in those parts of the airport.

Parking for new developments will be provided according to the car parking need for each development and will have regard to best practice guidance for car parking layout and access.

New developments, including the current and future projects in Transition Estate and the new LifeFlight facility in building 409 (in the Wirraway precinct) will include on site car parking where feasible.

Loading and service vehicle facilities required for new developments will be assessed on a site by site basis.

The need for on site service vehicle areas will be determined having regard to the type and scale of the proposed use, and the availability of appropriate existing service vehicle access and loading facilities in the vicinity of the site.

In situations where on site service vehicle facilities are required, AAC will have regard to relevant guidance for the dimensions of service bays and associated aisles in the *Transport, access, parking and servicing policy* and related *code* in City Plan.

Priority actions for the period to 2031

Future development will include appropriate provision for car parking for staff and visitors. Options, including for shared car parking facilities will be explored in any future developments.

Consideration will be given to additional long-term car parking if RPT services or other aviation activities that generate extended stays are introduced to the airport. The location and scale of any additional parking areas will be resolved

when there is a commitment to a RPT operation (or other use generating significant vehicle parking requirements), and the operating requirements are able to be confirmed.

Although not anticipated to be required within the initial 8 years of the Master Plan, the Boundary and Wirraway PSP identifies potential locations for substantial parking areas for a future RPT or other aviation use requiring on site parking in the Wirraway precinct.

The concepts show locations adjacent to the future tenancies, and a large area near the southern end of the realigned secondary runway complex. These parking facilities would be accessed either via Transition Drive, or preferably from a new road extending into the airport from Ashover Road. The location of additional parking areas will depend on the operational requirements of the users, and the final design of the secondary runway reconfiguration project.

AAC will continue to monitor car parking activity on the airport to optimise the use of available spaces by airport workers and visitors. AAC will consider management measures, including paid and/or time restricted parking, to achieve this.

10.8.7 Improvements to pedestrian and cycle access

Beatty Road, Mortimer Road and Boundary Road are part of the TMR Principal Cycle Network. BCC also identifies Mortimer Road, Beatty Road, Boundary Road, Barton/Balham Road, Ashover/Boundary Road as part of the secondary bicycle network.

BCC has plans to further improve active transport in the vicinity of the airport by enhancing the cycling and pedestrian network in the Acacia Ridge/Archerfield area, and improving the links to Coopers Plains railway station, which in turn connects to greater Brisbane.

AAC welcomes the proposals for improved pedestrian and cycle facilities that TMR and BCC have identified in the road corridors around the airport, and will encourage BCC to develop these as part of an integrated access plan for the neighbourhood.

The Master Plan recognises these initiatives. It encourages safe and efficient access to the airport by visitors and workers, and shows in the *Ground transport plan* and the PSPs the opportunities for BCC to incorporate cycle paths along roads adjacent to the airport.

Within the airport, provision for pedestrian and cycle access will also be considered in the design of site access and circulation in association with new infrastructure for each of the development precincts.

Priority actions for the period to 2031

AAC will ensure that new local roads on the airport that provide through access to the Council network are designed to allow also for safe and efficient access by pedestrians and cyclists. The potential layout of new local roads is shown diagrammatically in the PSPs. The details of these, including their alignment and any facilities required for pedestrians and cyclists will be resolved in consultation with BCC as the plans for each precinct are further developed.

AAC will continue to work with TMR and BCC through the Planning Coordination Forum or project-specific consultative processes set up to plan for new active transport connections that would improve safe and efficient pedestrian and cycle access to the airport.

10.8.8 Public transport

BCC has recently released a draft of *Brisbane's New Bus Network*, prepared to support the Brisbane Metro. The changes proposed as part of the project in relation to Archerfield Airport are as follows:

- Route P109 – Acacia Ridge to City: a new peak service that will only operate in the morning and afternoon peaks from the Acacia Ridge area and city, in the peak direction. The route will provide a direct service between the city and Acacia Ridge via Beaudesert Road and Ipswich Road, at a frequency of 15 minutes.
- Route 110 – Inala to PA Hospital Station: redesign of the existing suburban route to operate between Inala and PA Hospital via Annerley Road. The changes will improve journey reliability on the inner busway and provide greater capacity for future growth. Weekday off-peak frequencies will be increased to every 30 minutes, providing additional trips to Inala, Durack and Willawong.
- Route 115 – Calamvale to Griffith University Station: redesign of the existing suburban route to operate between Calamvale and Griffith University Station via Acacia Ridge and Griffith University Nathan campus. It will connect to the Metro 1 at Griffith University Station and provide a new connection between Acacia Ridge and the Griffith University Nathan campus.
- Route 122 – Richlands station to Upper Mt Gravatt Station (Garden City): redesign of the existing suburban route to operate between Richlands station and Upper Mt Gravatt Station (Garden City) via Inala. The change will provide greater connectivity with rail, resulting in more travel options.

Depending on the future needs of workers and visitors to the airport, passenger numbers, and the operational requirements of the bus operators, there may be

scope for a bus service to be extended into the airport, or bus stop locations or other aspects of the services modified to better meet the needs of passengers.

AAC will in consultation with BCC and Translink consider any feasible proposals for this, and will take into account bus access requirements in the design of new roads on the airport where these are identified as being appropriate for bus services.

For example, the Boundary and Wirraway Precinct Structure Plans (Figure 24) highlight an opportunity to provide public transport access to a potential future RPT facility, in a location immediately to the north of the proposed expanded aviation area on the north side of the main runway complex. This could be used for bus services, charter vehicles, taxis or ride sharing services.

This is a longer-term concept which would be subject to feasibility and consultation with BCC and other relevant parties, and is not anticipated to be required within the initial 8-year master planning period.

If any new or modified bus services are proposed, the design of the airport roads and any associated bus stops or other facilities that will be used by the service, will be resolved in consultation with BCC and Translink.

Emerging trends and technology such as Mobility as a Service, and other forms of demand responsive transport are also being investigated by TMR TransLink division. AAC will engage with TMR and other relevant parties to explore any feasible opportunities that emerge from these investigations.



Chapter 11

Services Infrastructure



11.1 STORMWATER DRAINAGE

11.1.1 Catchment context

The airport is in the middle to lower reaches of the Oxley Creek catchment, just upstream of the confluence of Oxley Creek and Blunder Creek. Oxley Creek discharges ultimately to Brisbane River.

The middle and lower reaches of the Oxley Creek catchment are highly urbanised. Stormwater management on the airport site needs to avoid causing detriment to water quality or flood conditions in Oxley Creek.

The airport location relative to the Brisbane River is shown diagrammatically in Figure 1. The location of Oxley and Blunder Creeks, and the alignments of the main drainage outfalls from the airport to these waterways are shown in Figure 2 *Airport context* and the *Site drainage* drawing (Figure 18).

11.1.2 Site sub catchments

Surface water runoff from the airport falls generally into one of six main sub catchments and these are shown in Figure 18.

All surface water from the airport is discharged ultimately to Oxley Creek, and from there flows to Brisbane River and Moreton Bay. The northern and eastern part of the airport drain to Stable Swamp Creek (to the north) which enters Oxley Creek on the north side of the Rocklea industrial area.

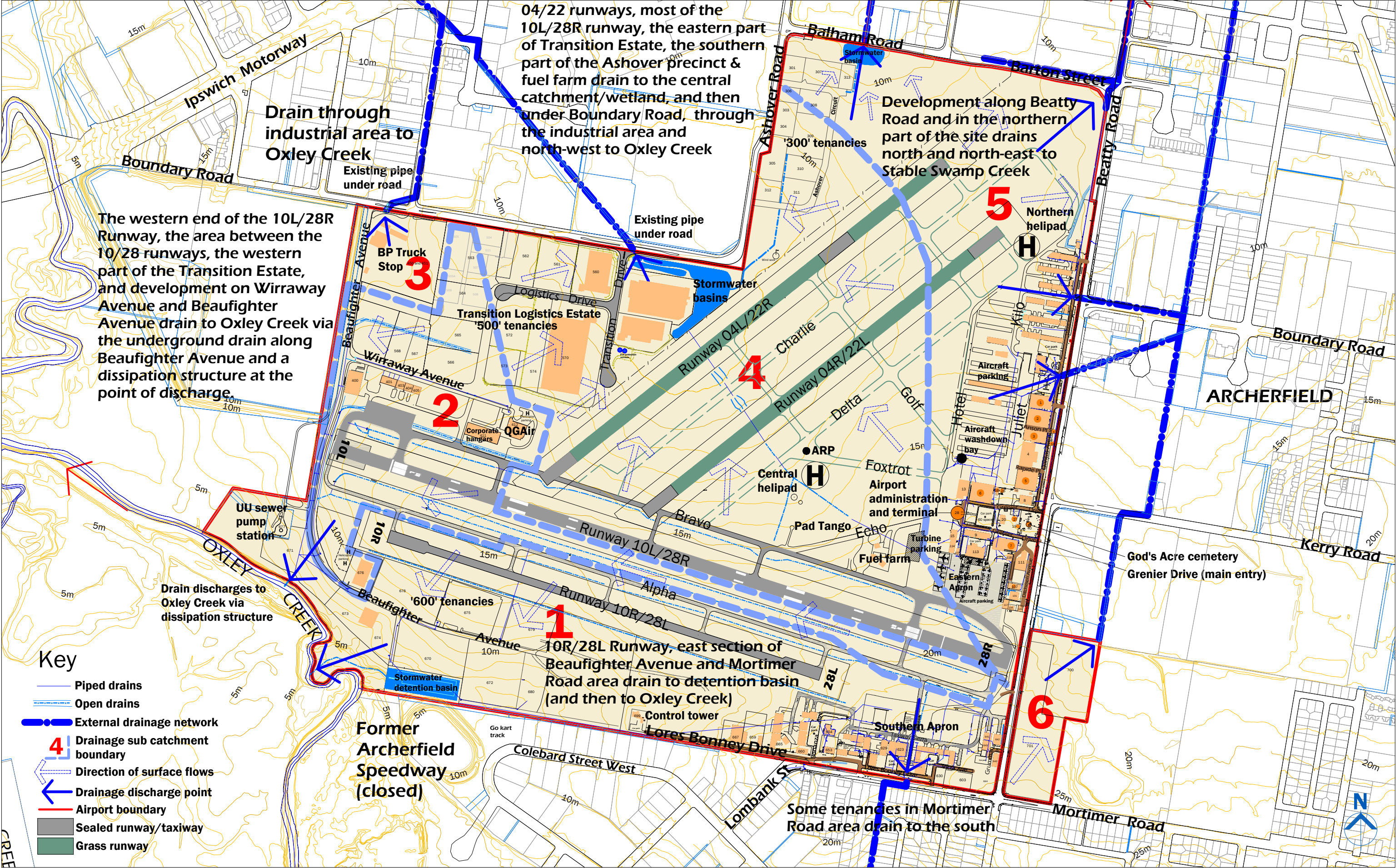
1: Southern sub catchment

This sub catchment includes:

- grassed areas;
- sealed Runway 10R/28L and taxiways;
- hangars and businesses;
- open storage; and
- the control tower.

This stormwater drains to the main detention basin (basin 1) that is located between sites 674 and 670, and the neighbouring former Archerfield Speedway. The detention basin then discharges to Oxley Creek.

A small part of this sub catchment (fronting Mortimer Road) drains south under Mortimer Road, and through the neighbouring industrial area to Oxley Creek. This drain collects water from the eastern end of Lores Bonney Drive, and from the adjacent tenancies.



Archerfield Airport Master Plan 2023-2043
Figure 18 **Site drainage**

2: Beaufighter Avenue and Wirraway Avenue sub catchment

This sub catchment includes:

- the western end of the 10L/28R runway and associated taxiways;
- the area between the 10/28 runways;
- the western part of Transition Estate;
- development along Wirraway Avenue; and
- development along Beaufighter Avenue, generally west of sites 670-674.

Stormwater in this sub catchment is conveyed via a piped drainage system along Beaufighter Avenue to a concrete end wall and dissipation structure prior to entering Oxley Creek.

3: BP Truckstop

Stormwater from the BP Truck Stop site on the corner of Beaufighter Avenue and Boundary Road discharges to a drain at Boundary Road that runs north through the Rocklea industrial area before joining to the main drain to Oxley Creek.

4: Central sub catchment

This sub catchment comprises the grassed areas associated with the 04/22 runway complex, most of the 10L/28R runway, the fuel farms, the eastern part of Transition Estate, the southern part of the Ashover precinct, and aircraft parking positions.

The majority of storm water in this sub catchment is collected by an on airport drainage system that falls north-west under the 04/22 runways to detention basin 3, which then runs into basins 4 and 5, and then passes under Boundary Road. From there the drainage runs through the neighbouring industrial area, under the Ipswich Motorway to Oxley Creek.

These basins replace a much smaller facility that was previously to the west of the grass runways. The new basin complex has significantly increased capacity to cater for stormwater runoff. It is designed to manage peak storm flows and will also treat water quality through a combination of bio retention and gross pollutant traps.

5: Eastern and northern sub catchment

The fifth catchment on airport is the eastern and northern area fronting Beatty Road, Barton Street and Balham Road.

The stormwater run-off from this area is carried by the BCC drains that run to the east of, and parallel with Beatty Road, and north from Balham Road.

At the western end (near the corner of Balham Road and Ashover Road), AAC has recently constructed a stormwater basin that captures runoff before it is discharged northward to the existing drain on the north side of Balham Road. At three locations along Beatty Road there are drains under the road that take stormwater to the east and then north to Stable Swamp Creek.

This part of the sub catchment is reasonably intensively developed, with extensive impervious areas (building roofs, roads, sealed aircraft parking, and manoeuvring areas). Development planned for the Beatty and Barton precincts will drain into the network to the north of the airport.

The eastern balance of the sub catchment has at present less impervious surfaces. It includes the northern end of the secondary runway complex, and the northern part of the Ashover precinct.

Stormwater from development planned for the Ashover and Barton precincts area could potentially discharge to points on Barton Street and Balham Road (subject to design investigation, and approval by BCC).

Depending on the site location and the availability and capacity of existing drainage infrastructure to manage water quality and peak discharge flows, new projects in this sub catchment may need to include site specific rainwater detention and/or water quality treatment infrastructure. This will be determined in the project planning and design stage.

6: Beatty Road South

The vacant airport land on the north-east corner of Beatty Road and Mortimer Road drains to the north-east. It discharges to the existing main drainage line that runs parallel to Beatty Road, to Stable Swamp Creek, and then to Oxley Creek.

11.1.3 Future requirements

Substantial drainage works, including new open and piped drains, and basin 1, in the south western part of the airport have been implemented to cater for the scale of development envisaged for the Beaufighter precinct, and the western half of the Boundary precinct.

The recent construction of basins 3 and 4 and 5 in the Boundary precinct will cater for existing drainage from the central sub catchment, and additional flows from the initial stages of Transition Estate. The development of basin 7, at the northern end of the Ashover precinct caters for runoff from the northern sub catchment, including in the Ashover and potentially Barton precincts.

Preliminary engineering designs have been prepared for additional basins and associated works in the Boundary precinct. These are shown in the *Master Plan*

Vision drawing, and the *Boundary & Wirraway Precinct Structure Plan*, and comprise:

- a new basin (basin 2) south of the BP Truck Stop; and
- an additional basin (basin 6) adjacent to basins 3, 4 and 5, which could be developed once land is freed up by the reconfiguration of the secondary runway complex.

Specific drainage requirements of any new development will be assessed at the development planning stage, prior to approval being given.

Issues to be addressed in detailed design for each precinct, and in approvals for individual developments will include:

- ensuring that there is adequate capacity in drainage facilities to cater for peak flows following storm events, without causing unacceptably high storm flows in downstream areas off airport;
- ensuring that there is appropriate provision for protecting water quality in downstream areas (and the Oxley Creek/Blunder Creek system in particular), from potential sources of pollution including sediment laden runoff, or runoff from areas that could hold contaminated material such as oil or grease; utilising shared water quality control infrastructure provided in the sub catchment, and/or local water quality control works for a specific project;
- providing appropriate spill control procedures to ensure that in the case of a spill incident, discharges off site can be intercepted; and
- identifying where feasible and appropriate, opportunities to incorporate rainwater tanks and reuse within developments.

For the 'greenfield' development precincts, AAC will monitor the adequacy of its overall drainage concept for each precinct. It will ensure that main drainage paths through each precinct are protected, and identify in each instance the location and function of any additional stormwater detention, water quality or spill interception facilities. Depending on the project specific requirements, the options for providing any additional works may include integration into new developments, or additional works incorporated into the shared drainage infrastructure provided in the sub catchment.

The specific drainage requirements for the proposed realigned secondary runway complex will be determined during the further, detailed design for that project. The drainage design will be evaluated in consultation with BCC and other stakeholders over the course of the assessment of the Major Development Plan for these works.

During construction of developments, actions will be taken to manage construction activities to avoid discharging sediment or other pollutants to the

Oxley Creek. These matters will be addressed in *Environment Management Plans* prepared in accordance with the Airport Environment Strategy.

11.2 SEWER

The airport is serviced with reticulated sewer and is connected to the metropolitan network (including for trade waste).

UU has a sewer pump station in the south-west corner of the airport, adjacent to Oxley Creek. This services the majority of the site.

Transition Estate and the Ashover precinct are serviced by a low pressure reticulated network installed by AAC in 2020/21. They respectively discharge into the UU sewer pumping station adjacent to Beaufighter Avenue and the UU system in Ashover Road, near the northern leg of Ashover Circuit.

Liquid waste is managed and disposed of in accordance with Trade Waste requirements.

An aircraft wash-down bay is provided in the Beatty precinct, at the corner of taxiways Hotel and Juliet. The bay has been upgraded with a triple interceptor diversion to sewer, and all aircraft washing activity is now conducted at this service point. A second bay that was located south of the Eastern Apron was decommissioned by AAC in 2002, and the site rehabilitated as part of the Project AIM stage 3 works.

11.2.1 Future requirements

Sewerage requirements will be resolved with UU for each development, having regard also to the ultimate scale and distribution of development envisaged in the Master Plan.

Trade waste requirements are addressed in the AES, and in EMPs for new developments that require these services.

11.3 ELECTRICITY

The airport is connected to the Brisbane grid. Electricity is supplied directly to the airport substations, and the airport distributes the electricity to tenants on serviced sites.

Infrastructure includes:

- a 500 kVA transformer substation at the BP Truckstop on Boundary Road;
- a 1000 kVA pad mounted transformer for Transition Estate;
- a pole mounted 350 kVa transformer for the 300 sites;
- a 300 kVA transformer serving developments in Wirraway Avenue;

- a 500 kVA transformer substation at the Veolia Environmental Services site, serving developments in Beaufighter Avenue;
- a 300 kVA supply to the UU sewage pump station near the Oxley Creek;
- a 200 kVA and a 300 kVA transformer in the south east of the site, near Mortimer Road;
- a 300 kVA transformer at the fuel farm;
- a 55 kVA backup generator for essential power, including for runway & taxiway lighting and the recently installed ALER, installed just south of site 120; and
- a 200 kVA substation serving the tenants on Beatty Road, opposite Boundary Road (on the east side of the airport).

AAC has also as part of the Transition Estate development relocated overhead powerlines in Boundary Road underground, and installed conduits for reticulation of power to the new development sites.

Three additional pad mounted transformers are scheduled to be installed and commissioned in early 2024 as part of the infrastructure upgrade at the Boundary, Wirraway and Beaufighter precincts. These upgrades include 1000 kVA, 750 kVA and 500 kVA transformers, new 11 kV cabling and new switchboards.

A solar array has been installed on building 111, generating renewable energy on airport.

11.3.1 Future requirements

Electricity services to the airport have been extended progressively to cater for developments highlighted in the Master Plan, including with new transformers in Transition Estate, and Ashover precinct.

AAC will consult with Energex on any additional works, should they be required for specific developments.

The Airport Building Controller (ABC) will require certification of compliance by the electrical services engineer or contractor responsible for additions or modifications to the tenant's electricity services (within their individual tenancy) when the ABC is involved in sign off of a development application.

Where feasible, opportunities to provide renewable energy will be incorporated into new developments.

11.4 TELECOMMUNICATION AND BROADBAND SERVICES

Telstra provides telecommunications to the airport, and the reticulation is the responsibility of AAC. There are no known capacity constraints that would impede the progressive implementation of development of the airport.

NBN fibre optic broadband services have been reticulated throughout the airport, and are available to all sites.

A Telstra telecommunications tower is located at the northern end of the Ashover precinct.

11.4.1 Future requirements

Telecommunications and broadband connections will be considered in new developments, utilising the upgraded network.

11.5 GAS

Reticulated gas supply is being extended from Boundary Road, to site 581 in Transition Estate. These works will allow for reticulated supply to be provided to other sites in Transition, as required.

AAC, as part of the Transition Estate works relocated the high pressure gas transmission pipeline along Boundary Road to facilitate the widening of the road. The transmission pipeline is a significant part of the regional gas transmission network.

11.6 WATER SUPPLY

UU supplies water to fixed points on the boundary of the airport. AAC then distributes it via an infrastructure network that it owns and maintains. The internal network includes backflow protection devices, and AAC maintains a servicing and maintenance register.

11.6.1 Future requirements

Water supply requirements for developments will be planned and provided in consultation with UU.

11.7 SUSTAINABLE USE OF NATURAL RESOURCES AND ENERGY

Efficient use of energy and water at Archerfield will become increasingly important in coming years.

Water scarcity is expected to be more prevalent due to climate change and increasing demand for water to serve population and economic growth in South-East Queensland.

Energy usage will also become a significant issue, from the perspectives of cost, and carbon emissions.

11.7.1 Future requirements

AAC is committed to:

- achieving best practice efficiencies in water and energy use in new enterprises;
- promoting the use of renewable energy (including on site generation where feasible); and
- encouraging progressive improvements in existing AAC operations and tenancies.

The unmetered extraction of potable water from fire mains for grass runway watering ceased immediately after privatisation. Subsequently the practice by some tenants of tapping into fire mains to wash aircraft and clean hangar floors has been stopped.

In 2008 AAC commissioned a *Water Efficiency Management Plan* (WEMP) for the airport. The WEMP included a detailed assessment of past and existing water usage, and identified opportunities for more efficient use of water.

AAC has subsequently implemented a range of works to reduce potable water consumption including installation of water efficient fittings in its own facilities; and provision of rainwater tanks in the new developments it has undertaken including the corporate hangar complex, building 111, the office and warehouse at site 676 on Beaufighter Avenue, and in the redevelopment of Hangar 4, Hangar 13, site 580, site 581, site 560 and Hangar 409.

Opportunities for increasing the uptake of on site generation of electricity from renewable sources will continue to be investigated, and implemented where feasible.

AAC will work with existing and new tenants to achieve greater efficiencies in the use of natural resources where practicable.

The provisions for this are addressed in section 16.9 and in the airport Environmental Management Procedures.

To further progress AACs sustainability objectives, AAC will:

- within the first two years of the AES, collect baseline data for a Sustainability Plan, focusing on Scope 1 and 2 emissions related to energy, water, and waste;
- within three years, use this data to set sustainability targets, develop a plan, and establish annual reporting.



Chapter 12

Airport Developments



Archerfield AIRPORT

12.1 GENERAL

This chapter of the Master Plan describes the planning approach and proposed developments. Building on the vision described in Chapter 2 (and illustrated in Figure 2), it sets out:

- AAC's airport development objectives;
- the land use zones for the airport;
- the eight airport precincts (and three Beatty sub-precincts), and the development and use focus for each;
- aviation improvement projects for the Runway, Wirraway, Mortimer, and Beatty precincts, including the proposed reconfiguration and optimisation of the secondary runway complex, helicopter facilities and aircraft parking, which will modernise and improve the useability of the cross wind runway facilities and associated infrastructure, and enable the release and development of additional strategic aviation sites and associated infrastructure in the Beatty and Wirraway precincts;
- the use and development parameters for each of the other four development precincts;
- infrastructure provision required to support these initiatives; and
- proposals for improvements to ground access.

Precinct Structure Plans (PSPs) prepared for each part of the airport illustrate how the Master Plan vision could be achieved, and how the plans can be integrated with other proposals on, and off the airport.

The PSPs provide for the efficient development and redevelopment of aviation facilities on sites in the Beatty, Mortimer, Wirraway and Runway precincts; and identify complementary developments for more than 75 hectares of land on the airport site that is not required in the long term for airside or aviation purposes.

The concepts shown in the PSPs will be further developed as commitments are made to specific proposals and designs are prepared for assessment and approval.

Chapter 18 of the Master Plan sets out the planning and development approvals requirements for new proposals, identifies relevant standards and guidelines, and describes the process that AAC follows in assessing applications.

Appendix E comprises a comprehensive schedule of land use terms, and applies these to the airport land.

For each land use, a standard definition is provided (drawing from the relevant provisions of the Queensland *Planning regulation* 1997, *Queensland Planning Provisions*, *Airports Act*, *City Plan*, and the Master Plan).

The schedule also specifies whether each land use is 'accepted', 'assessable' or 'prohibited' in each part of the airport. Accepted uses are exempt from planning approval. Assessable uses require planning approval, and the merits of each proposal is assessed against the relevant provisions of the Master Plan as discussed in section 18.5. Prohibited uses are identified for clarity and completeness, consistent with the operation of other planning schemes in Queensland.

12.2 DEVELOPMENT OBJECTIVES

AAC has set the following overarching objectives for development of the airport:

- to nurture, maintain and develop airport facilities to meet the needs of general aviation;
- to provide facilities for the safe, reliable, and efficient operation of the airport; and cater for complementary development and uses that contribute to the continued success of Archerfield Airport as a strategic asset for Brisbane, South East Queensland, and the national aviation network;
- to establish a complementary balance between aviation, aerospace, industrial and commercial developments;
- to enhance, promote and support the aviation image of the airport;
- to achieve best practice with significant developments;
- to be a good neighbour;
- to complement key objectives identified by State and Local Government authorities;
- to work with government and the local community to achieve the ecologically sustainable development of airport land;
- to attract commercially viable developments to aeronautical and non-aeronautical sites;
- to contribute to the regeneration of the *South West Industrial Gateway* of Brisbane by providing additional land required for industrial developments and supporting services that are complementary to the goals for the SWIG, and are compatible with the continued operation and growth of the airport; and
- to advocate for the enhancement of the surrounding road network.

12.3 LAND USE ZONES

Figure 19—*Airport Land Use Zoning Plan* shows the four land use zones for the airport. The zoning will facilitate the continued operation and growth of the airport, and implementation of strategic initiatives identified in the Master Plan

vision, including reconfiguration of the secondary runway complex and helicopter facilities.

The provisions for each of the zones are consistent with the role and function of Archerfield as Brisbane's metropolitan airport, and a substantial feature of the SWIC REC/South West Industrial Gateway.

The zoning of each precinct will facilitate appropriate land use and development, consistent with the relevant provisions of State planning policy and the Brisbane City Plan. This is discussed in sections 3.3 to 3.7 of the Master Plan.

The following additional commentary outlines the specific requirements or proposals for each zone.

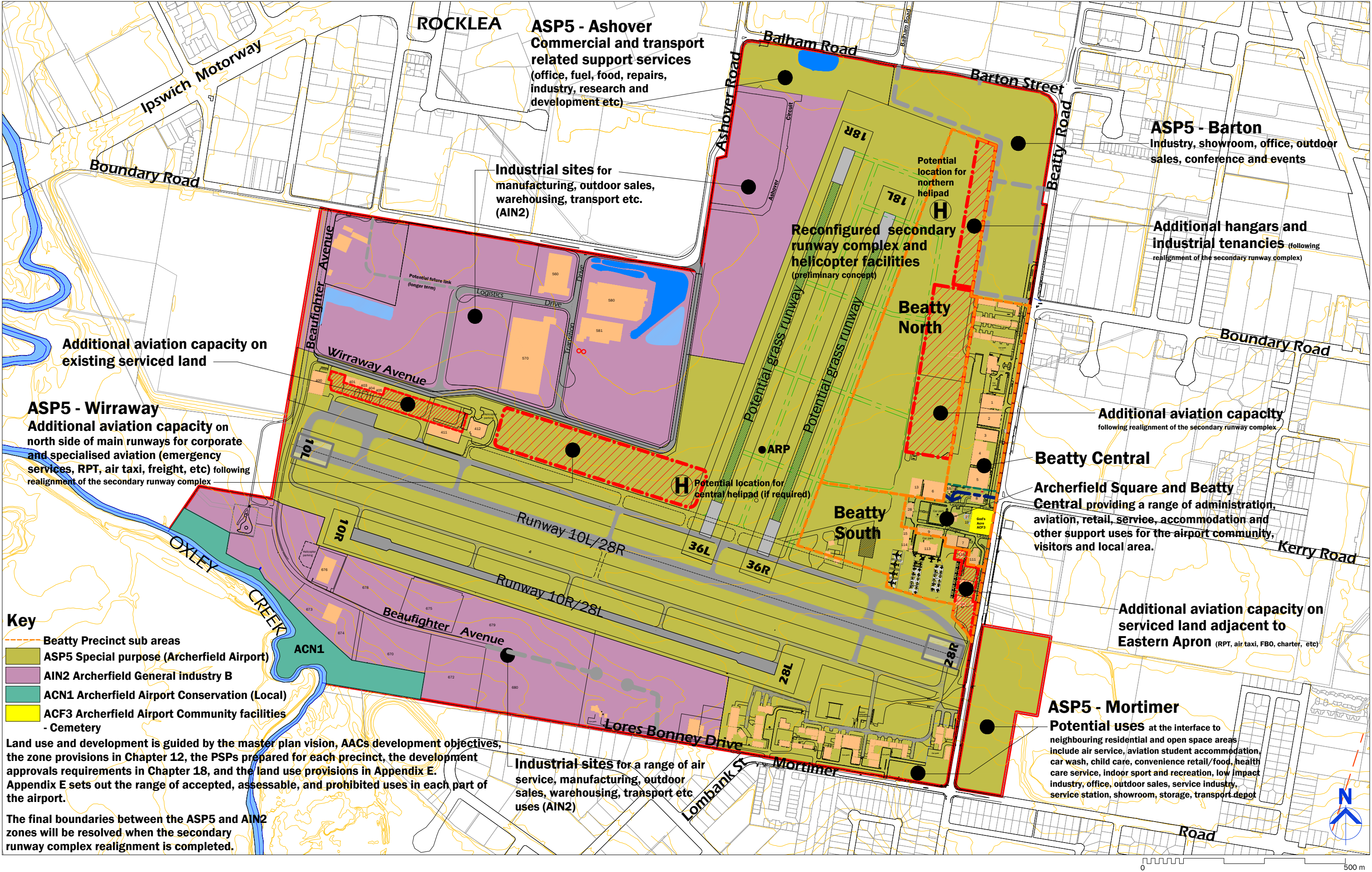
12.3.1 ASP5 Special purpose (Archerfield Airport)

This zone applies to the airside and related parts of the airport in the Runway precinct, the Wirraway precinct, the Barton precinct, the northern part of the Ashover precinct, and to the mixed use Beatty and Mortimer precincts.

The principal purpose of this zone at Archerfield is to provide facilities for the safe and efficient operation of the airport; and cater for complementary development and uses that contribute to the continued success of Archerfield Airport as a strategic asset for Brisbane, South East Queensland and the national aviation network.

Within this zone the following aviation uses and development and related industries and services are expected:

- aviation infrastructure and supporting facilities, for landing and departure of aircraft;
- assembly and dispersal of passengers and goods on or from aircraft;
- hangars and aircraft parking;
- flying school operations;
- RPT, freight, aeromedical and emergency services, and charter operators;
- high technology aviation industries;
- aircraft servicing, maintenance, and repair;
- aircraft design, manufacturing and assembly;
- aviation fuel services (including alternative energy);
- training and education facilities;
- campus or motel style accommodation for flying training, RPT and charter services;
- aviation sales and related services;



- convenience shops and supporting services, food and drink outlets and a small to medium sized supermarket that meets the needs of airport workers, users and visitors;
- office uses, for administration of aviation, transport, education and training, medical, research, technology, e-commerce and logistics, as discussed below;
- warehousing and storage;
- tourism services;
- ground transport infrastructure; and
- supporting car parking and service vehicle areas.

In designated aviation movement areas (focused on the runways, taxiways and other airside facilities) there may be supporting infrastructure such as fuel storage, navigation aids and air traffic control facilities provided.

The location of the airport, the mix of land uses on airport, and the opportunities provided by the scale and style of development envisaged in the Master Plan point to an opportunity to also develop some commercial and retail facilities.

AAC sees these as including:

- convenience shops, food and drink outlets, and other services for airport workers and visitors;
- factory outlets for discontinued stock, product seconds and other items not normally available in retail stores;
- direct sales from businesses locating on airport due to their aeronautical, transport, technical, engineering, research, or development focus;
- businesses selling aircraft, heavy machinery, motor vehicles, boats, timber or other building materials;
- conference and events; and
- other like facilities.

It is envisaged that such activities will be provided either in open sites, or in large industrial/warehouse 'shells' and/or smaller premises appropriate to the type of goods sold.

Retail uses will be of a type and scale that complements, rather than transforms, the retail hierarchy of the region. They will serve the needs of this part of the South West Industrial Gateway; and airport users, visitors and workers. Convenience shops and similar small scale tenancies will cater for localised needs, and being in walking distance of patrons, will address current gaps in the provision of such amenities.

In recognition of the role and function of the airport as a multi-faceted transport hub, and a significant site in the SWIC REC/SWIG, office uses in the ASP5 zone will either be part of larger tenancies (for example for administration of a warehouse or distribution centre development), or provide for administration of aviation, transport, education and training, medical, research, technology, facilitation of e-commerce and logistics, or similar activities.

A mix of tenancy types and scales is anticipated, catering for enterprises ranging from those in a start up phase (potentially in an incubation role), through to larger operations.

The Beatty Central precinct, incorporating Archerfield Square, centred on Grenier Drive and the Airport Administration and Terminal building and the tenancies along Qantas Avenue, north of Grenier Drive will be developed progressively to provide for a range of retail, car parking, office and service uses that meet the needs of airport visitors and workers, and people and businesses in this part of the SWIC REC/South West Industrial Gateway.

The preferred location for a supermarket catering for the needs for airport users, workers and visitors is in the Beatty Central or Barton precinct. This will be limited to a gross floor area not exceeding 2000m². Larger supermarkets or department stores are prohibited.

Short stay accommodation will support the flying schools, conferences and events and other education and training activities; RPT, charter and emergency services workers and users, and other activities on the airport.

Any new facility will be segregated from industrial activities both on and off the airport, and will include all necessary measures to ensure an appropriate amenity for users, in locations where the use is exposed to forecast aircraft noise or other amenity impacts.

ASP5 zone purpose and outcomes

Purpose

The purpose of the *ASP5 Special purpose (Archerfield Airport)* zone is to:

- a. facilitate the development and use of Archerfield Airport for aviation and complementary purposes;*
- b. provide facilities for the safe and efficient operation of the airport, and cater for complementary development and uses that contribute to the continued success of Archerfield Airport as a strategic asset for Brisbane, South East Queensland and the national aviation network; and*
- c. ensure that incompatible uses do not encroach on aviation facilities and infrastructure.*

The ASP5 zone has the following preferred outcomes, which AAC will have regard to when assessing the merits of proposed development and use on the airport. These outcomes have been adopted from the relevant SP5 provisions in City Plan, and with airport specific provisions.

Development location and uses overall outcomes

The overall outcomes sought for development location and uses in the ASP5 zone at Archerfield Airport are:

| Outcome sought (adapted from City Plan Special purpose zone code) | Application to Archerfield Airport (ASP5) |
|---|--|
| <i>a. Development provides for the continued use of land at Archerfield Airport for aviation; together with compatible complementary uses.</i> | <p>The Master Plan provides the framework for the continued use and operation of Archerfield Airport, including aviation and non-aviation uses, and complementary use and development that is appropriate to the site, surrounding land and the broader SWIG of Brisbane and the SWIC REC of SEQ.</p> <p>It also sets out airport safeguarding requirements, and a plan for progressive improvements to ground transport necessary to support the continued operation of the airport.</p> |
| <i>b. Development provides for special uses and works that are owned or operated by federal, State, local government or public sector entity and may include defence establishments, airports, seaports, rail lines, rail stations, intermodal stations, major road infrastructure, major public transport infrastructure or the provision of water supply, sewerage, electricity, gas, telecommunications, transport, drainage or other like services.</i> | <p>The ASP5 zone will enable the development and ongoing use of facilities, infrastructure and other development and works required to support the continued operation and growth of the airport, operated by AAC.</p> |
| <i>c. Development contributes to the specific mix or type of uses envisaged at Archerfield Airport in an integrated and co-located manner to maximise site multifunctionality, efficient use of land and physical and social infrastructure.</i> | <p>The Master Plan provides a framework to guide the orderly and efficient development, operation, and management of the airport, over the next 20+ years.</p> <p>The Master Plan vision, supported by development objectives, the PSPs, the schedule of allowable and assessable uses in each precinct (Appendix E), the AES, and the priorities that have been determined for the initial and longer term periods covered by the Master Plan; shows how the implementation of key initiatives can be brought to fruition in the coming years, and will be coordinated with plans for use and development of the surrounding area and wider region.</p> |

| Outcome sought (adapted from City Plan Special purpose zone code) | Application to Archerfield Airport (ASP5) |
|---|---|
| <i>d. Development enables the re-use of land in the Special purpose zone to occur in an integrated manner should a special purpose cease.</i> | <p>There is no likelihood that Archerfield Airport will cease to operate (and certainly not within the 20+ year horizon of the Master Plan).</p> <p>Notwithstanding this, the Master Plan provides a clear vision and implementation plans that show how the land will be developed and used for aviation and complementary purposes, integrated with the locality, and in a manner that provides for flexibility to adapt to the evolving needs of general aviation, and the needs of the surrounding part of Greater Brisbane.</p> |
| <i>e. Development that may limit the ongoing operation and expansion of existing uses or prejudice establishment of new uses appropriate to the airport is not accommodated.</i> | <p>The Master Plan identifies the relevant requirements for the continued operation, adaptation and expansion of existing aviation uses at Archerfield Airport and future requirements for aviation and complementary developments, and ensures that airport operations will be protected on an ongoing basis.</p> <p>The range of uses that are either accepted or assessable in ASP5 are consistent with AACs development objectives, the vision, and the plans for each precinct.</p> |
| <i>f. Development for a use not anticipated in the relevant zone precinct may be accommodated where it is demonstrated that the proposal is safe, well designed, integrated with the surrounding area and offers compensatory community benefits.</i> | <p>The Master Plan facilitates a mix of aviation and complementary uses at Archerfield Airport, which in common with all metropolitan airports in Australia is a multi-faceted operation supporting a diverse range of activities and enterprises.</p> <p>The merits of any proposal that has not been anticipated in the Master Plan will be assessed against AACs development objectives, the vision and other aspects of the Master Plan; and will include consideration of safety, good design, integration with the surrounding area, community benefit, and the overall outcomes set out below.</p> |

The land use provisions in Appendix E set out the uses and development that are 'accepted', 'assessable' or 'prohibited' in the ASP5 zone. The land use provisions confirm the outcomes that are sought for each part of the airport. Specific land use provisions apply to each precinct, and to the three Beatty sub precincts, matched to the Master Plan Vision and the PSPs.

Development form overall outcomes

Proposals will be assessed against the following overall outcomes sought for development form, to the extent that they are relevant to each case:

- Development is appropriately located according to the proposed use, and building and landscape design are of a scale, height and bulk that is

generally compatible with the surrounding area and transitions sensitively to surrounding uses.

- Development creates a variety of building forms, materials and facade treatments.
- Development is provided with servicing and utilities infrastructure that are commensurate with the level of service demands of the use.
- Development is supported by complementary uses of an appropriate scale and purpose to directly serve the employees and activities of the zone precinct, which do not compromise the commercial, retail or community service role and function of nearby centre activities.
- Development minimises adverse impacts (including glare, odour, light, noise, traffic, parking, servicing and hours of operation) on the health, safety and amenity of adjoining sensitive land uses, predominantly through maintaining adequate buffering between these land uses.
- Development achieves a satisfactory standard of environmental performance by principles of innovative, sustainable and efficient design, construction and operation, to encourage water conservation and responsiveness to climate.
- Development maximises road, rail, public transport and transport connections and accessibility between the Special purpose zone and key destinations to ensure efficient and safe movement of people, goods and freight and accessibility for visitors, patrons and employees.
- Development consolidates the role of the airport as a major economic driver by bringing allied industries, freight, services and tourism to the region and functioning as a major employment generator.
- Development is designed, constructed, and operated to maintain the safety and security of people and property.
- Development responds to land constraints, mitigates any adverse impacts on environmental values and natural features, and addresses other specific characteristics, as identified in the AES.

12.3.2 AIN2 - Archerfield Airport General industry B zone

For the majority of the land outside the ASP5 zone, the *Archerfield Airport General industry B* (AIN2) zone (modelled on the IN2 zone in City Plan) is appropriate.

The *Archerfield Airport General industry B* zone applies to land in the Beaufighter, Boundary and Ashover precincts.

AAC will facilitate the progressive development of this land for industrial and related commercial uses, aviation and complementary uses, educational,

recreational, or other activities appropriate to the location and site characteristics, in accordance with AAC's vision for Archerfield.

This zone will facilitate the development of a range of facilities and industries with particular emphasis placed on developments associated with:

- aviation infrastructure and related services;
- aviation industry;
- transport, distribution, e-commerce, and logistics;
- manufacturing industry and other uses (recycling etc) that require buffer distances to more sensitive uses (and subject to these buffers being accommodated);
- small industrial units;
- high technology industries including research and development, prototyping, and production;
- renewable energy facilities and infrastructure;
- aviation, engineering, technology and related education and training; and
- other uses allowable (either as accepted, or assessable development in accordance with the land use table in Appendix E).

AIN2 zone purpose and outcomes

Proposals in the AIN2 zone will be assessed against the following purpose and overall outcomes, adopted from the *Industry zone code* in City Plan.

Purpose

The purpose of the AIN2 zone is to provide for:

- a. *a variety of industry activities; and*
- b. *other uses and activities that:*
 - i. *support industry activities; and*
 - ii. *do not compromise the future use of premises for industry activities.*

Development location and uses overall outcomes

The following overall outcomes are sought for development location and uses in the AIN2 zone:

| Outcome sought (from <i>Industry zone code</i>) | Comments |
|---|--|
| <i>a. Development facilitates and maintains the long-term viability of industrial uses by encouraging a broad range of industry that is compatible with adjacent residential areas.</i> | The AIN2 zoned land is not proximate to residential areas. |

| Outcome sought (from <i>Industry zone code</i>) | Comments |
|--|---|
| <i>b. Development provides for industrial uses appropriate to the zone precinct.</i> | The AIN2 zone will cater for a range of industrial and related uses consistent with the Master Plan vision and PSPs. The accepted and assessable uses in each airport precinct have been determined from assessment of the characteristics of each precinct, and the existing and planned uses on the airport and on nearby land. |
| <i>c. Development avoids or minimises noise and air emissions to meet noise and air quality criteria at sensitive zones.</i> | Any proposed use or development that has the potential to cause off site effects will be assessed in accordance with the planning and building approvals process set out in sections 18.3-18.8, and the AES. All relevant criteria for management of emissions will be met, in accordance with normal practice. |
| <i>d. Development for an industrial use meets the requirements for separation from sensitive uses to minimise the likelihood of environmental harm or environmental nuisance.</i> | Separation distances for proposals in the AIN2 will be assessed having regard to the relevant provisions in the <i>Industry code</i> in City Plan, the AES, and feasible mitigation measures. |
| <i>e. Development protects the viability of existing and future industry by excluding incompatible development.</i> | Each proposal will be assessed for compatibility with existing and planned industry. |
| <i>f. Development for a stand-alone office is not accommodated.</i> | Stand alone offices are not proposed in the AIN2 zone (Appendix E). |
| <i>g. Development for a use that is ancillary to an industrial use on the same site, such as an office function, or small-scale shop or food and drink outlet that directly supports the industry and workers may be accommodated.</i> | Ancillary uses will be assessed on individual merit. |
| <i>h. Development for an industrial use is located, designed and managed to maintain safety to people, avoid significant adverse effects on the natural environment and minimise impacts on non-industrial land.</i> | <p>The siting and design of proposed industrial uses will be assessed for consistency with the PSPs and AES, and any detailed plans for the precinct.</p> <p>Potential impacts on the natural environment (eg heritage values, flora or fauna, management of stormwater, etc) will be assessed under the AES following the process set out for management of new facilities, and new operations and works.</p> <p>Noise and other emissions will be managed in accordance with relevant standards, and the AES.</p> |
| <i>i. Development in a flood-prone area is limited to uses that are compatible with minimising potential off-site impacts during and after a flood event.</i> | Flood protection of airport sites, and minimising potential off site effects of stormwater runoff during or after a flood event is taken into account in developing each new stage of the estates in the Beaufighter, Boundary and Ashover |

| Outcome sought (from <i>Industry zone code</i>) | Comments |
|--|--|
| | <p>precincts, and preparing new sites for development.</p> <p>The floor levels of new buildings will be above the relevant designated flood level.</p> |

Development form overall outcomes

The overall outcomes sought for development form in the AIN2 zone are:

- Development satisfactorily addresses the applicable airport operating requirements, including maintaining obstacle clearances to airspace, minimising wildlife strike, mitigating potential for windshear or turbulence, and maintaining ground access.
- Development is of a built form, mass and setback that contribute to a high standard of amenity.
- Development responds to land constraints, mitigates any adverse impacts on environmental values and addresses other specific characteristics, as identified in the AES.

In assessing the development form of proposals, AAC will consider the relevant guidance in the Master Plan, and have regard to applicable codes in City Plan.

Archerfield General industry B zone precinct overall outcomes

The overall outcomes sought for the AIN2 zoned land are:

- Development provides for low impact industry and medium impact industry throughout the General industry B zone precinct.
- Development for a high impact industry use:
 - is located at an appropriate distance from sensitive uses; and
 - avoids or minimises noise and air emissions to meet noise and air-quality criteria at sensitive zones.
- Development avoids or minimises noise and air emissions to meet noise and air-quality criteria at the minimum separation distances to sensitive zones.
- Development minimises the intrusion of additional heavy vehicular traffic on adjacent residential and community use areas.

The zone also allows for high impact uses, on land that is appropriately located, can be safely and efficiently accessed (without creating unacceptable amenity impacts from traffic movements), and has buffers that prevent unacceptable impacts on more sensitive uses, with respect to noise emissions in particular.

Any proposals for high impact uses will be assessed on individual merit, having regard to the environment protection and management provisions of the AES (including heritage, emissions to air, noise, protection of surface and

groundwater, soil, hazardous materials and waste management, and use of natural resources and energy); and existing and planned use and development of nearby land, on and off airport.

Separation distances from other uses, on and off the airport, will be assessed in accordance with the *Industry code* in City Plan.

The *Ground transport plan* (Chapter 10) includes information on the current traffic volumes on the roads around the airport, assesses the capacity of the existing roads to cater for current and planned developments, and identifies the proposed access to new airport development.

The assessment confirms that existing and likely future airport related traffic makes only a minor contribution to traffic volumes on the surrounding network, and that existing intersections and access roads will continue to provide appropriate levels of service.

In addition, most of the planned airport developments will be accessed via the roads in the surrounding industrial area, thereby minimising additional traffic in proximity to the residential part of Acacia Ridge.

12.3.3 ACN1 Archerfield Airport Conservation (Local)

The *Archerfield Airport Conservation (Local)* (ACN1) zone applies to approximately 4.3 ha of airport land adjacent to Oxley Creek. In City Plan, BCC has applied the CN1 zone to land to the west and south of the airport, adjacent to Oxley Creek.

The area contains the UU sewer pumping station, long established stormwater outfall drains and dissipation structures and a major stormwater detention basin constructed by AAC in 2001, and includes a mix of vegetation along the banks of Oxley Creek.

The balance of the land above the creek banks has for many years been managed by grazing and slashing. More recently, as part of the Oxley Creek Transformation Project, BCC has undertaken weed control and revegetation works on some of the land.

AAC will continue to work with BCC to ensure that any land management works undertaken on airport land meet ongoing safety and operational requirements (including for minimising bird and bat strike).

Due to airport security and operational requirements, the airport land in this area cannot be made accessible to the public. It will therefore not be used or developed as a park, accessible to the public. Instead, it will serve as a buffer between the Oxley Creek and more intensive airport developments in the Beaufighter precinct.

ACN1 zone purpose and outcomes

The zone purpose and outcomes (adapted from CN1 in City Plan to reflect airport requirements) are:

Purpose:

The purpose of the *ACN1 Archerfield Airport Conservation (Local)* zone is to:

- a. provide for the management, protection, and conservation of identified ecological values; and*
- b. provide for the management, development, and use of the land for airport purposes*

Development location and uses overall outcomes:

The overall outcomes sought for development location and uses in the ACN1 zone are:

- Development conserves and maintains the integrity of wildlife, habitats and other significant ecological assets and processes over time, across public and private lands.
- Development provides for land in the Conservation zone to be managed and used for airport purposes, having regard to its nature conservation values and ecological functions, including a broad range of ecosystem services.
- Development opportunities are limited to activities that are in accordance with the Master Plan and AES.
- Development provides for the sustainable management of wildlife habitat and associated features, including rehabilitation and management of biosecurity threats on land within the airport which functions as a receiving site for environmental offsets.

Development form overall outcomes:

The overall outcomes sought for development form in the ACN1 zone are:

- Development adopts and promotes sustainable operational features and practices, including climate responsiveness, water conservation and water quality management.
- Development protects the values and function of the Conservation zone through innovative design, planning, and construction approaches; including application of noise, light, and physical buffers external to the values being conserved.
- Development responds to land constraints, mitigates any adverse impacts on significant environmental values and addresses other specific characteristics, as identified in the AES.

The outcomes in the CN1 zone in City Plan that facilitate public parks have been excluded from ACN1, due to airport security and operational requirements.

12.3.4 ACF3 Archerfield Airport Community facilities (Cemetery)

Cemeteries are typically included in the CF3 Community facilities zone in City Plan. For consistency this zone has been applied to God's Acre, on Beatty Road.

ACF3 zone purpose and outcomes

Purpose

The purpose of the *ACF3 Archerfield Airport community facilities zone* is

To provide for community-related uses, activities and facilities, whether publicly or privately owned.

Development location and uses overall outcomes

The overall outcomes sought for development location and uses in the ACF3 zone are:

- Development provides for the continued use of the land for community facilities.
- Development enables community facilities to play a key role in developing and maintaining community networks, services and community health and wellbeing and contributes to the city being well served with community buildings, facilities, spaces, and activities meeting the diversity of community needs.
- Development provides for both privately owned community facilities and community facilities that are owned or operated by federal, state, or local government.
- Development ensures that where a use within a Community facilities zone precinct ceases and is no longer fulfilling the intended purpose of the relevant zone precinct, that it is replaced with another community facility.
- Development that limits the ongoing operation and expansion of an existing community facility or prejudices the establishment of a new community facility appropriate to the relevant zone precinct is not accommodated.
- Development in a particular zone precinct is predominantly for community facilities that are envisaged in that zone precinct, unless an appropriate adaptation of the premises for another community facility use can be demonstrated.
- Development improves the use of existing community facilities infrastructure to ensure accessibility and multiple uses.

- Development for a use not anticipated in the relevant zone precinct may be accommodated where it is demonstrated that the proposal is safe, well designed, integrated with the surrounding area and offers compensatory community benefits.
- Development:
 - is appropriately located according to the type of proposed use;
 - is highly accessible and preferably integrated and co-located with complementary uses where possible;
 - is of a scale, height and bulk that provides a high level of amenity;
 - is generally consistent with the character of the area;
 - transitions sensitively to surrounding uses.
- Development is supported by complementary uses of an appropriate scale and purpose which directly serve the employees and activities of the relevant zone precinct and do not compromise the commercial, retail or community service role and function of nearby centre activities.

Development form overall outcomes

The overall outcomes sought for development form in the ACF3 zone are:

- Development for a major government facility or service is of a form tailored to the particular operational, functional, and locational requirements of the use.
- Development creates a variety of building forms, materials, and facade treatments.
- Development manages amenity impacts (including glare, odour, light, noise, traffic, parking, servicing, and hours of operation) and provides a sensitive transition between a use in the Community facilities zone and adjoining sensitive uses.
- Development supplies infrastructure, service and utilities at a level that is commensurate with the level of service demands generated by the use.
- Development maximises road, rail, public transport and active transport connections and accessibility between community facilities and key destinations to ensure efficient and safe movement of people and goods and a high level of accessibility for visitors, patrons and employees of the community facility use.
- Development is designed, constructed, and operated to maintain the safety and security of people and property.
- Development achieves a satisfactory standard of environmental performance by adopting principles of innovative, sustainable and efficient

design, construction and operation to encourage water conservation and responsiveness to climate.

- Development for a community facility that is a major economic driver, such as a hospital, consolidates its role in facilitating growth in allied fields such as medical research and product development drawing visiting research academics and clinical professionals to the region and functioning as a major employment generator.
- Development responds to land constraints, mitigates any adverse impacts on significant environmental values and addresses other specific characteristics including those relating to heritage management, as identified in the AES.
- Development for a use other than a community facility that is provided in conjunction with a community facility use incorporates a design that allows for reasonable adaptability and expansion, where necessary, of the community facility.

12.3.5 Zone boundaries

Where there is a boundary between the *ASP5 Special purpose (Archerfield Airport)* and other zones, some flexibility will be exercised where required to cater for appropriate aviation uses and developments.

12.3.6 Car parking and service vehicle facilities

Car parking and service vehicle facilities will be provided for new developments in accordance with section 10.8.6 of the *Ground Transport Plan*, and have regard to the concept for the relevant precinct, as shown in the PSPs.

In most cases it is anticipated that parking for new developments will be provided within each site, however there is scope for shared parking areas to be utilised where there are multiple uses on a site, or a site is appropriately located in proximity to existing on airport parking facilities with spare capacity.

In assessing the parking and service vehicle requirements for a specific proposal, AAC may also have regard to the relevant provisions of the *Transport, access, parking and servicing code* in City Plan, and traffic engineering advice, where appropriate.

12.4 AIRPORT PRECINCTS

The Master Plan divides the airport into eight precincts as shown in Figure 20.

These precincts are:

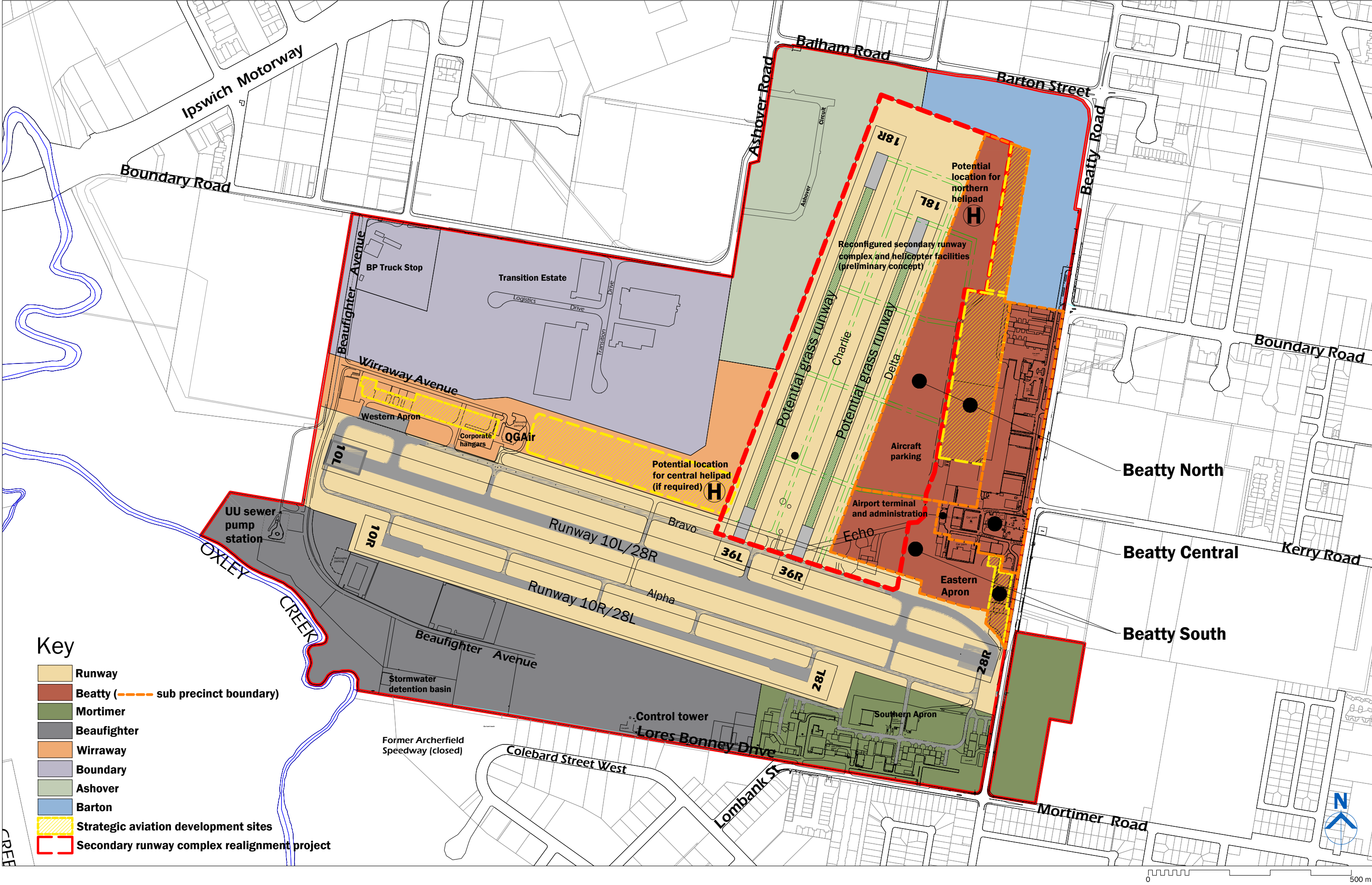
- **Runway** – which is all of the land used (or proposed) for runway and primary taxiway purposes, following reconfiguration of the secondary runway complex (88ha);
- **Beatty** – the land generally fronting Beatty Road, between Boundary Road and the main 10/28 runways, and including aviation land adjacent to the realigned secondary runway complex (36ha);
- **Mortimer** – land in the south-east corner of the airport, including the section on the east side of Beatty Road (17ha);
- **Beaufighter** – including land along Mortimer Road west to Oxley Creek, and north to the main runway complex (34ha);
- **Wirraway** – comprising the existing and future aviation land between Wirraway Avenue and the main and secondary runways (16ha);
- **Boundary** – (containing Transition Estate) located on the south side of Boundary Road, and bordered to the west by Beaufighter Avenue, to the south by Wirraway Avenue, and to the east by the secondary runway complex (38ha);
- **Ashover** – all of the land between Ashover Road and the realigned secondary grass runway complex, and north of the Wirraway precinct (17ha); and
- **Barton** – the land on the corner of Barton Street and Beatty Road, to the north of the Beatty precinct (11ha).

The primary functions and future plans for each of these precincts are discussed below and are illustrated in the PSPs. The precinct land areas are as shown in the current PSPs, and may be refined once the final alignment and other details of the reconfigured secondary runway facilities are resolved.

12.5 RUNWAY PRECINCT

This precinct includes all of the land required for the existing main 28/10 runways and primary taxiways, and the reconfigured secondary runway complex.

The Runway precinct is included in the *ASP5 Special purpose (Archerfield Airport)* zone.



12.5.1 Concept

Runway 10L/28R and primary taxiways

In 2021-22, the main runway, associated primary taxiways, runway and navigation lighting (with installation of a new PAPI and runway/taxiway lights), and other infrastructure were upgraded as part of Project AIM.

The runway was reconstructed, strengthened and lengthened so it can now accommodate aircraft up to ACN 16/ACR 180. Appropriate Runway End Safety Areas (RESAs) were provided and the upgraded infrastructure will cater for the aircraft types provided for in the Master Plan, including RPT.

Taxiway Bravo (B1, B2, B6 and B8) were widened to 15m and strengthened to cater for Code C aircraft. These improvements were foreshadowed in the 2017 Master Plan, and previous plans.

Runway 10R/28L

This runway was reprofiled and resurfaced in March 2005. AAC monitors the surface integrity and condition on an ongoing basis, and has in the past 10 years commissioned the application of a spray treatment to enrich and rejuvenate the runway surface.

Primary Taxiway Bravo

Taxiway Bravo adjacent to the Eastern and Western Aprons, and B1, B2, B6 and B8 were widened and upgraded to cater for Code C aircraft with a wingspan of up to 29m as part of the Project AIM works in 2021-22.

The Master Plan preserves the opportunity for the remainder of Taxiway Bravo (between B2 and B6) to be widened to 15m should that be required in the future.

Provision has also been made for construction of an additional Code A/B taxiway, to the north of and parallel to Taxiway Bravo, if this is required to service the future aviation developments in the Wirraway and Beatty precincts, or to facilitate the reconfiguration of the secondary runway complex.

Secondary grass runways

Runways 04L/22R and 04R/22L are grassed and unrated. The runways are only used in dry weather conditions, as they are not useable following wet weather.

It is AAC's intention to progress the reconfiguration, modernisation and optimisation of the secondary runway complex, helicopter facilities and aircraft parking within the next five years.

This will address the long standing issues with usability compromised by wet conditions, and will release approximately 4ha of prime aviation land in the Wirraway precinct with 500m of additional frontage to Taxiway Bravo

(immediately adjacent to the main runway) for high-end aviation developments. These new aviation opportunities will capitalise on recent investments made through Project AIM by providing additional hangar opportunities for a range of aircraft types and sizes, including larger aircraft that have been anticipated in the longer term movement forecasts.

This will enable the airport to grow sustainably and create efficiencies for operators in terms of reduced taxiing times, reduced fuel usage and subsequently reduced emissions, and at the same time improve the usability of the runway system for flying training in particular.

The reconfiguration will also create the opportunity for development of additional aviation facilities in the Beatty North precinct, on 4.6ha of land between taxiways Hotel and Juliet, 1.4ha of aviation and industrial sites to the north of that area, and approximately 8ha of land for aircraft parking and other aviation facilities in the area to the west of Hotel.

Technical studies undertaken for the 2011-31 Master Plan suggested the construction of new grass runways, aligned to approximately 01/19 (but designated 18/36 to avoid confusion with Brisbane Airport's runways) would provide near optimal alignment in combination with the 10/28 complex. One had a planned length of 920m and the other, 1020m.

The preliminary concept for the proposed alignment and supporting taxiways, and helicopter facilities is shown in the *Master Plan vision*, and in the precinct plans. Further information about the design is provided in the technical studies undertaken for AAC in the development of the 2011-31 Master Plan.

For master planning purposes, a pair of new grass runways aligned approximately north-south has been shown indicatively. The northern helipad is shown to the east of the runways, and a potential new location for the central helipad is shown to the west of the current position. The final location, alignment, runway and taxiway layout, construction and dimensions, provision for helicopter operations and other aspects of the secondary runway project will be resolved through more detailed investigations and design; stakeholder consultation, assessment; and the preparation and approval of a Major Development Plan. Section 7.2.1 provides more information about the next steps that will be taken to resolve the design and approvals required for this project.

The proposals for the Wirraway, Beatty and Mortimer precincts, including the final boundaries between the ASP5 and Archerfield Airport General industry B zones are dependent on the successful implementation of the runway reconfiguration project.

Related developments

The *Master Plan vision* (Figure 2) and the relevant precinct plans show also the following proposals for improved aviation facilities, tied to the reconfiguration of the secondary grass runways and helicopter facilities, growth in aircraft movements and/or the operation of larger aircraft:

- the land available for aviation developments in the Wirraway precinct will more than double in size, providing an additional 4ha of land for new aviation facilities with the release of land having a frontage of approximately 500m to Taxiway Bravo and the main runway complex, to the east of the existing QGAir hangar. This may be suitable for RPT, corporate, air taxi, aeromedical, emergency services, or specialised freight aircraft benefitting from direct access and short taxiing times to the main runway;
- the northern and central helipads will be relocated, if required, to be compatible with the new secondary runway facilities and taxiway network;
- the balance of Taxiway Bravo will be widened to 15 metres (Code C), if required;
- a second parallel taxiway (Code A/B, 7.5/10.5m wide) will be developed to the north of Taxiway Bravo if required;
- opportunities will be provided for the development of additional aircraft parking, responsive to demand including approximately 8ha of land in the area between Taxiway Hotel and the realigned runway complex;
- Taxiway Hotel will be extended north to link to the new 18 threshold;
- capacity for the development of new hangars and other aviation uses will be provided adjacent to the Eastern Apron (0.8ha), in the area between Taxiways Hotel and Juliet (4.6ha), and in the multipurpose aviation and industrial units proposed in the Beatty North precinct adjacent to the new northern helipad (1.4ha); and
- consideration will be given to the relocation of the fuel farm, if required.

12.5.2 Visual and non visual navigational aids

Global Positioning Systems (GPS) are becoming a primary navigational aid for light aircraft operations. GPS approach procedures (RNAV-Z_(GNSS)) for runways 10L and 28R have been designed for airport operations in recognition of this technological evolution.

To assist with visual approaches in poor conditions and to improve the quality of aviation facilities provided at the airport, a Precision Approach Path Indicator (PAPI) has been installed as part of Project AIM for the 10L/28R runway. This aids pilots during instrument flight at medium to short final approach to landing, especially at night.

The PAPI in combination with growth in GPS procedures will not only improve the accessibility of the airport in poor meteorological conditions but also provide to the flying training industry a more marketable product when promoting the airport as the preferred location to learn to fly.

All existing runway and taxiway lighting facilities are subject to cyclical inspection and renewal as required.

Before any new navigation system is introduced at the airport, the Civil Aviation Safety Authority (CASA) must approve the facilities and procedures.

12.6 BEATTY PRECINCT

The Beatty precinct (Figure 21) extends along the Beatty Road frontage of the airport and is bounded by the main runways to the south, the secondary runway complex to the west, and the Barton precinct to the north.

Beatty Road has been the main public address to the airport, since it was first established more than 90 years ago. The precinct has ground access from the Grenier Drive loop, Qantas Avenue, Ditchmen Avenue, and a series of short streets that extend to airside. It includes a number of car parking areas, including public spaces accessed from Grenier Drive, the long term car park on Qantas Avenue, indented parking along Qantas Avenue and a number of other internal roads, and parking associated with individual tenancies.

The precinct includes the upgraded Eastern Apron (adjacent to the eastern end of the 10L/28R runway and Taxiway Bravo), and Taxiway/Apron Hotel, adjacent to the Airport Administration and Terminal building.

The precinct contains a substantial number of aviation and related activities, and complementary businesses.

Sub precincts

The Beatty precinct is broken down into three sub precincts: Beatty North (19.5ha), Beatty Central (8.9ha) and Beatty South (7.6ha). The sub precincts are shown in the *Development precincts* plan, *Airport land use zoning* plan, and *Beatty Precinct Structure Plan*.

Each sub precinct has a strong focus on providing for the current and future needs of general aviation.

Beatty North and Beatty South contain the main new aviation development opportunities, including on the recently consolidated strategic development site adjacent to the Eastern Apron, and new sites that will be released by the reconfiguration and optimisation of the secondary runway complex. Beatty Central caters for a mix of aviation and complementary uses; including

hangarage, airport administration, the historic Administration and Terminal building, God's Acre, training facilities, convenience and service uses.

Zoning

This precinct is included in the *ASP5 Special purpose (Archerfield Airport)* zone. The land use provisions in Appendix E are tailored to each sub precinct, and define in detail the land uses that are accepted, assessable or prohibited in each part of the precinct.

Heritage

The *Archerfield Airport Heritage Management Plan* (AAHMP) has confirmed that the historical heritage values at Archerfield are represented by:

- the continued operation of Archerfield as an airport;
- God's Acre Cemetery associated with the Pastoral phase of the airport (historical phase 1-1850-1928); and
- buildings in the Beatty precinct that are associated with historical phase 2 (Development of air transport, 1929-1938), and historical phase 3 (World War Two, 1939-1946).

The buildings and features of historical significance are identified in the *Beatty Precinct Structure Plan* (Figure 20), the *Heritage Management Plan* (Figure 28) and the *Heritage curtilage* plan (Figure 29), and more details on the heritage aspects is provided in section 16.2 of the AES.

Those of high significance are:

- Hangars 1-3;
- Hangars 5 and 6;
- the original (eastern) portion of Hangar 7;
- the Shell building (16);
- the Powerhouse (26);
- the Airport Administration and Terminal building (28); and
- God's Acre (40).

Buildings 17, 18 and 19 (toilet blocks) have been assessed as having moderate significance.

Building 27, used as the Air Archer café, and building 107 have been assessed as having low significance.

These buildings (apart from 107, which is a stand alone structure on Ditchmen Avenue) are within the 'Archerfield Heritage Curtilage' (Figure 29).

Auxiliary elements within the Beatty precinct, including Qantas Avenue, Grenier Drive, Pitt Street, and the forecourts / green spaces adjoining building 28 and God's Acre Cemetery have low significance. Over the years the location of these elements, the road and path alignments, provision of parking spaces and driveways, and materials and finishes have been altered and replaced and have poor integrity.

In addition, the AAHMP identified within the precinct an area of low (built) archaeological potential. This is also shown in the PSP and the *Heritage curtilage* plans. Within this part of the precinct, any works involving substantial ground disturbance should follow the *Archaeological Discovery Protocol* should any archaeological items be found during excavation or construction. The protocol is described in the AES and the AAHMP.

Renewal projects

Over the past 25 years, AAC has implemented progressively key works, including refurbishing a number of buildings, redeveloping key sites, and providing landscaping.

The projects have included:

- purchase, refurbishment and adaptive reuse of the historic Airport Administration and Terminal building, to once again serve as the airport administration headquarters and terminal, and provide offices and public spaces;
- facilitating the upgrading of Hangar 3 for aviation use;
- redevelopment of Hangar 4 to provide a modern headquarters for Flight One, a long standing aviation operator; and aviation training, engineering and maintenance provider at Archerfield;
- refurbishment of the historic Hangar 5 to accommodate Archerfield Jet Base and FBO;
- refurbishment of the historic Hangar 6 to house LifeFlight helicopter maintenance;
- redevelopment of building 9 (adjacent to the Airport Administration and Terminal Building) to create the airport's first ever on site student accommodation and training complex;
- redevelopment of Hangar 13 (adjacent to the Airport Administration and Terminal building, and to Taxiway Hotel) for aviation use;
- restoration of the historic Shell building; and
- development of building 111, providing high quality office and warehouse accommodation.

AAC has also undertaken tree planting and landscaping works along Qantas Avenue, Ditchmen Avenue and Grenier Drive and installed new illuminated signage at the main entrance to the airport.

12.6.1 Concept

Land use

The Beatty precinct has exposure to airside and landside, and caters for a broad mix of both aviation and non-aviation uses.

It offers a wide range of opportunities for growth of existing aviation uses and other tenancies through adaptation and upgrading of existing buildings, consolidation and redevelopment of sites, and with new aviation and complementary development on currently underutilised land.

The overall concept for the precinct is to continue to focus publicly accessible uses in Beatty Central (at Archerfield Square, and along Qantas Avenue); and in Beatty South, along Ditchmen Avenue. Aviation uses and facilities will be focussed in the extensive existing areas adjacent to airside, and in new developments in three main strategic aviation development areas, as shown in the Beatty PSP and discussed below.

Several existing buildings and other features in the Beatty precinct will be redeveloped or removed to cater for the evolving needs of aviation operations at Archerfield, including accommodating larger aircraft, optimising the use of the upgraded main runway and taxiways, Eastern Apron and related areas, or to provide more modern facilities for existing and future tenants.

To this end, AAC will continue over the 20 year horizon of the Master Plan to facilitate the progressive upgrading or redevelopment of existing buildings, and creation of new, high standard facilities for aviation and complementary purposes. These projects will in some cases involve consolidation of vacant or underutilised sites, improvements to ground access, and enhancements to services infrastructure.

The appearance of buildings and landscaping in the precinct also warrant upgrading and improvement, commensurate with the important role this precinct plays in setting the standard for the image and atmosphere of the airport.

With the recent completion of Project AIM, the main runway, associated taxiways, lighting and navigation infrastructure, and the Eastern Apron and adjacent part of Taxiway Hotel have been upgraded and modernised to cater for the range of aircraft anticipated at Archerfield for the next 20 or more years.

These works have in turn created the opportunity for aviation developments, including on currently underutilised or fragmented sites, or through

redevelopment of existing facilities in the Beatty precinct to meet anticipated future aviation needs.

The Master Plan identifies opportunities for development of new aviation facilities on prime aviation sites in the Beatty precinct, in proximity to the runways, the main taxiways (and Hotel and Juliet in particular) and the Eastern Apron.

The main opportunities for new aviation developments that will be realised in the coming years are focussed in three main areas of the Beatty precinct which have direct airside frontage:

- 0.8ha of serviced land between the newly upgraded Eastern Apron, and Beatty Road (incorporating Ditchmen Avenue), and shown as 'additional aviation capacity' in the PSP;
- 4.6ha in the area between Hotel and Juliet (this will be available following reconfiguration of the secondary runway complex); and
- 1.4ha north of Boundary Road, adjacent to the realigned secondary runway complex (the configuration and dimensions of this area will be resolved once the runway reconfiguration has been implemented).

The aviation potential of each of these areas will be optimised, taking into account existing tenancies, the range of potential users (now, and emerging through changes in aviation and in the development and implementation of new technologies), the logical staging and scale of developments, and demonstrated need.

The final dimensions, area and layout of aviation development sites in the areas adjacent to the new secondary runway complex will be determined once detailed plans are finalised and approved for the secondary runway reconfiguration.

Beatty Central and Archerfield Square

Beatty Central, comprising Archerfield Square between God's Acre Historic Cemetery and the Airport Administration and Terminal building and adjacent land to the north along Qantas Avenue is a primary public address for the airport. It also contains several buildings of heritage value, together with God's Acre which provides a link to the historical pastoral phase of the site.

The 'gateway' location of the Central sub precinct (interfacing the land and air aspects of the site, and being adjacent to Beatty Road) means that the sub precinct will continue to have a diverse mix of land use, including for aviation and non-aviation activities.

It will be the focus for airport and business administration, retail and service uses for the airport, accommodation for flying training and airport users, and other uses that support the operation of the airport and the surrounding area.

The Master Plan foreshadows the creation of a new road access to Archerfield Square, via the addition of a western leg to the intersection of Beatty Road and Kerry Road.

This initiative has the potential to address issues with airport access at Grenier Drive, arising from increases in passing traffic volumes on Beatty Road and Kerry Road, and the recent changes made to the Beatty Road/Kerry Road intersection impacted further by the removal of B-double traffic from Mortimer Road.

This concept was identified in discussions between AAC and BCC in the late 1990s. AAC has included it in subsequent master plans, and notes that the Kerry Road intersection upgrade (and the related upgrading of Beatty Road between Mortimer Road and Granard Road to a four lane cross section) is identified as a priority in Council's *Local Government Infrastructure Plan*.

AAC has assembled the land that is required to create the internal road connection to the northern leg of Grenier Drive. It will work with BCC to resolve the design of the new western leg to the intersection, arrangements for securing the necessary land and the timing and funding of the roadworks, to ensure the safe and efficient access to the airport is not further diminished by increasing through traffic.

AAC has also identified in the relevant PSPs and the *Ground transport plan* locations where airport land could, subject to further feasibility investigations and design, be utilised for widening of Beatty Road, and will work with Council to progress the upgrading for the benefit of all users of the surrounding road network.

Beatty South strategic aviation development area

This 0.8ha strategic aviation site is in Beatty South, adjacent to the recently upgraded Eastern Apron, the main runway complex, and Beatty Road. It currently comprises a mix of leases and vacant sites. It has the potential to be redeveloped in stages, with land consolidated to cater for high end aviation users, including RPT. There is space to include additional on airport car parking, and the Master Plan shows a new ground access from Beatty Road (just north of the main runway complex), to facilitate landside access.

Beatty North strategic aviation development areas

Hotel and Juliet

The 4.6ha area between taxiways Hotel and Juliet, in Beatty North currently contains some aircraft parking, and aeroports. The land is underutilised, and is subject to obstacle limitations and other constraints arising from the current alignment of the secondary runways, and a lack of services and access to landside.

The land has the potential to accommodate a range of aviation uses, in proximity to the main and secondary runway complexes, and with good ground transport access from a planned new road link to the Beatty Road/Boundary Road intersection.

This strategic aviation site, and the substantial future aircraft parking, movement and operations areas planned to the west of it (involving approximately 8ha of land currently occupied by the runways and taxiways), will be released following the reconfiguration of the secondary runway complex and the resolution of existing and future tenancies.

North of Boundary Road

The proposed mixed aviation and industrial area north of Boundary Road (in the Beatty North sub precinct) is also dependant on the reconfiguration of the runway complex. The PSP identifies 1.4ha of land for these tenancies, plus approximately 8 ha of aircraft parking and circulation areas, adjacent to the reconfigured secondary grass runway complex and the northern helipad. The future aviation area will be suited to uses requiring both airside and landside access.

The location, size and accessibility of these tenancies to ground transport and airside infrastructure may be suited to Advanced Air Mobility and emerging technologies.

The row of multi purpose aviation and industrial buildings will also provide an appropriate interface between the aviation activities, and the developments planned for the adjacent section of the Barton precinct.

Heritage management

The heritage values in the precinct as shown in Figure 28 *Heritage management plan* and Figure 29 *Heritage curtilage* will be managed in accordance with the AES, and will be guided by the findings and recommendations of the *Archerfield Airport Heritage Management Plan 2021* (AAHMP) or any subsequently prepared HMP.

AAC will respect and where appropriate conserve historic elements in the overall redevelopment of the airport. Particular attention will be paid to the Airport Administration and Terminal building, God's Acre Cemetery; and the heritage features at each of the other sites identified in Figures 28 and 29 as having heritage significance.

AAC is sensitive to the need to retain buildings and other features of historical significance, and will prioritise this where they can either continue to be used in their current form, or adapted to new uses.

AAC will continue to work with Friends of God's Acre and BCC (lessee of the Cemetery) and the broader community in improving the cemetery and promoting it to the local community and visitors.

AAC recognises that several older buildings on the airport are no longer suited to modern aircraft or aviation requirements and are inefficient in terms of their location, layout, or size for modern aviation related purposes.

In order to ensure that Archerfield continues to attract aviation tenants of a high calibre and the airfield continues to regenerate, development options will be canvassed when approached by prospective aviation tenants.

Each development will be assessed on an individual basis, taking into account the tenant's requirements, the AES, the relevant findings and recommendations in the Heritage Management Plan, the historic value of the building; and its potential for adaptive reuse, refurbishment, removal or relocation. Buildings containing asbestos will be handled in accordance with the AES.

Existing uses

Existing uses will continue, in accordance with lease terms and conditions.

In cases where leases expire, or new proposals are put forward, priority will be given to aviation-related tenancies, and uses that are consistent with the Master Plan vision and the PSPs, including services required by airport businesses, users and visitors. Examples of the latter include convenience shops and service businesses (eg food and drink outlets, etc) that are inadequately catered for on the airport or in the surrounding area.

Leases in the ASP5 area will continue to be negotiated on commercial terms.

12.7 MORTIMER PRECINCT

The precinct occupies the south-east section of the airport, between Mortimer Road and the main runway complex. It also includes approximately 5.8ha of land on the east side of Beatty Road, opposite the eastern end of the main 10L/28R runway, and extending south to the corner of Beatty Road and Mortimer Road.

The precinct contains a mix of aviation and non aviation uses, off street car parking areas, and the AAC works depot.

The northern part is developed with a series of hangars and other tenancies along Taxiway Sierra. These have direct frontage to airside, the grassed Southern Apron, and access to the main runway complex.

The southern part of the precinct, along Mortimer Road and Loes Bonney Drive is used for a more diverse range of purposes. Most tenancies have the potential to access airside via stub taxiways, however the tenancies include industrial,

commercial, service and retail activities that serve the wider area in addition to airport needs.

The precinct is zoned *ASP5 Special purpose (Archerfield Airport)*.

12.7.1 Concept

Land use

Land use in the precinct falls into three main parts, as shown in the *Mortimer PSP* (Figure 22).

Land on the east side of Beatty Road, adjacent to the end of the main 10L/28R runway is intended to be used for low impact industry, storage and parking. This land has some limitations to development and use, including the requirements of the Public Safety Area at the eastern end of the 10L/28R runway, noise impacts from aircraft, and height restrictions required to maintain acceptable obstacle clearance to the airspace.

To the south, the land on the north east and north west corners of Beatty Road and Mortimer Road is at the interface between the established aviation and industrial uses in this part of the airport, and the neighbouring residential area to the south and the substantial Mortimer Park district open space area to the east.

This area provides a transition between the airport activities and the more sensitive neighbouring uses. It has the potential to be developed for a range of purposes that are compatible with the low impact industry and residential areas to the south, and the open space to the east. Options include air service, aviation student accommodation, car wash, child care, convenience shop, low impact industry, office, service industry, service station, and showroom. The full range of accepted, assessable, and prohibited uses in the Mortimer precinct is provided in Appendix E.

This area would also be suitable for aviation student accommodation, given its location at the interface to residential and open space uses, its location on bus routes, and proximity to the existing and future aviation facilities in the Mortimer and Beatty precincts. This will be resolved when specific plans are prepared for this part of the precinct.

Depending on the proposed uses of the land, it might be necessary to incorporate acoustic treatment into new buildings. This will be determined at the design stage, and any requirements for noise attenuation will be applied through the AAC consent process, and the ABC.

The balance of the precinct, west of the Beatty Road/Mortimer Road corner site is anticipated to cater for a mix of air service, aviation, low and medium impact industry, warehousing, showroom, office and service uses.

The proximity of the northern part of the precinct to the main runways (and taxiway Sierra) and the Southern Apron will suit a range of aviation and complementary uses.

The southern part of the precinct will continue to be used for a variety of industrial, commercial, service and retail activities. New development adjacent to Lores Bonney Drive will, wherever feasible be oriented to address Mortimer Road.

Access

Access to new developments on the north-east and north-west corners of Beatty and Mortimer Roads will be resolved in consultation with BCC.

The PSP also acknowledges that BCC is in the process of developing plans to widen Beatty Road to provide a four lane cross section, and to also upgrade the main intersections at Mortimer Road, Kerry Road, Boundary Road and Barton Street. These works are included in the LGIP 2016-2026, and will cater for growth in traffic volumes on the network.

Any road widening in proximity to the main runways would need to be located on the east side of Beatty Road. The PSP shows a potential road widening investigation area 5m wide along the east side of the Beatty Road frontage.

AAC will work with BCC to ensure that operational requirements are addressed in any road corridor upgrading, and that the terms of any transfer of land to enable Council to undertake the road works are acceptable.

In addition, where feasible, any land requirements for the future upgrading of the Mortimer Road/Beatty Road intersection by BCC will be taken into account in the siting and design of new development on these corner sites.

12.8 BEAUFIGHTER PRECINCT

The Beaufighter precinct is zoned in two parts.

Most of the precinct is located between the main runway complex and the adjacent industrial area (including the former Archerfield Speedway, now closed) to the south of the airport (Figures 3, and 23).

The precinct is in the process of being developed for industrial purposes, and the majority of the land is included in the *Archerfield Airport General industry Bzone* (AIN2) (Figure 19). The eastern part of the precinct includes the Airport Control Tower (at the western end of Lores Bonney Drive), and several transport and storage uses.

The western section (accessed from Beaufighter Avenue) comprises a series of nine, 2 hectare development sites, that are currently home to Site 676 (a contemporary industrial/warehouse and office with adjacent helicopter

parking), recycling operations, concrete batching, transport and storage uses. Beaufighter Avenue has been extended south and east with all underground services provided.

The south western section of land adjacent to Oxley Creek has been identified in the AES and the Master Plan as a buffer zone to Oxley Creek. It has an area of approximately 4.3 ha and is included in the *ACN1 Conservation (Local)* zone.

12.8.1 Concept

Land use

This area of the airport requires special attention to ensure that developments, and activities carried out on the land are managed to minimise impacts on the habitat value of nearby Oxley Creek.

In the Archerfield General Industry B zone (AIN2) a range of uses can be allowed, depending on their siting relative to other uses, and provision of separation distances and buffers to more sensitive uses.

The full range of accepted, assessable and prohibited uses on the AIN2 and ACN1 zoned land in the Beaufighter precinct is provided in Appendix E.

Stormwater management measures have been put in place to protect the creek from undue increases in peak stormwater flows following storm events, and to manage water quality.

The works now completed include upgraded drains (piped and open swales) throughout the airport sub catchments, and construction of a substantial detention basin adjacent to sites 670-672.

An open space buffer, comprising approximately 4.3ha of land along the Oxley Creek and incorporating the main stormwater detention facility, and existing stormwater outfalls has been established along the southern edge of the precinct.

The initial stages of the Beaufighter estate cater for industrial, warehouse, aviation, transport, storage and similar uses.

Access

Road vehicle access is provided from both the east and the north, as shown in Figure 23.

Most of the sites in the existing estate are accessed from the north via Boundary Road and Beaufighter Avenue. Access to the eastern end of the precinct will be via an extension to Beaufighter Avenue, and an access road extending from Lores Bonney Drive (which links to the western end of Mortimer Road).

The next stage of development will involve creation of additional sites along an eastward extension to Beaufighter Avenue. Road access to the balance of the development proposed in the PSP will be implemented once the requirements of future tenants have been determined.

12.9 WIRRAWAY PRECINCT

This precinct is included in the *ASP5 Special purpose (Archerfield Airport)* zone. It is immediately adjacent to the main runway (Figure 24) and ground access is provided from Beaufighter Avenue and Wirraway Avenue.

Aviation developments house Pulse Aero aircraft maintenance, QGAir, PolAir, HeliEdge Aviation, and Elite Aviation. The precinct includes the corporate hangar complex (building 411) developed by AAC. Currently a new substantial hangar and maintenance facility is being constructed on site 409 for LifeFlight.

The upgrading of Wirraway Avenue has also provided road access to this part of the airport; and improvements to drainage. The recent upgrading of the 10L/28R runway, Taxiway Bravo and the Western Apron have enhanced the potential for further development of this land for aviation purposes.

12.9.1 Concept

Land use

This area is designated for further development for specialised aviation purposes that are compatible with the established uses, and optimise the use of the recently modernised main runway complex and associated aviation infrastructure. Details of all accepted, assessable, and prohibited uses are provided in Appendix E.

Opportunities for additional aviation developments on more than 1.4ha of serviced land plus adjacent taxiways and circulation areas currently exist to the west of QGAir. This could be developed as facilities for aeromedical, government, corporate, freight, maintenance, fixed base and charter operations. Associated offices, training centres and car parking could be located on the southern side of Wirraway Avenue or on the northern side within Transition Estate if required.

The aviation land in the Wirraway precinct will more than double in size following the reconfiguration of the secondary grass runway complex. The 4ha of land that is anticipated to be released by the runway reconfiguration will provide substantial additional opportunities for aviation operators to establish facilities immediately adjacent to the main runway, to the east of the QGAir hangar. This area will have approximately 500m of frontage to the main runway and taxiway complex, and would be suited to aeromedical, government, RPT, air taxi, corporate, charter, maintenance, or specialised freight aviation hubs/terminals.

In conjunction with the recently completed Project AIM works, the reconfiguration of the grass runway complex will more than double the airport's existing capacity to provide hangar facilities for ACN 16 / ACR 180 type aircraft.

A potential new location for a central helipad is shown indicatively adjacent to the potential RPT and air taxi site. There is also scope to provide helicopter parking and supporting services in conjunction with this new facility. Any changes to the current helipad location will be resolved when a MDP is prepared for the reconfiguration of the secondary runway complex.

The reconfiguration, modernisation and optimisation of the secondary grass runway complex and helicopter facilities provides a number of opportunities to cater for aviation growth, and new and emerging technologies in this precinct. These are discussed in more detail in Chapters 3, 4 and 5.

Access

Wirraway Avenue will be extended eastward along the northern side of the precinct, and will link ultimately to Boundary Road and Ashover Road via Transition Drive or the extension of Ashover Road. The road network will provide direct access to the main roads around the airport, and to the regional network including Ipswich Motorway.

An area has also been designated for long term car parking for visitors and workers (for example for a RPT service), in addition to parking that is shown adjacent to the planned developments. This parking area could be expanded if required.

12.10 BOUNDARY PRECINCT

At present this precinct includes the BP Truck Stop on the corner of Beaufighter Avenue and Boundary Road, the initial stages of Transition Estate, and several storage and industrial tenancies developed along Boundary Road. The precinct also contains the stormwater management basins that have been created south of Boundary Road and east of Transition Drive.

The works that have been completed by AAC include;

- construction of the initial stages of Transition Drive and Logistics Drive;
- a new intersection at Transition Drive, with dedicated through lanes and turning lanes and associated traffic islands along Boundary Road to provide access to Transition Estate and to the Opal Group site on the north side of Boundary Road;
- preparatory works for the future installation of traffic signals;
- the installation of new street lighting on both sides of Boundary Road and approximately 200m either side of the new intersection;

- the extension of culverts and the boring of piers to bridge over the top of the drainage easement on the northern side of Boundary Road in order to widen Opal's driveway for ease of B-Double access into and out of their site (this wasn't previously possible with their pre-existing, narrow width driveway);
- the relocation of overhead powerlines along Boundary Road into underground conduits with provision for future expansion and communications including the NBN;
- the relocation of the high pressure gas transmission pipeline along the Boundary Road site frontage, to allow for the road widening works to occur;
- the installation of kerb and channel and stormwater swales to cater for rainwater runoff along Boundary Road which previously ran onto adjacent grassed areas; and
- landscaping and the installation of palisade fencing along the northern boundary of Transition Estate.

AAC has also undertaken extensive civil works on airport land in preparation for new tenancies within Transition Estate. These works include:

- decommissioning of the narrow drainage system that ran north-west from the secondary grass runway complex to Boundary Road;
- replacement of this system with a much larger detention basin, Basin 3 (volume approximately 18,000m³) to control peak storm related flows from the secondary grass runway complex and the ultimate development in the Boundary precinct, and to also assist with maintaining acceptable water quality in the flows discharged into the local drainage system;
- construction of Basin 4 (the interface between Boundary Road, Basins 3 and 5 and the Gross Pollutant Trap);
- construction of Basin 5 (sand filtration for improved water quality);
- installation of Gross Pollutant Traps to further improve the quality of water from Boundary Road and Transition Drive before it enters the local drainage system;
- reshaping of ground levels in Transition Estate to bring the sites above Q100 flood level, and prepare for site development;
- construction of entrance walls and illuminated pylon signage at the intersection of Boundary Road and the future alignment of Transition Drive;
- installation of a new 300mm water main along Wirraway Avenue to service the new tenancies in Transition Estate and the Fire Pump House which services the existing Corporate Hangars;

- installation of infrastructure for fire protection, including on site storage tanks and pumps, to service the new sites in Transition Estate and adjacent areas;
- installation of two new pad mount transformers to service new sites in Transition Estate;
- construction of approximately 500m of new sealed roads (Transition Drive and Logistics Drive) with associated kerb and channel, street lighting, CCTV; and underground services including: electrical and communications conduits, gas, and low pressure sewer network;
- upgrading of power to Wirraway Avenue; and
- reconstruction and resurfacing of Wirraway Avenue.

The precinct is included in the *Archerfield Airport General industry Bzone* (AIN2).

12.10.1 Concept

Land use

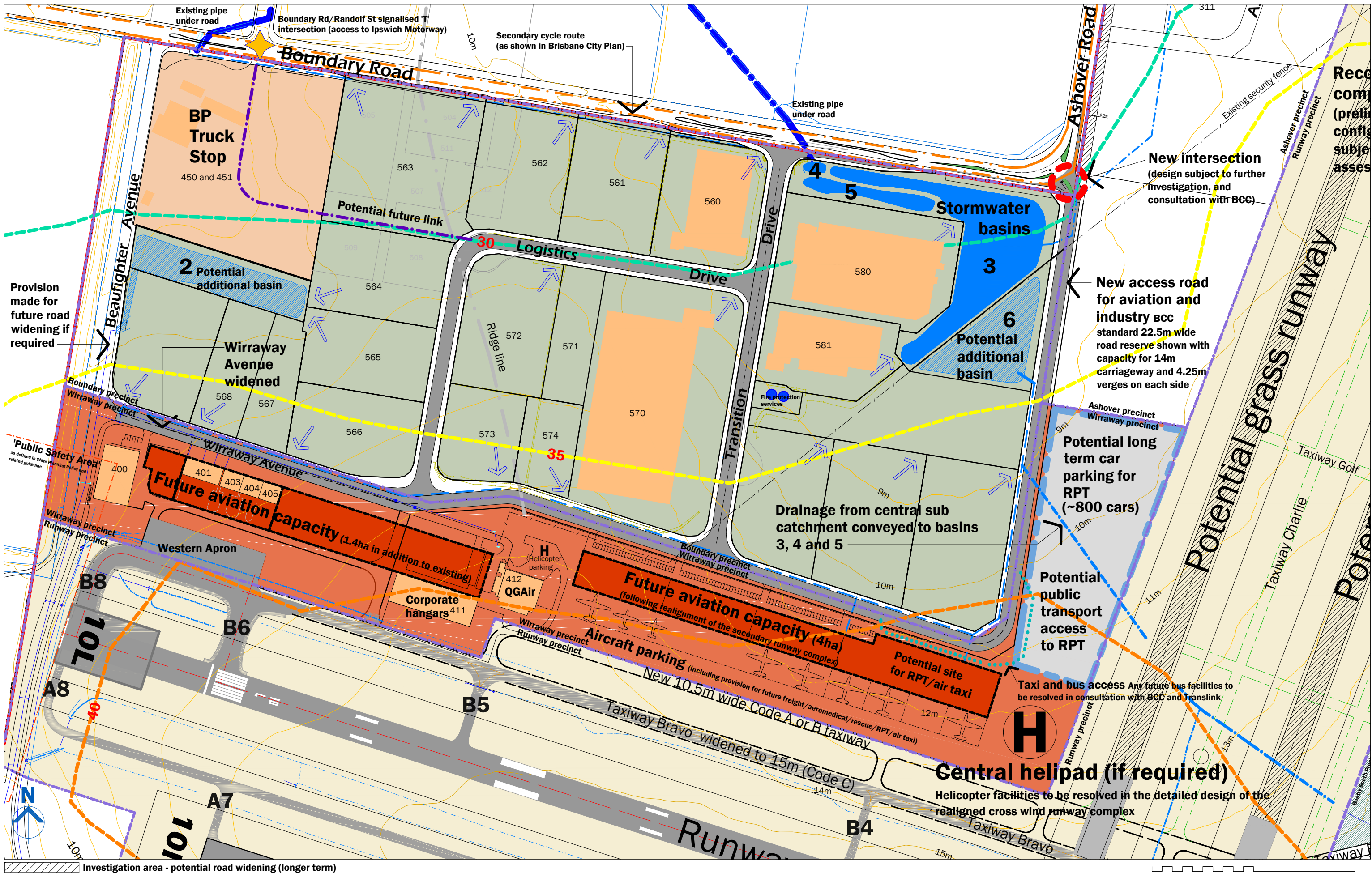
Land in this precinct will be developed with quality tenancies providing a range of warehouse/logistics, commercial and industrial uses including administration and support services to the transport, logistics and aviation industries. The range of accepted, assessable and prohibited uses in the precinct is set out in Appendix E.

As part of the Transition Estate works, AAC has constructed basins 3, 4 and 5 in the area east of Transition Drive and south of Boundary Road to capture and manage stormwater from the precinct and the adjacent area of the airport, prior to discharge to the drainage system through the Rocklea industrial area.

The PSP shows locations for further drainage works within Transition Estate, including:

- an additional basin (number 6) south of basins 3-5 that will provide additional capacity for stormwater management prior to discharge from the airport site, and can be developed following reconfiguration of the secondary runway complex; and
- a potential future stormwater basin 2 south of BP Truck Stop, which will treat stormwater prior to discharge to the drains in Beaufighter Avenue and then to Oxley Creek.

The final location and design of these works will be resolved once details of the internal site layout, and other features of the later stages of the Boundary precinct developments are settled. These works will be implemented progressively, as development proceeds.



Access

The PSPs for the Boundary and Wirraway precincts (Figure 24) shows that these precincts are at present accessed via Boundary Road, the initial sections of Transition Drive and Logistics Drive, Beaufighter Avenue and Wirraway Avenue.

This access will be augmented by the possible extension of Transition Drive (and Logistics Drive if required), southwards to join to Wirraway Avenue, and the possible creation of a southward extension of Ashover Road, to the aviation area in the Wirraway precinct.

When the sites within Transition Estate are generating, or are likely to generate, the traffic volumes that necessitate the requirement for controlled traffic movements, the intersection of Transition Drive and Boundary Road will be fully signalised. Depending on tenancy operations, this is anticipated to occur when the estate has reached approximately 65% occupancy.

The reconfiguration and optimisation of the secondary runway complex will allow the release for development of the south-eastern part of the precinct. Access to that land (and the expanded aviation area at the eastern end of the Wirraway precinct) will be provided by a new road extending south from Ashover Road, and an easterly extension to Wirraway Avenue.

The future intersection at Ashover Road is intended to cater for all required turning movements.

The final layout and design will be determined in consultation with BCC and may involve the use of slip lanes or a roundabout to give the maximum flexibility for access, without unduly impacting on the traffic on the external roads.

Larger industrial sites are proposed within the Boundary precinct, utilising road frontage along Boundary Road, Beaufighter Avenue, Transition Drive, Logistics Drive, Wirraway Avenue, and an extension to Ashover Road. There is the potential for these sites to be either amalgamated (for larger scale uses) or further subdivided according to market needs.

If any new direct access is required to sites in the precinct, AAC will resolve the details of this with BCC.

AAC is in the process of transferring at no cost to BCC (with the Commonwealth's consent) land for the recently constructed turning lanes and the new intersection accessing Transition Drive from Boundary Road. Together with upgraded access to the Opal Group site opposite the airport, these works were both funded by AAC.

If BCC determines that Boundary Road requires widening to cater for network traffic, the terms of any future land transfer will be determined with BCC.

AAC will develop the site access and other infrastructure in stages, matched to the land development program. As detailed above, the initial stage of the Transition Estate subdivision is complete and agreement has been reached with BCC with respect to the 'triggers' for the signalisation of the intersection of Transition Drive and Boundary Road by AAC.

As Transition Estate develops, Transition Drive (and potentially Logistics Drive) will be extended to link to Wirraway Avenue from Boundary Road. The longer term option for a road link between Boundary Road (at Randolph Street) and Logistics Drive has also been shown. If feasible this would provide flexibility in site configuration, and for creation of an optimal internal road layout for the precinct, depending on tenancy requirements in the next stages of Transition Estate.

12.11 ASHOVER PRECINCT

This precinct has similar characteristics to the Boundary precinct. It is in the middle of the long established Rocklea industrial area and enjoys excellent road access from Balham Road/Barton Street and Ashover Road, and access to the Ipswich Motorway via Boundary Road and Randolph Street.

A series of '300' sites has been developed by AAC to cater for a range of industrial, transport, logistics, service and storage uses. AAC has constructed Ashover Circuit, to provide access to these sites.

The precinct falls into two main drainage sub catchments. Stormwater from the northern sub catchment drains to Basin No. 7, constructed by AAC adjacent to Balham Road. The basin manages peak flows prior to discharge to the external network to the north of Balham Road.

The balance of the precinct drains southward via a formed drain to the existing basins 3, 4 and 5.

Sewer is provided to the '300' tenancies in the precinct. Any changes in sewer requirements will be investigated in consultation with UU.

The Ashover precinct is in two zones. The section between the northern leg of Ashover Circuit and Balham Road is in *ASP5 Special purpose (Archerfield Airport)*, and the balance is included in the *Archerfield Airport General industry B* zone. The final zone and precinct boundaries will be determined once the reconfiguration of the secondary runway complex has been finalised.

12.11.1 Concept

Land use

The *Ashover Precinct Structure Plan* (Figure 25) shows that the land is likely to be developed in a series of sites along Balham Road, Ashover Road, Ashover

Circuit and the proposed southerly extension of Ashover Road to Wirraway Avenue.

At the northern end, in the ASP5 zoned section along Balham Road, land uses could include transport related services such as fuel, vehicle and equipment servicing, repairs and parts; and offices.

The majority of the precinct is in the *Archerfield Airport General industry B* zone. That land is intended for industrial and related uses, and a range of site sizes is anticipated. Further details about the range of accepted, assessable, and prohibited uses in ASP5 and AIN2 zones in the Ashover precinct are provided in Appendix E.

The precinct is opposite *General Industry C* zoned land on the west side of Ashover Road and north side of Boundary Road, opposite the airport. This neighbouring land off airport has the potential to be used for high impact industries that might have off site amenity impacts, such as from noise emissions or from heavy vehicle movements.

When assessing new developments at this interface, AAC will consider the potential impact of uses in the neighbouring General industry C land on the amenity or operation of the proposed developments in the precinct, and incorporate where appropriate and feasible measures to minimise any potential impacts.

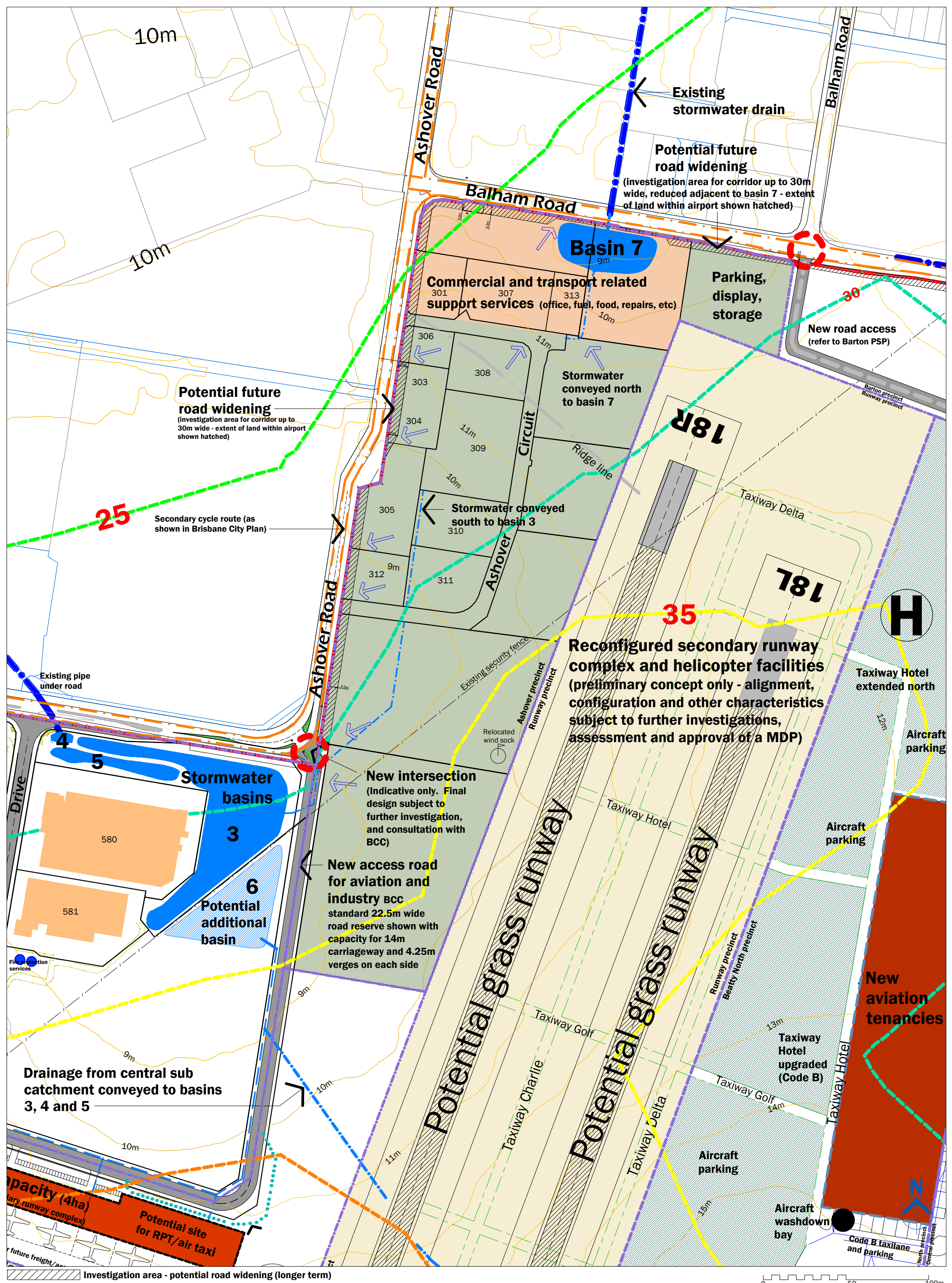
Access

The PSP recognises that with increasing through traffic in the locality BCC might in the longer term need to widen Ashover Road and/or Balham Road, adjacent to the airport.

Although such widenings are not identified by BCC in the current LGIP, AAC considers that from a broader public interest perspective it is prudent to continue to show a road widening investigation area along sections of the Balham Road/Barton Street and Ashover Road frontages, consistent with the previous airport master plans.

If in the coming years BCC decides that road widening is necessary to cater for through traffic, or AAC or BCC decide that land is required to accommodate a new access into an airport development (for example, for upgrading Ashover Circuit, or providing a southern leg from the Balham Road/Barton Street intersection), the road widening investigation area provides the opportunity for that to be assessed.

Any future investigations would be triggered by either a BCC road widening proposal, or a new airport development requiring access from the adjacent road.



12.12 BARTON PRECINCT

The land relates strongly to the surrounding industrial and service areas along Beatty Road and Barton Street, off airport. It provides an interface between surrounding land use and the new aviation developments in the northern part of the Beatty precinct, the reconfigured secondary grass runway complex, northern helipad, and new aircraft parking areas.

This precinct is included in the *ASP5 Special purpose (Archerfield Airport)* zone, and the PSP identifies a mix of preferred uses that are compatible with aviation and related activity in the Beatty precinct, the reconfigured secondary runway complex, and the interface to the low to medium impact uses on the opposite side of Barton Street and Beatty Road.

12.12.1 Concept

Land use

The concept for this precinct (Figure 26) anticipates the northern part (at the corner of Barton Street and Beatty Road) being developed for a mix of showrooms, conferencing and events, commercial, and service tenancies; the central section (adjacent to Beatty Road) being smaller industrial, commercial, display and sales and service tenancies; and the southern part (extending to Boundary Road) catering for multi purpose industrial, office and service uses. Further details about accepted, assessable, and prohibited uses in the Barton precinct is provided in Appendix E.

These uses are compatible with existing and future aviation uses and airport operations, the planned reconfiguration of the secondary runway complex, and with current and planned aviation and complementary development in the Beatty and Ashover precincts.

The uses are also consistent with land use and development proposals in the current and past master plans, and with existing uses on adjacent land off the airport.

The sizes of the tenancies, and their anticipated usage, are compatible with existing developments on the opposite (east) side of Beatty Road.

The development layout shown in the PSP orients the new tenancies so they face the adjacent roads, enhancing the presentation of the airport at the interface to the surrounding area.

The timing of redevelopment of the southern part of the precinct is subject to consideration of existing leases and market demand. Ultimately, all sites north of the proposed Boundary Road intersection will be redeveloped.

Access and parking

The PSP shows conceptually the layout of the new access points from Beatty Road and Balham Road, and opportunities for future widening of Barton Street if required to cater for growth in passing traffic, or for site access.

The precinct will be accessed via a proposed new western leg from the Beatty Road/Boundary Road intersection at the south end of the precinct, a second east-west local road off Beatty Road, mid way between Boundary Road and Barton Street, and a new southern leg from the Balham Road/Barton Street intersection.

Provision is also made for left in/left out driveways to access the car parking proposed towards the northern end of the Beatty Road frontage, and mid block along Barton Street.

Within the precinct, Qantas Avenue is shown extended north, to provide a service road parallel to Beatty Road. The PSP shows a new internal local access road linking from the Boundary Road intersection, west and north to Balham Road.

The internal road network will also provide improved land access to the northern end of the Beatty precinct, enhancing the attractiveness of the new multipurpose hangars and adjacent apron areas and aviation infrastructure, and the new aviation development area that will be established between Taxiways Hotel and Juliet, adjacent to the realigned and optimised runway complex and helicopter facilities.

The design of the Qantas Avenue extension, the additional access points at Boundary Road and Balham Road, and the driveway access points will be resolved with BCC when more detailed plans are prepared for the Barton precinct developments.

Car parking for staff and visitors, and loading facilities for new developments in the Barton precinct will be provided on airport land. The PSP shows a concept for a mix of shared parking areas, adjacent to new developments, and indented on-street parking along sections of the new internal local roads.



Chapter 13 Environment Strategy Summary



Archerfield AIRPORT

INTRODUCTION

The Archerfield Airport Environment Strategy 2023 (AES) addresses the ongoing environmental management of the airport site. It also provides the framework for responsible environmental management by airport tenants.

This strategy comprises:

- a statement of environmental responsibilities that apply to Archerfield Airport;
- a description of the airport environmental management system, including the process by which AAC implements the AES and related environmental management procedures;
- the AAC corporate environment policy;
- a summary of existing environmental issues, management responses to those issues and an action plan to address them;
- details of the ongoing consultative processes AAC uses to implement and review the AES.

This strategy should be read in conjunction with the Archerfield Airport Master Plan that sets out AAC's 20 year vision for the development of the airport.

ACHIEVEMENTS 1998-2023

AAC has over the period 1998-2023 achieved a number of milestones which have contributed to the improvement of the airport environment.

Studies have been completed, *Environmental Management Procedures* (EMPs) prepared, major drainage works have been implemented, water and energy use has been audited, water conservation measures implemented, a renewable energy project implemented on building 111, the airport environment has been monitored and analysed (and the network of groundwater monitoring wells has been reviewed and expanded), environment protection awareness information made available, and relationships with key stakeholders strengthened.

A summary of these achievements is provided in Chapter 14.

AAC ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)

Environmental responsibilities

AAC maintains the runways, taxiways, grassed areas, and infrastructure; develops new airport facilities; leases sites; and oversees environmental compliance by tenants.

AAC prepares the AES; develops and maintains the airport's environmental management system; undertakes environmental reviews of relevant aspects of the airport; works with the Airport Environment Officer (AEO) and tenants to protect the environment of the airport and assist with the investigation of incidents on the site; liaises with environmental authorities; and provides annual reports to Department of Infrastructure, Transport, Regional Development, Communications and the Arts (DITRDCA) on progress on implementing the AES.

These responsibilities are established through legislation and are set out in Chapter 15 and in the airport EMPs.

AAC tenants are responsible for environmental management of their leased site in accordance with the AES, lease conditions and relevant legislation, standards and guidelines; providing practical assistance to AAC in developing, reviewing and revising the AES; adhering to requirements of the AES; devising environmental management procedures and implementing improvements specific to the lease site; and adhering to appropriate dangerous goods handling and storage standards, and to workplace health and safety standards.

Scope

The Archerfield Airport EMS addresses AAC operations, existing tenants, new facilities, non-aviation tenants and activities, and emergency events occurring on the site.

It comprises the AES, the EMPs, and the management processes that are in place.

AAC works with tenants to ensure that all responsible parties are aware of their environmental obligations, implement environment protection measures, monitor and review their performance, identify areas for

improvement, and manage the potential effects of their activities on an ongoing basis.

AAC also undertakes periodic reviews of the airport environmental management system, including the policies, procedures, and other aspects; to ensure that it meets contemporary requirements, gives an appropriate framework to facilitate environmental management at Archerfield, and is consistent with relevant standards and good practice.

Environmental Management Procedures

The EMPs include procedures for assessing prospective tenants, communication and consultation, emergency preparedness and response, minor and major spill response, environmental awareness and training, tenant environmental reviews, environmental reviews at the end of a tenancy, and assessment of new development works.

Action plan

The actions identified in the AES are summarised in the *Archerfield Airport Environment Action Plan*, which is included in Appendix D.

Communication

AAC communicates with a variety of parties both on the site (tenants and operators) and external to the site.

Key aspects relevant to environmental management include:

- facilitation by AAC of monthly management meetings involving the Airport Environment Officer (AEO), Airport Building Controller (ABC) and AAC personnel;
- facilitation by AAC of quarterly AAEMF meetings with AEO and ABC;
- a rolling program of reviews of tenant operations;
- provision of information on the AAC web site;
- targeted consultation with stakeholders on specific issues;
- community consultation on major projects;

- regular 12 monthly reporting of environmental matters to DITRDCA;
- environmental training and education.

Environmental training

All current AAC staff undertake environmental awareness training on an annual basis. Training is ongoing, responsive to needs, and specific requirements are identified in management, operational and performance reviews.

AAC personnel and tenants will be briefed on the new AES. AAC in tenant reviews will also confirm training that is required, has been completed, and is committed for the coming management period. More detail is provided in section 15.9.

AIRPORT ENVIRONMENT POLICY

AAC recognises the importance of maintaining and where practical, enhancing the quality of the environment on Archerfield Airport and neighbouring areas.

Its commitment and actions to realise this are described in the AAC Corporate Environment Policy in section 15.2.3.

CURRENT ENVIRONMENTAL STATUS, ISSUES, AND ACTIONS

The AES includes for each aspect of the environment, management objectives, a statement of existing conditions, potential impacts, management measures, and targets for the planning period.

The information is based on a review of past studies and more recent investigations of groundwater, surface water, potable water consumption, asbestos and heritage.

More detail is provided in Chapter 16.

Archaeology

The 2021 *Archerfield Airport Heritage Management Plan* (AAHMP) (Australian Heritage Specialists, 2021) provides information about Aboriginal Cultural Heritage and historical (built) heritage.

The site and surrounding area has been highly disturbed since European occupation of the area, as a result of land clearance, stock grazing, and the development and operation of the airport since the late 1920s. The Cultural Heritage assessment identifies an area along Oxley Creek (in the designated conservation area) that has 'low' Aboriginal Cultural Heritage potential.

In addition, the assessment has identified two areas, one in the Mortimer precinct and the second in the Beatty precinct that have potential for discovery of sub surface artefacts from past use and development in the pastoral, development of air transport, and wartime periods.

In these areas, before any sub surface works are undertaken, personnel will be provided with a heritage induction, and measures will be implemented to manage any artefacts that might be discovered.

Built heritage

A hierarchy of heritage significance has been established for the buildings and other elements remaining at Archerfield from these historical phases. These are shown in Figure 28 *Heritage management plan*.

The AAHMP attributes an 'exceptional' grading to the continued operation of the airport, and concludes that from a heritage perspective, the continued operation of the airport takes precedence over other considerations.

The AAHMP has found that the significant historical heritage values remaining at Archerfield Airport are confined to that part of the Beatty precinct which contains the Airport Administration and Terminal building, God's Acre Cemetery, a number of hangars and some buildings associated with historical phases 2 and 3 of the airport.

These buildings and features fall within an area described as the *Heritage Curtilage* (Figure 29).

AAC, and its parent company Miengrove Pty Ltd, have invested more than \$3.8M in heritage projects. In 2001 AAC restored the Shell building. In 2009 the Administration and Terminal building again became the airport administration offices with the refurbishment of Level 2 of the building by AAC. In 2015 Level 1 of the Terminal building was

significantly refurbished, winning awards in the Heritage and Interior Design categories at the 2015 Brisbane Regional Architecture Awards.

AAC has also refurbished Hangars 5 and 6 and in 2022 it established the Airport History Room in the Administration and Terminal building. The History Room is the home to an evolving archive of records and memorabilia about the history of the airport, and interpretative materials. It is the base for preparation of interpretative displays, and a place for research to be undertaken.

AAC continues to work with Friends of God's Acre to ensure the cemetery is well maintained.

Consideration will be given to heritage aspects in the ongoing management of the airport, and in decisions on future development projects. Where practical, interpretative information about these aspects will also be included in the History Room.

Flora and fauna

The airport environment has been heavily modified since prior to the establishment of the airport, when the site was farmed.

The main operational areas have been subject to a continuous maintenance program that has included mowing, and removal of large trees where these infringe on obstacle clearance standards.

The area fringing Oxley Creek has some remnant values, and this land has been incorporated into a green buffer.

A flora and fauna assessment of the buffer area (shown in Figure 2 *Master Plan vision*, and in Figure 23 *Beaufighter Precinct Structure Plan*) will be undertaken prior to any future development in this area.

AAC will also within the first two years of the operation of this AES prepare an updated ecological assessment of the airport overall, and the area in the vicinity of the airport; and if significant values are identified, will confirm protocols for their management.

Air emissions

There are negligible emissions to air. Establishments which include spray paint booths have appropriate filters installed and these are

maintained in accordance with BCC requirements and are inspected by AAC and the AEO.

Ozone depleting substances

A detailed audit of the airport in 1993/94 identified all equipment containing ozone depleting gasses. All Bromochlorodifluoromethane (BCF) fire extinguishers were removed in 1997, and there are no remaining air conditioners filled with Freon/CFC's.

Ongoing environmental reviews by AAC seek to identify any ozone depleting gasses on site. If any are identified their removal will be negotiated.

Surface water

The airport surface water falls into six sub catchments (Figure 17), and is conveyed ultimately to Oxley Creek by a network of open and piped drains.

A detention basin at the south-west boundary of the airport assists with managing peak flows, and improving water quality prior to discharge to Oxley Creek. Three additional bio-filtration and detention basins have been constructed recently adjacent to the Boundary Road frontage to manage peak flows from future works at Transition Estate.

Gross Pollutant Traps were constructed between Basin 4 and Boundary Road (at Transition Drive) to further improve the quality of stormwater from the Boundary precinct and central sub catchment prior to its release to the BCC drainage system to the north of the airport.

A new basin has been constructed at the northern end of the Ashover precinct (adjacent to Balham Road), treating runoff prior to discharge into the network to the north of the airport.

Rainwater tanks have been installed in a number of tenancies, and in new developments undertaken by AAC.

Groundwater quality

Groundwater quality is monitored annually, and since this practice commenced in 1993, water quality has generally conformed to or exceeded relevant environmental criteria. Localised

elevations are addressed progressively with the AEO.

The network of groundwater monitoring wells, and the scope of testing undertaken is reviewed annually to ensure that the program covers all on-airport areas as well as to test contamination coming onto airport from off-site locations. The bore locations and the direction of groundwater flow are shown in Figure 30 *Groundwater*.

Soil

Except for BP Truckstop (which was subject to soil contamination from a leaking storage tank, discovered in 2006, and now contained), there are no known areas of soil contamination that pose a threat to the environment of the airport.

Assessments show that localised contamination levels are within accepted criteria.

Hazardous materials and waste

Existing asbestos is recorded in the airport asbestos register, which is kept up to date as works are completed. A significant quantity of asbestos was removed between 2012 and 2015 as a result of extensive repair and upgrade works to various hangars and buildings.

DITRDCA recommends that AAC determines levels of Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS), which are non-biodegradable chemicals that are highly persistent in the environment (and in the past used in fire-fighting foam and equipment), to gain an understanding of the background levels of PFAS on airport and coming from off-site areas.

AAC currently considers the recommendations within the most recent *PFAS National Environmental Management Plan Version 2.0* – January 2020 published by Heads of EPA Australia and New Zealand and will consider any future versions of these guidelines when they become available.

AAC is also participating in Tranche 2 of the *Commonwealth Airports PFAS Investigation Program* and works are underway.

In addition, periodic ground and surface water monitoring events; and site investigations for new developments have incorporated PFAS testing

into the scope, to identify, track and monitor PFAS datapoints and trends throughout the airport.

Maintenance, new building activities and developments are required to comply relevant national guidelines when appropriate.

The storage and handling of hazardous materials is required to comply with relevant State legislation, and this is assessed during tenant environmental reviews.

Waste is managed and disposed of in accordance with Trade Waste requirements.

Natural resources and energy

Potable water use was reviewed and a management plan formulated in 2008 to minimise consumption and improve efficiency.

When the drought ended the State government abolished the Queensland Water Commission and its permanent water conservation measures on 1 January 2013.

Energy usage is considered as part of the periodic environmental reviews of tenant and AAC operations. AAC is also pursuing opportunities for renewable energy including by expanding the use of roof top solar and by seeking to attract to the airport enterprises involved in research, development and implementation of alternative energy and related technologies.

Opportunities for energy efficiency are also considered in the design, siting and specification of new works by AAC and the assessment of new works proposed by tenants.

Noise

Potential noise sources from on ground activities at Archerfield Airport are limited to maintenance and general commercial activities conducted on site, and ground running of aircraft.

Noise emissions are considered as part of the assessment of new tenancies and ongoing tenant environmental reviews.

To address noise from ground running of aircraft, dedicated engine run-up areas have been established away from the main centres of development.

AAC, in its role as airport operator also engages with stakeholders who are responsible for management of aircraft noise, to identify and implement actions to minimise where feasible the effect of noise on land in the vicinity of the airport.

Further details of this engagement and other actions by AAC are provided in section 16.10. AACs role in the management of aircraft noise within the 30 ANEF contour is addressed in 16.10.5 and 18.12.2.

NEW FACILITIES

AAC is committed to sustainable development.

The environmental performance of refurbished offices in the historic Terminal building is a prime example of this.

Improvements in energy efficiency, water use and indoor environment quality, whilst maintaining the heritage aspects of the building, were paramount to this project.

Since completion, AAC energy consumption has been reduced by almost half, saving around 5000 kg of greenhouse gas emissions per annum.

Water tanks have been incorporated into new developments such as the Corporate Hangars, Hangar 4, Hangar 13, the aviation/warehouse and office at site 676 in the Beaufighter precinct, the Aviall building at site 111, and the new logistics facility at site 581 in the Transition. estate.

AAC requires new tenants to identify all potential environmental issues or impacts, and assists them to clarify applicable legislative requirements and best practice management guidelines and training that will be applied.

AAC's EMPs include procedures to manage this process, and include input from the AEO and ABC (if required).



Chapter 14

Overview of the AES



Archerfield AIRPORT

14.1 SCOPE OF THE ENVIRONMENT STRATEGY

Under the *Airports Act 1996* and regulations, AAC is required to develop and implement an AES that:

- sets out AAC's objectives for the environmental management of the airport;
- identifies environmentally significant areas within the airport;
- identifies sources of environmental impact associated with airport operations;
- defines studies, reviews and monitoring to be carried out in relation to the environmental impact of the airport;
- sets timeframes for completion of audits and reviews;
- sets out specific measures to be implemented by AAC to address existing or potential impacts, and timeframes for completion of these; and
- provides details of consultation undertaken in preparing the AES.

14.2 OVERVIEW OF 2023 AES

The AES addresses the management of environmental issues arising from airport activities and operations.

It covers the ongoing environmental management at the airport arising from the use of the airport site.

The relationships between the various elements of the AAC environmental management system are illustrated in Figure 27, in section 15.4.

This strategy comprises:

- a statement of environmental responsibilities that apply to Archerfield Airport;
- a description of the Airport Environmental Management System, including the process by which AAC will implement the AES and related environmental management procedures;
- the AAC corporate environment policy;
- a summary of existing environmental issues, management responses to those issues and an action plan to address them;
- details of the ongoing consultative processes AAC will adopt in implementing and reviewing the AES.

This AES builds on the previous strategies (1999, 2000, 2005, 2010, 2012 and 2017).

14.3 ENVIRONMENTAL MANAGEMENT ISSUES

The principal environmental management issues at Archerfield Airport are:

- management of new development works to minimise and ameliorate impacts on the environment;
- conservation of any significant flora and habitat values along Oxley Creek;
- protection of storm water and groundwater quality from contamination by pollutants from the airport;
- encouraging the efficient use of water and energy;
- ensuring that all chemicals on airport are appropriately handled, used, stored and disposed of;
- containment and management of spills;
- appropriate containment and handling of all asbestos in buildings and plant on airport (as identified in the asbestos audit and register);
- protection of any cultural and built heritage values (pre and post contact); and
- ensuring that airport tenants are aware of their environmental obligations and comply with all relevant requirements.

14.4 OVERVIEW OF ACHIEVEMENTS 1998-2023

Over the period 1998-2023, AAC has achieved the following milestones. These have all contributed to improvements to the management of the airport environment.

TABLE 9: SUMMARY OF ACHIEVEMENTS 1998-2023 (AES)

| Activity | Date |
|--|---------------|
| Environmental management system | |
| AAC adopted new airport <i>Environmental Management Procedures</i> (EMPs). | 2003 |
| AAC reviewed EMPs, and identified minor revisions. | 2010 and 2016 |
| Heritage | |
| AAC has supported the restoration works by Friends of God's Acre, including with donation of funds and provision of maintenance services over the past 26 years. | 1998 onwards |
| AAC restored the Shell building. | 2001 |
| The <i>Cultural heritage assessment and management plan</i> for the airport was completed. | 2003 |
| AAC purchased in 2000 and refurbished the 2 nd floor of the neglected Airport Terminal building and relocated its administration offices to the upper floors of the building. | 2009 |

| Activity | Date |
|--|--------------|
| Brisbane Regional Commendation awards for both Heritage and Interior Architecture for refurbishment of the middle floor of the Airport Terminal building. | 2015 |
| Refurbishment of the ground floor public areas, and painting and waterproofing of the exterior of the Airport Terminal Building in preparation for Brisbane Open House. | 2015 |
| Refurbishment and repurposing of sites 3 (by Tenant), 5 and 6 which have heritage value. | |
| AAC prepared a Heritage Management Plan for Archerfield Airport, replacing the plan prepared in 2001. | 2021 |
| AAC established the airport History Room in the Administration and Terminal building. | 2022 |
| Flora and fauna | |
| Fire Ant control has been undertaken by helicopter and motorcycle broadcasting. | 2001 onwards |
| Creation of a conservation zone in the south-west part of the airport, adjacent to Oxley Creek, to provide a permanent buffer. | 2009 |
| Air quality | |
| Existing data on airshed quality obtained from the DESI (formerly DERM/EPA) monitoring station at Rocklea. | 2004 |
| Inventory of existing airport tenants and users was compiled as a baseline for possible future air quality assessments. | 2004 |
| Air quality testing at site 400. | 2015 |
| Dust | |
| Wirraway Avenue was reconstructed and resurfaced. | 2000 |
| Beaufighter Avenue was sealed and extended into the Beaufighter precinct. | 2000 |
| Dust from Site 670-672 was monitored over a six month period. | 2015 |
| AAC commissioned URS consultants to conduct an assessment of dust from Site 670. | 2015 |
| Various dust, erosion and sediment control initiatives implemented within the Beaufighter precinct. | Ongoing |
| Surface water management | |
| The former open drainage line through the Beaufighter, Boundary Road, Runway, and Beatty precincts (which was subject to significant scouring) was piped, and silt traps and dissipation structures installed to moderate peak flows and manage water quality prior to discharge to Oxley Creek. | 2001 |
| A significant new stormwater detention basin was constructed in the Beaufighter precinct, treating stormwater prior to its discharge to the Oxley Creek. | 2001 |
| The stockpile areas for the recycling facility at site 670-672 on Beaufighter Avenue drain to a sedimentation basin for treatment prior to discharge to the main drainage system on airport. Water is recycled for dust suppression and irrigation purposes. | 2001 |
| A triple interceptor was installed to treat water from the aircraft washdown bay. The washdown bay was signed to encourage its use. | 2002 |

| Activity | Date |
|---|-----------------|
| The second wash down bay (at the eastern end of Taxiway Bravo) was decommissioned. | 2002 |
| Swale drains were constructed along the southern boundary of the Beaufighter precinct. | 2003 |
| The open drain running north-west from the Runway precinct, under the 04/22 runways to Boundary Road was upgraded with the piping of the section near the runways, and the creation of a detention basin in the Boundary precinct. This will modulate peak flows entering the drainage system through Rocklea, which ultimately discharges to Oxley Creek approximately 2 km downstream of the airport. | 2008 |
| Stormwater tanks were provided for the new corporate hangars on Wirraway Avenue, and site 676 constructed by AAC on Beaufighter Avenue to retain rainwater for use on site, and assist with reducing peak discharge volumes to Oxley Creek. | 2007-8 |
| Small rock landscaping has been introduced to localised sections of open drains showing evidence of minor soil erosion. | 1998 to present |
| Civil construction work, which included stormwater and associated services to improve drainage at the northwest end of the airport was completed. The works included construction of three stormwater basins. | 2014 |
| Underground stormwater drains around the southern and eastern areas of the airport were examined by CCTV camera and significant repair/upgrade work was carried out to improve drainage. | 2014/2015 |
| Open earth drains have been periodically slashed and weeds removed. | Ongoing |
| Surface water quality monitoring in open drains and at drain outlets has been undertaken on an annual basis. | Ongoing |
| Groundwater | |
| The network of groundwater quality monitoring wells across the airport was serviced and upgraded. | 2004 |
| Well No. 9 was relocated, to fit with redevelopment in the Beaufighter precinct. | 2004 |
| A new sampling and analysis program was implemented. | 2004 |
| Simmonds & Bristow commissioned to review groundwater monitoring program. | 2012 |
| Six new groundwater monitoring wells were installed between 2012 and 2015. | 2015 |
| The annual groundwater monitoring program by AAC has continued throughout the planning period with an increased number of sampling locations and analysis for contaminants of potential concern (CoPC). | Ongoing |
| Issues identified from analysis have been assessed in consultation with the AEO and will continue to be addressed over the planning period. | Ongoing |
| Soil contamination | |
| The former Airport Rescue and Fire Training Area was closed and remediated. | 1994 |
| The former battery recycling site was remediated by removal of the contaminated soil and reclamation with clean fill. | 1997 |
| The underground storage tanks at the Shell Building were decommissioned and the site remediated. | 1998 |

| Activity | Date |
|--|--------------------------------|
| The former Mobil fuel depot at Site 12 was decommissioned and the site remediated. | |
| Soil tests were carried out at Site 110 (formerly occupied by Flying Colours). | 1999 |
| Soil tests were carried out at Sites 9 and 635. | 2013 |
| Soil tests were carried out at Site 668. | 2014 |
| Various soil investigations completed throughout the airport the location and results which are tracked in the Environment Site Register (ESR), Triggers for such assessments include new building activities, change in use or lease end requirements. | 2015-present |
| Hazardous materials and waste management | |
| Asbestos Audits Queensland Pty Ltd prepared an <i>Asbestos Materials Report and Register for Archerfield Airport</i> . The report identified asbestos in AAC owned buildings, and was updated regularly as buildings come into AAC ownership until 2012. | 2003 to 2012 |
| A Management Plan and risk assessment was added to the asbestos register. | 2006 |
| Asbestos Audits Queensland Pty Ltd prepared an <i>Asbestos Management Plan and Register for Archerfield Airport</i> , which incorporated new buildings and recognised 2011 codes of practise. Update of the plan is ongoing. | 2009 |
| Cyclical reinspection's of low-density fibrous ACM, undertaking any recommended preventative maintenance measure or remedial works. | 2012, updated in 2015 and 2022 |
| AAC created a <i>Chemical and Hazardous Materials Register</i> for its grounds maintenance and works operations. | |
| AAC has included in its tenant inspections consideration of materials storage, handling, waste management, and disposal. | Ongoing |
| BCC regularly tests sewage entering its treatment system from the airport. Any non conformances are reported to AAC and the tenant (if applicable) for action. | Ongoing |
| Removal of a significant volume of ACM from Airport, as a result of various building activities, at the following sites; 003, 004, 021, 025, 219-A, 105, 110, 013, 014, 108 & 109. | Ongoing |
| Natural resources and energy | |
| AAC installed rainwater tanks for the corporate hangar development on Wirraway Avenue and the warehouse and office on Beaufighter Avenue. | 2007-8 |
| AAC installed a 3000L Rainwater Tank for the Aviall warehouse on Ditchmen Avenue. | 2012 |
| Water meters have been upgraded to improve monitoring of consumption. | 2008 |
| Efficient water fittings have been installed in AAC buildings. | 2007 |
| AAC developed a <i>Water Efficiency Management Plan</i> (WEMP) in accordance with Queensland Water Commission requirements, in consultation with tenants and Brisbane Water. Subsequent legislation abolished The Queensland Water Commission and its Permanent Water Conservation Measures on 1 January 2013. | 2008 |
| The airport has secured a number of businesses that recycle materials and equipment for reuse in construction and manufacturing. These include Veolia Environmental Services, Alex Fraser Group and Q-Crete. These operations | 1998-present |

| Activity | Date |
|--|--------------|
| promote the reuse of resources, and reduce the energy required to produce materials for new applications. | |
| Use of natural resources and energy is considered in tenant assessments. | 1998-present |
| AAC installed a solar array as part of the building 111 development. | 2012 |
| Consideration of solar generation in future developments (where feasible). | Ongoing |
| Noise | |
| Noise emissions from tenancies on airport are managed in accordance with the EMPs and any site environmental management plan in place for their operation. | Ongoing |
| Noise resulting from building activities is managed through project specific Construction Environment Management Plans (CEMP). | Ongoing |
| New facilities | |
| EMPs have been developed for new tenancies, renewal of existing tenancies, and for assessment of major works and are periodically updated. | 2003-present |
| Corporate hangars were constructed, incorporating rainwater harvesting. | 2006 |
| A warehouse and office development incorporating energy efficiency measures and rainwater harvesting was constructed by AAC at site 676. | 2008 |
| A new warehouse and office development incorporating energy efficiency measures and rainwater harvesting were constructed at site 111. | 2012 |



Chapter 15

Environmental Management Framework



Archerfield AIRPORT

15.1 REGULATORY FRAMEWORK

15.1.1 Airports Act 1996

The *Airports Act, 1996* and the associated *Airports (Environment Protection) Regulations, 1997* provide the primary mechanism for Government to ensure the ongoing responsible environment management of Archerfield Airport.

This legislation requires AAC to produce and implement an AES.

All operators of undertakings on the airport, including AAC, have an obligation to comply with the AES, the *Airports Act 1996* and Regulations.

AAC has the additional obligation to prepare the AES, monitor pollution levels at the airport in accordance with its AES and report the results of this monitoring on an annual basis.

The first AES for Archerfield was approved on 15 November 1999. In December 2000, an amended version was published, including the approved 2019 ANEF for Archerfield Airport. The AES for 2004-2009 was approved on 18 January 2005, the AES for the period 2010-2015 was approved on 26 March 2010, and an updated version for the period 2011-2016 was incorporated into the 2011-31 Master Plan. The 2017 AES was approved on 15 July 2017.

Airport operators and airport regulators

The Act provides a system for separating the roles of the airport operator and airport regulator.

In the case of Archerfield Airport, the Commonwealth Department of Infrastructure, Transport, Regional Development, Communications and the Arts (DITRDCA) and the Civil Aviation Safety Authority (CASA) provide the regulator role. Archerfield Airport Corporation being the Airport Leasing Company (ALC) undertakes the airport operator role.

AAC as airport operator is responsible primarily for activities that take place on the ground and within airport confines. AsA has the principal responsibility for aircraft operations.

AAC recognises that operational issues at times need to be addressed jointly by AAC and AsA, and AAC is proactive in identifying relevant aspects and potential solutions as appropriate.

Airports (Environment Protection) Regulations 1997

The regulations:

- set limits for environmental pollution of air, water and soil, and for noise emissions;
- set out the duties everybody operating at the airport must comply with; and

- authorise the monitoring and remediation of breaches of environmental standards.

The Regulations do not apply to pollution generated by aircraft, or to noise generated by an aircraft in flight or when landing, taking off or taxiing at the airport.

All users of Archerfield Airport are required under the *Airports (Environment Protection) Regulations 1997* to:

- avoid polluting the environment
- preserve local biota and the ecosystems and habitats of native species
- preserve existing aesthetic, cultural, historical, social and scientific (including archaeological and anthropological) values of the local area;
- ensure there are no adverse consequences for endangered or vulnerable flora or fauna species or endangered ecological communities;
- ensure there are no adverse consequences for sites of indigenous significance on the airport site; and
- prevent the generation of offensive noise.

Environment Protection and Biodiversity Conservation (EPBC) Act 1999

The Commonwealth EPBC Act provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places.

The Act applies to the following areas or matters of national environmental significance:

- world heritage sites;
- national heritage places;
- wetlands of international importance (often called 'Ramsar' wetlands after the international treaty under which such wetlands are listed);
- nationally threatened species and ecological communities;
- migratory species;
- Commonwealth marine areas;
- the Great Barrier Reef Marine Park;
- nuclear actions; and
- a water resource, in relation to coal seam gas development and large coal mining development.

The Act aims to:

- provide for the protection of the environment, especially matters of national environmental significance;
- conserve Australia's biodiversity;
- protect biodiversity internationally by controlling the international movement of wildlife;
- provide a streamlined environmental assessment and approvals process where matters of national environmental significance are involved;
- protect Australia's world and national heritage; and
- promote ecologically sustainable development.

The Act is triggered when a proposal has the potential to have a significant impact on a matter of national environmental significance.

The airport is on Commonwealth land, so any proposal that is likely to have significant impact on the environment also requires assessment under the EPBC Act.

Guidance on the assessment of environmental values (including heritage), likely impacts (and mitigation), and whether approval is required under the EPBC Act is provided in *Significant Impact Guidelines* published by the Commonwealth (Guidelines 1.1 and 1.2).

The Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) administers the Act and coordinates the assessment of potential impacts.

After consultation and assessment, the Minister for the Environment (or delegate) is responsible for deciding whether a project needs approval under the Act, and if it does, whether it is allowed and under what conditions.

Airport Environment Strategy

Under the *Airports Act 1996* AAC is required to produce and implement an Airport Environment Strategy. The Strategy must:

- set out AAC's objectives for the environmental management of the airport;
- identify environmentally significant areas within the airport;
- identify sources of environmental impact associated with airport operations;
- define studies, reviews and monitoring to be carried out in relation to the environmental impact of the airport;
- set timeframes for completion of audits and reviews;
- set out specific measures to be implemented by AAC to address existing or potential impacts, and timeframes for completion of these; and

- provide details of consultation undertaken in preparing the AES.

The previous AES was approved in 2017, after completion of the consultative processes set out in the *Airports Act*.

State law

AAC is required to comply with relevant State legislation and regulations, to the extent that these do not conflict with the Airports Act or Regulations.

State laws concerning workplace health and safety, waste management (including trade waste), motor vehicle pollution, emissions of substances that deplete stratospheric ozone, or the use of a pesticide are examples that are relevant to activities at Archerfield.

Compliance requirements

All operators of undertakings on the airport, (AAC and tenants), have an obligation to comply with the *Airport Environment Strategy*, the *Airports Act* and Regulations. It is an offence to cause deliberate damage to the environment.

Legal register

AAC has identified in Appendix A legislation and regulations relevant to its operations.

The register of legal requirements will be kept up-to-date through liaison with the Airport Environment Officer (AEO) at least monthly during the regular Airport Environmental Management Forum (AEMF).

15.2 ARCHERFIELD AIRPORT CORPORATION ENVIRONMENT POLICY

Environmental management at Archerfield is guided by the AAC environment policy.

In developing and managing Archerfield Airport, AAC will:

- identify and manage the environmental issues that are within AAC's responsibility;
- comply with relevant environmental legislation and regulations;
- establish environmental objectives and targets to minimise the environmental impact of the airport;
- measure, monitor and improve upon the environmental performance of the airport;
- promote to AAC's employees, tenants, customers and neighbours its commitment to sound environmental management.

These principles have been taken into account when preparing this AES.

Archerfield Airport Corporation Environment Policy

Archerfield Airport is operated and developed by Archerfield Airport Corporation (AAC). AAC is a private company which in 1998 acquired the long term lease to the airport.

AAC has overall responsibility for environmental management on the airport. Airport users, including tenants have responsibility for appropriate environmental management of their activities.

AAC recognises the importance of maintaining and where practical, enhancing the quality of the environment of Archerfield Airport and neighbouring areas.

AAC will:

- *operate the airport in an environmentally responsible manner*
- *minimise any adverse environmental impacts of its operations*
- *comply with all legally binding environmental management requirements*
- *encourage environmental responsibility amongst its employees and contractors*
- *encourage environmental responsibility amongst airport tenants and users*
- *strive to continually improve environmental performance of all aviation and non-aviation operations on the site.*

To achieve this AAC will:

- *establish and maintain procedures and practices to comply with all applicable environment laws and regulations*
- *ensure that this policy, management procedures and environment protection actions are communicated to all relevant personnel, including AAC staff, airport tenants, airport users and contractors*
- *conduct regular reviews of all site operations to identify areas which are or may have the potential to breach a regulatory requirement or which require improvement*
- *conduct regular monitoring and analysis of the airport environment to identify potential issues and ensure compliance with relevant regulations*
- *implement environmental management and operating procedures to ensure that the development of Archerfield Airport is carried out in an environmentally sound manner*
- *consult as appropriate with authorities and the community to ensure that the views of external parties regarding environmental issues are considered when making decisions*
- *ensure that AAC staff are appropriately trained and briefed on compliance and regulations*
- *ensure that tenants and users of the airport are adequately informed of their obligations, compliance and regulatory requirements.*

AAC managers are accountable to the joint Managing Directors to ensure that this policy is implemented.

15.3 ENVIRONMENTAL MANAGEMENT SYSTEM

AAC's system for management of environmental issues at Archerfield Airport follows the principles and format of *AS/NZS ISO 14001:2016 Environmental Management Systems-Requirements with guidelines for use*.

The management system provides a structure for identifying environmental issues, developing environmental management plans to manage these issues, and a method to review and measure environmental performance, and fostering of continuous improvement.

It applies to all operations carried out at Archerfield Airport, encompassing both aviation and non-aviation related activities. As a minimum, it provides a system to ensure that operations for which AAC is responsible will comply with all applicable legal requirements, and where deemed necessary, exceed these requirements.

15.4 ENVIRONMENTAL ROLES AND RESPONSIBILITIES

The roles and responsibilities of AAC, tenants, the Airport Environment Officer (AEO), and the Airport Building Controller (ABC) are set out below. The relationships between the various stakeholders are illustrated in Figure 27.

15.4.1 AACs responsibility

AAC is responsible for:

- overall environmental management on the airport;
- preparation of the AES;
- overseeing implementation of the AES, including informing tenants of their obligations under the Strategy;
- carrying out environmental studies, reviews and monitoring by appropriately qualified and experienced personnel;
- conducting reviews of AAC's own operations, such as maintenance of runways, taxiways, aprons and grassed areas;
- development and management of new airport facilities, such as runways and airport infrastructure;
- preparing Environmental Management Procedures (EMPs) for AAC activities and developments;
- leasing sites to tenants (and setting environmental management requirements via lease conditions, where appropriate);
- adhering to appropriate dangerous goods handling and storage standards, and to workplace health and safety standards; and
- monitoring pollution levels (for aspects defined in the AES) and reporting the results of this monitoring on an annual basis.

AAC management also undertakes periodic reviews of the airport environmental management system to confirm that it is consistent with the current version of AS/NZS ISO 14001 *Environmental Management Systems-Requirements with guidance for use*. The timing of the review process is included in the *Environment Protection Action Plan* in Appendix D.

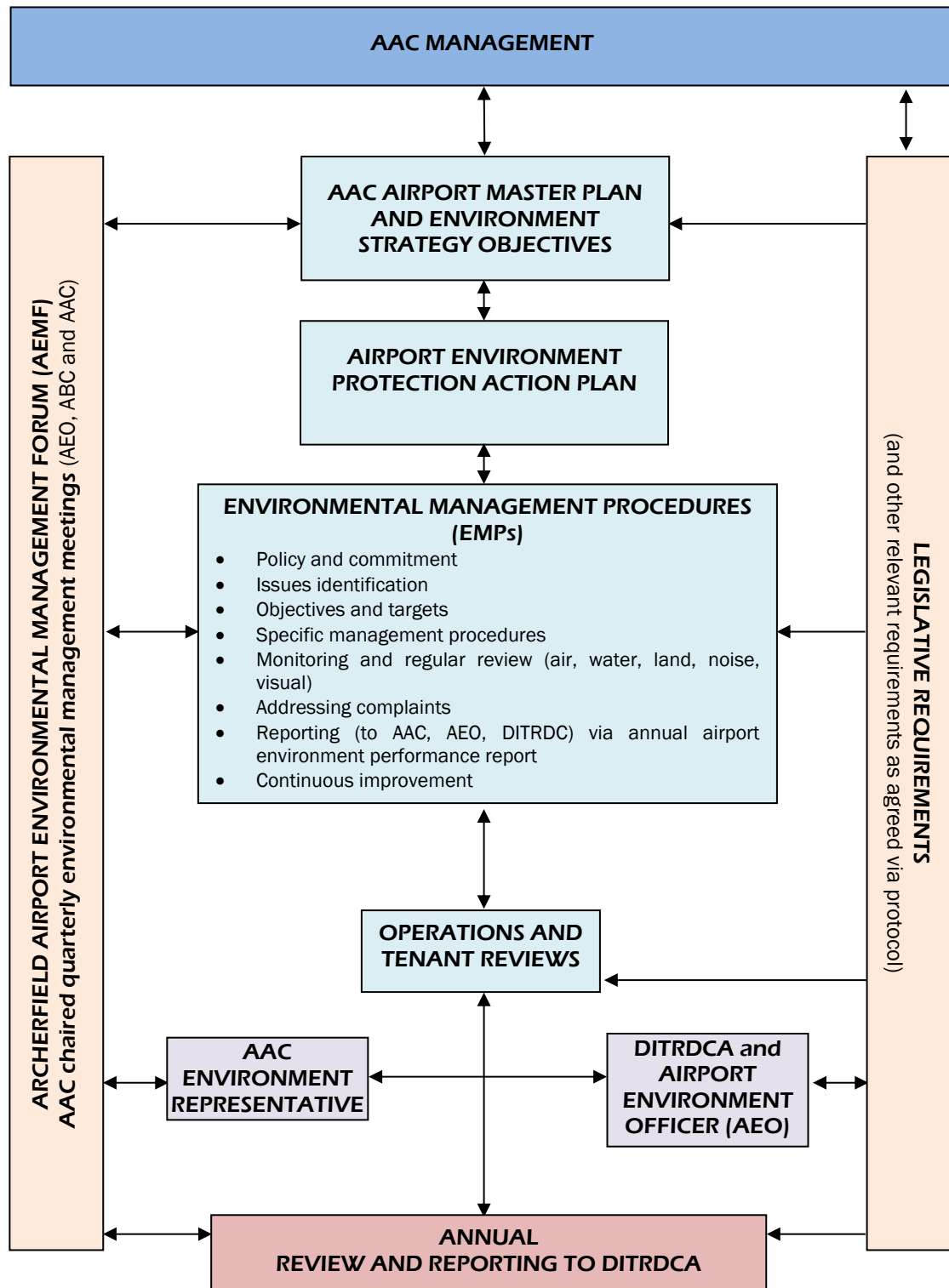


Figure 27. **Overview of environmental management process at Archerfield Airport**

Under common law as a landlord AAC may also conduct pollution and contamination tests, order remedial works, or stop activities in the event of environmental harm. Under the *Airports (Environment Protection) Regulations 1997*, the Commonwealth can also assist AAC in having tenants comply with tests, implement remedial works, or stop harmful activities.

15.4.2 Responsibilities of tenants of AAC

Tenants on the site can be broadly divided into four categories:

- aircraft maintenance and service facilities;
- aircraft charter operations;
- airport passenger facilities and flight schools; and
- sites carrying out non-aviation related activities, such as industry, warehousing, service stations and shops.

Tenants are responsible for:

- environmental management of their leased site in accordance with the AES, lease conditions and relevant legislation, standards and guidelines;
- providing practical assistance to AAC in developing, reviewing and revising the AES;
- adhering to requirements of the AES, including EMPs where applicable;
- implementing improvements relevant to the leasehold;
- devising environmental management procedures specific to the lease site;
- implementing guidelines set by AAC;
- meeting the requirements of their lease agreements, including during their operations and at end of lease; and
- adhering to appropriate dangerous goods handling and storage standards, and to workplace health and safety standards.

Most leases entered into, or renewed since 1999 stipulate the tenants' environmental responsibility and the requirement to conform to the AAC Environment Policy and AES.

15.4.3 Airport Environment Officer (AEO)

The AEO is part of DITRDCA and fulfils the role of environmental regulator on the airport.

The AEO monitors operations on airport sites and where necessary, enforces the requirements of the Act and its subordinate legislation.

The AEO works cooperatively with AAC and tenants, supporting and ensuring compliance with environmental standards. The AEO can apply financial penalties to environmental offenders.

AAC may also conduct pollution and contamination tests, order remedial works or stop activities in the event of environmental harm.

The AEO investigates incidents relating to pollution. The AEO can require any operator on the airport to carry out works; reduce or cease generation of pollution.

If an operator cannot meet the standards detailed in the Regulations due to local conditions, but the operator believes the operations will still comply with the general objectives of the Regulations, the operator can apply to the AEO for an authorisation, allowing the non-compliance to continue for a specified period. If the AEO is satisfied that the authorisation is warranted and the objectives of the Regulations can be achieved, then the authorisation may be granted.

If necessary, the AEO can issue an environmental protection order or infringement notice to any operator on Archerfield Airport who has committed an offence. If the offence is considered serious, the operator and individuals involved can be prosecuted.

15.4.4 Building approval requirements

DITRDCA has appointed an Airport Building Controller (ABC) who is responsible for ensuring that all activities at Archerfield Airport meet the appropriate building and engineering standards.

The ABC must be notified in writing of all proposed construction and building activities; including minor repairs, alterations, and signs. Some minor works are exempt from formal approval.

Building and construction must comply with the *Building Code of Australia* (BCA) as operational in Queensland. Where the BCA does not apply (for example in relation to civil engineering works) the relevant Australian Standard or international standard will apply. The ABC identifies the appropriate standards.

A Certificate of Compliance for Occupancy is required for all building or construction work that requires formal approval by the ABC.

A Certificate of Compliance for Occupancy is issued before a building can be occupied, and a Certificate of Compliance for Use is required before engineering works, electrical works, or other utility services can be used.

The consent of AAC is required before the ABC can approve a development application. AAC is responsible for ensuring that all development proposals are consistent with the Master Plan and AAC's planning objectives. AAC will in each

case assess also the impact of the proposal on infrastructure and the operations of the airport, and may impose conditions on building activities.

15.4.5 AAC environment representative

In addition to facilitating the Airport Environmental Management Forum (AEMF), the appointed AAC environmental representative is also responsible for:

- working with the Airport Environment Officer on issues associated with Archerfield Airport;
- preparing associated documentation;
- making recommendations to the Managing Director, AAC;
- ensuring that AAC is compliant with relevant legislation and laws;
- working with the airport community to ensure that compliance is being achieved;
- conducting or coordinating environmental reviews in accordance with policy; and
- applying policy initiatives and identified strategies.

The following table sets out who at Archerfield is responsible for ensuring that the environment protection obligations are fulfilled and environmental management procedures are followed.

Items marked with an asterisk need to be addressed by each tenant in their environmental management plans and other initiatives. Their compliance will be assessed during the cyclical tenant reviews.

TABLE 11: ENVIRONMENTAL RESPONSIBILITIES

| Function | Responsibility |
|---|--|
| Policy and strategy-direction | |
| Defining environmental policies, and modifying existing policies | AAC Board |
| Determining objectives, priorities and targets in accordance with policy | AAC Board |
| Determining environmental management procedures in accordance with the policy direction, objectives, priorities and targets | AAC management |
| Construction and maintenance activities | |
| Securing building and environmental approvals | Proponent (typically AAC or tenant) |
| Assessing contractor's abilities to meet AAC's environmental requirements | For AAC works-Airport Environment Manager * For works by tenants-each tenant, AAC ABC and AEO |
| Ensuring compliance with environmentally sound work practices | For AAC works- Airport Environment Manager |

| Function | Responsibility |
|--|--|
| | * For works by tenants-each tenant, AAC ABC and AEO |
| Operation phase | |
| Compliance with State regulated waste, hazardous good and other requirements | AAC for AAC operations. * Tenants and contractors are responsible for their own activities. AAC and AEO monitor for compliance. |
| Containment of chemicals, fuel and oils | AAC for AAC operations (staff and contractors). * Tenants and their contractors are responsible for their own activities. AAC and AEO monitor for compliance. |
| Awareness and training | |
| Promoting awareness of environment protection and management requirements amongst AAC personnel and tenant representatives. | AAC management |
| Promoting environmental awareness and compliance within each tenant's operation | * Each tenant, with assistance from AAC and AEO |
| Induction of AAC personnel | AAC management |
| Training of AAC personnel | AAC management |
| Induction of tenant personnel | * Each tenant |
| Training of tenant personnel | * Each tenant |
| Ensuring that AAC is conversant and compliant with relevant legislation, including changes | Airport Environment Manager |
| Ensuring that tenants are aware of changes in environmental management requirements | AAC and AEO |
| Ensuring compliance with legislation | AAC for AAC activities and works * AAC and AEO for tenants |
| Monitoring and review | |
| 12 monthly reviews of AAC operations, surface water and groundwater | AAC |
| Cyclical tenant reviews, with the review schedule determined according to an assessment of risk to the environment (12 monthly for tenants with hazardous materials on site) | AAC and AEO |
| Annual Airport Environment Performance report to DITRDCA. | AAC |
| Revision of EMP documentation to reflect findings of reviews of AAC operations and tenancies | AAC management |
| Maintenance of records of overall condition of airport environment | AAC |
| Monitoring and reporting of emissions from tenancies | * Each tenant is responsible for monitoring and reporting on their |

| Function | Responsibility |
|---|--|
| Quarterly AAEMF meetings between the AAC, AEO and ABC. | emissions, and making such reports available to AAC /AEO on request. Minutes of meeting maintained by AAC |
| Monthly project coordination meetings between the AAC, AEO and ABC. | AAC |
| Emergency response | |
| Spill containment airside, and from AAC operations. | AAC |
| Spill containment within tenancies | * Each tenant |
| Spill containment on common airport land (where caused by a person other than a representative of the AAC). | The person causing the spill (enforced by AAC and the AEO) |
| Document control | |
| Ensuring that the key users of the EMPs have up to date copies of the EMPs. | Airport Environment Manager. |
| Acquiring and disseminating environmental management information. | Airport Environment Manager. |
| Maintaining EMPs up to date (from replacement pages provided by AAC). | Each person on the Document Distribution Register. |

15.5 ENVIRONMENTAL ASPECTS AND POTENTIAL IMPACTS

The potential impacts of airport activities (to the extent these are required to be addressed by this strategy) on aspects of the environment is summarised in the table below.

The activities have been grouped into three phases:

- construction;
- operation (AAC and tenants); and
- emergency action.

As part of the ongoing management of the airport environment, site and activity specific assessments are required. The methodology for doing this is provided in the EMPs.

TABLE 12: SUMMARY OF ENVIRONMENTAL ASPECTS AND POTENTIAL IMPACTS

| Activity | Aspect | Impact or potential impact |
|--|------------------------------------|--|
| Construction activity | | |
| Transportation of machinery and materials. | Increased traffic on nearby roads. | Nuisance noise. Nuisance dust. |
| | Dirt on roads. | Disruption to local traffic. Possible importation of weeds and plant pathogens. |

| Activity | Aspect | Impact or potential impact |
|---|--|--|
| | | Possible importation of Fire Ants. Contamination of stormwater. Pollution of surface water. |
| Operation of machinery/equipment on site. | Increased noise levels. Production of dust. | Nuisance noise. Air pollution. Nuisance dust (possible impacts on aviation and ground based activities, on and off airport). |
| Plant and vehicle wash down. | Discharge of wash down water contaminated with oils, fuels etc. | Contamination of soil, surface water and/or groundwater. Possible spread of weeds and plant pathogens. |
| Site clearance. | Vegetation removal. | Possible importation of Fire Ants via contaminated plant or vehicles. (Low) potential loss of habitat and/or significant plant species along Oxley Creek. |
| | Heritage values. | Potential disturbance of heritage or archaeological sites. |
| | Surface destabilisation. | Sediment pollution of receiving waters (Oxley Creek). Nuisance dust (possible impacts on aviation and ground based activities, and tracking of material onto roads, on or off airport). |
| Demolition of buildings, structures or plant containing asbestos. | Human health. | Potential for impacts on health if asbestos material is not appropriately contained and/or disposed of. |
| Excavation/levelling and construction of stormwater drains. | Increased sediment discharge in runoff from surface disturbance. | Sediment pollution of receiving waters. |
| On site storage of fuel and oil. | Major spillage or leakage of fuel. | Soil, surface water and/or groundwater contamination. |
| Refuelling plant and vehicles. | Minor spillage or leakage of fuel. | Soil, surface water and/or groundwater contamination. |
| Concrete work on site. | Increased suspended matter in stormwater runoff. | Sediment pollution of receiving waters. |
| Landscaping works. | Flora and fauna. | Importation or spreading of soil or plants contaminated by Fire Ants. |
| Earthworks. | Increased suspended matter in stormwater runoff. | Sediment pollution of receiving waters. |

| Activity | Aspect | Impact or potential impact |
|---|---|--|
| | Release of acid sulphate soils-potentially found at or below the 5m (AHD) contour. | Degradation of Oxley Creek environment. |
| Airport operation (AAC and tenants) | | |
| Storage and use of chemicals, fuel, oils (including hazardous and dangerous chemicals). | Escape of chemicals to the environment from spillage or leakage. | Health impact on site personnel and neighbours. Potential pollution of soil, air, surface, and/or groundwaters. |
| Aircraft wash down. | Discharge of wash down water contaminated with oils, fuels etc. | Contamination of soil, surface water and/or groundwater. |
| General waste from airport activities. | Production of general waste and litter. Tracking of waste from generation to disposal. | Potential stormwater contamination. Potential visual pollution. Potential nuisance or hazard to aviation activities (FOD). |
| Hard rubbish generated by airport activities. | Disposal of waste off site. | Use of landfill space. |
| Generation and handling of regulated waste. | Containment of waste. Tracking of waste from generation to disposal. | Potential occupational health and safety issue. |
| Ground running of aircraft. | Aircraft noise. | Nuisance noise in nearby areas. |
| Industrial plant and equipment used on site. | Machinery noise. | Health risk to site workers. Nuisance noise to nearby sensitive receptors. |
| Maintenance work, office operations and staff facilities. | Production of general waste and litter. | Use of landfill space. |
| Activities with emissions to air. | Discharge of pollution to the atmosphere. | Potential effects on air quality. |
| Handling of dangerous goods. | Accidental discharge via spill | Pollution of soil, air, surface water and/or groundwater. |
| Handling of hazardous goods. | Accidental discharge via spill. | Pollution of soil, air, surface water and/or groundwater. |
| Emergency actions | | |
| Incidents causing material spills. | Escape of materials to the environment from spillage or leakage. | Pollution of soil, air, surface water or groundwater. |
| Identification of Fire Ant in plants or soil on airport. | Introduction of Fire Ant via imported plants or soil. | Containment and destruction in accordance with government requirements. |

15.6 ENVIRONMENTAL OBJECTIVES AND TARGETS

Objectives and targets for each aspect of the airport environment are set out in the sections that follow.

Actions and the timing of their implementation are summarised in the *Airport Environment Protection Action Plan* in Appendix D.

15.7 TENANT ENVIRONMENTAL REVIEWS

AAC will identify environmental issues on the airport by conducting regular reviews of its own operations and works and those of its tenants on a cyclical basis.

In the case of tenants with hazardous goods, the reviews will be undertaken on an annual basis. The timing of reviews for other tenancies will be determined from an assessment by AAC of the likely risk to the environment of the tenant activities.

The reviews will identify:

- level of compliance with environmental regulations, guidelines or standards;
- any unacceptable work practices;
- any opportunities for minimising the use of natural resources or generation of waste; and
- any environmental training that may be required by the organisation being reviewed, under the terms of their lease.

Each environmental review will identify any operations or works that are, or could cause a breach of the regulations and also identify possible environmental improvements.

Issues and actions identified by previous environmental reviews will also be checked to ensure that they have been appropriately addressed. Where a need for environmental training is identified, this be included in the actions, and followed up. Further information on environmental training is provided in section 15.9.

Environmental review results will be compiled into a summary report. Where required, management plans will be devised. For each case where an environmental issue is identified, the following key steps will be taken:

- following clear definition of the issue(s), a priority will be assigned, based on AAC's assessment of the environmental risk posed by the aspect;
- an objective and target(s) will be developed detailing what needs to be achieved;

- a management plan will be developed showing how objectives and targets will be achieved, who is responsible for ensuring the necessary actions are taken, and the timing of that action; and
- the achievement of the management plan actions will be monitored, and AAC personnel advised of this.

Where the issues relate to tenant activities, AAC (with the AEO as appropriate) will liaise with the tenant to ensure that they take all necessary action to bring their operations and/or works into conformity with legislation, standards, and guidelines.

15.8 ENVIRONMENTAL MANAGEMENT PROCEDURES

Environmental Management Procedures (EMPs) have been prepared by AAC to manage the environmental effects of operations and works on the airport.

The EMPs identify a range of activities likely to take place at Archerfield Airport, the aspects of the environment that might be affected by these activities, and the potential impacts of these activities. Objectives and targets are also described.

15.8.1 Procedures

The EMPs currently include the following procedures:

- Procedure AA1-*Environmental assessment of new tenancy or lease renewal*;
- Procedure AA2-*Communication and consultation*;
- Procedure AA3-*Emergency preparedness and response*;
- Procedure AA4-*Minor spill response*;
- Procedure AA5-*Environmental awareness and training*;
- Procedure AA6-*Tenant environmental reviews*;
- Procedure AA7-*End of lease tenant environmental review*;
- Procedure AA8-*Assessment of environmental effects of new works*; and
- Procedure AA9-*Aircraft washdown bay use*.

15.8.2 Forms

The EMPs include the following standard forms:

- ENV-01 *Tenant Information Form*;
- ENV-02 *Environmental awareness and training record*;
- ENV-03-*Environmental complaint*;
- ENV-04-*Environmental incident report*;

- ENV-05-*Review of environmental non conformance*; and
- ENV-06-*Environmental management checklist for new works*.

15.8.3 Review

The procedures and forms in the EMPs are subject to ongoing review and may change over the life of the AES.

15.8.4 Information for tenants

On request, relevant parts of the EMPs will be provided to airport tenants carrying out similar activities to assist them with environmental compliance.

The AAC EMPs provide a starting point for specific EMPs to be developed by tenants for their construction or operational activities. AAC will encourage tenants to work with AAC and the AEO to formulate EMPs to meet their environmental management obligations.

15.9 ENVIRONMENTAL TRAINING

15.9.1 AAC

Existing AAC personnel

AAC has in place an internal communication system that provides frequent forums for disseminating relevant information about environmental management issues and responsibilities. This comprises:

- weekly management meetings attended by the Airport General Manager, Airport Operations and Technical Officer, Airport Compliance Officer and Airport Operations Manager; and
- monthly staff meetings (involving AAC administration, operations and management personnel).

The training of AAC personnel focuses on improving awareness of responsibilities and liabilities under the AES; relevant State, and Federal environmental legislation; regulations and guidelines.

Training also assists personnel to familiarise themselves with the company policy, the management system, current environmental issues, and the environmental risks on the site.

AAC personnel will also be supported with environmental training that is necessary to carry out their current or emerging role and responsibilities at the airport.

The training needs will be identified by AAC management and staff:

- during project scoping and pre planning;

- in anticipation of new requirements (such as changes in standards or practices, or introduction of new systems or technology);
- in response to needs identified during staff and management reviews of current operations and individual performance; and/or
- as a result of management reviews of the airport environmental management system, or components including the EMPs;

and where the training requirement is confirmed by AAC management, an implementation plan will be developed by AAC to ensure that the training is provided in a timely way by people who are appropriately qualified and experienced (either in house, or by external specialists or organisations).

New AAC personnel

All new AAC personnel are provided with an overview of the environmental issues relating to the airport; AAC's environmental policy, strategies, procedures and current management plans (including the AAHMP); and their role and responsibility in addressing those issues and requirements as part of their induction. Refresher awareness training is provided for all staff on an annual basis.

Contractors

The Airport EMPs set out procedures for ensuring that all potential effects of new operations or works are considered by AAC prior to commencement. Where required, Environmental Management Plans will be prepared and form part of the specification for the works (or management of the operation).

Contractors carrying out environmentally sensitive activities on behalf of AAC will be briefed on the relevant provisions of the AES and any supporting management plans (including the AAHMP) for integration into the management of their activities. They will be required to demonstrate that they have appropriate skills, experience and management systems to successfully address relevant environment protection requirements.

Contractors will need to have in place appropriate environmental management procedures, and personnel will be required to undergo relevant training.

The specific requirements will be highlighted in the project specification. All contractors must complete the Contractors Induction which includes the environmental management requirements.

15.9.2 Tenants

Tenants and their employees also need to have an understanding of the 2023 AES, and the environmental management plans and procedures that apply to their activities on the airport.

AAC will provide all tenants with access to the AES and will require that all tenants:

- provide their staff and contractors with awareness training of the AES, the requirements of any Environmental Management Plan(s) that apply to their works or operations/activities on the airport and any other training required to fulfil their obligations under their lease; and
- provide further training on specific aspects, these being principally determined through the environmental reviews AAC undertakes at each tenancy.

AAC will as part of the tenant reviews:

- seek confirmation of training that has been completed by the tenant;
- confirm training that is planned; and
- identify any environmental training requirements to be met by tenants, in order to adequately address their environmental management obligations under their lease.

Where the review identifies the need for additional training, AAC will confirm the requirements with the tenant, and follow up on progress in subsequent reviews.

15.10 EMERGENCY PREPAREDNESS

Archerfield Airport has developed *Airport Emergency Procedures* through a committee that includes the Police, Fire Brigade and Ambulance Services.

Emergency procedures are currently in place to deal with incidents which could impact on the environment, such as spills. AAC ensures that its personnel are familiar with these procedures and the location of emergency equipment.

Procedure AA3-*Emergency preparedness and response* in the EMPs details the methodology to be followed.

The need for tenants to maintain emergency equipment on their sites, develop emergency procedures, and ensure that staff are aware of the proper procedures will be identified during site environmental reviews.

15.11 INCIDENTS

AAC will manage incidents on the airport in accordance with Procedure AA3-*Emergency preparedness and response*, in the EMPs.

If an environmental incident occurs the details will be recorded on Form ENV-04 *Environmental incident report* in the EMPs.

In accordance with internal reporting procedures in the EMPs, and the airport emergency procedures, the AEO will be promptly notified and kept informed on progress with any investigation and corrective action.

The AEO will also be advised if routine monitoring indicates an excessive discharge or level of pollutant above the permitted limit.

If the incident has the potential to cause off site effects, the State Department of Environment, Science and Innovation (DESI) and BCC will also be advised.

15.11.1 Incident reporting

Any major environmental incidents which occur on the site, such as chemical spills, will be investigated by AAC and reported to the AEO.

Depending on the nature of the incident, DESI may be informed of the incident, and may also be involved in consequential management measures.

This information will also be reported to DITRDCA in the annual report.

15.12 MANAGEMENT OF NEW FACILITIES

15.12.1 Application requirements

AAC will require new tenants or proponents of new aviation or non-aviation facilities or activities to apply for approvals as provided for in the *Airports Act, 1996*.

In addition to the requirements of the Airport Building Controller, the application for approval will need to detail, as appropriate:

- the activities and operations proposed, in accordance with the Archerfield Airport EMPs;
- any chemicals to be used or stored on the site including type and maximum quantities;
- evidence that the proposal meets any applicable legislative requirements and guidelines for the construction and operation of the activity or site; and
- evidence that the proposal will meet any applicable workplace health and safety, storage and placarding requirements.

Procedures for this and relevant forms are set out in the Airport EMPs.

These include:

- ENV-01 *Tenant information form*; and
- ENV-06 *Environmental management checklist for new works*.

The information provided with applications will assist AAC and the tenant/proponent to identify all potential environmental issues or impacts, and

to also clarify applicable legislative requirements and best practice management guidelines that will be applied. If required, the AEO will be provided with this information.

15.12.2 Assessment

From an environmental perspective, the assessment of new works will consider the implications of the proposal for:

- airside operations;
- existing land uses on and adjacent to the airport, including through the emission of noise, dust or odour;
- existing infrastructure and utility services, and any connections proposed during and following construction;
- efficient use of water and electricity;
- access to, from and within the airport;
- significant native flora and fauna;
- heritage values (pre and post contact);
- potential risk of soil or air pollution;
- noise impacts;
- groundwater, including potential changes to groundwater levels on or off airport, and/or water quality;
- surface water, including potential changes to peak volumes entering existing drainage lines, diversion of existing stormwater flows and/or impacts on water quality;
- containment of asbestos, where works relate to buildings or plant listed in the airport asbestos register;
- the potential for the works to result in the introduction or spreading of Fire Ants; and
- the appearance of the site and the airport.

If, on reviewing the proposal potential environmental impacts are identified, AAC will work with the proponent to identify how impacts can be mitigated. The preparation of a Site Environmental Management Plan for the construction and/or operational phases may also be required.

15.12.3 Consultation

All new proposals for the site will be reviewed by AAC against the AES, the Master Plan, and other relevant policies, guidelines or standards. Where the *Airports Act 1996* requires consultation with the wider community, AAC will facilitate this.

The AEO will be involved in assessing and advising on the environmental aspects of any major new developments on the airport site, including any Environmental Management Plan for the construction or operational phases.

If in the opinion of AAC, the development could result in a significant off-site impact, AAC will identify and consult with relevant stakeholders including BCC, and possibly State agencies and/or the community and their comments taken into consideration.

Information concerning new proposals will be provided to the AEO, in accordance with the Airport EMPs.

All comments received will be reviewed and considered by AAC before deciding on whether the proposal should proceed, and if relevant, under what conditions.

Any significant changes to airport operations will be reviewed in accordance with prevailing DITRDCA's environmental requirements for new airport development.

Where the *Airports Act 1996* requires consultation with the community (such as in the case of a Major Development Plan), AAC will undertake an appropriate consultative process. Comments received by external parties will be taken into account by AAC when deciding whether the proposal should proceed.

15.12.4 Leasing conditions

For all new leases, conditions will be included that ensure that facilities are constructed and operated in accordance with the AES and relevant environmental requirements.

Following construction of the facility, AAC will inspect the premises and verify compliance with any environmental requirements stipulated in the development approval.

Prior to lease expiry, termination, transfer or change of use AAC will, where there is reason to suspect soil contamination, ensure the sublessee, licensee or occupier, investigates the site pursuant to the requirements of the *Airport (Environment Protection) Regulations* in particular Part 6.07.

AAC undertakes prelease or entry condition reports and exit condition reports on tenancies serving as benchmark reports to ascertain asset, site and environment conditions before and at the expiry or transfer of a lease.

15.13 NEW OPERATIONS AND WORKS

New operations will also be reviewed prior to and following their establishment, to ensure operations are conducted in a proper fashion and do not result in a breach of any legal requirements and comply with the requirements of this Strategy.

The EMPs include:

- *Procedure AA8-Assessment of environmental effects of new works*, and
- *Form ENV-06 Environmental management checklist for new works*.

These set out AAC's requirements for management of new operations or works by AAC.

15.14 NON-CONFORMANCES

15.14.1 AAC's role

In administering the Archerfield Airport environmental management system for AAC operations or works, AAC is responsible for detecting non-conformances, developing appropriate corrective and preventative actions, and ensuring that such incidents do not recur.

The following types of non-conformances can occur on the site:

- breach of an applicable Act or Regulation;
- failure to follow a formal procedure;
- non-achievement of a formal target; or
- an environmental incident.

15.14.2 Actions by AAC

AAC seeks to achieve continuous improvement in the management of the airport environment.

Typically, the results of a non-conformance investigation may result in one or more of the following actions:

- amendment of the *Airport Environment Protection Action Plan*;
- amendment of the relevant Environmental Management Plan;
- amendment of an existing environmental management procedure;
- development of a new procedure;
- additional training and instruction;
- new capital works; and/or
- involvement of the AEO or other relevant government authorities.

AAC activities

In the instance of a non-conformance relating to AAC operations or works, AAC is responsible for carrying out the following actions:

- recording details of the non-conformance using the form ENV-05 *Review of environmental non-conformance*;
- investigating and identifying the reason for the non-conformance;
- developing an appropriate corrective and preventative action to avoid future non-conformance;
- ensuring the corrective and preventative actions are implemented in accordance with agreed EMPs or other relevant guidelines; and
- initiating incident reporting procedures.

Tenant activities

Management of environmental aspects of tenant activities, including protecting the airport environment from pollution or contamination, is addressed by AAC implementing the established system of:

- assessing tenant activities prior to commencement;
- determining the level of risk of their activities;
- applying conditions of approval (including appropriate management requirements for construction and operation); and monitoring, reporting and review of compliance;
- undertaking routine annual environmental inspections of high- and mid-risk tenants, to confirm compliance with relevant requirements and identify any issues or non-conformances;
- undertaking follow-ups to address any non-conformances and provide recommendations; and
- addressing any other issues with tenant activities brought to AACs attention through AAC continuous surveillance of the airport, or those that arise by other means including complaints or reports; by inspections, identifying corrective action, and undertaking follow up with tenants.

Incidents

Following an incident, the findings of the investigation and development of the corrective and preventative actions will be provided to the person/s involved in the non-conformance and the person/s carrying out the necessary preventative and corrective actions.

15.15 COMMUNICATION

Successful management of the airport environment requires appropriate and workable communication on environmental issues, management measures, and achievement of environmental objectives and commitments.

This communication includes:

- communication within the AAC organisation;
- communication with airport tenants;
- communication with local, state and Federal government via the Planning Coordination Forum (PCF) meetings which occur three times a year;
- communication with other interested parties external to the airport, such as the community and regulators; and
- ongoing liaison with other airports.

Communication procedures are set out in Procedure *AA2-Communication and consultation* in the airport EMPs.

15.15.1 Information and training for AAC personnel

AAC will ensure that its personnel are informed about existing and emerging environmental issues by:

- conducting environmental awareness training in accordance with its Environmental Management Procedures;
- making available to AAC operational personnel the results of annual environment reports, relevant environmental reviews and any management plans; and
- involving relevant personnel in the review of existing environmental management plans and procedures, and the formulation of new procedures.

15.15.2 Communication with tenants and operators

Airport tenants and operators will be kept informed about new and emerging environmental issues and requirements via a variety of methods, including:

- newsletters;
- discussions during the cyclical tenancy reviews;
- discussions at the time of applications being made for new works, or lease renewal;
- information provided on the Airport web site; and
- email.

15.15.3 Airport Environment Management Forum

AAC meets with the AEO and the ABC on a quarterly basis, or at other times as required for individual projects.

The management forum:

- disseminates information about environmental aspects of new proposals to relevant stakeholders, and proposed environment management plans or other measures;
- discusses current environmental issues and management practices, and their application to Archerfield Airport;
- considers and makes recommendations to AAC on future amendments to the Airport Environment Strategy and Airport Master Plan;
- assesses and makes recommendations on the EMPs;
- recommends training and awareness programs; and
- makes recommendations to AAC on preventative initiatives that could be implemented.

AAC currently provides a monthly report for the ABC and AEO on AAC environmental and building related activities.

15.15.4 Communication with government departments and regulatory agencies

AAC communicates regularly with DITRDCA, the AEO, BCC, and State and Federal government. This includes liaison with stakeholders on issues arising from, or potentially impacting on the operations at the airport.

Procedures for this communication and consultation are set out in Procedure AA2- *Communication and consultation* in the airport EMPs.

15.16 COMPLAINTS

Complaints from the community or other parties (except the regulatory bodies) are recorded in the AAC *Environmental and Complaints Register*.

Any environmental complaints received concerning an operation on the site will be recorded on Form ENV-03 *Environmental complaint* and dealt with promptly. The complaint will be investigated and appropriate action taken to resolve any issues identified.

The AEO will be advised of complaints as appropriate.

A summary of environmental complaints received and actions taken will be reported to DITRDCA on an annual basis.



Chapter 16

Environmental Conditions & Actions



Archerfield AIRPORT

16.1 OVERVIEW

Consistent with the *Airports Act* and AAC's *Environmental Management Procedures*, the airport environment is described in the following categories:

- heritage;
- flora and fauna;
- noise;
- emissions to air and ozone depleting substances;
- surface water;
- groundwater;
- soil contamination;
- hazardous materials and waste management; and
- use of natural resources and energy.

The following sections of the AES provide, for each aspect of the airport environment:

- objective(s) for environmental management;
- an overview of existing conditions;
- identification of potential impacts of on-airport activities or developments;
- proposed measures to manage those impacts;
- a summary of achievements for the term 1998-2022; and
- a summary of targets for actions for the period 2023-2031.

Actions for the planning period for the 2023 AES are summarised in the *Airport Environment Protection Action Plan*, in Appendix D.

16.2 HERITAGE

16.2.1 Objective

To identify and appropriately manage cultural heritage and built heritage values on the airport

16.2.2 Existing conditions

In 2021 AAC completed the *Archerfield Airport Heritage Management Plan* (AAHMP) (Australian Heritage Specialists, 2021), replacing the earlier *Cultural Heritage Assessment and Management Plan: Archerfield Airport, Brisbane* (Bonhomme Craib and Associates, 2001).

The AAHMP addresses both Aboriginal cultural heritage and built heritage.

Aboriginal cultural heritage

Prior to the arrival of Europeans in Australia, Aboriginal people inhabited the entirety of mainland Australia and associated islands, and their beliefs held that they had occupied this land since the beginning of time. Archaeological evidence shows that Aboriginal people have inhabited south-east Queensland for at least 20,000 years; however, it is expected that their occupation extends earlier than this date.

The airport is located in the traditional lands of people who spoke the Yuggera language (also known as Yagara or Jagera), which includes the Turrbal speakers. The Yagara language was spoken along most of the Brisbane River from the foot of the ranges to Moreton Bay, encompassing the "Sandy country" (Yerongpan) between Brisbane and Ipswich, which included the Brisbane River from the Cleveland district inland to the Dividing Range about Gatton, north to near Esk, at Ipswich, and as far afield as Cunningham's Gap in the Fassifern District and Murphy's Creek at the head of the Lockyer Creek.

It is possible the Turrbal name was also used for an alliance of Yagara speakers including the Turrbal and others south of the river as far as the Logan River. The word tarau in the Yagara language refers particularly to loose stones, and the name Taraubul is evidently derived from the geological nature of the Brisbane area, the formation of which is almost entirely of brittle schist.

At the time of convict settlement in the Moreton Bay region, it was estimated that some tens of thousands of Aboriginal peoples lived near what is now known as the Brisbane River, using their established pathways to attend gatherings and visit ceremonial sites. Huge gatherings often took place on neutral territory, acknowledged by all clans as meeting areas.

It is believed what was known as the Coorpooroo Clan (residing on the south bank of the Brisbane River), the Yerongpan Clan (residing along Oxley Creek in the vicinity of Brown's Plains, along the Mount Lindsay Highway), and the Chepara Clan (residing in the Eight Mile Plains area).

Although the Oxley Creek area was recorded as the traditional lands of the Yerongpan Clan, ethnographic records do not elaborate on whether their boundary extended north as far as the airport.

The airport site has been highly disturbed since European occupation of the area as a result of land clearance, stock grazing, and establishment of the airport in the late 1920s to 1930s, and ongoing development of the airport and surrounding land.

The first Europeans arrived in the Acacia Ridge area in the 1820s but the area remained mostly rural well into the 20th Century.

The airport site has been highly disturbed since European occupation of the area as a result of land clearance, stock grazing, establishment of the airport in the 1930s; and subsequent undertaking of earthworks, building activity, construction and maintenance of aviation and utility services infrastructure and other activities.

The previous HMP (Bonhomme Craib and Associates, 2001) undertook a Cultural Heritage Assessment for Aboriginal Cultural Heritage, which included searching relevant literature and registers, and also included consultation with Aboriginal groups, Native Title claimants, and other Indigenous interest groups. An archaeological field survey was also undertaken which informed the recommendations and management measures of the previous HMP.

From an Aboriginal Cultural Heritage perspective, the AAHMP findings are consistent with the earlier HMP. Neither study located any sites or features of cultural heritage significance, and both found that the majority of the airport land has no potential for in-situ Aboriginal Cultural Heritage.

Consistent with the 2001 HMP, an area with Low Aboriginal Cultural Heritage potential was identified along Oxley Creek to the south-west corner.

It is noted that parts of this area have been subject to significant ground disturbance, including from extensive earthworks for the construction of the stormwater detention basin and drains in the vicinity of Oxley Creek, and these portions do not have potential for in-situ archaeology to exist.

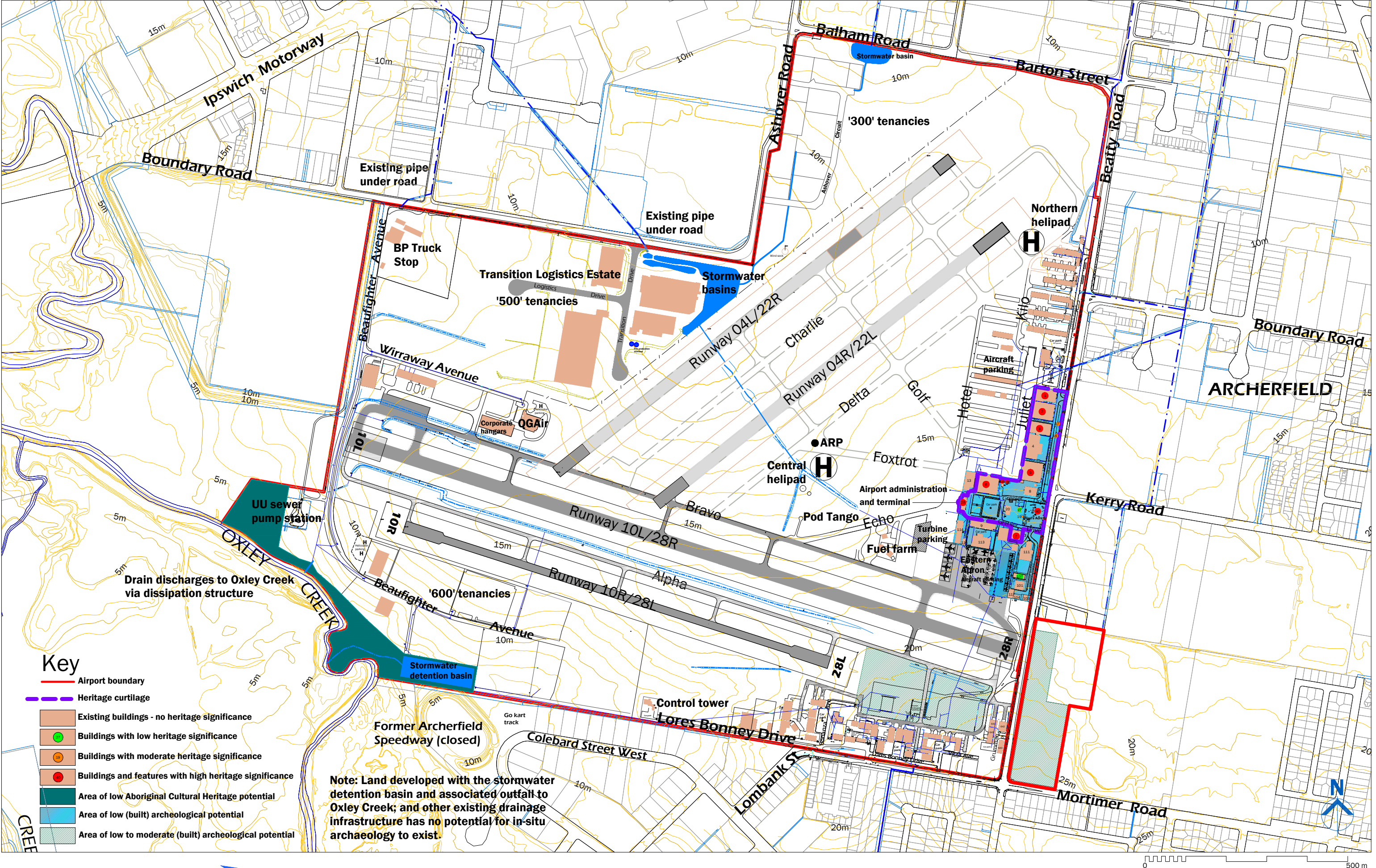
The 2021 AAHMP includes an *Aboriginal Cultural Heritage Archaeological Potential Plan*, and this has been incorporated into Figure 28 *Heritage Management Plan*. The airport land adjacent to Oxley Creek is designated in the Master Plan as a conservation area.

Built heritage

The airport developed in five historical phases, being *Pastoral* (1850-1928); *Development of air transport* (1929 to 1938); *World War II* (1939 to 1946); *Post World War Two* (1947-1997); and *Archerfield Airport Corporation* (1998 to present).

The airport site was originally purchased in 1855 by Thomas Grenier, publican of the Brisbane Hotel in Russell Street, South Brisbane. The land was lightly timbered alluvial soil, and some of the best grazing land in the district.

The land was subdivided into three family farms in 1865. Grenier's son, Thomas, and his wife Sarah, lived on one of the farms. Franklin Grenier occupied the farm which fronted onto Mortimer and Beatty Roads, and William Grenier occupied the farm called 'Stoneleigh' which had a frontage onto Oxley Creek. Franklin's land was the site upon which Archerfield Airport would later be established.



Thomas Grenier died in 1877 and was buried in God's Acre cemetery. The farms were sold to the Beatty family in the late 1890s and early 1900s.

God's Acre Cemetery was later passed from family trustees and then to Yeerongpilly Shire Council in 1924. In 1925 Yeerongpilly Shire was amalgamated into the Greater Brisbane City Council.

In 1927 Qantas Airways test landed a DH-61 on Franklin's Farm which was located at the western side of the airport. In 1928, a Civic Survey was undertaken which recommended the area be zoned for noxious trade. Recommendations from this survey were implemented in the following year, and the area was renamed to Archerfield by Brisbane City Council to distinguish it from the surrounding residential and farming districts.

The Government initially acquired about 121 hectares (300 acres) of land in 1929. Two gravel air strips 1500 metres long were built and the airfield started operations. More land was purchased in 1930, 1936, 1942 and finally the cemetery (God's Acre) in 1946.

By the early twentieth century, the farms in the surrounding district were used for grazing, dairying, poultry, and egg production.

The name 'Archerfield' is believed to have come from a pastoral station and homestead just south of Darra, around Blunder Creek, which was owned by Michael Durack in 1881.

In the 1930s Qantas moved their operations from Eagle Farm to Archerfield after the first hangars were erected at Archerfield. Australian National Airways (ANA) and Trans Australia Airlines (TAA) both used Archerfield during the 1930s. The Queensland Aero Club, established in 1919, moved from Eagle Farm to Archerfield in 1931.

The Airport Terminal and Administration building (28) was built in 1941 when Archerfield was the main airport in Brisbane. In the Second World War the RAAF constructed infrastructure at Archerfield to facilitate the use of the airport for military purposes. This included the establishment of a RAAF camp (Camp Archerfield) in the Mortimer precinct.

The United States Fifth Air Force and the Netherlands East Indies Military Air Force were also stationed at Archerfield. To facilitate the needs of the wartime era, the airport boundaries were extended to include land to the west and north. This also resulted in the acquisition of neighbouring land and the closure of the section of Boundary Road which ran previously between Beatty Road and Ashover Road.

American B-17 Flying Fortresses, Kittyhawks, Dakotas and Dutch Mitchell bombers were at Archerfield during that phase. Large hangars were built on both sides of Beatty Road. There are examples of those remaining today along Kerry Road (on the eastern side of Beatty Road, off airport).

The Mustang and Vampire aircraft of the RAAF 23 Squadron were based at Archerfield until September 1955.

The RAAF had left Archerfield by the mid-1950s, and by then most of the remaining structures had been dismantled. By the mid-1970s, the Camp Archerfield buildings were removed or dismantled.

Once Eagle Farm became established as the main civilian passenger centre and the RAAF moved to Amberley, Archerfield became a thriving light aircraft centre.

Between the 1960s and 1970s, a number of upgrades and improvements were made to the runways, including surface regrading and gravelling of sections. By the 1970s the runway format comprised of three parallel landing strips (left, centre, right) for each of the three predominant wind directions.

Of the nine runways, only one (on the 10/28 alignment) was sealed. By the early 1980s, the runway system had been reduced to two pairs of parallel runways on alignment of 10/28 and 04/22.

The current control tower was constructed in 1973, replacing a facility on the roof level of the Airport Administration and Terminal building.

The AAHMP identifies a number of buildings and items on airport that are of historical interest and assist with interpretation of the past use and development of Archerfield.

Archerfield Airport was Brisbane's major airport from 1930 to 1947, and has been Brisbane's main general aviation airport since 1947. It played a significant role in the development of Australia's fledgling domestic and international airmail networks, and in controlling air traffic and operations during World War Two.

Significance

The AAHMP provides a hierarchy of significance for the buildings and other elements remaining at Archerfield from these historical phases.

It attributes an 'exceptional' grading to the continued operation of the airport, on the basis that:

Archerfield Airport is one of the oldest airports in Queensland that has maintained operational use since its development in the late-1920s. The continued use of Archerfield as an operating airport ensures that the historic use of the airport is maintained and enjoyed by current and future generations. The use of Archerfield Airport as, first and foremost, an operational airport, is therefore of exceptional value. (AHS 2021 page 61)

and concludes that from a heritage perspective, the continued operation of the airport takes precedence over other considerations when determining the management of heritage values.

The AAHMP has found that the significant historical heritage values remaining at Archerfield Airport are confined to that part of the Beatty precinct which

contains the Airport Administration and Terminal building, God's Acre Cemetery, and buildings associated with historical phases 1-3 of the airport.

These buildings and features fall within an area described as the *Heritage curtilage* (Figure 29).

The buildings and elements of 'high' significance are:

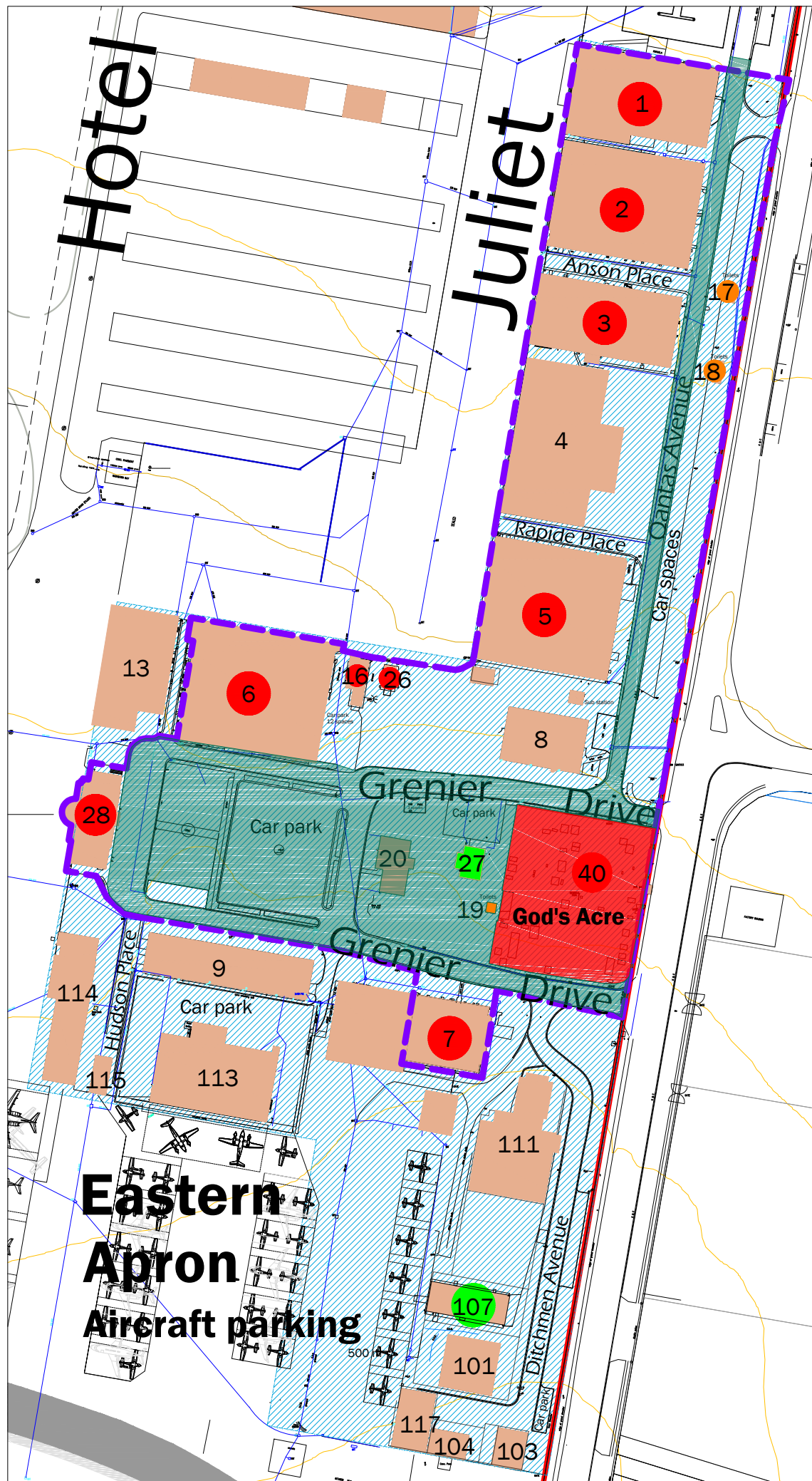
- Hangars 1-3
- Hangars 5 and 6;
- the original, eastern part of Hangar 7;
- Shell kiosk (building 16);
- Powerhouse (building 26)
- Airport Administration and Terminal Building (building 28); and
- God's Acre Cemetery (site 40).

The AAHMP has also identified the following buildings and features from historical phases 2-4, but concluded that they have either 'low' or 'moderate' significance:

- toilets (buildings 17, 18 and 19) - moderate significance (not a key element from a heritage perspective and have undergone some alteration and change over time (i.e., new fixtures, and fittings), however their original form of the structures remains interpretable and original/early timber framing remains intact);
- Building 27 (now used as a café) - low significance (due its overall poor integrity, from substantial internal and external alteration over the years and relocation a number of times);
- Building 107 - low significance (poor integrity, constructed or relocated to the site in the late 1950s); and
- auxiliary elements within the Beatty precinct, including Qantas Avenue, Grenier Drive, Pitt Street, and the forecourts / green spaces adjoining Building 28 and God's Acre Cemetery - low significance (over the years the location of these elements, the road and path alignments, provision of parking spaces and driveways, and materials and finishes have been altered and replaced and have poor integrity).

The AAHMP provides more information about each development phase; a series of aerial photographs that show the development of the airport over the years; and site cards (with photographs, plans and other explanatory information) for each of the buildings and God's Acre Cemetery.

The heritage buildings and features are shown in Figure 4 *Existing airport layout* and in Figures 21 *Beatty Precinct Structure Plan*, 28 *Heritage Management Plan* and 29 *Heritage curtilage*.



- **High built heritage significance**
 - Hangar 1
 - Hangar 2
 - Hangar 3
 - Hangar 5
 - Hangar 6
 - Eastern part of Building 7
 - Building 16
 - Building 26
 - Building 28
 - God's Acre Cemetery (40)
- **Moderate built heritage significance**
 - Building 17 - Toilet
 - Building 18 - Toilet
 - Building 19 - Toilet
- **Low built heritage significance**
 - Building 27 - Air Archer cafe
 - Building 107
- No built heritage significance**
 - All other buildings and features

Key

- Heritage curtilage
- Existing buildings - no heritage significance
- Area with low built heritage significance
- Buildings with low built heritage significance
- Buildings with moderate built heritage significance
- Buildings and features with high heritage significance
- Area with low (built) archaeological potential



0 100m

Hangar 1

Hangar 1 is the oldest building on the airport. It was initially constructed at Eagle Farm in 1927 and relocated to Archerfield in 1931.

Hangar 1 consists of three sections: the 1927 hangar and central section extension, the adjoining 1938 hangar and extension to the north (now administration area), and the skillion extension to the south (1943 extended area).

The central part of the hangar consists of the original steel trussed structure fabricated in 1927 (and relocated to Archerfield in 1931), which was extended in 1943 to the east with a timber-trussed saw-tooth roof with skylights on the south side. The earlier (western) portion of the hangar now has painted galvanised steel external wall and roof cladding, with clerestory glazing to the upper parts of the western and southern elevations, and an awning spanning across the western elevation.

Vented windows were provided in the gables of the original hangar, but only the eastern window remains intact. The hangar doors are of timber construction with steel bracing straps. A timber framed wall and sliding door constitutes the eastern wall of the extension. The north and south internal walls are lined with contemporary timber battening.

The adjoining administrative centre to the north of the original building was built in 1938 as a second hangar, and later extended to the east in 1943. The original/early extension (at the western end) consists of a rectangular, gable roof structure with louvered window on the western gable end, externally clad in corrugated iron sheeting.

The hangar has contemporary aluminium framed doors and windows, and louvered clerestory and transom windows. The later extension (at the eastern end) consists of a rectangular, skillion roof structure with exposed steel trusses, externally clad with panelled galvanised steel sheeting, with contemporary aluminium framed doors and windows, and louvered clerestory and transom windows.

Hangar 1 relates to phases 2 and 3 of the airport, and has been assessed as having a 'good' condition score, 'high' heritage value, and 'high' integrity.

Hangar 2

Hangar 2 was constructed in 1930 by Queensland Air Navigation Ltd (QAN) which operated a Brisbane to Townsville service. It also was the departure point for New England Airways, the first successful airline to operate a Brisbane to Sydney route.

Hangar 2 consists of three sections: The original 1930 'coat hanger' style hangar along the western boundary, the central and eastern extension (most likely constructed in c.1941), and the later adjoining extensions to the south and north (both now used as workshops).

The original hangar has a gently curved roof with windows along the northern and southern boundary walls below the roof trusses. Two rows of skylights run parallel from the western boundary (airside) to the office/ workshop area in the eastern boundary.

Large sliding hangar doors with inset windows are located on the western boundary. The door tracks extend to the north and south beyond the side walls of the main hangar.

The 1941 extension is of similar design to that used in the 1943 extension to Hangar 1.

Hangar 2 relates to phases 2 and 3 of the airport, and has been assessed as having a 'good' condition score, 'high' heritage value, and 'high' integrity.

The roof and walls of the hangar are sheeted in painted galvanised iron sheeting. Large sliding doors have been installed on the eastern elevation facing Qantas Avenue, and there is a mix of old and new windows.

Later wooden extensions to the hangar have been constructed for use of storage, workshops, and other businesses.

The original external windows of the hangar have been removed from the southern wall and/or covered over on the northern wall by the fit-outs within these extensions.

Hangar 3

Hangar 3 consists of two sections: the 1935-36 hangar and the 1943 hangar extension to the east.

The original hangar was a 'Comet' brand steel framed structure, one of few erected at Archerfield Airport. It has a gently curved steel roof, with skylights running parallel along the centre of the roof, north to south.

The 1943 extension has a timber framed saw-tooth roofed, originally built as a workshop. The extension incorporates large timber framed box gutter structures at the base of the remaining skylight glazing. Hanging lights with metal shades are set along the base of the trusses at regular intervals. Internal rooms extend along the southern side, and part of the northern side.

The external walls have been re clad and are galvanised painted steel with timber framed windows, containing either louvered glass or safety glass. A roller door is also located on the eastern wall.

The hangar was also the first 'private' hangar at Archerfield that was not associated with a government organisation or airline.

Hangar 3 relates to phases 2 and 3 of the airport, and has been assessed as having a 'good' condition score, 'high' heritage value, and 'high' integrity.

The building has been recently refurbished, and the new contemporary internal fitout includes classrooms along the north and south sides.

Hangar 5

Hangar 5 was originally erected in 1931 for Qantas. The hangar is a significantly larger span structure than the other early hangars at Archerfield Airport.

It consists of three sections: the original 1931 'coat hanger' style building, the skillion roofed lean-to structures added to the northern and southern sides in 1934, and the c.1941 hangar extension to the east.

The hangar originally spanned 27.4 metres with 6 metre high walls along the north and south sides. Skylights run from the southern and northern walls to the middle of the roof. The roof is clad with painted galvanised steel metal. Several roller doors have been inserted into the north elevation.

The lean to extensions were added in 1934 and ran along the length of the northern and southern hangar walls. The overall width of these buildings extends to the length of the hangar door tracks, located on the western wall (airside).

Parts of these buildings were removed in 1941 when the hangar was extended. Internally the southern wing runs along the length of the 1941 hangar only. The exterior of these buildings is a painted galvanised iron metal sheeting with large, framed windows running along the entire length, and windows running above the roof line. Part of the southern wing has been refitted as an office and passenger waiting room with dropped ceilings and contemporary fittings. The northern wing houses a business.

Hangar 5 relates to phases 2 and 3 of the airport, and has been assessed as having a 'good' condition score, 'high' heritage value, and 'high' integrity.

The hangar was refurbished in 2016. The works included a new domed roof, replacement windows, and a drain along the southern boundary.

Hangar 6

Hangar 6 was constructed in 1938-1939 for Airlines of Australia (AOA)/Australian National Airways (ANA).

It is a 'coat hanger' style with curved steel roof trusses. Two rows of large skylights run along the width of the painted galvanised steel roof from the northern boundary (airside) to the southern boundary. Modern electrical

lighting, along with aircraft maintenance equipment, has been attached to the original metal trusses.

Large, galvanised steel sliding hangar doors open to airside, and a removable section has been created to allow for high-tailed aircraft to enter the hangar.

Additional rooms are located along the southern boundary of the hangar. The storage room, located in the southwest corner of the building has retained some of the original 1938-1939 fabric including wooden floorboards, wooden trusses, and early galvanised walls. The rooms located on the southern boundary of the hangar, are elevated off the main hangar. Other 1938-1939 fabric evident within the hangar include wooden doors, with a frosted glass panel, with an associated concrete step to the hangar floor located in the south-western boundary. These, however, are not in use.

The hangar was extended on its western boundary in the late 1930s to include a terminal and passenger lounge for ANA. The hangar was also extended along its eastern boundary to accommodate additional aircraft maintenance facilities by the Department of Aircraft Production in the early-1940s.

Hangar 6 relates to phases 2 and 3 of the airport, and has been assessed as having a 'good' condition score, 'high' heritage value, and 'high' integrity.

In 2015 the building was upgraded significantly for LifeFlight, with demolition of part of the building along the west side (to enable vehicle access from Grenier Drive to airside); removal of the internal fit out, wall linings and internal walls, and the installation of new (contemporary) internal wall, wall linings and amenities.

The rooms along the southern boundary have been repainted and have low dropped ceilings. Access to the refurbished areas along the southern wall is via a modern safety ramp.

Hangar 7

Hangar 7 was constructed in 1937. It was the first to be built south of God's Acre Cemetery, and is the only hangar at Archerfield that has concrete encased stanchions.

The original section of this hangar is unlike any of the earlier timber and steel constructions on the airfield as it was made with concrete encased stanchions. The wall panels are filled with concrete, bagged and finished. The roof is framed with a curved rolled steel joist and galvanised steel sheeting.

Internal alterations of the original section of the hangar included the construction of offices in 1971. Partitioned workshops and offices are located along both the north and south sides. Additional internal changes in 1982 included a wire enclosure.

In 2000 the hangar was extended to the west to accommodate the needs of Repair Maintenance. The 2000 extension increased the building by more than 50% of its original size.

The eastern part of Hangar 7 relates to phases 2 and 3 of the airport, and has been assessed as having a 'good' condition score, 'high' heritage value, and 'high' integrity.

While the hangar is regarded as having 'high' significance overall, a large proportion of the hangar is a relatively modern extension to the west, and there are areas of the original hangar has been substantially modified (c.2000). These modern extensions and modifications are not of heritage value.

Shell Kiosk (building 16)

The Shell Kiosk was built in 1935 to house their new Sussex refuelling wagon, enabling fuel to be delivered to parked aircraft. Prior to this dedicated 'kiosk', a Shell underground refuelling unit was located on the airside of Hangar 5. The Kiosk was extended in 1940 to allow for storage of a longer vehicle.

The building's exterior walls are constructed of rendered brick. The roof is tiled. Wooden framed sash windows are located on the eastern, western, and northern elevations. All window frames have a decorative lintel comprising of two bricks layered vertically exposing the brick stretcher only. All windowsills are constructed of exposed brick. The same lintel pattern continues below the eaves along the eastern elevation. Another brick stretcher border is at ground level and consists of one layer only.

The Shell logo is located above the wooden door at the northern end of the west elevation (airside). A modern roller door is located adjacent to this. The Shell name is located on the extended northern portion of the building along the northern and western exterior. This part of the building has a decorative parapet ensuring it stands apart from the rest of the tiled roof.

Internally the building has been refurbished. The north-western room has a white and brown coffered ceiling, with the colour scheme extending to the picture rail.

This 1940 extension to the kiosk retained the original features, including the rendered brick and red roof tiles. The same brick pattern continues below the eaves along the eastern and western elevations. The brick stretcher border at ground level, found on the 1935 kiosk extends along the western and eastern elevations. A roller door is located on the south elevation.

In 2001, AAC restored the Shell Kiosk.

The Kiosk relates to phases 2 and 3 of the airport, and has been assessed as having a 'good' condition score, 'high' heritage value, and 'high' integrity.

Toilets (buildings 17, 18 and 19)

Buildings 17, 18 and 19 are public toilets which are believed to pre-date World War Two.

Building 17 was in its current location by 1939. The building is located to the east of Hangar 2 and Hangar 3 (between Qantas Drive and Beatty Road) and has a north-south orientation. The painted brick building comprises of the main toilet block and an uncovered entrance area. The stretcher bond brick work extends around the entire exterior. The gable roof is clad with galvanised steel sheeting. These toilets are not in use.

Building 18 was in its current location by 1939. The building is located to the east of Hangar 3 (between Qantas Avenue and Beatty Road) and has a north-south orientation. The painted brick building comprises of the main toilet block and a covered entrance area on the southern wall. The two gabled rooves that cover the toilet block and entrance have timber framing and fascias, and a galvanised corrugated metal roof. These toilets are not in use.

Building 19 was in its existing location in 1937. The building is to the south of Building 27 (Air Archer Café) and west of God's Acre Cemetery. The building walls and entry screen are constructed of painted galvanised steel sheeting.

The toilet blocks relate to phase 2 of the airport, have been assessed as having a 'fair' to 'good' condition score, 'moderate' heritage value, and 'moderate' integrity.

Former power house (building 26)

The Power House was constructed in 1938 by the Civil Aviation Board to house an auxiliary generator for the airport. The generator is no longer in use.

The exterior walls are clad with asbestos-cement sheeting and weatherboard (at the base of the building), with vents installed in the weatherboard base along the east and west elevations, and smaller vents to the north and south. The building has a pitched roof with gables, and high level windows.

The internal walls and dropped ceiling are clad with asbestos-cement sheeting. The floor is painted concrete. The disused diesel generator (dated 1969) and associated equipment remain in the building.

The building relates to phase 2 of the airport, and has been assessed as having a 'poor' condition score, 'high' heritage value, and 'high' integrity.

Building 27

The building was probably constructed in the late 1930s or early 1940s and was initially utilised as the second weather office at Archerfield. During the wartime

period, the building was transformed into a canteen to serve the needs of the increased number of people on the airfield.

The building was originally located on the south side of Grenier Drive and has since been relocated - once from its original position, again post-1949 when it was restumped, raised and located closer to God's Acre Cemetery and another time in the late 1990s when it was moved slightly south to allow for additional carparking off the northern leg of Grenier Drive.

The building was originally constructed of weatherboard and cement. Sometime after 1949 the verandah and stair on the north elevation was modified. Subsequently, windows in the west and north east elevations have also been altered, and more recently a number have been replaced.

The interior of the building has been gutted and refitted and is now a contemporary café.

The building relates to phase 3 of the airport, and has been assessed as having a 'good' condition score, 'low' heritage value, and 'low' integrity.

Airport Administration and Terminal building (28)

This building dates back to the 1940s and after a period when it was in disrepair, is once again used as the administrative headquarters for the airport, and as the airport terminal. AAC owns the building.

Plans for the building were first drawn up in 1936, but construction did not commence until 1941. The terminal housed the airline companies, the Civil Aviation Department, the Flight Checking Department, the weather bureau and Airport control officials.

A control tower was previously located on the top of the building but has since been dismantled. This building housed the first meteorological, Aeradio, and air traffic control facilities in Southeast Queensland and provided necessary passenger terminal facilities for Brisbane until 1949.

In 1949 the Royal Queensland Aero Club used part of the ground floor for its offices. In the 1970s through to 1999 the parts of the building continued to be used by civil aviation administrators.

The Airport Administration functions were relocated to building 20 under the Federal Airports Corporation and building 28 was not used for airport administration for a number of years until AAC bought and restored it from 2009 - 2015.

Building 28 is a substantial, three storey structure. It is a standalone, landmark building, sited at the western end of the Grenier Drive loop, and frames the western side to Archerfield Square.

It is built to the site boundaries. It has a broad ground floor, aligned north-south, and stepped upper floors. The upper floor setbacks are more substantial on the north and south elevations.

Earlier in its history, the building had an additional level which was used as the airport control tower. This was removed when the current tower was commissioned in the Beaufighter precinct in the 1970s.

The building is of rendered brick construction, in the interwar Functionalist style of architecture (i.e., streamlined detailing, geometric form, symmetrical elevations).

The elevations of the original part of the building are symmetrical. The ground floor has been extended to the south. The design of the extension is simple, and follows the features of the original building including the brick base, rendered walls and parapet to the flat roof.

The building is constructed from brick and concrete (the majority of the walls are rendered), with metal framed windows and sections of exposed brickwork. In the west elevation (facing the taxiways and aprons), there is a prominent curved bay window, a centrally located clock and winged badges.

Exposed brickwork runs around the base of the building as a decorative feature. It forms a base to the ground floor bay windows in the west (airside) elevation, and covers the central part of the ground floor elevation and main pedestrian entry doors, facing Grenier Drive.

The building has flat roofs, with parapets at first and second floor levels, and an observation deck on the roof, secured by a metal railing and accessed via an external staircase on the north side.

Although some original window fabric has been replaced with aluminium frames, the control tower has been removed, and the building has been repainted, much of the exterior features remain largely intact.

The interior of the building however has had alteration and change on each level since the 1950s (though some original features and elements remain within, including the women's toilet facilities on the ground floor). The alterations that have occurred since the 1950s, internally and externally have low to no heritage significance.

Building 28 relates to phase 3 of the airport, and has been assessed as having a 'high' condition score, 'high' heritage value, and 'high' integrity.

God's Acre Cemetery (site 40)

God's Acre Cemetery is located on the corner of Beatty Road and Grenier Drive, at the main entry to the airport. This historic site is one of Queensland's oldest cemeteries.

The site was established by the early settler and South Brisbane Publican, Thomas Grenier on the family property after the death of Volney Grenier, their 16 year-old son. It was dedicated as a cemetery in 1859, just before Queensland became a separate state. It was established more than 160 years ago.

About 180 people including descendants of the Grenier family and other members of the local community are buried in the cemetery, with the last funeral held there in 1980.

The land was acquired by the Government in 1946. It represents an historic link to the pioneers of the district, and a valuable resource for interpreting the evolving history of the local community.

The cemetery was originally surrounded by a white picket fence, which has been replaced over the years. A hibiscus hedge was planted in 1941 replacing an earlier picket fence along the northern, western and southern boundaries and a post and top-rail fence along the Beatty Road boundary. The rest of the hedge was replanted in the 1990s.

Today the cemetery is surrounded by a white picket fence and partial hibiscus hedging. A variety of trees have grown around the site. Approximately 40 headstones have survived, and are made of marble, granite, concrete or sandstone. Some original nineteenth century cast iron and early twentieth century concrete post and steel rail grave surrounds also remain. An unidentified timber grave marker is located within the cemetery.

A small memorial arc, an interpretive sign and an obelisk with a brass plaque, with the names of everyone interred within the cemetery was erected more recently by Friends of God's Acre. Small memorial plaques have been placed close to the eastern boundary of the site.

God's Acre Cemetery relates to phase 1 of the airport, and has been assessed as having a 'good' condition score, 'high' heritage value, and 'high' integrity.

Building 107

Building 107 was established in the post war era (phase 4) by George Ditchmen, who ran a general aviation company and operated aircraft repair facilities at Archerfield in the late 1940s. Building 107 was used as a small aeronautical workshop.

It is a single storey, weatherboard clad structure that is rectangular in shape and oriented in an east to west direction.

The roof shape is predominantly a curved roof (barrel vaulted) with small skillions to each side of the curve. The roof is clad with corrugated iron.

The side elevations have large sections of casement windows and double doors which enclose the skillions. Each end wall has casement windows and double louvres on the upper wall section

The building relates to phase 4 of the airport, and has been assessed as being of low heritage value, in poor condition, with low integrity.

16.2.3 Potential impacts

The potential impacts on Aboriginal cultural heritage, and built heritage values would stem from:

- management of potential Aboriginal cultural heritage values in the area adjacent to Oxley Creek, as shown in Figure 28, *Heritage Management Plan*;
- management of any potential sub surface low to moderate (built) archaeological values in the former Camp Archerfield area in the Mortimer precinct; or in the area of low (built) archaeological potential in the Beatty precinct, as shown in Figure 28, *Heritage Management Plan*;
- demolition or inappropriate alterations to buildings or features of identified high or moderate built heritage value;
- inappropriate development of land within the *Heritage curtilage* and adjacent to buildings or features identified as having high or moderate built heritage value; or
- lack of maintenance of buildings of identified built heritage value.

16.2.4 Management

AAC will implement the findings and recommendations of the *Archerfield Airport Heritage Management Plan* (2021) (or any subsequent Heritage Management Plan approved by AAC) in any decisions relating to development of sites or features of heritage value.

AAC is sensitive to the need to retain historically significant buildings where appropriate uses can be found (including through adaptive re use) or their removal would otherwise contribute to the significant loss of past history.

AAC also recognises that a number of older buildings on the airport are no longer suited to modern aircraft and are inefficient in terms of their layouts for modern aviation related purposes.

In order to ensure Archerfield continues to attract aviation tenants of a high calibre and the airfield continues to regenerate, development options will be canvassed when approached by prospective aviation tenants.

Each development will be assessed on an individual basis, taking into account the tenant's requirements; the heritage value, condition and integrity of the building; the implications of the proposal for aspects of the building that have

been identified in the Master Plan as having heritage value; the potential for adaptive reuse (including the implications of current building and related standards); and the feasibility of refurbishment, removal or relocation. Buildings containing asbestos will be handled in accordance with the AES.

A heritage impact assessment will be undertaken for any proposal that has the potential to result in substantial change or significant impact on a building or feature of moderate or high heritage significance (as shown in the *Heritage Management Plan* in Figure 28), before deciding on whether to progress a proposal.

Subject to the findings and recommendations of the heritage impact assessment, AAC may also consult with the Commonwealth prior to either approving works by tenants of buildings of high heritage significance, or undertaking works that may impact significantly on the heritage values of those buildings or features.

Development proposals for sites within the *Heritage curtilage* (Figure 29) that do not have significant heritage values will be assessed to ensure that the proposal is sited and designed so that it does not impact significantly on any building or feature of moderate or high heritage significance.

God's Acre Cemetery

AAC will continue to support the work of Friends of God's Acre which is engaged in conservation of the historic cemetery.

Aboriginal Cultural Heritage potential

Before sub surface works or clearing are undertaken in the area adjacent to Oxley Creek, identified in the *Heritage Management Plan* (Figure 28) as being of 'low Aboriginal Cultural Heritage potential', personnel will be provided with a cultural heritage induction, to give awareness of potential values in the area, confirm the 'stop work' procedure to be implemented in the event of incidental finds of items that might hold Aboriginal Cultural Heritage significance during the project activities (as set out in the AAHMP), and resolve and implement any management actions that are required.

It is noted that parts of this area have been subject to significant ground disturbance, including disturbance caused by the construction of the main stormwater detention basin, drains and dissipation structures in the vicinity of Oxley Creek, and these portions do not have potential for in-situ archaeology to exist.

Potential historic (built) archaeological values

Before sub surface works are undertaken in an area identified in the *Heritage Management Plan* (Figure 28) as having built archaeological potential, personnel

will be provided with a heritage induction. The induction will give awareness of potential values in the area, confirm the 'stop work' procedure to be implemented in the event of incidental finds of items that might hold heritage significance during the project activities, and the actions that will be taken following stop work (as set out in the AAHMP).

16.2.5 Achievements 1998-2023

AAC has completed an updated *Archerfield Airport Heritage Management Plan* (AAHMP) (Australian Heritage Specialists, 2021), replacing the original *Cultural Heritage Assessment and Management Plan* prepared in 2001. The AAHMP findings and recommendations have informed the AES.

AAC has over the past 26 years spent more than \$3.8M on heritage conservation initiatives at Archerfield. This includes purchase of the historic Administration and Terminal building (28), restoration of the former Shell Building, refurbishment of Hangars 3, 5 and 6, refurbishment of the ground, first and second levels of the Administration and Terminal building in 2009 and 2015, and repainting the exterior walls and waterproofing the external surfaces.

The upper floors of the building are now used for airport administration and offices, and the ground floor is once again used as a terminal.

In 2022 AAC established the Airport History Room in building 28. The History Room is the home to an evolving archive of records and memorabilia about the history of the airport, and interpretative materials. It is the base for preparation of interpretative displays, and a place for research to be undertaken.

AAC has supported the conservation work being undertaken by Friends of God's Acre, through donations and contribution of labour and provision of specialised equipment for maintenance works.

AAC has encouraged enjoyment and pride in the airport by opening the Administration and Terminal building and surrounds to the public on Brisbane Open House days where they can view information about the history of the airport, and memorabilia from the past.

16.2.6 Implementation targets for the 2023 AES

Apply the following protocols for assessment of proposals for buildings or features of heritage value, and decisions by AAC on action to be taken, in accordance with the findings and recommendations in the AAHMP.

Sub surface works in the area of low Aboriginal Cultural Heritage potential

Prior to undertaking sub-surface works in the area adjacent to Oxley Creek identified as an area of low Aboriginal Cultural Heritage potential (as shown in Figure 28, *Heritage Management Plan*);

- provide personnel with a heritage induction, to give awareness of potential values in the area;
- confirm the 'stop work' procedure to be implemented in the event of incidental finds of items; and
- confirm the actions that will be taken following stop work, to assess any items, carry out any additional investigations that may be required, and develop and implement any required heritage management actions.

Sub surface works in areas of low to moderate built archaeological potential

Prior to undertaking sub-surface works in the area of low built archaeological potential in the Beatty precinct; or low to moderate built archaeological potential in the Mortimer precinct (as shown in Figure 28, *Heritage Management Plan*);

- provide project personnel with a heritage induction, to give awareness of potential values in the area;
- confirm the 'stop work' procedure to be implemented in the event of incidental finds of items; and
- confirm the actions that will be taken following stop work, to assess any items, carry out any additional investigations that may be required, and develop and implement any required heritage management actions.

Proposed development – sites of moderate or high heritage significance

Assess the heritage implications of any proposed alteration or demolition of a building or feature of moderate or high heritage significance (as shown in the *Heritage Management Plan* in Figure 28), or construction of new buildings and works on the site of buildings or features of moderate or high significance, taking into account:

- the tenant's requirements;
- the heritage value, condition and integrity of the building;
- the implications of the proposal for the aspects of the building that have been identified in the Master Plan as having heritage value;
- the potential for adaptive reuse (including the implications of current BCA requirements and related standards); and

- the feasibility of refurbishment, removal or relocation.

Undertake a heritage impact assessment for any proposal that has the potential to result in substantial change or significant impact on a building or feature of moderate or high heritage significance, as shown in the *Heritage Management Plan* (Figure 28).

Subject to the findings and recommendations of the heritage impact assessment, AAC may also consult with the Commonwealth prior to either approving works by tenants of buildings of high heritage significance, or undertaking works that may impact significantly on the heritage values of those buildings or features.

Proposals within the Heritage Curtilage

When assessing development proposals for sites within the *Heritage curtilage* (Figure 29) that do not have moderate or high heritage significance, ensure that the proposal is sited and designed so that it does not impact significantly on a building or feature of moderate or high heritage significance, as shown in the *Heritage Management Plan* (Figure 28).

God's Acre

Continue to support the conservation work by Friends of God's Acre and seek the cooperation of all levels of government and the broader community in improving the site and promoting it to the local community and visitors.

Airport history room

Maintain the Airport History Room, and facilitate access by people with an interest in the history of the airport to the resources that are held.

16.3 FLORA AND FAUNA

16.3.1 Objectives

To identify and conserve significant indigenous flora and fauna.

16.3.2 Existing conditions

History

The land that the airport occupies was cleared by early settlers and used for farming.

By 1931, with the exception of the Oxley Creek environs the area was an open grassed paddock and since then, the airport has been managed mainly as a grassed area, with extensive mowing and removal of large trees where these infringe on obstacle clearance standards.

Trees and shrubs grow along the banks and flood area of Oxley Creek, and there is planted vegetation around the built up areas of the airport.

Oxley Creek context

Oxley Creek Catchment has an area of approximately 260 square kilometres. The creek is about 50 kilometres long and flows from the Flinders Peak Region to the Brisbane River.

The airport is in the lower to middle reaches of the creek catchment, approximately 500m upstream of the confluence of the Oxley and Blunder Creeks. This part of the Oxley Creek catchment is urbanised, and the land along the creek is used for housing, industry, open space, and sand extraction.

The Creek is part of a regional open space and habitat corridor that runs through the southern part of Brisbane to the Brisbane River.

In the general locality (and upstream of) the airport there are some remnant paperbark (*Melaleuca nodosa*) wetlands which before European settlement would have covered most low-lying areas of the catchment and provided habitat for waterbirds, frogs, and fish.

Riverine or vine forest was the dominant vegetation on creek banks, and 'dry' rainforest grew on the well-drained floodplains. In poorer soil, a mixture of Eucalypt and wetland species grew.

In recent years BCC has secured the land on the south side of Oxley Creek immediately to the south of the airport (extending upstream of the confluence of Oxley and Blunder Creeks) and has designated this as an 'environmental protection area' in City Plan. This action was taken following an unsuccessful proposal to undertake sand extraction in that area.

The south western corner of the airport has a frontage of approximately 550 metres to Oxley Creek.

Along the creek banks there is riparian vegetation that contributes to the landscape and ecological values of the creek. The balance of the airport land adjacent to the creek is largely clear of vegetation. It is managed by grazing and occasionally slashing, consistent with current practices on many other properties along this part of the creek.

The area accommodates also important stormwater management works, including a major stormwater detention basin, and drainage outfalls.

With this in mind, the land has been designated as a 'creek buffer' in Figure 2 *Master Plan vision*, and zoned *ACN1 Archerfield Airport Conservation (Local)* in Figure 19 *Airport land use zoning*.

Flora and fauna significance

In May 1997 the (then) Queensland Environmental Protection Agency (Stewart 1997) was commissioned by the Airport to advise on flora and fauna values. The study included site surveys and literature reviews. It concentrated on the Oxley Creek as, due to past and current use, and the relationship of the creek to the broader regional environment, this area was assessed to have the highest probability of containing flora and/or fauna of regional or higher significance.

The study found that:

- the vegetation of the Creek and surrounding area is considerably disturbed with numerous plant and weed species and substantial clearing of native vegetation;
- a total of 45 vertebrate species are known to occur along Oxley Creek. None are vulnerable (Schedule 3) or rare (Schedule 4) species under the *Queensland Nature Conservation (Wildlife) Regulations* 1994;
- two species of migratory birds or birds in danger of extinction, Little Curlew (*Numenius minutus*) and Sharp-tailed Sandpiper (*Calidris acuminata*) are species closely related to the short grass and wetlands of the area. These migratory species are currently listed under the EPBC Act;
- a further species of international significance, the Rainbow Bee-eater (*Merops ornatus*) (an EPBC Act listed marine species) may breed in the sandy banks of the Creek;
- no mammals, frogs or reptiles were recorded along Oxley Creek during the survey; and
- no threatened or endangered species of fauna were identified.

It concluded that the creek provides essential habitat for some native fauna, but is unlikely to support populations of regional significance. Three species of local significance and three of international significance are recorded along or in close proximity to the creek.

The (then) Queensland Department of Natural Resources and Water advised in June 1999 that:

- a more comprehensive survey would probably identify frogs, reptiles or mammals in Oxley Creek;
- migratory waders *Numenius minutus* and *Calidris acuminata* (EPBC Act listed) are listed by DNR as being in danger of extinction. This occurrence is very transient as waders prefer coastal habitat. Waders are most likely to visit the creek during times of drought. This requires further investigation;

- historically there is a high possibility of the rare frog species *Litoria brevipalmata* occurring within the Oxley Creek catchment. If it occurs within the area its presence would be significant;
- the vegetation description suggests that the existing habitat is unsuitable for any scheduled species other than *Litoria brevipalmata*; and
- conservation of remnant fauna should be concentrated along Oxley Creek.

A number of matters of national environmental significance (MNES), including threatened, migratory or marine species protected under the EPBC Act have been identified as potentially occurring at or nearby Archerfield Airport.

Actions that have, or are likely to have, a significant impact on MNES, or on the environment of Commonwealth land, must be referred under the EPBC Act, and a permit may be required under the Act. This will require further investigation and assessment if there are any proposals that could include actions that might impact on species listed under the Act, or on the environment of Commonwealth land.

Pest animals

The airport has not been subject to excessive pest animal populations, with the exception of Fire Ants which were confirmed in 2001 and have been subject to a rigorous ongoing control program since then.

The airport sits within the 'eradication overlap zone' of the National Fire Ant Eradication Program (NFAEP) and has recently experienced a resurgence of Fire Ant activity across various precincts with the NFAEP resources concentrated at the eradication zones located further west of the airport.

16.3.3 Potential impacts

The main potential impacts of airport activities on flora and fauna values in Oxley Creek are:

- altered surface water flow patterns (including peak flows) entering the Creek;
- water quality decline, in particular through sedimentation; lowering of pH; changes in temperature; excess nutrient loads; and pollution by hydrocarbons or metals;
- light pollution from new or upgraded lighting;
- pollution from heavy industry and waste processing;
- weed and pest animal invasion;
- bird strike; or
- vegetation removal or other changes to habitat in proximity to the creek.

16.3.4 Management of impacts

The riparian zone of Oxley Creek is likely to provide habitat for frogs, reptiles, birds and mammals, and these values have the potential to improve over time, particularly following habitat restoration by BCC in 2014 on the land on the south side of Oxley Creek.

The impacts of any new works on airport land in the vicinity of the creek on significant flora and fauna will be considered in the assessment of the works, and where impacts are identified, mitigation measures will be incorporated into the design, and implementation and operational phases.

Appropriate management measures for the creek frontage will be addressed prior to any significant new development of land next to Oxley Creek.

In the wider city context, the Oxley Creek Transformation project by BCC seeks to improve habitat and recreational use of the Oxley Creek. The transformation project includes the progressive implementation of the *Archerfield Wetlands Precinct Plan*, which covers the section of the creek to the west of the airport, between Ipswich Motorway and Bowhill Road. The BCC priorities for this area include creation of new recreational access to and along the creek (on the opposite side to the airport); and works to better manage stormwater, and conserve and improve habitat.

AAC will continue to facilitate the Fire Ant control measures being implemented by the State government.

The use of mainly indigenous plants in landscaping works on the airport will provide some additional habitat opportunities, and reduced reliance on watering when compared with exotic species.

Bird and bat strike is a significant issue for airport safety, so measures will continue to be implemented to manage bird and bat habitat to minimise the risk of this occurring on the airport, and in the wildlife buffer zones that are shown in Figure 13, consistent with NASF Guideline C *Managing the risk of wildlife strikes in the vicinity of airports*.

These safeguarding requirements will also be considered in the forthcoming updated assessment by AAC of significant ecological values on, and in the vicinity of the airport.

16.3.5 Achievements 1998-2023

AAC has maintained the airport grounds through regular mowing, control of weeds, and progressive upgrading to landscaping.

Fire Ant control by helicopter and motorcycle broadcasting has since 2001 been undertaken by the State government and AAC. AAC conducts regular

inspections of the airport grounds, reports findings, and in conjunction with the State, implements control measures.

Extensive stormwater management works were implemented in 2003-2004 in association with developments in the Beaufighter Avenue/Mortimer Road, and Central precincts. These works replaced eroding open drains with a system of pipes, grassed swales and detention facilities.

Additional stormwater drainage works have been implemented with the construction of piped drainage under Runway 04L/22R; construction of a stormwater detention and water quality treatment complex to the north-west of this, in the Boundary precinct; and construction of stormwater quality treatment and detention infrastructure in the Ashover precinct (in the north-west part of the airport). Extensive maintenance and restoration of stormwater drains on the southern and eastern side of the airport was also carried out in 2015/2016.

The new drainage works cater for existing and planned airport developments, and improve the management of water quality and the peak quantity of water discharged to Oxley Creek and to the drainage system north of the airport.

New landscaping work was carried out along Grenier Drive and Ditchmen Avenue in 2012. This included replacing existing inappropriate vegetation with Tuckeroos. The areas around Hangars 1, 2, 3, 4, 5, 6 and 13, and Buildings 8 and 9 have also been landscaped with appropriate plants. Transition Estate was planted with new street trees and garden beds along Transition Drive and Logistics Drive in 2021. The newly landscaped areas have successfully improved the presentation of these areas.

16.3.6 Implementation targets for the 2023 AES

The management of impacts on any significant flora and fauna will be considered in the assessment of new works.

Prior to development of airport land adjacent to Oxley Creek that is not currently intensively managed through slashing or grazing, appropriate flora and fauna investigations will be undertaken to confirm the existence of any significant species or habitat. If significant values are identified, consideration will be given to mitigating impacts.

AAC will also within the initial two years of the AES:

- undertake an assessment of flora and fauna values to confirm significant values that could occur at Archerfield Airport or potentially could be impacted by airport developments, and any conservation or management requirements that apply to identified values, and
- if MNES are confirmed by the updated assessment, AAC will consider the potential impact to protected matters of future development, construction plans and airport operations (including consideration of MNES and MNES

habitat requirements and potential dispersal habitat beyond the Archerfield Airport Conservation (Local) Zone, adjacent to Oxley Creek).

AAC will ensure that potential impacts on confirmed MNES are addressed in the planning, design, construction, and operation of new developments, and where any referral or permit is required under the EPBC Act, this process is undertaken.

AAC will consider also the potential impacts on MNES arising from light emissions from planned developments, having regard to the *National Light Pollution Guidelines for Wildlife 2023*. In assessing the potential impacts and any mitigation requirements, consideration will be given to the existing airport environment (and the extent to which any proposed changes to airport infrastructure would affect the environment), airport security and operational requirements, the NASF and current and future airport safeguarding requirements, and consistency with planning and development requirements that apply to similar land, off airport.

With the adoption by BCC of the *Oxley Creek Transformation Master Plan* (2018) and subsequently the *Archerfield Wetlands Precinct Plan*, BCC has made significant commitments to improve the natural values and recreational use of the Oxley Creek corridor, including the section in proximity to the airport.

AAC will work with BCC to maintain the integrity of the airport wildlife buffer areas shown in Figure 13, and discussed in Chapter 9. AAC will seek to minimise the risk of wildlife strike through appropriate siting, design, implementation and ongoing maintenance of restoration works being undertaken in the Oxley Creek corridor, consistent with the NASF guidelines.

AAC will also continue to liaise with BCC where there are opportunities to work together to manage more efficiently and cost effectively the creekside airport land.

AAC will consider any feasible proposals that assist in improving current grazing practices or implementing alternative management techniques, where these are consistent with the sustainable management of the airport land and airport safety, security and operational requirements.

AAC will continue to facilitate the Fire Ant control measures being implemented by the State government.

Landscaping will be provided in new developments to improve the presentation of the site. AAC will encourage the planting of mainly indigenous species on airport property.

A list of suitable plants for landscaping on AAC property has been developed and will be used when assessing landscaping works by AAC or tenants.

All developments on the airport, including stormwater management works and site landscaping, will be planned and managed to ensure that they do not

increase bird or bat populations at the airport, due to the hazard to aircraft of bird or bat strike.

16.4 AIR QUALITY AND OZONE DEPLETING SUBSTANCES

16.4.1 Objective

To minimise where practicable emissions to air from AAC and tenant related activities (except emissions from aircraft)

16.4.2 Existing conditions

The airport is in the industrial area of Archerfield/Rocklea/Acacia Ridge, which is home to general manufacturing, and service industries; transport and related activities. The area is bisected by a network of arterial and main roads including Ipswich Motorway, Granard Road, Beaudesert Road, Boundary Road, Ashover Road, Kerry Road, Mortimer Road and King Avenue/Learoyd Road.

There are no significant sources of greenhouse gas emissions on the airport. No tenants or AAC operations produce significant discharges to the atmosphere.

A detailed audit of the airport in 1993/94 identified all equipment containing ozone depleting gasses. Since then, all BFC fire extinguishers have been removed (in December 1997), and there are no remaining air conditioners filled with Freon.

Archerfield Airport has no dedicated spray painting operations. Several tenant operations include spray paint booths as part of their maintenance activities and some tenants undertake minor painting, but as an ancillary activity.

There is the potential for some activities by tenants (either during construction, or in the operation of their activities) to generate dust, or track material onto the road network. This requires clean up and implementation of effective ongoing management measures.

16.4.3 Potential impacts

Experience at similar general aviation airports in Australia shows that a relatively small quantity of pollutants are released during the running of aircraft engines while on the ground for testing and maintenance procedures.

Most emissions are solvent vapours released either during the spray painting of aircraft bodies and components, or through cleaning of equipment.

Emissions would be similar to other spray painting and mechanical repairs establishments in the surrounding industrial areas. Due to the mix of uses and the extensive open space on airport the density of these uses is significantly lower than nearby industrial areas.

Dust from activities within a tenancy, or material tracked from airport sites could, if not appropriately controlled pollute the environment or cause nuisance to airport users or areas in the vicinity of the airport.

16.4.4 Management of impacts

Painting and cleaning

The main potential impact on the air environment from painting or cleaning operations is odour from solvents.

AAC has replaced its solvent based line marking paints with water based alternatives to reduce the emission of solvent vapour from this source.

For new tenancies, any potentially odorous activities will be identified and managed so that there is no unacceptable impact on neighbouring areas. If painting is proposed, consideration will be given to the acceptable scale of the activity, and any mitigation measures that will be required.

Measures for achieving appropriate odour control will be determined prior to the establishment of the tenancy, in accordance with the EMPs.

In the case of existing tenancies, if any odour emission issues arise, these will be addressed through direct negotiation (if a complaint is received) or via the periodic environmental review process.

All tenants that have trade waste discharges are required by AAC to obtain from UU appropriate trade waste disposal approvals, and maintain their operations in accordance with these requirements.

Ozone depleting substances (ODS)

AAC facilities

AAC operations will be managed to ensure that all discharges meet the requirements of relevant legislation being the *Airport (Environment Protection) Regulations 1997*, the *National Environmental Protection Measure (NEPM) for Ambient Air Quality*, the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989* and the *Ozone Protection and Synthetic Greenhouse Gas Management Regulations 1995*, which control the major end-uses of ozone depleting substances and synthetic greenhouse gases.

This legislation protects the environment by reducing emissions of ozone depleting substances and synthetic greenhouse gases.

Regular environmental reviews will identify any ozone depleting substances on site, and their phase out will be arranged.

The progressive phase out and replacement of any remaining AAC equipment containing ozone depleting gasses will also occur as replacement equipment becomes commercially available and older equipment is replaced.

Tenants

The regular environmental reviews of tenant facilities will identify any halon fire extinguishers (sometimes used in aircraft), and if any are found in service for non-essential use, the tenant will be advised to remove the equipment from service as required by State and Federal legislation.

As the presence of halon extinguishers will be readily identifiable during the regular environmental reviews, additional monitoring is not considered necessary.

Dust control

Control of dust emissions from tenancies, and prevention (and clean up) of tracking of materials onto the airport roads is addressed through:

- identifying with tenants the potential risks of their activities and appropriate control mechanisms;
- requiring tenants to identify and implement dust control mechanisms, in their Environmental Management Plan(s) (which are administered through their lease);
- requiring the preparation and implementation of a Dust Management Plan in situations where this is appropriate;
- including dust control measures in EMPs for works;
- identifying dust or material tracking issues through ongoing AAC observations, or receipt of complaints, or through tenancy reviews; and
- following up with rectification and ongoing management measures (through a Dust Management Plan).

16.4.5 Achievements 1998-2023

AAC has collated existing data on airshed quality from the QLD DES Rocklea monitoring site.

AAC has produced an inventory of existing airport tenants and users, as an indicative baseline for possible future air quality assessments.

Water based line marking paints are now used by AAC to reduce the emission of solvent vapour from this source.

AAC has collaborated with several industrial tenants located at the Beaufighter precinct concerning dust control and suppression measures each of which have contributed to tangible improvements.

16.4.6 Implementation targets for the 2023 AES

Continue to identify the presence of ODSs in AAC and tenant reviews, and negotiate appropriate management (including decommissioning and removal wherever feasible).

Continue to advise tenants of their responsibility to obtain relevant environmental approvals in accordance with the *Airports Act* and Regulations.

Continue to address the control of dust emissions from tenancies, and prevention (and clean up) of tracking of materials onto the airport roads through:

- identifying with tenants at the commencement of a tenancy the potential risks of their activities and appropriate control mechanisms;
- requiring tenants to identify and implement dust control mechanisms, in their Environmental Management Plan(s) (administered through their lease);
- including in EMPs for works dust control measures and requirements to contain material to prevent it being tracked onto roads;
- requiring the preparation and implementation of a Dust Management Plan for tenant operations in situations where this is appropriate;
- identifying dust or material tracking issues through ongoing AAC observations, or receipt of complaints, or through tenancy reviews; and
- requiring rectification within a specified timeframe, and ongoing management measures (through a Dust Management Plan).

16.5 SURFACE WATER

16.5.1 Objective

To minimise the impact of airport operations on surface water quality

16.5.2 Existing conditions

Catchment context

The airport is in the middle to lower reaches of the Oxley Creek catchment, just upstream of the confluence of Oxley Creek and Blunder Creek. Oxley Creek discharges ultimately to Brisbane River.

The airport location relative to the Brisbane River is shown diagrammatically in Figure 1. The location of Oxley and Blunder Creeks, and the alignments of the main drainage outfalls from the airport to these waterways is shown in Figure 3 *Airport context*.

The middle and lower reaches of the Oxley Creek catchment are highly urbanised.

The *1999 Oxley Creek Catchment Management Plan* identified the following issues for the catchment overall:

- water quality within the creek system exceeds standards across all water quality parameters (suspended solids, total nitrogen, total phosphorus, faecal coliforms) in the lower urbanised part of the catchment. There was however some evidence of improvements since 1988;
- the primary causes of the existing degradation are point sources such as the Inala Sewage Treatment Plant, minor point sources (sewer overflows) and the non-point sources of sand extraction, stormwater run-off and land development, including areas using septic treatment systems;
- Brisbane River and Moreton Bay, the receiving waters of Oxley Creek, are experiencing excess sediments, nutrients and faecal coliforms, giving rise to problems of sea grass loss and algal blooms;
- further development in the upper reaches of the catchment could exacerbate flooding;
- riparian vegetation including wetlands has some critical areas requiring management and buffering; and
- soil erosion is an issue along the watercourses.

Stormwater management on the airport site needs to have regard to these broader contextual issues, and in particular to avoid causing detriment to water quality or flood conditions in Oxley Creek.

Site sub catchments

Surface water runoff from the airport falls generally into one of six main sub catchments and these are shown diagrammatically in Figure 18.

The boundaries of the sub catchments are indicative only, as there are few clearly defined watersheds across the site. In some cases, drainage infrastructure has been constructed such that stormwater flows will cross between the sub catchments as currently shown.

All surface water from the airport is discharged ultimately to Oxley Creek, and from there flows to Brisbane River and Moreton Bay. The northern and eastern part of the airport drains to Stable Swamp Creek (to the north) which enters Oxley Creek on the north side of the Rocklea industrial area.

1: Southern sub catchment

This sub catchment includes:

- grassed areas;

- sealed Runway 10R/28L and taxiways;
- hangars and businesses;
- open storage; and
- the control tower.

This stormwater drains to the main detention basin that is located between the tenancies on the south side of Beaufighter Avenue and the neighbouring Archerfield Speedway. The detention basin then discharges to Oxley Creek.

A small part of this sub catchment drains south under Mortimer Road, and through the neighbouring industrial area to Oxley Creek. This drain collects water from the eastern end of Lores Bonney Drive, and from the adjacent tenancies.

2: Beaufighter Avenue and Wirraway Avenue sub catchment

This sub catchment includes:

- the western end of the 10L/28R runway and associated taxiways;
- the western part of Transition Estate and the other '500' tenancies on Boundary Road;
- development along Wirraway Avenue; and
- development along Beaufighter Avenue, generally west and north of sites 674 and 678.

Stormwater in this sub catchment is conveyed via a piped drainage system along Beaufighter Avenue to a concrete end wall and dissipation structure prior to entering Oxley Creek.

3: BP Truckstop

Stormwater from the BP Truck Stop site on the corner of Beaufighter Avenue and Boundary Road discharges to a drain at Boundary Road that runs north through the Rocklea industrial area before joining to the main drain to Oxley Creek.

BP has in place a Forecourt Pollution Control System (FPCS) which discharges into the stormwater system. The FPCS captures customer fuel spills occurring within the under canopy fuel dispensing area and treats captured oily liquids via an oil-water separator. Monitoring of stormwater downslope of the separator is undertaken quarterly.

4: Central sub catchment

This sub catchment comprises the grassed areas associated with the 04/22 runway complex, most of the northern half of the 10L/28R runway, the fuel farms,

and aircraft parking positions; the majority of Transition Estate and the southern part of the Ashover precinct.

The majority of storm water in this sub catchment is collected by an on airport drainage system that falls north-west under the 04/22 runways to the detention and water quality basins in Transition Estate, and then passes under Boundary Road.

The three bio-filtration and detention basins constructed adjacent to Boundary Road manage peak flows from Transition Estate, and from upstream sub catchments in the central part of the airport. A Gross Pollutant Trap constructed between Basin 4 and the corner of Boundary Road and Transition Drive further improves the quality of water from the central drainage sub catchment which includes parts of the Boundary, Wirraway, Ashover, Runway and Beatty precincts. The outfall from the basins runs through the neighbouring industrial area, under the Ipswich Motorway to Oxley Creek. Water in the Oxley Creek then enters the Brisbane River.

5: Eastern and northern sub catchment

The fifth catchment on airport is the eastern and northern area fronting Beatty Road, Barton Street and Balham Road.

The stormwater run-off from this area enters the BCC drains that run parallel with Beatty Road, and a drain running north from Balham Road. At three locations along Beatty Road there are drains under the road that take stormwater to the east and then north to Stable Swamp Creek.

Underground stormwater drains in this area of the airport were examined by CCTV camera and significant repair/upgrade work was carried out to improve drainage in 2015/2016.

This part of the sub catchment is reasonably intensively developed, with extensive impervious areas (building roofs, roads, sealed aircraft parking, and manoeuvring areas).

The balance of the sub catchment has at present less impervious surfaces. Stormwater from the north-west corner of the airport (at the corner of Balham Road and Ashover Road) is conveyed to basin no. 7 constructed by AAC before being discharged to the existing piped drains to the north of the airport, and then to Stable Swamp Creek.

6: Beatty Road South

The vacant airport land on the north-east corner of Beatty Road and Mortimer Road drains to the north-east. It discharges to the main drainage line that runs parallel to Beatty Road, to Stable Swamp Creek, and then to Oxley Creek.

Stormwater quality

AAC undertakes stormwater quality analysis on an annual basis. The sampling is undertaken at the main drainage discharge points, and at locations within the airport drainage network. During drought periods, there was insufficient water at some of the sampling locations resulting in incomplete historical data.

Notwithstanding this, the program has provided useful information about site conditions.

The latest assessment completed by Environmental Management & Remediation Pty Ltd found no concentrations that posed a serious risk to the aquatic health of the primary receiving waters, being Oxley Creek.

Generally, results were within the overall trend that has been established since annual assessments commenced in 2009.

Metal results were similar to previous monitoring events with no significant changes identified that would indicate a potential risk to Oxley Creek.

Historically, total nitrogen, total phosphorous, and ammonia have exceeded the AEPR guidelines. This was probably a result of fertilizers applied and being washed into the stormwater system following rain events. As surface water sampling only occurs after significant rainfall, exceedances of the AEPR guidelines for nutrients will likely continue.

There were no volatile or semi-volatile petroleum hydrocarbons ($>C_9$), or aromatic hydrocarbons (BTEX) detected in the water samples. This was generally consistent with previous monitoring events.

The current guideline values for PFAS in surface waters relate only to PFOA and PFOS. PFOA concentrations were not above the referenced guidelines for 95% or 99% protection of freshwater or marine water species. PFOS concentrations all exceeded the 99% protection level for marine and freshwater species.

At present there is no marine water guideline for PFOS or PFOA. The guidelines used are interim guidelines that are the same value as the freshwater guidelines. It is expected that a guideline specific to marine water will be established in the future.

The risk level posed by PFOS was considered low when compared with the background levels recorded in Oxley Creek in the *Queensland Ambient PFAS Monitoring Program 2019-2020*, published by the Queensland Department of Environment, Science and Innovation (DESI) in October 2020.

16.5.3 Potential impacts

The potential impacts of stormwater drainage are:

- export of suspended solids off site leading to increased sedimentation of Stable Swamp Creek or Oxley Creek;
- transport of chemical pollutants, trace elements, or nutrients into these creeks and ultimately into Brisbane River;
- increased peak flood flows discharged to Oxley Creek, with the potential for exacerbating flooding in the creek; and
- increased peak flows into the existing main drainage system through the Rocklea industrial area, and through Archerfield, north to Stable Swamp Creek.

Onsite conditions also have the potential to affect water quality including from acid sulphate soils, current and historic airport operations including legacy firefighting and training activities, and imported fill.

16.5.4 Management of impacts

AAC is vigilant regarding stormwater management on the airport.

The following EMPs have specific relevance to managing the water aspects of the airport environment:

- Procedure AA1- *Environmental assessment of new tenancy or lease renewal*;
- Procedure AA4- *Minor spill response*;
- Procedure AA6- *Tenant environmental reviews*;
- Procedure AA7- *End of lease tenant environmental review*, and
- Procedure AA8- *Assessment of environmental effects of new works*.

For example, the procedure for new construction requires an assessment of the potential impacts of construction on all aspects of the airport environment (including stormwater drainage), and where impacts are possible, the preparation of a construction phase *Site Environmental Management Plan* (CEMP).

Washing of aircraft in the wash-down bay (with triple interceptor) is strongly encouraged.

If there is a risk that oil, grease, or fuel (including residues) will be discharged onto the ground, then the wash-down bay must be used. If there is regular washing of aircraft in parking positions, then AAC reserves the right to request water and/or soil testing to monitor for any contamination and identify any consequential management measures. This monitoring would be at the aircraft owners' expense.

AAC maintains a spill containment trailer that can be mobilised at short notice to deal with fuel and chemical spills from its own operations and for incidents involving aircraft.

Where appropriate, tenants are also required to have spill procedures for their operations. In addition to providing appropriately bunded storage facilities, tenants are also required to maintain stocks of spill control equipment where their operations have the potential to release environmentally hazardous materials to the environment.

AAC is also implementing progressively stormwater management works to address water quality and discharge volumes from each sub catchment, having regard to both existing conditions, and management of discharges from new developments.

16.5.5 Achievements 1998-2023

Stormwater management measures (addressing water quality and peak discharge volumes) have been incorporated where appropriate into new tenancies and into the airport development precincts.

The former open drainage line through the western part of the Boundary precinct and the west of the Beaufighter precinct (which was subject to significant scouring) has been piped, and silt traps and dissipation structures installed to moderate peak flows and manage water quality prior to discharge to the Oxley Creek.

A significant stormwater detention basin (basin 8) was constructed in the Beaufighter precinct in 1997/8, treating stormwater prior to its discharge to the Oxley Creek. The stockpile areas in the Alex Fraser Group Recycling facility drain to a sedimentation basin prior to discharge to the on-airport stormwater system.

Swale drains have been constructed along the southern boundary of the Beaufighter precinct, to direct flows from Runway 28L/10R and development in the Beaufighter precinct to the sediment basin.

Three additional bio-filtration and detention basins (Basins 3, 4 and 5) were constructed along the Boundary Road boundary of the airport in 2014 to manage peak flows from future works at Transition Estate. A Gross Pollutant Trap was constructed between Basin 4 and Boundary Road/Transition Drive to further improve the quality of water from Boundary Road and Transition Drive. These basins convey water to BCC drainage systems,

Small rock landscaping has been introduced to localised sections of open drains showing evidence of minor soil erosion.

The drainage line under the 04/22 runways has been piped and extended into Basin 3 at the north-western end, to moderate peak flows prior to discharge to the district drainage network.

Rainwater tanks have been included in new developments, including the corporate hangars on Wirraway Avenue, the QGAir facility on Wirraway Avenue,

the office and warehouse development on Beaufighter Avenue, and the warehouse and office at Site 111, the Hangar 4 redevelopment, the new logistics facility at site 581, and the Hangar 13 development.

Open earth drains have been periodically slashed and weeds removed.

The aircraft wash down bay is identified with signage. Washdown water passes through a triple interceptor prior to discharge from the site.

Surface water quality monitoring has been undertaken at various locations in the drainage network on an annual basis.

The stormwater management system for the 10L/28R runway, the associated primary taxiways and the Eastern Apron has been upgraded as part of Project AIM.

Stormwater management in the Ashover precinct has been improved with the construction of new drains for the 300 sites, the construction of Ashover Circuit, and construction of a new stormwater basin (Basin 7) at the northern end of the precinct. The new basin now manages stormwater runoff from the northern sub catchment, prior to discharge to the external BCC drainage network which runs north to Stable Swamp Creek.

16.5.6 Implementation targets for the 2023 AES

The annual surface water quality assessments will continue at spot locations, on a sub catchment basis, will be analysed for contaminants, and the findings will be included in the annual environment report to DITRDCA.

Where elevated concentrations are found, AAC will adopt a risk based approach to undertaking further sampling, and where appropriate will undertake further investigations within the relevant sub catchment area(s) to identify the likely cause of reduced water quality. It will work with the AEO to identify the source and improve water quality wherever feasible.

If necessary, the surface water monitoring program will be revised to assist with identifying the distribution or source of pollutants.

Water sensitive design measures, including the use of rainwater tanks for capture and reuse of stormwater flows will be incorporated into new developments wherever feasible.

AAC will continue to engage with BCC to identify opportunities to work in partnership to manage and improve water quality in Oxley Creek.

16.6 GROUNDWATER

16.6.1 Objective

To minimise the impact of airport operations on groundwater quality

16.6.2 Existing conditions

Groundwater at the airport has been assessed on an annual basis since 1993.

A network of groundwater monitoring wells has been progressively developed and expanded since inception to ensure all on-airport areas are covered as well as to test contamination coming onto airport from off-site locations. All operational wells are shown in Figure 30 *Groundwater*.

The most recent assessment, the *2022 Ground Water Monitoring Event for Archerfield Airport* was completed by Environmental Management & Remediation Pty Ltd in June 2022. The findings are set out in the 'groundwater quality' section below.

Regional hydrogeology

The *2013 Annual Ground Water Monitoring Report* by Simmonds & Bristow included information about the existing site conditions as follows:

The site geology consists of Tertiary semi consolidated sediments and basalt (Sunnybank Formation). It is estimated that the basalt dips to the west. Underlying this is the Triassic-Jurassic Woogaroo Sub-group which is comprised of sandstone, siltstone, shale and conglomerate. These rocks are less permeable to groundwater flows than basalt. Alluvial deposits occur along Oxley Creek (southwest boundary) and Stable Swamp Creek further north.

Potentiometric contours have indicated that the groundwater flow across the site is in a northwest direction. This was supported by the findings of the 2014 groundwater monitoring report.

Therefore, the receiving environment for groundwater would be the section of Oxley Creek along the airport's south west boundary and in areas immediately adjacent to the creek.

Groundwater from the site would also tend to flow further northwest toward the junction of Oxley Creek and Stable Swamp Creek. The indicative flow direction is shown in Figure 30.

Beneficial uses of groundwater

Groundwater resources in the area are not used for potable supply. Various tenancies in the Beaufighter precinct use water for dust suppression.

Underground storage tanks (UST)

The USTs on site are required for current uses and are summarised below.

TABLE 13: UNDERGROUND STORAGE TANKS

| Site | Tank Reference | Fuel type | Capacity (litres) |
|----------------------------|----------------|---------------|-------------------|
| AAC Compound (Site 652) | AAC-HMR_009 | Diesel | 350 |
| BP Truckstop (Site 450) | AAC-HMR_010 | Diesel (ADF) | 110,000 |
| | AAC-HMR_011 | Diesel (ADF) | 110,000 |
| | AAC-HMR_012 | ULT-98 (PULP) | 30,000 |
| | AAC-HMR_013 | ULP-91 | 50,000 |
| | AAC-HMR_014 | PULP-95 (ULT) | 30,000 |
| | AAC-HMR_015 | LPG | 30,000 |
| AvFuel Services (Site 123) | AAC-HMR_001 | Jet A1 | 52,200 |
| | AAC-HMR_002 | Jet A1 | 52,200 |
| AvFuel Services (Site 120) | AAC-HMR_006 | Avgas | 82,000 |

Above ground storage tanks

The following above ground storage tanks are in use at Archerfield.

TABLE 14: ABOVE GROUND STORAGE TANKS

| Site | Tank reference | Fuel type | Capacity (litres) |
|---|----------------|-----------|-------------------|
| AvFuel Services (120) | AAC-HMR_005 | Jet A1 | 51,500 |
| Queensland Government Air (EMG Helicopter) (412) | AAC-HMR_018 | Jet A1 | 5,000 |
| Bondwoods Transport (AUST) (508) | AAC-HMR_020 | Diesel | 13,000 |
| DDS Transport Solutions (311) | AAC-HMR_021 | Diesel | 10,000 |

BP Spill

In 2006 one of the diesel tanks at the BP Truckstop on the corner of Boundary Road and Beaufighter Avenue was found to be leaking.

The tank was removed and a soil and groundwater remediation and monitoring program was implemented by BP, under the supervision of an independent environmental assessor.

The tanks and related infrastructure were replaced with double walled tanks and pipes.

The groundwater and soil remediation works were undertaken in accordance with an Environmental Management Plan. The remediation phase has been completed, and the site is now under a monitoring and reporting program.

Groundwater quality

Groundwater quality is assessed on an annual basis, with AAC records going back to 1993. The 1993 study found that BTEX, TPH and metal concentrations were below method detection limits in all monitoring wells.

In 2003-4 AAC reviewed its water quality monitoring program and serviced and upgraded monitoring wells.

In 2013, following a review of the monitoring program, four new bores were installed along the area bounded by Mortimer Road, Wirraway Avenue and lower Beaufighter Avenue. The new bores were sited to provide more comprehensive analysis of off-site and on-site activities including near MW4 and MW9. The review also found that off-site activities behind MW2, MW3 and MW6 had an impact on the levels of heavy metals in the groundwater.

The subsequent groundwater monitoring report, in October 2016, concluded that, overall, the groundwater concentrations reported do not indicate that a serious risk exists to the water quality or aquatic ecosystem of Oxley Creek.

The most recent sampling and analysis was completed in June 2022 by Environmental Management & Remediation Pty Ltd. The purpose of the annual assessment is to identify whether there have been changes in groundwater quality that may present a potential risk to human health or the environment.

The 2022 assessment concluded the inferred groundwater flow direction was broadly towards the west-northwest, generally consistent with the findings of previous assessments. The flow direction however in the northwest and western portions of the site appeared to follow a south to southwest trend (see Figure 30 *Groundwater*).

Changes in groundwater quality and general findings have been summarised as follows:

- The dissolved heavy metal concentrations were mostly below the laboratory detection limits or AEPR guidelines except for minor exceedances of the freshwater guidelines for copper and/or zinc (MW2, MW4 and MW9) and one exceedance of the marine water guidelines for copper and nickel (MW10).
- As the marine water exceedances were minor, it was concluded that there were no potential risks to the receiving environment, that being the aquatic health of Oxley Creek.
- Consistent with the previous annual assessments, TPH/TRH/BTEXN concentrations were either not detected or well below AEPR guidelines for samples MW4, MW5, MW14, MW15 and MW16. As a result, fuel storage (past or present) was not affecting the aquatic health of Oxley Creek.

- PFAS compounds were detected and all PFOA concentrations were below NEMP 2.0 freshwater and marine guidelines for 95% and 99% species protection.
- All PFOS concentrations exceeded the NEMP 2.0 freshwater and marine water guidelines for 99% species protection, and there were some exceedances of the 95% species protection level.

The assessment concluded that future monitoring should determine if the PFAS concentrations are trending upwards and if this trend is having an adverse impact on the downgradient groundwater quality.

At present the risk profile has not changed from past annual monitoring assessments based on the current groundwater analytical results.

AAC continues to monitor sampling results and works closely with the AEO to attempt to identify the source/s of any contamination.

16.6.3 Potential impacts

Impacts in groundwater from activities on airport could arise from:

- potential PFAS contamination as a result of legacy AFF storage, use and training activities from past government agencies (e.g. ARF);
- leaking USTs and related infrastructure (pumps, pipes etc.);
- inappropriate storage, handling or disposal of hazardous materials;
- buried waste (including from past occupiers);
- spills from the UU sewer pump station off Beaufighter Avenue (and near Oxley Creek); or
- material spills.

Onsite conditions also have the potential to affect water quality including acid sulphate soils, current and historic airport operations including legacy firefighting and training activities using foams containing PFAS, and imported fill.

Similarly, there is the potential for areas surrounding the airport to impact on the groundwater conditions on airport. The past and present industrial uses, wartime developments, and the former quarry on the north side of Mortimer Road (next to the south-east corner of the airport) are all potential sources. These need to be considered in any groundwater monitoring program.

16.6.4 Management of impacts

AAC has in place several measures to protect groundwater from contamination by airport activities.

These include:

- annual monitoring of groundwater via the network of bores on site;
- provision of spill containment equipment for deployment by AAC in areas under its direct management;
- decommissioning of old and redundant USTs;
- discouraging tenants from installing new USTs if bunded above ground storage is feasible;
- requirements in the EMPs for new tenants to address hazardous materials storage and containment in their plans; and
- consideration of spill containment during tenant reviews.

Any new UST and related infrastructure must be installed and operated in accordance with industry standards.

Existing tanks and related pipe and pumping infrastructure require ongoing monitoring to confirm the integrity of the fuel storage system. Any losses from the system need to be identified early so that remedial action can be taken.

AAC confirms during the environmental reviews of each tenancy with USTs that monitoring is being undertaken.

16.6.5 Achievements 1998-2023

The network of groundwater sampling bores is reviewed on an annual basis for efficacy, and has been progressively developed since 1993.

The system was serviced and upgraded in 2003, and a new groundwater monitoring well was established in the area between Beaufighter Avenue and Oxley Creek for the 2010 monitoring cycle. This provides baseline data about groundwater conditions and movement in the south-western part of the airport.

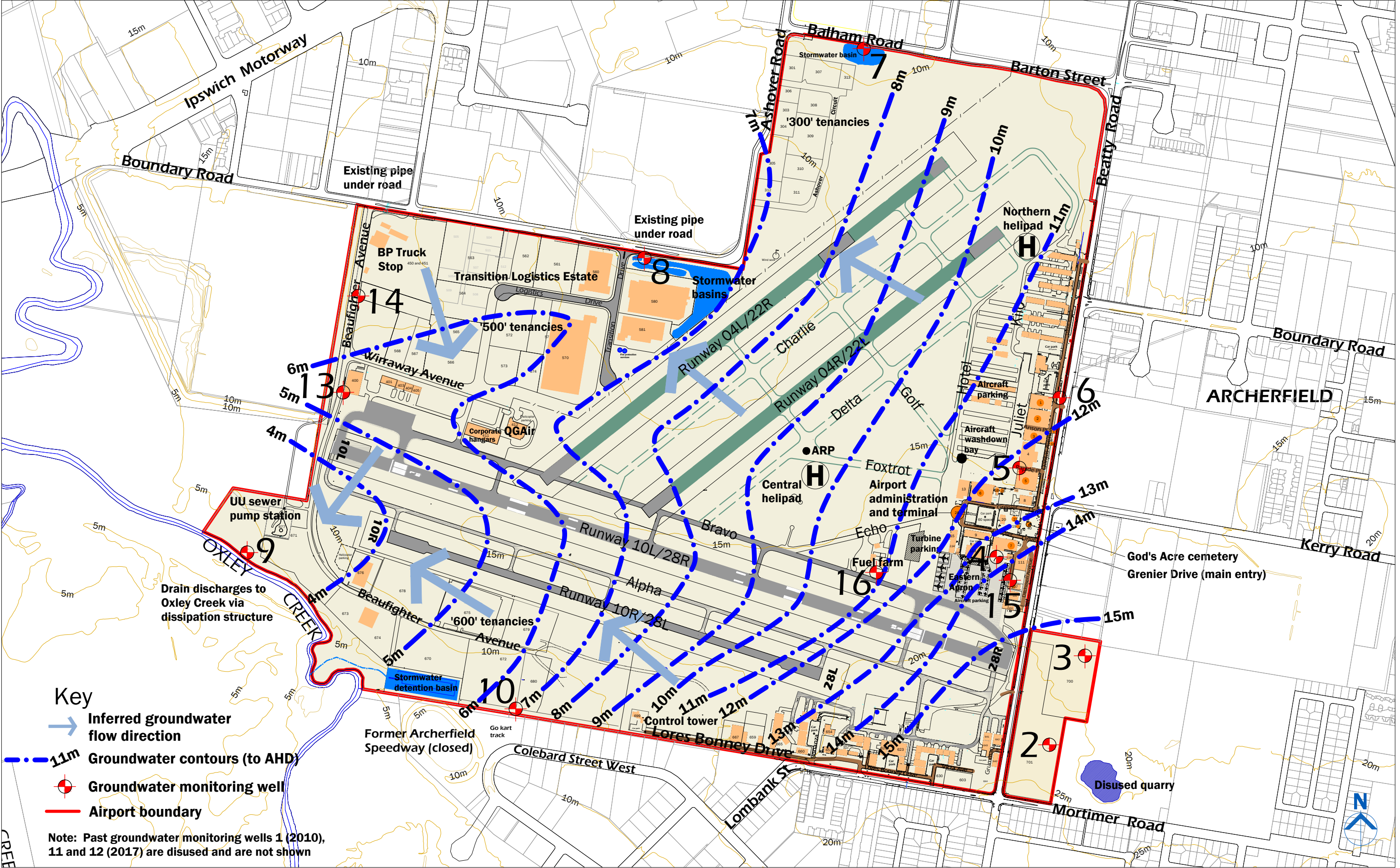
An additional 6 new wells were installed along the Mortimer Road boundary and Beaufighter Avenue boundary between 2012 and 2015 and two unserviceable wells in other locations were repaired.

The annual groundwater monitoring program by AAC has continued throughout the planning period and now provides data for the past 20 years. The scope of ground water monitoring has also been increased to sample for a larger range of contaminants of potential concern (CoPC).

Annual integrity testing is carried out on AAC's underground diesel tank. No loss of product has been identified.

All tenants with USTs have in place gain/loss monitoring systems.

Various USTs and infrastructure have been removed as part of redevelopments at sites 108, 109 and 121 (which included the decommissioning and removal of a 55kl Jet A1 fuel tank and a 55kl Avgas tank).



16.6.6 Implementation targets for the 2023 AES

AAC will continue to implement the management measures set out in 16.6.4.

The annual groundwater monitoring and analysis program will continue. Attention will be given to determine the likely reasons for any elevated levels.

The scope of testing, and sampling undertaken will continue to be reviewed as part of the annual assessment, and refinements made to the monitoring program if required.

The condition and operation of the network of wells will also continue to be reviewed on an annual basis, and works undertaken if required to ensure the integrity of the monitoring program.

AAC will during the cyclical environmental reviews follow up tenants with USTs to ensure that monitoring for losses is being undertaken, and immediate corrective action is taken if any losses are identified.

AAC will continue to undertake annual integrity testing of the diesel UST in the AAC grounds maintenance compound. If any discrepancy is identified immediate remedial action will be taken. These actions will be in accordance with Australian Standard AS4897-2008, *The Design, Installation and Operation of Underground Petroleum Storage Systems*.

Any new USTs will be subject to either an integrity testing plan or an appropriate gain/loss monitoring system. The testing, monitoring, and reporting regime will be in accordance with the relevant industry standards.

16.7 SOIL

16.7.1 Objectives

To minimise the potential for soil contamination to occur

To continue to manage contaminated sites in accordance with relevant legislation

16.7.2 Existing conditions

Soil conditions at the airport consist of silty and sandy clays that overlay weathered basalt. The basalt becomes less weathered as depth increases.

Soil contamination

In July 1993, a *Background Investigation Report* (Otek 1993) identified several potential areas of subsurface contamination associated with the airport. These included a number of USTs, scrap yards, a battery recycling operation, maintenance shops, painting facilities, and drum storage areas.

A subsequent more detailed environmental investigation (Otek September 1993) found that Benzene, Toluene, Ethylbenzene and total Xylenes (BTEX) and Total Petroleum Hydrocarbon (TPH) levels were below method detection limits in all borings tested. Metal analyses indicated elevated levels of lead in proximity to the former battery recycling facility. The study concluded that detectable concentrations of nickel, copper, cadmium, and chromium were consistent with background concentrations and were within applicable criteria. Analyses for volatiles, pesticides, and PCBs showed no concentrations above the method detection limits.

The study found no adverse impact on the environment from the USTs.

The minimal localised soil contamination detected in the Otek environmental reviews was well within the current acceptable environmental standards.

Otek, in 1993 also undertook soil sampling in the open unlined drains along the northern and western perimeters of the site. The analysis of the samples concluded that there was no detectable soil contamination.

In 2006 BP advised that one of the diesel tanks at the BP Truckstop on the corner of Boundary Road and Beaufighter Avenue was found to be leaking. BP subsequently replaced all tanks and implemented a soil and groundwater remediation and monitoring program, under the supervision of an independent environmental assessor. This is subject to ongoing assessment and reporting.

An independent environmental assessor has overseen the containment of pollution and the implementation of the remediation works, and the monitoring program which is still in place. Contaminated soil was excavated to the maximum feasible extent (some allowance had to be made for protection of canopy foundations and other structural elements). The soil was farmed on adjacent land on the airport for approximately six months, before being disposed of off-site.

The USTs on the site have been replaced with double walled tanks and related infrastructure.

Environment Site Assessments (ESA) are completed across the airport and the results of which are entered into the Airport Environment Site Register. Such investigation can be triggered as a result of a new building activity, lease commencing, lease end requirement and/or incidents. Soil sampling is a primary function of the ESA.

Soil samples have also been tested from Site 635, at Site 668 (formerly occupied by Australian Paving Services (APS) and at Building 9. In all instances, no contamination above accepted levels was detected.

Acid sulfate soils

As part of the Brisbane City Plan, BCC has collated information about acid sulfate soils in the Council area, and made available a potential and actual acid sulfate soils overlay which identifies land subject to the requirements of the State Planning Policy (SPP).

The State government describes acid sulfate soil as follows:

Acid sulfate soils are coastal soils and sediments containing iron sulfides (mainly pyrite).

They cover approximately 2.3 million hectares of land and occur naturally along the Queensland coast, usually where land elevation is less than 5 metres Australian Height Datum (AHD). Soil or sediment containing highly acidic soil horizons (or layers) affected by the oxidation of iron sulfides is known as 'actual acid sulfate soils'. Soil or sediment containing iron sulfides or other sulfide material that has not been exposed to air and oxidised is known as 'potential acid sulfate soil'. The term 'acid sulfate soils' includes both.

The exposure of potential acid sulfate soil to oxygen (e.g. through dewatering, excavation or filling) results in the production of sulfuric acid and soluble iron, which can be released into receiving waters. The acid corrodes concrete and steel infrastructure and, together with the metal contaminants, can kill fish, other aquatic organisms, native vegetation and crops, and affect human health (e.g. if groundwater supplies are used for urban and domestic drinking water).

Appropriate planning and development controls can minimise these risks. However, avoiding the disturbance of these soils is always the preferred strategy

In Brisbane, acid sulfate soils are generally found in land at or below 5m Australian Height Datum (AHD) and in Holocene sediments (organic-rich sediments and silts). They are usually associated with coastal lowlands and estuarine flood plains. Under natural conditions the soils are usually located below the water table.

The only parts of the airport at or below the 5 metre contour are found in the south-west corner of the site, next to Oxley Creek. The 5 metre contour is shown in the *Existing conditions* drawing.

In the absence of appropriate management, acid sulfate soils may affect the following key environmental values or uses:

TABLE 15: POTENTIAL EFFECT OF ACID SULFATE SOILS

| Environmental values | Impact or potential impact |
|---------------------------|---|
| Aquatic ecosystems | Aquatic ecosystems may be affected by changes to water and soil quality. This can lead to negative effects on the species and ecological communities that depend on this ecosystem. |
| Primary industries | Irrigation water may be acidic and/or have high concentrations of metals, which may affect stock drinking water, infrastructure and machinery, and crop growth and yield. Commercial fisheries may be affected by poor water quality that may cause fish kills or disease, and affect human consumption of aquatic foods. |

| Environmental values | Impact or potential impact |
|--------------------------------------|---|
| Recreation and aesthetics | An environment may not be able to be used or enjoyed to the same extent for recreational purposes due to factors including acidic water, odours, loss of aesthetic appeal, loss of fishing amenity and acid-tolerant mosquitoes increasing in number. |
| Drinking water | Water quality may be unsafe for human consumption due to factors such as pH change, changes to the concentration of dissolved metals or load of suspended metals and tastes and odours. |
| Industrial water | Water may not be suitable for certain industrial purposes. For example, acidified water may corrode metals in the manufacturing process. |
| Cultural and spiritual values | Areas of cultural and spiritual significance may be degraded or may not be able to be used for cultural, recreational or consumptive uses. Significant fish and plants may be affected by acidic water, metal contamination or oxygen depletion in water. |

16.7.3 Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)

There is potential for a range of manufactured chemicals known as per- and polyfluoroalkyl substances (PFAS), in particular perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA), to exist on airport. Consistent with other airports in Australia, this is likely to be a result of legacy firefighting activities.

PFAS are non-biodegradable chemicals that are highly persistent in the environment, can bio-accumulate, and can be harmful to animals and human health.

PFAS have wide ranging applications throughout the world and their presence in an airport context is often linked to historical fire-fighting incidents, training, maintenance of equipment, industrial uses, storage or other activities.

There is also the potential for PFAS in soil or groundwater to originate from activities on adjacent or nearby land, including from use in industrial, commercial and residential applications.

To gain an understanding of the background levels of PFAS on airport and coming from off-site areas, AAC includes PFAS testing in the annual surface and groundwater monitoring program. Data from this testing, and from Environmental Site Assessments is included in the airport's PFAS profile, which maintains up to date datapoints from all assessments that are undertaken. Testing undertaken to date has shown that no concentrations have been high enough to pose a risk.

AAC has taken proactive measures to not only identify, monitor and mitigate PFAS contamination, but also to actively ensure all airport tenants and contractors are aware of the potential for, and risks associated with PFAS contamination.

AAC is committed to working with environmental experts, as well as relevant local, state and federal government agencies, to address and responsibly manage any potential PFAS concerns.

AAC is participating in Tranche 2 of the *Commonwealth Airports PFAS Investigation Program* and works are underway.

In addition, periodic ground and surface water monitoring events have incorporated PFAS testing into the scope with the aim of identifying, tracking and monitoring PFAS datapoints and trends throughout the airport.

Maintenance, new building activities and developments are required to comply relevant national guidelines when appropriate. These include the *PFAS National Environmental Management Plan Version 2.0* – January 2020 (Heads of EPA Australia and New Zealand).

Additionally, PFAS soil screening may be completed as part of any new building activity (where indicated from a risk assessment). Results of all PFAS testing completed on airport are added to the PFAS datapoint tracking tool.

AAC will continue to liaise with DITRDCA on this issue, to ensure that the most appropriate actions are implemented for environmental assessment, ongoing monitoring or for remediation of any contamination that might be identified.

16.7.4 Potential impacts

The main potential impacts of airport activities are:

- soil contamination from USTs;
- soil contamination from chemical spills;
- soil contamination from oil leaks from aircraft and motor vehicles; and
- soil contamination from PFAS as a result of historic firefighting activities.

16.7.5 Management of potential impacts

AAC will continue to review activities on airport to identify any potential sources of soil contamination. For AAC operations and areas under AAC management, this will occur on an ongoing basis. Individual tenancies will be assessed during tenant reviews, and at the end of lease assessment.

Underground storage tanks and businesses associated with the storage and use of potential contaminants (including waste materials) will attract specific surveillance.

All new AAC leases have the requirement for tenants to monitor for contamination, and where issues arise, to remediate. These activities will in each case be addressed through a tenant *Site Environmental Management Plan* for construction and/or operation phases (as applicable).

Tenants will be required to provide AAC with independent validation of site clean-up works.

AAC will encourage tenants to decommission underground tanks, regardless of condition, due to the significant potential liability associated with the ageing underground infrastructure. In the future, all storage tanks installed on the site (apart from fuel services) will wherever possible be above ground with appropriate containment, including bunding.

Bunding of hazardous materials storage equipment (containers and conveying infrastructure) will be required where there is the potential for spills.

AAC's PFAS Desktop Assessment will be applied to any development or works involving minor excavation. Additional PFAS sampling and analysis will be completed if indicated from the findings of the desktop assessment, or as part of the Environment Site Assessment (ESA) process for more extensive building activities.

Any future development in the lower lying land in the south-west corner of the airport, immediately adjacent to Oxley Creek, needs to take into account the possibility of acid sulfate soils. This should be addressed in an assessment to be undertaken as part of the formulation of any development proposals for the land at or below the 5 metre (AHD) contour.

In addition, if excavation of more than 100m³ is proposed at or below 5m AHD on land with a natural surface level of between 5m and 20m AHD, appropriate consideration will be given to acid sulfate soils in the design and construction of the works.

16.7.6 Achievements 1998-2023

The former battery recycling site has been remediated by removal of the contaminated soil and reclamation with clean fill in 1994. The remediation is described in report reference B94C094/C1 prepared by Otek Australia Pty Ltd dated 14 December 1994.

The former Airport Rescue and Fire Training Area was closed and remediated to standards applicable at that time in 1994. The site remediation is also described in the 14 December 1994 report by Otek Australia Pty Ltd.

The former underground storage tanks used by Mobil, Air BP and Shell were decommissioned and the sites remediated over the period 1997 to 2000. More recently, USTs associated with site 121 in the fuel farm have been removed and the sites remediated.

The assessments indicate that only small contamination issues such as oil leaks from aircraft and motor vehicles exist on the airport.

16.7.7 Implementation targets for the 2023 AES

All tenants operating or proposing to install underground storage tanks will be required to institute programs to ensure tanks do not leak. Tenants will be required to carry out annual testing of tanks, or alternatively implement a continual monitoring program as detailed in the Australian Institute of Petroleum's Code of Practice, 'CP4 1998, Design, Installation and Operation of Underground Petroleum Storage Systems'.

Bunding will be required for all new storage facilities for hazardous materials.

AAC will continue to apply EMPs (and in particular the *End of lease tenant environmental review*) to ensure that leaseholds are appropriately managed and any contamination is identified and rectified.

AAC will undertake a PFAS Desktop Assessment for any development or works involving minor excavation. Additional PFAS sampling and analysis will be completed if indicated from the findings of the desktop assessment, or as part of the Environment Site Assessment (ESA) process that will be required for more extensive building activities.

An assessment for acid sulphate soils will be undertaken before undertaking any development requiring ground excavation in the south-west corner of the airport, at or below the 5 metre (to AHD) contour.

16.8 HAZARDOUS MATERIALS AND WASTE MANAGEMENT

16.8.1 Objectives

To minimise the use of hazardous materials, where practicable

To minimise the quantities of waste produced where practicable

To maintain current information on hazardous materials on the airport

To ensure that wastes are properly handled, stored, transported, and disposed of

To encourage recycling of materials

16.8.2 Existing conditions

Effluent

The airport is serviced with reticulated sewer and is connected to the metropolitan network (including for trade waste).

UU has a sewer pump station in the south-west corner of the airport, adjacent to Oxley Creek, and a second low pressure sewer system services Transition Estate and the Ashover precinct, discharging to the sewer network in Ashover Road.

Hazardous materials

AACs objective is to minimise where practicable the use of hazardous materials and to ensure that where hazardous materials are used, their impact on the surrounding environment is kept to a minimum.

Hazardous materials are stored in a variety of locations at the airport, and while some storage is well designed, others require some improvement. There is also a need for constant vigilance to ensure that the storage methods and signage are appropriate to the types of product storage currently in use. Australian Standards will apply.

Potentially contaminated building materials

A comprehensive survey of buildings conducted in 1994/1995 and reviewed regularly since then has found evidence of some in situ building materials likely to contain asbestos. These materials are mostly in sheet 'fibro cement' form and have been used most commonly for cladding some buildings, and roofing in particular. There are also incidences of asbestos in other building materials including flooring.

The survey found that this is confined to older existing structures, and, provided it is not disturbed from its current state, is regarded as not presenting any hazard.

The survey also identified a limited amount of asbestos fibre used in pipe lagging.

In 2003 Asbestos Audits Queensland Pty Ltd completed its *Asbestos Materials Report and Register for Archerfield Airport*. The report addressed all AAC buildings on the airport and included an inventory of asbestos, and recommendations for its management.

In 2006 the asbestos register was upgraded to include a risk assessment and Management Plan, which was updated as developments occurred, buildings were demolished, and buildings came into the ownership of AAC.

In 2012 Asbestos Audits Queensland Pty Ltd prepared a new *Asbestos Management Plan and Register for Archerfield Airport* which incorporated new buildings and recognised 2011 codes of practice.

This register and management plan was again updated and reissued in 2015 and 2022. AAC updates the plan as asbestos is removed.

Recycling

AAC's objective is to comply with current waste management standards and to minimise waste. It will ensure that it adopts the most recent recycling practices.

Where possible during tenant reviews opportunities to minimise waste or utilise waste from other activities on site will be identified.

16.8.3 Potential impacts

The potential impacts of ground based airport activities include discharge of hazardous materials or waste to soil, surface or groundwater; and litter pollution of the site or neighbouring land.

16.8.4 Management of impacts

AAC maintains a current register of asbestos in its buildings. Asbestos material is marked with hazard stickers, and the asbestos register is made available to tenants and contractors undertaking work on the airport.

The asbestos register is updated as works are undertaken, and any changes are included in the annual environment report to the Commonwealth.

If buildings containing asbestos are to be demolished or modified, this work will be undertaken in accordance with an Environmental Management Procedure applying precautions stipulated under the *Work Health & Safety Act* and regulations, applicable codes of practice and other relevant guidelines.

Monitoring of the quality and quantity of waste materials on site, and the actions taken to recycle this material will continue as part of environmental reviews of tenant operations. AAC operations and high risk tenants are assessed on an annual basis.

Waste management on the airport, including collection and off site disposal for AAC operations and all tenants, is undertaken by the AAC appointed contractor. This is a lease requirement, for all tenants.

Ongoing reviews will ensure environmental issues previously identified are addressed appropriately, as well as identifying any new issues related to the management and disposal of hazardous materials and wastes.

Environmental reviews will include an inspection of storage facilities and work practices, identification of unacceptably large waste stockpiles and a review of tenant records concerning the proper disposal of industrial wastes.

The regular environmental reviews will be supplemented by the on-going vigilance of all AAC staff. AAC personnel noticing unacceptable work practices, such as improper storage or leaking wastes will report their findings to AAC management for action.

The Archerfield EMPs require prospective new tenants (tenants or renewing their lease) to provide details of the materials they propose to store and use on site, and how these will be managed.

16.8.5 Achievements 1998-2023

AAC has conducted regular inspections of tenancies to identify all materials storage and handling, waste management and disposal and other aspects of the activities conducted in the tenancy that could potentially impact on the safety of the airport, or on the environment.

BCC regularly tests sewage entering its treatment system from the airport. Any non-conformances are reported to AAC and the tenant (if applicable) for action.

In May 2003 Asbestos Audits Queensland Pty Ltd completed its *Asbestos Materials Report and Register for Archerfield Airport*. The register was maintained until 2006 when a risk assessment and management plan was formulated.

This guided decisions on the ongoing management of asbestos until 2012 when the *Asbestos Management Plan and Register for Archerfield Airport* was implemented. The 2012 plan is subject to ongoing review and updating as works are completed.

A significant quantity of asbestos was removed between 2012 and 2015 as a result of extensive repair and upgrade works to various hangars and buildings.

AAC has compiled a register of chemical and hazardous materials for its grounds maintenance and works activities (2009).

The HAZMAT Register is provided to the Department annually as part of the Airport Environmental Reporting (AER) process and contains details of all large volumes of fuel stored on airport.

16.8.6 Implementation targets for the 2023 AES

Maintain the AAC asbestos register, management plan and risk assessments.

Review AAC operations and expand the Hazardous Materials Register as required.

Develop a Hazardous Materials Register for relevant tenancies and prepare baseline snapshot.

Monitor hazardous materials on airport through tenant reviews and record quantities of hazardous materials in a Hazardous Materials Register.

Ensure that tenants have hazardous materials licences where applicable and have a HAZMAP located at the site entrance.

Monitor the quality and quantity of waste materials on the airport.

Continue to require through lease conditions, the use of the AAC appointed contractor for collection and off site disposal of waste from tenancies.

Comply with regulations relating to the management of PFAS on airport.

16.9 USE OF NATURAL RESOURCES AND ENERGY

16.9.1 Objectives

To identify opportunities for cost effective reductions in consumption of natural resources and energy

To encourage efficient use of water and energy

To encourage the use of alternative sources of energy and water

To reduce airport use of non-renewable resources

16.9.2 Existing conditions

Archerfield Airport is supplied with reticulated water, mains power and other utility services from the Brisbane urban infrastructure networks.

Water

Sustainable Solutions International Pty Ltd prepared a *Water Efficiency Management Plan* (WEMP) for Archerfield Airport in April 2008.

The WEMP included a detailed assessment of past and existing water usage, and identified opportunities for more efficient use of water. It was prepared at a time when SEQ was in a protracted drought, and State government implemented legislation to conserve water use. The Government subsequently abolished The Queensland Water Commission and its permanent water conservation measures on 1 January 2013.

AAC encourages tenants to minimise use of potable water and to recycle water wherever possible.

Alex Fraser Group uses water from its detention basins for dust control, Veolia Environmental Services (Australia) Pty Ltd uses recycled water for dust management, and Q-Crete recycle water from its triple interceptor for its operations.

Water tanks are installed with new developments. Tenants are discouraged from hosing out hangars.

Electricity

The airport is connected to the Brisbane grid. Electricity is supplied directly to the airport substations, and the airport distributes the electricity to tenants on serviced sites.

AAC has also installed a 86kW solar electricity generation system on Building 111 in the Beatty precinct, providing renewable energy.

AAC is now investigating the feasibility of expanding roof top solar generation at Archerfield, with the objective of encouraging the progressive development of additional solar panel arrays on suitable sites at the airport.

AAC anticipates developing a solar strategy for the airport, once the feasibility investigations are completed, and priority actions confirmed.

16.9.3 Potential impacts

Efficient use of energy and water at Archerfield will become increasingly important in coming years.

Water scarcity is expected to be more prevalent due to climate change and increasing demand for water to serve population and economic growth in South East Queensland.

Energy usage will also become a significant issue, from the perspectives of cost, and carbon emissions in particular.

AAC is committed to securing the economic sustainability of the airport, and is working hard to attract additional enterprises and people to the site.

It recognises that water and energy consumption overall could increase due to:

- occupation of vacant leasehold premises, or connection of existing sites to the reticulated network;
- increased staff and visitor numbers on airport;
- construction activity; and/or
- increased production by tenants (particularly those with higher water usage requirements).

With growth in airport activity, the focus will be on achieving best practice efficiencies in water and energy use in new enterprises; use of renewable energy (including on site generation where feasible); and encouraging progressive improvements in existing AAC operations and tenancies.

Management of impacts

The management of water use includes:

- ongoing monitoring of consumption by AAC and tenants using the AAC metered supply, to identify opportunities for reductions;
- harvesting and reuse of water on site as a replacement (or supplement) for potable water (for suitable aviation and non aviation purposes); and

- use of water efficient fittings and appliances in AAC facilities and new developments.

As part of on-going improvements, the following water reduction initiatives have been identified:

- sub metering of tenancies with high water usage, to identify and address unaccounted for uses and possible leakages;
- use of water efficient fixtures with a minimum of 3 WELS stars at the airport; and
- a leak identification and monitoring program including repair of known leakages.

In addition, drought tolerant indigenous vegetation will be used where possible in new landscaping, to minimise the need for irrigation.

Improvements in recent years includes new landscaping work alongside the Grenier Drive entrance road and along Ditchmen Avenue in 2012. This included replacing existing undesirable vegetation with Tuckeroos. Upgraded and new landscaping has been provided at Hangars 1, 2, 3, 4, 5, 6 & 13; building 8; building 9; buildings 580 and 581 (in Transition Estate); and building 676, and several other sites in the Beaufighter precinct.

In anticipation of future drought conditions, AAC will prepare a *Drought Response Plan*, building on the initiatives taken in past periods of water restrictions.

A staged reduction in energy usage will be pursued, through initiatives such as:

- specifying energy efficient appliances and fittings (including lighting) in refurbishments and new developments;
- achieving energy efficiency in the siting, design, building fabric and specification of services for new development by AAC and tenants;
- at the planning stage of new developments investigating opportunities for on site generation of electricity from renewable sources; and
- encouraging tenants during environmental reviews to implement energy efficiency improvement strategies.

Improved efficiency in water and energy use will be pursued in new airport and commercial development.

16.9.4 Achievements 1998-2023

Use of natural resources and energy is considered in tenant assessments.

The airport has secured a number of recycling operations. These businesses promote the reuse of resources and reduce the energy used in producing these raw materials.

Water efficiency initiatives by AAC since the 2005/06 baseline year include:

- upgrade of all taps, showers, toilets and urinals at AAC owned buildings to more efficient fittings;
- installation of rainwater tanks; and
- upgrading of water meters.

Rainwater tanks have been installed for the QG Air complex on site 412, (for washdown for operational purposes), the corporate hangar development on site 411, and the new LifeFlight complex at site 409 in the Wirraway precinct; the warehouse and office on site 676 in the Beaufighter precinct; Hangars 4 and 13 and building 111 in the Beatty precinct; and buildings 560, 580 and 581 in Transition Estate, in the Boundary precinct.

Energy and water efficiency were key considerations in the refurbishment of the administrative offices in the historic Administration and Terminal building. Since completion, AAC energy consumption relating to administration and related activities has been reduced by almost half saving around 5000 kg of greenhouse gas emissions per annum.

Since commissioning the 86.6KW solar array at the Beatty precinct, AAC has produced energy that, had it not been from a renewable process, would have emitted the equivalent of 170,863kg of Carbon Dioxide (CO₂).

Energy requirements for airport operations have also been addressed. AAC has as part of Project AIM installed a new runway/taxiway lighting control system and replaced runway and taxiway lighting with LEDs which will result in on going energy savings.

16.9.5 Implementation targets for the 2023 AES

Use of natural resources and energy in AAC operations, and by tenants will continue to be monitored through the cyclical environmental review process.

Tenants will be encouraged to reduce natural resource and energy use, and initiatives will be recorded and reflected in management plans (as appropriate).

AAC will consider energy efficiency, water efficiency, and sustainable design when designing and specifying future projects or reviewing proposals by new or existing tenants.

AAC will review the current Water Efficiency Management Plan to ensure that it addresses contemporary requirements.

Opportunities for increasing the uptake of on site generation of electricity from renewable sources will continue to be investigated, and implemented where feasible.

AAC will seek to expand roof top solar generation at Archerfield, with the objective of encouraging the progressive development of additional solar panel arrays on suitable sites at the airport.

To further progress AACs sustainability objectives, AAC will:

- within the first two years of the AES, collect baseline data for a Sustainability Plan, focusing on Scope 1 and 2 emissions related to energy, water, and waste; and
- within three years, use this data to set sustainability targets, develop a plan, and establish annual reporting.

16.10 NOISE

16.10.1 Objectives

To minimise within the scope of AAC's responsibility ground based noise disturbance associated with airport operations.

16.10.2 Existing conditions

Aircraft noise

The major contributor of noise and vibration associated with airport operations is aircraft in flight.

Aircraft noise is modelled and mapped for each airport as an Australian Noise Exposure Forecast (ANEF). The ANEF shows the expected noise effects on land around the airport. It is reviewed and endorsed by AsA.

AAC in 2022 prepared an updated ANEF for Archerfield Airport that illustrates the noise modelled to 2042 (Figure 13). This ANEF was developed in consultation with AsA, BCC and the State Government and was endorsed in March 2023.

The Archerfield Airport ANEF identifies forecast noise impacts. It takes into account current standards, the projected aircraft movement patterns, likely aircraft mix, and maximum aircraft volumes forecast for the Airport Master Plan.

The approved ANEF provides useful information for planning decisions for land around the airport. It identifies areas that are not suitable for noise sensitive uses unless mitigating measures are implemented in the siting, design and construction of any buildings.

BCC and the State Government take the ANEF into account when they prepare the planning scheme for land around the airport, or consider development proposals near the airport.

Under the *Civil Aviation Act 1988* noise due to aircraft in flight, landing, taking off or taxiing is under the direct control of AsA. It is exempted from being the responsibility of the ALC under the *Airports (Environment Protection) Regulations 1997*.

Any complaints received concerning aircraft movements are immediately directed to the responsible officer at AsA.

Airservices manages complaints and enquiries about aircraft operations and its community engagement activities through the Noise Complaints and Information Service (NCIS). To contact the NCIS, visit:

<https://www.airservicesaustralia.com/community/environment/aircraft-noise/about-making-a-complaint/>

AAC works with AsA and aircraft operators on any aspects that involve AAC's areas of responsibility or interest.

AAC developed a *Fly Neighbourly* program in 2015, and this was reviewed and updated in 2021. AAC also works with AsA and aircraft operators to minimise the impact of aircraft on the community and on any aspects that involve AAC's areas of responsibility or interest.

Aircraft noise management is addressed in quarterly coordination meetings between AAC and AsA, and also on an as needed basis if an issue arises.

Other noise sources

Noise emitted from an airport (other than discussed above) may be caused by activities including:

- ground running of aircraft;
- operation of engine test cells;
- construction operations;
- noise from non-aviation activities; and
- road traffic movements.

These sound sources may affect the area immediately surrounding the airport.

16.10.3 Management of impacts

Within the scope of its responsibilities as airport operator, AAC engages with a range of stakeholders on management of aircraft noise emissions related to airport operations.

Current and proposed initiatives and procedures adopted by AAC relating to management of airport noise include:

- implementing the Archerfield 'Fly Neighbourly' program and code of conduct (first implemented in 2015, and updated following a review in 2021);
- educating aircraft operators and pilots through the airport Safety Management System;
- providing residents, other landholders and developers with information and advice about airport activities, and the management of noise impacts on the use or development of their land;
- meeting quarterly with AsA to identify and implement actions to optimise airport operations, including addressing noise management aspects;
- working with AsA to identify and implement solutions to any noise complaints, where these relate to AAC's areas of direct responsibility as airport operator;
- directing ground running aircraft and testing activities to appropriate locations to minimise potential impact on surrounding areas;
- monitoring and reviewing airport facilities with the view to minimising the noise impact on the community;
- ensuring if a significant issue arises, that appropriate consultation processes are put in place to resolve the issue; and
- working with BCC, Queensland State government and relevant government agencies to ensure that structures built near the airport have taken aircraft noise into consideration and that land in proximity to the airport is appropriately zoned, taking into account the aircraft noise patterns that are anticipated around the airport.

The 2042 ANEF includes in the 30 ANEF contour some industrial and residential properties in the vicinity of the eastern end of the 10L/28R runway.

The noise forecast assumes that a RPT service with 12 arrivals and 12 departures per day will operate at Archerfield, with half of the flights using Dash 8-Q400, and half using E175 aircraft, having a seating capacity of between 78 and 88 passengers.

In the event that a RPT service involving aircraft with greater than 40 passenger capacity and operating more than six arrivals and/or departures per day on the 10L/28R runway is proposed, AAC will:

- work with the operator to identify areas off airport that are likely to fall within a 30 ANEF contour based on the operator's proposed movements and taking into account other aircraft movements included in the endorsed ANEF for Archerfield Airport;

- work with the operator and AsA to identify any feasible measures to minimise aircraft noise within any resultant 30 ANEF contour extending east from the 10L/28R runway;
- engage with landholders within any resultant 30 ANEF contour in advance of the service commencing to confirm the measures that the RPT operator will implement to minimise the aircraft noise impacts of their operation (for example frequency and times of operations, or runway direction used); and
- ensure, through ongoing engagement with the operator and AsA (and BCC as appropriate, either through the PCF or by direct contact), that the noise management aspects of the RPT operation are implemented on an ongoing basis, and any issues are addressed in a timely manner.

The process that AAC will follow in planning and implementing a RPT service is discussed in section 18.12.2.

Noise levels due to ground based aircraft engine activities are minimised by restricting ground running and testing procedures to appropriate locations on the airport, distant from sensitive land uses.

Jet engine testing is only allowed at the run up bay to Runway 10L, and truck based dynamic engine test beds are directed to pad Tango. Evening or night time activities of this nature rarely occur.

AAC investigates any complaint due to the ground running of aircraft. The approach to this is addressed in the EMPs, and it is subject to monitoring for effectiveness, and periodic review.

AAC considers that its noise control strategy described above is suitable, and that noise monitoring or changes in noise management practices does not appear to be warranted.

If current circumstances change significantly then the need for monitoring and further controls will be reassessed and actions taken. Changes that would trigger further assessment could include proposals to commence a new 'noisy' process, or a significant increase in the frequency of ground based engine operation.

With respect to other potential noise sources, there has not been a significant history of complaints.

Since 1999, all new leases have included clauses relating to the environmental management obligations on tenants.

Under the current environmental management regime, tenants assessed as having the potential to generate nuisance noise are required to develop and implement a *Site Environmental Management Plan* (operations) to address

potential off site impacts. Implementation of these management plans is subject to ongoing surveillance and periodic review by AAC.

16.10.4 Achievements 1998-2023

Over the past 26 years all complaints relating to noise from ground running of aircraft have been addressed in accordance with AAC procedures.

Noise emissions from tenancies on airport are managed in accordance with the EMPs and any environmental management plan in place for their operation. Noise emissions are subject to surveillance by AAC, and are considered as part of the cyclical tenant reviews.

The Fly Neighbourly program, first introduced in 2015 has been recently reviewed and the updated program is being implemented.

Aircraft noise management is addressed in regular coordination meetings between AAC and AsA, and as required to address specific issues that arise on an operational basis.

16.10.5 Implementation targets for the 2023 AES

Airport safeguarding

Work with BCC and other relevant government agencies to ensure that land in the vicinity of the airport is appropriately zoned, used and developed taking into consideration current and forecast noise impacts from airport operations.

Assist neighbouring landholders with advice on anticipated noise from airport operations, and options for minimising potential aircraft noise impacts on the use or development of their land.

Work with BCC and other relevant government agencies to safeguard the continued operation of the airport, by ensuring that the proponent of any structure built near the airport incorporates appropriate measures to mitigate forecast aircraft noise exposure, having regard to the ANEF for Archerfield Airport, and the proposed use or development of their land.

Aircraft noise management

AAC established the *Archerfield Airport Fly Neighbourly Code of Conduct* in 2015 in direct response to community concern about aircraft noise impacts. The code was reviewed and updated in 2022 in consultation with stakeholders. This is a voluntary code which encourages operators to avoid noise sensitive areas where possible and is part of the flight training programs at the airport.

In addition to the 'Fly Neighbourly' program and code of conduct, the following processes and actions are long established, and will continue to be carried out over the life of the AES:

- providing guidance to aircraft operators and pilots, through the airport Safety Management System;
- directing ground running aircraft and testing activities to appropriate locations to minimise potential impact on surrounding areas;
- providing residents and other landholders with information and advice about airport activities, and the management of noise impacts on the use or development of their land;
- working with BCC, the State government and relevant government agencies to ensure that any changes in land use and development near the airport takes aircraft noise into consideration, and is based on the current ANEF;
- working with AsA to optimise airport operations, including noise management aspects;
- working with the proponent and with AsA at the planning stage of significant new aviation projects, to identify any potential aircraft noise implications and any feasible mitigation measures;
- meeting with AsA on a quarterly basis to discuss any aircraft noise management issues, and coordinate the implementation of any mitigation actions that involve AAC and AsA;
- working with AsA to identify and implement solutions to any noise complaints that relate to AAC's areas of direct responsibility as airport operator; and
- monitoring and reviewing airport facilities to minimise the noise impact on the community.

Management of aircraft noise exposure within the 30 ANEF contour

Prior to commencement of a RPT service using aircraft with capacity for more than 40 passengers involving more than six arrivals and/or six departures per day on the 10L/28R runway, AAC will:

- work with the operator to identify areas off airport that are likely to fall within a 30 ANEF contour based on the operator's proposed movements and taking into account other aircraft movements included in the endorsed ANEF for Archerfield Airport;
- work with the operator and AsA to identify any feasible measures to minimise aircraft noise within any resultant 30 ANEF contour extending east from the 10L/28R runway;
- engage with landholders within any resultant 30 ANEF contour in advance of the service commencing to confirm the measures that the RPT operator will implement to minimise the aircraft noise impacts of their operation (for example frequency and times of operations, or runway direction used); and

- ensure, through ongoing engagement with the operator and AsA (and BCC as appropriate, either through the PCF or by direct contact), that the noise management aspects of the RPT operation are implemented on an ongoing basis, and any issues are addressed in a timely manner.

More information is provided in section 18.12.2.

In addition to RPT considerations, AAC will also continue to engage with the State government, BCC and landholders within the 30 ANEF contour in the 2042 ANEF, to provide information about forecast aircraft noise, and the implications for land use and development in the vicinity of the airport.

Noise emissions from tenancies

Ensure that noise emissions from tenancies on airport are managed in accordance with the EMPs and any environmental management plan in place for their operation.

Monitor and review the use of airport facilities (including ground running and testing procedures) to minimise the noise impact on the community.

Prepare noise management guidelines for tenants, to assist with managing their activities in accordance with relevant standards, to minimise impacts on sensitive uses in the vicinity of the airport.

Complaints process

Ensure that all AAC personnel are familiar with the operation of the noise complaints process (as set out in the EMPs). Advise new employees during initial induction and refresh all personnel annually.

Ensure that if a significant issue arises that appropriate consultation processes are put in place to resolve the issue.



Chapter 17

Consultation on the Master Plan



Archerfield AIRPORT

17.1 PREPARATION OF THE DRAFT MASTER PLAN

Consultation is integral to the successful formulation and delivery of the Master Plan, and implementation of the vision, strategies and actions described in the plan. AAC is committed to frank and open consultation. It wholeheartedly embraces the opportunity to receive constructive feedback on its plans for the airport.

The 2023-43 draft Master Plan retained the core principles of the approved 2017 Master Plan.

It was updated and refined to recognise the range of projects that have been implemented at the airport since 2017, including:

- the modernisation of aviation infrastructure with Project AIM Stages 1-3 (reconstructed, strengthened and lengthened main runway; improved ground lighting for the 10L/28R runway and primary taxiways; new navigation aids; reconstructed, strengthened, and widened primary taxiways and Eastern Apron, implemented a new Airport Lighting Equipment Room (ALER) and the airport's first Apron floodlights);
- redevelopment of Hangar 4 in the Beatty precinct, to provide a modern aviation facility;
- development of Hangar 13 in the Beatty precinct;
- upgrading and refurbishment of Hangar 5, and facilitation of refurbishment of Hangar 3 in the Beatty precinct;
- commencement of the largest hangar in the airport's history, the new LifeFlight Engineering's maintenance facility on site 409, in the Wirraway precinct;
- further development of Transition Estate in the Boundary precinct (including construction of Transition Drive and Logistics Drive and provision of additional supporting infrastructure including street lighting, CCTV, services and fire tanks and pumps), completion of the estate's first buildings on sites 581 and 580, and commencement of building 560 and 570;
- development of additional stormwater drainage infrastructure including a new Basin 7 in the Ashover precinct; and
- construction of Ashover Circuit and related utility services and civil works to create a series of new sites in the Ashover precinct.

The Master Plan and Environment Strategy also:

- provided an updated assessment of heritage values, and sets out how these will be managed, drawing on the findings and recommendations of the recently completed *Archerfield Airport Heritage Management Plan* (2021);
- provided updated aircraft movement figures to 2022, and forecasts to 2042;

- included a recently endorsed 2042 ANEF, as required under the Airports Act, and N70 mapping to assist with interpreting the pattern of noise from aircraft in flight;
- included updated OLS/PANS-OPS plans, consistent with the upgrading of runway 10L/28R completed for Project AIM;
- included updated information on management of lighting, wildlife, windshear and turbulence in the vicinity of the airport, to minimise hazards to pilots and aviation operations in the Archerfield airspace;
- included additional and updated information on ground transport (Chapter 10) including refinements to the road access strategy for the Barton and Beatty precincts; refinements to the internal roads servicing the Ashover and Boundary precincts;
- identified the primary areas for the development of future aviation capacity including:
 - serviced aviation land in the western part of the Wirraway precinct, adjacent to Taxiway Bravo and the upgraded main runway complex;
 - serviced aviation land for high value uses in the Beatty precinct, between Beatty Road and the upgraded Eastern Apron (which has direct access to the apron, the primary taxiway system, and the main runways; with ground access from Ditchmen Avenue/Beatty Road);
 - land for future aviation developments that will be released following reconfiguration of the secondary runway complex and helicopter facilities:
 - in the eastern part of the Wirraway precinct adjacent to the upgraded main runway complex,
 - in the area between taxiways Hotel and Juliet with ground access from new internal roads planned for the Beatty and Barton precincts linking to Beatty and Balham Roads, and
 - multi purpose aviation and industrial tenancies (plus airside facilities) at the northern end of the Beatty precinct, with airside frontage and ground access from the new internal roads;
 - aircraft parking and related facilities in the area between Taxiway Hotel and the realigned secondary runway complex;
- further refined the land use strategy for each precinct, acknowledging the changes that have been implemented in each area since 2017, identifying opportunities to respond to emerging needs, and improving the interfaces to surrounding land (having regard to changes in land use and in zoning that have occurred around the airport since 2017); and

- provided additional information about how AAC will manage developments and other initiatives anticipated within the first eight years of the Master Plan.

The key initiatives and major components of the 2017 Master Plan, including: the proposed reconfiguration of the secondary grass runway complex; the proposed extension of the Wirraway precinct for further high-end aviation developments; the air traffic mix; and flight paths have not changed significantly.

These concepts were the subject of extensive consultation that was undertaken in the preparation of the 2011-31 and 2017-37 Master Plans, and involved a range of people and organisations with an interest in the future of the airport.

Since 2011, AAC has operated the *Archerfield Airport Community Aviation Consultation Group* (AACACG) which meets three times a year to discuss any matters affecting the airport, including facets of the Master Plan. Community bodies, airport tenants and Government agencies provide information to the group on issues and policies that may affect the future operations of Archerfield Airport.

In addition, AAC established a *Planning Co-ordination Forum* (PCF) in June, 2014. The forum involves representatives of AAC, BCC, State Government, and the Commonwealth (through DITRDCA) and currently meets three times per year to discuss a range of strategic issues including noise, traffic, land use, airport protection, infrastructure services and community consultation.

PCF meetings with BCC have included representatives from City Planning and Sustainability, and Infrastructure.

AAC the ABC and AEO also meet on a monthly basis to discuss the status of current and planned development projects, clarify any issues, and confirm actions that will be taken.

AAC has since the approval of the 2017 plan also liaised with:

- DITRDCA on regulatory and policy matters, and the Master Plan's direction;
- CASA on standards issues, airspace management, airspace protection, the proposed reconfiguration, modernisation and optimisation of the secondary grass runway complex, helicopter facilities and prescribed airspace approval;
- AsA on airspace management including the introduction of a new Cat C and RNAV-Z_(GNSS) approach for runways 10L and 28R; navigation aid requirements; future aircraft instrument procedure design; prescribed airspace approval; flight tracks; noise management; and review and endorsement of the 2042 ANEF;
- Queensland Department of State Development, Infrastructure, Local Government and Planning on regional planning initiatives (including the SEQ

Regional Plan), aviation planning, and airport protection (including the SPP and related codes);

- Queensland Department of Transport and Main Roads on road, rail and aircraft noise forecasting aspects; and airport safeguarding; and
- BCC on airspace, aircraft noise forecasting and other airport safeguarding aspects, land use planning (including responding to referral of external developments), road network and transport requirements (including resolving site access requirements for new airport developments, and progressing implementation of priority aspects of the *Ground transport plan*), infrastructure services requirements and funding, environmental management (including weed control in area along the Oxley Creek), and economic development.

17.2 BACKGROUND STUDIES

17.2.1 Optimising the aviation operations

In 2008 AAC made significant investments in resources and new technologies to help better understand the aviation operations of the airport.

AAC engaged technical expert aviation engineers to analyse detailed data and to suggest improvements to help realise the full potential of Archerfield Airport.

These studies primarily focused on the utility of the secondary grass runway complex. They found that the secondary grass runways were periodically unavailable due to wet conditions, and were not optimally oriented having regard to wind patterns.

For example, these runways were continuously closed for all but two weeks between December 2010 and September 2012. This was due to rain events and the 2011 floods causing significant erosion and degradation of the grass runways complex and a 'Soft Wet Surface'.

Continued rain prevented reconstruction works throughout this period, rendering the grass runways and taxiways unserviceable, and in effect quarantined approximately 60 hectares, or nearly one quarter, of the airport's total land mass for almost two years.

This experience confirmed that a rethink was required so that this otherwise underutilised area of land can contribute to both the aviation and non-aviation activities (and therefore the economic viability) of the airport. This will enable the airport to grow, achieve its highest and best use and remain poised for aviation opportunities that present themselves in the future.

Several options to improve the utility of the existing grass runways were considered, including paving them in their current positions. The analysis

highlighted a number of limitations of the current layout and alignment of the runway facilities.

In accordance with CASA regulations, upgrades to runways must consider current standards. The existing runways do not meet the current standards due to their longitudinal peaks and troughs. Dispensations that currently exist, no longer apply at commencement of upgrade works.

The grass runways and associated parallel taxiways would require extensive earthworks, drainage and other civil works to bring them up to current ICAO standards, and integrate the new complex with other aviation infrastructure including connecting taxiways, aprons and parking areas.

Upgrading the runway complex to a sealed surface on the existing alignment would incur significant additional costs, in earthworks, construction of a sound pavement base and bitumen overlay, and in undertaking the consequential works required to connecting with other taxiways and aviation facilities.

The current alignment cuts diagonally through the airport, and does not provide the most efficient use of available land for aviation operations, or for ground based aviation and complementary developments.

The upgrading of secondary runway facilities which are required to support light aircraft operation in cross wind conditions provides a significant opportunity to simultaneously:

- improve the layout of the runways and supporting infrastructure;
- release prime land for additional aviation developments in proximity to the realigned runway facilities; and
- optimise the remainder of land for developments that are complementary to the airport, surrounding land, and the SWIC REC/SWIG and Greater Brisbane.

17.2.2 Grass runway utilisation and proposed improvements

A review of NOTAMs (Notices to Airmen) relevant to Archerfield was conducted to ascertain the period of time that the grass runway complex is typically closed due to 'Soft Wet Surface' conditions.

Data from 20 years of records (from 1988 to 2008) revealed that on average, both of the grass runways had been unavailable 26.25% of the time over that period. This data shows that on average, nearly one-quarter of the airport's land mass is effectively quarantined for a quarter of each year.

In addition to this study, AAC invested in technology and reporting tools to enable analysis of individual runway movements.

The findings of the 20 year NOTAM study, together with airport specific wind data were analysed by a team of experts who concluded that a crosswind runway

alignment would be required at Archerfield Airport, for daytime operations only, approximately 12% of the time. This requirement is primarily to cater for ab-initio students flying light aircraft who can sometimes find it difficult learning in crosswinds.

It was also found that in conjunction with the existing 10/28 runways, and following the removal of the 13/31 runways in the 1980's, a realignment of the grass runways was commended by wind data and their usage could be improved by rotating them around 10-40 degrees counter-clockwise.

The various options considered for the reconfiguration and optimisation of the secondary runways included the construction of a single, sealed runway to replace the existing secondary grass runways.

The Commonwealth Administrative Appeals Tribunal between 2012 and 2015 undertook a thorough review of the Minister's decision to approve the 2011-31 Master Plan. Deputy President P. E. Hack SC, who presided over the case, concluded *"I am then satisfied that the re-alignment of the 04/22 runways will likely improve useability; it certainly will not reduce it."*

A Major Development Plan (MDP), including further consultation with potentially affected stakeholders, and approval by the Minister under the *Airports Act* will be required before reconfiguration and optimisation of the secondary grass runway complex can proceed.

More information about the next steps planned for the implementation of Project ARROW is provided in section 7.2.1.

17.2.3 Aviation land use planning

In parallel with the work associated with the proposed improvements to the grass runway complex undertaken for the 2011-31 Master Plan, AAC conducted extensive consultation and spent considerable time on land use planning issues.

This included analysis of the strategic land use context of the airport; the interfaces to surrounding land; and consideration of the role and function of Archerfield as depicted in State, regional and local planning strategies, and the Brisbane City Plan.

Aviation uses and opportunities for growth

The consultation and analysis assisted with clarifying the short to medium term plans of a number of airport users and tenants, identified opportunities for the expansion of aviation facilities, and concepts for changes to runway and taxiway layouts to cater for emerging needs, and AAC has revisited the findings during the process of preparing the subsequent master plans.

With the recent completion of the Project AIM aviation infrastructure improvement works, the main runway complex and Eastern Apron have the capacity to support a wider range of RPT, freight, charter, and similar operations.

AAC has identified more than 2ha of currently available aviation sites in the Wirraway and Beatty precincts that can be used for new and expanded aviation developments, utilising the improved infrastructure.

Once the secondary runway complex is reconfigured and modernised, 10ha of additional prime aviation development land will be released, including 4ha in the expanded aviation area in the Wirraway precinct and 6ha in the Beatty precinct, adjacent to taxiway Hotel.

The secondary runway reconfiguration will also provide the opportunity for creation of aircraft parking and movement areas in approximately 8ha of land between the new aviation sites in the Beatty precinct and the secondary runway complex.

Complementary land use

From this consultation, it was also clear that from a land use perspective Archerfield Airport is a major and strategic feature of Brisbane and South East Queensland, and that planning strategies and policies recognise this.

In 1997, prior to AAC being awarded the long term lease to operate the airport, the former Federal Airports Corporation identified more than 75ha of land at Archerfield that was not required for aviation purposes, at that time or in the future. The underutilised land, in the Beatty, Mortimer, Beaufighter, Boundary, Ashover and Barton precincts was confirmed to have the potential to cater for a mix of land use types, and scales, including large scale tenancies that cannot be accommodated elsewhere in this district due to scarcity of land and existing development commitments.

As discussed in Chapter 3, the airport is an important part of the South West Industrial Corridor Regional Economic Cluster, as described in ShapingSEQ (and the South West Industrial Gateway of Brisbane), and has the potential to make a significant contribution to the consolidation of this employment area, as a transport hub, and as a site for further development.

The investigations and consultation reinforced also the importance of incorporating appropriate transitions to the surrounding area, including by matching the types of land uses with those on neighbouring land, and providing appropriate transitions in the scale and form of developments. The State and BCC reviewed and supported these land use aspects of the 2011 Master Plan, and these were carried forward into the 2017 plan, and the current 2023-43 plan.

17.2.4 20 year ANEF

The State and local planning provisions recognise that land use and development in the vicinity of the airport requires careful management, to minimise the potential effects of airport operations on surrounding land, and to also ensure that the use and development of land in the vicinity of the airport does not adversely affect the safety and continuity of airport operations.

The *National Airports Safeguarding Framework* (NASF) which has been adopted by all levels of government in Australia has been applied to address the key issues of land use compatibility with forecast noise from aircraft, windshear and turbulence, light emissions, wildlife buffers to minimise the risk of aircraft strikes, and maintaining operational airspace that is clear of obstacles to flying activities and navigation.

With respect to aircraft noise, the *Airports Act* requires that each Master Plan must include a new ANEF, prepared by AAC using the nationally adopted ANEF system and AEDT modelling software. The ANEF must be endorsed for technical accuracy by AsA.

The NASF guidelines for forecasting aircraft noise provide a consistent approach to assessing likely noise exposure on land in the vicinity of airports, and ensure that this is considered in land use and development decisions in areas that are anticipated to be affected.

The forecast noise exposure contours assist with identifying compatible land use in the vicinity of the airport, and are used to guide long term planning for areas that may be exposed to noise from aircraft in flight.

The assessment of land use compatibility follows the guidance in *Australian Standard 2021:2015 Acoustics - Aircraft noise intrusion - Building siting and construction*.

AAC engaged SMEC and Randl, specialists in airport planning and noise exposure forecasting, to prepare the 2042 ANEF, and as part of that process, engaged with a range of stakeholders.

The flight paths were designed with input from AsA, Archerfield Air Traffic Control (ATC) and aviation operators, and in consultation with BCC and the State government. ATC, and AsA are responsible for allocating aircraft movements at Archerfield, and managing the operation of the airspace.

The 2042 ANEF follows the established protocols in the NASF, uses ANEF and N70 mapping to indicate anticipated noise exposure, and provides information for inclusion in the State Planning Policy mapping and the *Airport environs overlay* in City Plan.

During the process of preparing the 2042 ANEF, AAC consulted with BCC and the State government, and over the period November 2021 to June 2022 held a series of briefings.

The draft ANEF, together with plans showing the flight tracks, and background information about how the ANEF was being prepared and assessed for endorsement by AsA were provided to BCC and the Department of State Development, Infrastructure, Local Government and Planning, which in turn sought input from TMR.

Comments from BCC and State government were taken into consideration and included in the final ANEF report and chart that was reviewed and ultimately endorsed by AsA.

The ANEF contours for the airport have for many years been included in the State Planning Policy mapping, and in the planning provisions that apply to land in the vicinity of the airport that is forecast to be subject to aircraft noise.

BCC and the State noted that when compared with the current ANEF mapping in the State Planning Policy mapping system and the *Airport environs overlay* in City Plan, the 2042 ANEF anticipates that additional residential and industrial properties would be exposed to noise by 2042. They sought clarification on how AAC would engage with people in those areas, during and following the master plan process.

As part of the public exhibition of the pdMP, AAC distributed to all properties within the 30 ANEF contour fact sheets describing the key features of the pdMP and the management of aircraft noise, advised people how they could find out more about the plans for the airport and aircraft noise management (including at drop in sessions, and from the AAC web site), and invited their questions and comments.

The flight tracks and training circuits have been subject to public exhibition and review as part of every master planning process undertaken by AAC since it commenced at the airport in 1998.

The ANEF is a key airport safeguarding initiative. It gives landholders and planning authorities standardised information about the likely impacts of aircraft noise on land in the vicinity of the airport, so these impacts can be addressed in any proposed new land use or development.

In the case of Archerfield Airport, the ANEF provides a forecast of noise exposure at the year 2042.

The 2042 ANEF makes provision for the realignment of the secondary grass runways. It models noise levels associated with the current 10/28 main runway complex and the grass runway alignment up to approximately 175,000 movements, and aircraft movements greater than 175,000 per annum are

modelled assuming that the secondary runway complex has been realigned, with a dual runway layout. It is important to note that the secondary runways are used only during daylight hours, and will not be used by larger aircraft, such as those required for RPT services. The realignment will therefore have little if any impact on the ANEF, and will not alter the noise footprint of the main runway, as shown in the 2042 ANEF.

As discussed in section 9.4, there are several reasons why the 2042 ANEF mapping differs from past ANEF charts. The changes do not in themselves mean that there will be increased noise exposure, when compared to aviation operations described in previous master plans, or ANEF charts prepared for the airport.

The State government also requested that the final ANEF mapping be provided, once approved, so the relevant contours could be included in the SPP mapping, and in the *Airport environs overlay* in the City Plan.

Following approval of the dMP, the 2042 ANEF and other airport safeguarding provisions required to implement the NASF will be included in the State Planning Policy mapping, as the safeguarding of the airport is a State interest.

The noise contours will also be updated in the *Airport environs overlay* in City Plan. The forecast aircraft noise will then be considered in the assessment by BCC of any new developments, or any proposed amendments to zoning or other relevant provisions of City Plan.

17.2.5 Management of aircraft noise within the 30 ANEF contour

AAC will continue to engage with the State government, BCC and landholders within the 30 ANEF contour to provide information about forecast aircraft noise; the implications that aircraft noise exposure has for land use and development; and actions that can be taken to ensure that new land use and development is planned, sited, constructed and operated to minimise the impact of aircraft noise in accordance with AS2021: *Acoustics – Aircraft Noise Intrusion – Building Siting and Construction*.

In line with the current approved plan, the 2023-43 Master Plan allows for 12 arrivals and 12 departures per day. This scale and frequency of services will meet the needs identified through consultation with RPT operators, and considers the future growth potential of the region.

The ANEF modelling and the N70 assessment includes these aircraft movements, including departures from both the east and west ends of the main runway at night time. These movements, and take offs in particular, contribute to the forecast aircraft noise exposure footprint, including the extent of the 30 ANEF contour.

The Embraer 175 (E175) aircraft, which has a typical seating capacity of 76-88, has been selected for 50% of the RPT movements. The Dash 8-Q400 with capacity for 68-78 passengers has been adopted for the balance of the RPT movements.

A RPT service would be more likely to utilise smaller or quieter aircraft than the E175, however for planning purposes the E175 has been included in the assessment as this will give flexibility for selection of aircraft, and will ensure that the noise forecasts used to determine airport safeguarding requirements are conservative.

In the event that a RPT service involving aircraft with greater than 40 seat capacity and more than six arrivals and/or departures per day on the 10L/28R runway is proposed, AAC will, as set out in section 18.12.2, implement steps to identify where feasible actions to minimise noise exposure in the area to the east of the 10L/28R runway, ensure that the noise management aspects of the RPT operation are implemented on an ongoing basis, and that any issues are addressed in a timely manner.

17.2.6 Required upgrades for future RPT, freight or larger aircraft

Technical studies were also conducted early in the planning stages for the 2011-31 Master Plan to examine the likely requirement, and alterations that would be required to existing infrastructure, for RPT operations.

Archerfield Airport has a long history of performing RPT operations and AAC has a desire to continue the option for RPT if it is required again by the greater community in the future.

RPT will also require adequate provision for accessible and secure on airport parking, and consideration of any effects on other airport operations. These issues have been addressed in the concepts shown in the PSPs, and will be subject to further refinement at the detailed design stage.

The Master Plan also includes options for future freight operations. With its location within the South West Industrial Gateway of Brisbane, one of Australia's fastest growing regions and a designated Regional Economic Cluster, both scenarios are seen as likely requirements.

The technical reports recommended the strengthening and lengthening of the existing main runway by means of reconstruction.

These works have now been implemented through Project AIM, and also included improvements to navigation, lighting, and upgrading of taxiway Bravo and associated linkages to the main runway to a Code C standard, and upgrading of the Eastern Apron and Taxiway Hotel.

17.3 EXHIBITION OF THE PRELIMINARY DRAFT MASTER PLAN

The preliminary draft of the 2022-2042 Master Plan (pdMP), incorporating the 2022 Airport Environment Strategy (AES) was exhibited from 10 October 2022 to 11 January 2023.

The master planning process leading up to, and running through the exhibition period included a range of stakeholder engagement activities.

AAC prepared briefing documents summarising the key features of the 2022-42 pdMP, and on noise management; and included information on how people could access the pdMP and AES, and contact AAC for further information.

The briefing documents were circulated to a range of stakeholders including those on AAC's email distribution list (over 1110 contacts), and Local and State elected representatives, BCC officers, and local libraries (Coopers Plains Library, Sunnybank Hills Library, Mt Gravatt Library and Inala Library). They were also made available for download from the AAC web site. Copies were also hand delivered to properties in the vicinity of the airport, including those within the 30 ANEF contour.

Stakeholders were informed of the public exhibition of the pdMP by:

- letters and emails to over 160 tenants and 1350 airport users (with information about the master plan and links to the plan and explanatory material);
- the distribution of media releases to news agencies and the aviation industry; and
- publication of the public notice in the Brisbane Courier Mail.

Copies of the 2022-2042 pdMP and the AES were made available for viewing or purchase during office hours at the AAC offices at Archerfield Airport. Printed copies were also provided to Coopers Plains Library, Sunnybank Hills Library, Mt Gravatt Library, and Inala Library, for public use.

The pdMP and AES, and the summary of key features, noise management, and the media release were also posted on the AAC web site and made available for download. During the public exhibition period more than 500 files were successfully downloaded.

Engagement activities undertaken during the exhibition period included:

- follow up with tenants and operators via letters, emails, and the airport newsletter, highlighting the exhibition of the 2022-42 pdMP and inviting questions or input;
- engagement with the Federal Member for Moreton, the State Member for Algester, the State Member for Stretton;

- regular updates to BCC, the Councillor for Enoggera and the Civic Cabinet Chair for the Infrastructure Committee;
- discussions with the State Department of State Development, Infrastructure, Local Government and Planning; Department of Transport and Main Roads, and
- meetings and discussions with several airport tenants, and landholders in the vicinity of the airport.

AAC also held workshops and briefings with State government, BCC, AsA and CASA to discuss the draft ANEF, and the pdMP; and liaised with the Department of Infrastructure, Transport, Regional Development, Communications and the Arts on the master planning process.

AAC received a total of 22 submissions in response to the formal public exhibition of the pdMP, and in the process of preparing the dMP had due regard to all issues that were raised.

The dMP included the following refinements, arising from the public exhibition process and engagement with stakeholders:

- the ground transport aspects, including for private, commercial and industrial access; bus access; and provision for cyclists; were strengthened to include points raised in feedback from BCC and TMR (section 3.5 and Chapter 10);
- the discussion on the strategic context of the airport was updated to also include information about Council's recently adopted strategy *Brisbane: Our Productive City* (section 3.6);
- section 3.5.2, and section 8.1 which describe the planning provisions applying to land in the vicinity of the airport, and the implications for Archerfield Airport of existing and planned land use in these areas, was revised to acknowledge the recent changes to the General industry zoning in the vicinity of the airport; and the rezoning of land along the Oxley Creek to facilitate the creek transformation project, and recognise existing long term industrial use of some parts of the creek corridor;
- the descriptions of proposed office uses and retail facilities were further refined in the applicable precincts;
- the section of the AES addressing water use was updated to include commitments to prepare a new *Drought Response Plan* (in anticipation of any future water restrictions), and review and update the current *Water Efficiency Management Plan* (WEMP). These points are also included in the *Environment Protection Action Plan* (Appendix D);

- the drainage sub catchments shown in the *Site drainage* plan (Figure 18) and described in section 11.1 were revised to be consistent with the recently completed Project AIM drainage improvement works;
- the water quality treatment provisions in the stormwater strategy in section 11.1 were expanded, to clarify that, depending on site location and existing infrastructure in a sub catchment, new projects will utilise shared infrastructure in each sub catchment, or site/project specific infrastructure;
- section 9.4 which addresses aircraft noise management was expanded to include information about aircraft noise emission standards, and requirements for certification of aircraft operating in Australia; and
- the Master Plan drawings were updated to show the recent changes to the north-east corner of the Beatty Road/Kerry Road intersection (opposite the airport) and relocated bus stops, and include notes and other refinements.

17.4 FURTHER DRAFT MASTER PLAN 2023-43

The draft Master Plan and AES was submitted to the Minister on 1 June 2023.

Following a detailed assessment, the Minister decided to not approve the draft plan and strategy, and instead requested that AAC prepare a further draft in consultation with DITRDCA and other authorities, and provide more information about:

- land use and development planning and related requirements;
- details of developments planned for the initial 8 years of the Master Plan;
- the economic significance and contributions of the airport, including updated data for 2023, and forecasts of economic contributions for the initial 8 years of the Master Plan, and the longer term;
- ground transport; and
- environmental management initiatives and other actions to be implemented over the next 8 years.

In the process of preparing the further draft, AAC engaged with:

- DITRDCA, to clarify and respond to specific issues and requirements arising from the Minister's assessment of the original draft Master Plan and AES;
- The State government, on the master planning process;
- BCC on land use and development aspects, airport safeguarding and refinements to the zoning of airport land; and

- CASA to clarify feedback on the feasibility of possible future changes to the 10/28 runway complex (in the long term >20 years) and the inclusion of E175 aircraft in ANEF modelling.

An update on the master planning process was provided to the CACG in August 2023, a broad overview of the points that were being reviewed in the further draft was provided to the CACG in January 2024, and a further update on progress was provided to the CACG in June 2024.

17.4.1 Key changes

The further draft Master Plan 2023-43 and AES 2023 included the following key changes from the original draft:

New and revitalized aviation developments

Further detail was provided on the opportunities for new aviation development to cater for current and future needs including identifying these in the *Master Plan vision*, *Airport land use zoning* plan, the PSPs, the description of priority aviation projects in chapter 7, the schedule of priority projects in Table 16, and in the *2031 vision*. The opportunities include:

- the reconfiguration, modernisation and optimisation of the secondary runway complex, helicopter facilities, aircraft parking and other infrastructure (Project ARROW);
- designation of key strategic aviation development areas in the Beatty and Wirraway precincts, and more detail on the location, scale, purpose, and timing of release of land with capacity to meet new and emerging aviation needs, including:
 - 1.4ha of immediately available serviced aviation land in the western part of the Wirraway precinct, adjacent to Taxiway Bravo and the upgraded main runway complex;
 - 0.8ha of serviced aviation land for high value uses in the Beatty precinct, between Beatty Road and the upgraded Eastern Apron (which has direct access to the apron, the primary taxiway system, and the main runways; with ground access from Ditchmen Avenue/Beatty Road) (available once AAC has completed the process of assembling the sites); and
 - 10ha of land for future aviation developments that will be released following reconfiguration of the secondary runway complex; comprising:
 - 4ha in the eastern part of the Wirraway precinct adjacent to the upgraded main runway complex,
 - 4.6ha in the area between taxiways Hotel and Juliet with ground access from new internal roads planned for the Beatty and Barton precincts linking to Beatty and Balham Roads, and

- 1.4ha of multi purpose aviation and industrial tenancies (plus airside facilities) at the northern end of the Beatty precinct, with airside frontage and ground access from the new internal roads; and
- approximately 8ha of aircraft parking and related facilities in the area between Taxiway Hotel and the reconfigured secondary runway complex and helicopter facilities, which will be released with the implementation of Project ARROW.

These opportunities are being progressed, for completion within the initial 8 year period of the Master Plan. They are in addition to the capacity building that is being realised through the progressive upgrading and redevelopment of established aviation sites in the Beatty, Mortimer and Wirraway precincts at Archerfield.

Economic significance and contributions

Updated and additional information was included about the economic significance and contribution of Archerfield Airport to Brisbane and South East Queensland in 2023, building on data from the 2017 assessment, and providing forecasts of contributions (including employment and value added activity) for the next 8 years (to 2031), over the coming 20 years (to 2042), and with ultimate development of the airport.

Ground transport

Additional and updated information was provided on ground transport (Chapter 10); including:

- more detailed assessment of the current operation of the surrounding road network, key intersections, and the internal road network;
- public transport (existing and planned);
- refinements to the road access strategy for the Barton and Beatty precincts;
- refinements to the internal roads servicing the Ashover and Boundary precincts; and
- the key priorities for improvements to ground transport access to the airport for the initial 8 years of the Master Plan (to 2031).

This included:

- details of the characteristics and operation of the existing road network on and off the airport (sections 10.2.2 and 10.6.1);
- 2023 traffic counts on the surrounding road network have been added to the record of historical data (Table 5 in 10.2.4);

- data on existing traffic generation by each airport precinct (10.6.2 and Table 6);
- an assessment of the adequacy of existing access, and the capacity of the road network and intersections on and off the airport to cater for current developments;
- an assessment of forecast traffic movements generated by developments that are planned to be implemented within the initial 8 years of the Master Plan (10.6.2);
- an assessment of the capacity of existing roads and intersections to accommodate this growth, and any improvements that are required (section 10.8.3);
- details of changes planned by BCC to public transport in proximity to the airport;
- details of specific requirements for upgraded or new ground transport infrastructure for the initial 8 years of the Master Plan, the 20 year planning period, and in the longer term (including further development of internal access roads and other infrastructure, and working with BCC to support its priorities for important road and intersection upgrading, and provision of bicycle routes in the roads adjacent to the airport); and
- a summary of the anticipated ground transport projects (Table 16, and Figure 17 *Ground transport plan*).

Land use and development planning

Further information was provided about land use planning and development aspects, including:

- addressing in section 3.8 the consistency of the Master Plan with State and regional policies and strategies, Queensland Planning Provisions; Queensland Planning regulation, and local planning schemes including City Plan;
- refinements to the zone provisions to include the zone purpose and overall outcomes that align with the content and guidance in State Planning Policy and related codes and guidelines, regional strategies, Queensland Planning Provisions, City Plan, and AACs development objectives for the airport;
 - applying the *ASP5-Special purpose (Archerfield Airport)* zone to the Runway, Wirraway, Barton, and Mortimer precincts; the three Beatty sub-precincts (North, Central and South), and the northern part of the Ashover precinct;
 - further refining the ASP5 zone to clarify and guide preferred land use (as set out in section 12.3), and applying the zone to the precincts (in

sections 12.5 to 12.12), the detailed land use provisions for each part of the airport in Appendix E, and the approvals process in Chapter 18);

- applying the *AIN2 Archerfield Airport General industry Bzone* (adopting the *General industry Bzone* from City Plan) to the Beaufighter, Boundary and balance of the Ashover precinct;
- applying the *ACN1 Archerfield Airport Conservation (Local)* zone to the buffer along Oxley Creek, and the *ACF3-Community facilities (Cemetery)* zone to God's Acre (adopting the relevant zone provisions from City Plan);
- refinements to the zone boundaries within the airport to further clarify proposed land use in each part of the airport and address the interfaces to surrounding land use, on and off the airport;
- further clarification of the preferred uses in each precinct and sub precinct, with refinements to the precinct descriptions, the PSPs, and the 2031 vision drawing;
- inclusion at Appendix E of a comprehensive land use table, adopting relevant land use terms in the *Airports Act*, *Queensland Planning Provisions*, *Queensland Planning Regulation 2017*, and *Brisbane City Plan* and confirming for each precinct and sub precinct the uses and developments that are accepted, assessable, or prohibited (following the format and operation of the Queensland Planning Provisions);
- confirmation that stand alone office uses are not allowed in the *AIN2 Archerfield Airport General industrial Bzone* (consistent with the equivalent zone in City Plan);
- confirmation that one supermarket, with a maximum of 2000m² of gross floor area will be allowed, and will be located either in the Beatty Central sub precinct or Barton precinct;
- confirmation that large supermarkets, and department stores are prohibited;
- referring to the *Industry code* provisions of City Plan to assist with assessing the merits of industry uses, including providing appropriate buffer distances to more sensitive uses on, or off airport;
- including further information about the planning and building approvals processes at Archerfield Airport, clarifying the role of AAC (which has responsibility for assessing the planning merits of a proposal against the Master Plan, applying relevant conditions or requirements on any planning approval, and also decides whether to grant consent to any proposed building activity); and the ABC;

- including Figure 32 *Overview of development approvals process* in section 18.3.1; addressing land use, development, construction and operation phases;
- including more details about the information required when making a planning application for use or development approval, and the issues that AAC will consider when it assesses the planning merits of a proposal (section 18.5); and
- identifying the codes in State and local planning provisions, that AAC will have regard to when assessing planning applications on the airport.

Airport developments and priorities for the initial 8 years

The Master Plan caters for anticipated growth in aviation, including aircraft movements, additional aviation tenancies (optimising existing sites, and facilitating the progressive release of 10ha of new strategic aviation development areas in the Wirraway and Beatty precincts, and 8ha of land for aircraft parking and related infrastructure), and sites for complementary developments that will sustain the airport and contribute to the facilities and services for Brisbane.

Section 18.2 and Table 16 set out the main development proposals, their timing and any actions that need to be completed to enable their implementation.

For the initial 8 years, the initiatives are broken down into airfield developments, precinct developments, ground transport, and planning priorities.

The details of the land areas, and anticipated floorspace to be developed in each precinct, in the initial 8 years of the Master Plan, for the 20 year period, and with ultimate development are also now provided in Tables 2 and 8.

Figure 31 '*2031 vision*' shows the potential aviation and complementary developments, ground access improvements, and other initiatives that are anticipated to be implemented within the initial 8 year period of the master plan.

The *Ground transport plan* was updated to include cross references to the schedule of potential projects for the initial 8 years of the Master Plan (Table 16).

Airport safeguarding

ANEF and the 30 ANEF contour

Further information was included in section 17.2.4, setting out the consultation undertaken for preparation of the 2042 ANEF with AsA, Archerfield Air Traffic Control (ATC) and aviation operators, and BCC and the State government.

Further information was included about AACs plans for management of forecast aircraft noise within the 30 ANEF contour, as shown in the 2042 ANEF. In addition

to the range of measures that are implemented on an ongoing basis, the Master Plan includes:

- information about the factors that underpin the 2042 ANEF and the 30 ANEF contour;
- specific measures for ongoing engagement with landholders within the 30 ANEF contour, BCC and other stakeholders to ensure that planning and development decisions in the vicinity of the airport have proper regard to forecast noise from aircraft; and
- details of the process that will be followed to minimise where feasible aircraft noise from RPT services, and engage with potentially affected landholders and other stakeholders on aircraft noise management aspects.

Other NASF guidelines

Additional information was provided about the application of the NASF guidelines to Archerfield Airport:

- a discussion on wind farms and wind monitoring towers is included in section 9.7;
- section 9.1 clarifies that the guideline for protection of strategic helicopter landing sites does not apply as all airport managed helicopter landing sites are located within the airport; and
- section 9.1 clarifies that the guideline for aviation facilities for communication, navigation and surveillance is not applicable to Archerfield Airport, as there are no relevant facilities located off airport.

Environmental management

The AES includes additional provisions relating to:

- heritage management, and clarification of the processes followed to identify and conserve buildings and features of significance in the planning and implementation phases of projects;
- assessing and managing potential impacts on flora and fauna values, including a commitment to undertake an updated assessment of values on and in the vicinity of the airport, within the first two years of approval of the new AES;
- control of dust emissions from tenancies, and prevention and clean up of material tracked onto roads (section 16.4);
- the process AAC undertakes to address potential PFAS, including completing a PFAS Desktop Assessment for any development or works involving minor excavation; and additional PFAS sampling and analysis if indicated from the findings of the desktop assessment, or as part of the

Environment Site Assessment (ESA) process that will be required for more extensive building activities;

- further details on noise management, including relating to aircraft noise and on airport activities (section 16.10);
- additional information about energy and water efficiency,
- the commitment to collect baseline data for a Sustainability Plan, focusing on Scope 1 and 2 emissions related to energy, water, and waste; within the first two years of the AES;
- the commitment to use this data to set sustainability targets, develop a plan, and establish annual reporting.
- initiatives to optimise the generation of electricity from renewable sources (progressing roof top solar generation);
- environmental training, including the process for determining the training needs of tenants and AAC personnel (including inductions and staff or tenant specific requirements), for implementing the training, and following up on outcomes and any further requirements (sections 15.9, and 15.15);
- continuous improvement of management of the airport environment, including AAC and tenant activities, and ongoing monitoring and review of the environmental management system (18.11.3); and
- qualifications of personnel monitoring the airport environment (18.11.4).



Chapter 18 Implementation



Archerfield AIRPORT

18.1 PLANNING PROCESS AND PRIORITIES

The *Airports Act* and regulations define a planning regime for Archerfield Airport that comprises:

- a *Master Plan* that sets the long term framework for development of the airport, having due regard to its physical, economic and community context (and its relationship to surrounding areas), and the need to plan for the long term viability of aviation services;
- an *Environment Strategy* that identifies all relevant current and potential impacts of the Airport on the environment, and sets out strategies, actions, monitoring and review procedures required to address these impacts; and
- *Major Development Plans*, for significant projects. Major developments include projects with a value in excess of the benchmark set in the Regulations (currently \$25M), proposals for new runways or taxiways, or proposals that could have a significant environmental impact.

The Master Plan sets the framework for the timely, equitable and efficient provision of general aviation services, facilities, and supporting infrastructure.

It also defines AAC's plans for complementary developments at Archerfield, which will facilitate the continued regeneration of the airport, and address current and emerging needs of the airport community and visitors. These plans recognise the important role the airport plays in the South West Industrial Gateway of greater Brisbane.

The proposals build on the ideas originally identified by both the Commonwealth and the Federal Airports Corporation in the late 1990s, and refined by AAC in consultation with BCC, the State government, and others over the intervening 26 years.

The Master Plan also sets out the relevant provisions of the NASF, setting the parameters for land use and development decisions for proposals that interface with the airport, particularly those on neighbouring land.

The Master Plan is dynamic and subject to ongoing improvement and review.

It needs to be flexible to accommodate adjustments to market conditions, economic performance, operating requirements, standards and technologies.

18.2 KEY INITIATIVES

AAC will continue to work diligently to realise the full potential of both the aviation and non-aviation aspects of the airport, to secure its long term sustainability.

The development initiatives listed in the table below reflect the current and anticipated future priorities for the airport, at the time of preparation of this Master Plan.

The priority projects for the initial 8 years of the Master Plan are shown also in Figure 17 *Ground transport plan*, and Figure 31 *2031 vision*.

The timing and final characteristics of each project will be refined during the implementation process, through further investigation, design, consultation, assessment, and approval.

TABLE 16: PROPOSED DEVELOPMENTS AND PLANNING INITIATIVES

| Potential development 0-8 years (2023-31) | Catalyst/anticipated timing | Reference (Figures 17 & 31) |
|--|---|-----------------------------|
| Airfield development | | |
| Reconfiguration, modernisation and optimisation of the secondary runway complex, helicopter facilities, associated taxiways, and related infrastructure (Project ARROW). | MDP prepared and approved (2024-25). Detailed design, construction and commissioning (2025-26). | A |
| Taxiway Hotel upgraded to Code B north of Juliet, and extended north to service new aviation sites in the strategic development area, aircraft parking, and join with the Project ARROW works. | Coordinated with Project ARROW implementation (2025-26) | B |
| New/upgraded aircraft parking, and/or aprons. | New and upgraded aircraft parking provided between Taxiway Hotel and the reconfigured secondary runway complex (2026-27). | C |
| | Provision of aprons and covered aircraft parking to be considered with development of aviation tenancies in the Beatty North strategic development area (2027 onwards). | D |
| Review fuel farm and control tower to confirm siting requirements | To be addressed during planning and design for Project ARROW | A |
| Primary taxiway system (main and secondary runways) | Requirements for taxiways for the reconfigured secondary runway complex will be incorporated into Project ARROW (~2026). | E |
| | Project AIM stages 1-3 will meet anticipated operational | F |

| Potential development 0-8 years (2023-31) | Catalyst/anticipated timing | Reference (Figures 17 & 31) |
|--|--|--------------------------------|
| Continue to overlay and repair operational pavements. | requirements of users of the main runway complex for at least the next 10 years. AAC safety and maintenance inspection results (daily inspections address aviation infrastructure condition and safety, and identify requirements for maintenance and improvement). | |
| Precinct developments | | |
| Beatty North strategic aviation development area (total 6ha) | Development of Stage 1: approximately 1.15ha of new hangars and parking for general aviation (fixed wing and helicopters). Sites released following implementation of Project ARROW and Taxiway Hotel upgrade (2027 onwards). | G |
| Upgrade hangars 1 and 2 along Qantas Avenue (in Beatty Central). | Commitments to upgrade facilities by existing or new tenants. | H |
| Beatty South strategic aviation development area (total 0.8ha) | Consolidate and redevelop serviced aviation land between the east side of the upgraded Eastern Apron and Beatty Road, maximising aviation uses adjacent to the apron and the main runway complex, with landside access from Ditchmen Avenue and Beatty Road. | N |
| | Access from Beatty Road to be resolved in consultation with BCC (2024 onwards). | N |
| | Commitments to new or upgraded aviation facilities by existing or new tenants (2024 onwards, 0.7ha anticipated to be developed by 2031). | |
| Develop 1.8ha of serviced aviation sites in the Wirraway precinct (immediately to the east and west of QGAir/Corporate hangars). | Site 409 under construction (2023). Additional developments subject to commitment by operators of new or expanded aviation activities/facilities (2024 onwards). | J |
| | | J |

| Potential development 0-8 years (2023-31) | Catalyst/anticipated timing | Reference (Figures 17 & 31) |
|--|---|--|
| Encourage new or upgraded aviation developments on existing aviation sites; for RPT, freight, emergency services, aeromedical, flying training, air taxi, Advanced Air Mobility and emerging technologies, corporate aircraft and charter. | Develop the site east of QGAir, following Project ARROW works (2027) Market/industry interest in available serviced sites in the Wirraway, Beatty, Mortimer and Beaufighter precincts (2023 onwards). Release of additional aviation sites following reconfiguration of the secondary runway complex (2027 onwards). | K |
| Barton precinct - Design and implement the initial stage of redevelopment, creating sites at the southern end of the precinct, with ground access from Beatty Road at Boundary Road. | Resolve with BCC the location, layout and funding of the western leg to the Beatty Road/Boundary Road intersection (2024-26). Project ARROW implemented (2025-26). Commitments from tenants of proposed development (2027 onwards). | V A L |
| Further develop the Beatty precinct | Western leg to Beatty/ Boundary intersection constructed, to give access to future aviation sites in the Beatty precinct, and initial developments in Barton precinct (2027). Aviation and related developments in Beatty North. General aviation, administration, shop, food and drink outlets, service uses, accommodation, and other support uses for the airport community and visitors in Beatty Central/Archerfield Square. | V G M |
| Further develop the Mortimer precinct. | General aviation and complementary uses in Beatty South. Market interest in sites on west side of Beatty Road and on east side (north of corner site), including for reuse and/or redevelopment for aviation, | N O |

| Potential development 0-8 years (2023-31) | Catalyst/anticipated timing | Reference (Figures 17 & 31) |
|--|---|--------------------------------|
| | industrial, service and other purposes (ongoing). | |
| | Planning and development of land on the north-east corner of Mortimer Road and Beatty Road (2025 onwards). | P |
| Further develop the Beaufighter precinct. | Beaufighter Ave extended eastward to release 7ha of additional sites (2024). | Q |
| | Existing sites reused and/or redeveloped for industrial and aviation purposes (2023 onwards). | |
| Further develop the Boundary precinct (Transition-Archerfield Logistics Estate). | Market/industry interest in available serviced sites (initial sites 560, 570, 580 and 581 in stage 1 developed; balance of stage 1, and subsequent stages released progressively (2023 onwards). | R |
| Ashover precinct – develop stage 2 of the precinct, comprising 1.4ha adjacent to Balham Road. | The focus is on uses that support transport activities in the locality (such as service station/convenience shop/food and drink outlet/administration); industry (compatible with uses on nearby land); research and development; and alternative and emerging energy and technology. | S |
| Encourage RPT/commuter operations to Archerfield Airport. | Main runway and related facilities upgraded (2023). Commitments from operators (2024 onwards). Resolution of operational requirements for RPT service (2024 onwards). | |
| Implement pro active building maintenance/replacement program. | Ongoing - Availability of funding and tenant commitments / market interest will determine priorities. | |
| Ground transport | | |
| Improve the safety and efficiency of access to Archerfield Square from Beatty Road (provide access via new western leg to Kerry Road | Airport property adjacent to the intersection of Kerry Road has been secured by AAC to facilitate creation of a western | T |

| Potential development 0-8 years (2023-31) | Catalyst/anticipated timing | Reference (Figures 17 & 31) |
|---|--|-----------------------------|
| intersection, review layout and operation of Grenier Drive access points). | leg to the Kerry Road intersection, linking to Qantas Ave and Grenier Drive. Initial planning investigations progressing with BCC. Construction to be scheduled once agreement reached with BCC on configuration of the intersection at Kerry Road (or alternative access arrangements), and links to the internal road network (2025-27). | |
| Upgrading of Beatty Road corridor and intersections (by BCC, as shown in current <i>Local Government Infrastructure Plan 2016-2026</i> in City Plan). | Resolve with BCC the location and extent of airport land to be acquired by BCC for widenings along corridor (AAC investigation area shown in PSPs) (current). BCC to confirm proposed road and intersection designs where these relate to airport land or ground access, measures to ensure continuity of services infrastructure to the airport, and site access during and following implementation of the road corridor upgrading by Council (2024-2026). Land access resolved (2026). Works implemented by Council (timing TBC by BCC). | U |
| Design and implement new road access to the strategic aviation sites in the Beatty North precinct, and the initial stage of the Barton precinct (joining to Beatty Road at the Boundary Road intersection). | Resolve design of the road and access from Beatty Road with BCC (2024-26). Project ARROW implemented (2025-26). Commitments from tenants of proposed development (2026 onwards). Western leg to Beatty/ Boundary intersection constructed. Construct road access to future aviation sites in the Beatty precinct, and initial developments in Barton precinct (2027). | V A V |

| Potential development 0-8 years (2023-31) | Catalyst/anticipated timing | Reference (Figures 17 & 31) |
|--|--|-----------------------------|
| Signalise intersection of Transition Drive at Boundary Road. | When 65% of the sites in Transition Estate are developed and traffic volumes reach the threshold for signalisation agreed with BCC. | W |
| Extend Transition Drive south to Wirraway Avenue. | Subject to resolving the final layout of roads within the precinct to cater for Stage 2 of Transition Estate, and access to the additional aviation land in the eastern part of the Wirraway precinct (~2026 onwards). | X |
| Planning | | |
| Review of Master Plan and Environment Strategy. | Annual management review of implementation of MP and AES. Airports Act requirements for preparation of new Master Plan and AES (8 year cycle, due in March 2033). | |

| 9-20 years (2032-43) | Timing/catalyst |
|--|---|
| Airfield development | |
| Reconstruct runways, taxiways and aprons/develop new taxiways and aprons. The condition and usage of runways, taxiways and aprons is monitored by AAC. Pavements and other infrastructure are inspected on a daily basis and maintained/upgraded in accordance with the AAC maintenance program and monitoring of aviation needs. | Not anticipated to be required for the main runway complex and related infrastructure, or the reconfigured secondary runway complex, associated taxiways and helicopter facilities (on completion of Project ARROW), however will be initiated if indicated from ongoing monitoring of airport conditions by AAC, aircraft movements, or changes in mix of aircraft/needs of users. |
| Develop additional aircraft parking in the area between Hotel and the reconfigured secondary runway complex. | Demonstrated need for additional fixed wing and/or helicopter parking. |
| Precinct developments | |
| Wirraway West strategic aviation area (potential expansion/redevelopment of existing sites and development of 0.4ha of vacant serviced land) | |

| 9-20 years (2032-43) | Timing/catalyst |
|--|--|
| <p>Wirraway East strategic aviation area (an additional 4ha of aviation sites with frontage to the main runway/taxiway complex, created following implementation of Project ARROW)</p> <p>Beatty North strategic aviation area – an additional 4.85ha of additional new aviation development sites between Hotel and Juliet, and extending north adjacent to the reconfigured secondary runway complex.</p> <p>Beatty South – 0.1ha of additional strategic development land adjacent to Eastern Apron, plus opportunities arising from redevelopment or upgrading of existing aviation tenancies in the precinct, including adjacent to Eastern Apron, the Airport Administration and Terminal building, and Taxiway Hotel.</p> <p>Continue to facilitate the upgrading and redevelopment of existing aviation tenancies, and aviation developments in the strategic aviation areas, to meet emerging and future needs.</p> | <p>Ongoing development program facilitated by AAC.</p> |
| Ground transport | |
| <p>Create an additional road access to the Boundary and Wirraway precincts, at Ashover Road/Boundary Road corner, by AAC.</p> | <p>Commitment by aviation operator or adjacent tenancies requiring direct ground transport access (2032 onwards, and following reconfiguration, modernisation and optimisation of the secondary runway complex).</p> |
| <p>Create southern leg to Balham Road/Barton Street intersection (by AAC), to provide access to Barton Precinct.</p> | <p>Development of sites in northern part of Barton precinct (2032 onwards)</p> |
| <p>Construct Beaufighter Avenue court off Lores Bonney Drive by AAC (to provide access to developments in the western part of the precinct)</p> | <p>Development of sites in the western part of the precinct</p> |
| <p>Boundary precinct internal road link – extend Logistics Drive west and north to link to Boundary Road (at Randolph Street).</p> | <p>Feasibility assessment 2032 onwards.</p> |
| <p>Shared path network in Beatty Road, Barton/Balham Road, and Ashover/Boundary (works by BCC)</p> | <p>AAC to identify with BCC feasible airport land acquisition requirements, timing and funding; BCC responsible for implementing works</p> |

| 9-20 years (2032-43) | Timing/catalyst |
|---|--|
| Continue with program of developing new and upgraded facilities in each precinct. | Commitments to new or upgraded facilities by existing or new tenants (2032 onwards). |
| Other initiatives (as required) | Timing/catalyst |
| Prepare development plans for development precincts. | Critical mass of bona fide (and feasible) development proposals received by AAC. |
| Upgrade navigational facilities. | Need demonstrated by airport users. AAC satisfied with viability of investing in system to attract additional movements, or to facilitate existing or new operators. |
| Upgrade runway/taxiway lighting. | Periodic assessment by AAC of lighting performance and maintenance requirements (longer term, given recently completed upgrading through Project AIM). Extension or alterations to main runway complex or taxiways. |

The Master Plan identifies a range of landside development and redevelopment opportunities. The detail of these projects will evolve over the coming years, as bona fide proposals consistent with the Master Plan are secured, and their feasibility is proven to the satisfaction of AAC.

AAC has over the past 26 years worked with BCC and other agencies to develop a constructive and cooperative approach on matters where there are shared interests.

Within the framework of the Master Plan, AAC draws on the advice of BCC and other agencies (as appropriate) to inform its decisions on significant projects, and planning initiatives.

Where there are opportunities for mutually beneficial decisions to be made about the airport and the surrounding area, AAC is committed to pursuing these through respectful consultation and consideration.

AAC facilitates the *Archerfield Airport Planning Coordination Forum*, and the *Community Aviation Consultation Group* which includes representatives from the airport businesses and users, the communities around the airport, local businesses, other local stakeholders, and relevant agencies and authorities with a role in the planning and/or operation of the airport.

Further information about these initiatives is described in section 18.12.

18.3 PLANNING AND BUILDING APPROVALS PROCESS

18.3.1 AAC planning obligations and operation of the Master Plan

Under the provisions of the *Airports Act*, the airport is exempt from the local planning controls in the Brisbane City Plan.

Instead, AAC is responsible for devising a land use plan as part of the Master Plan and administering the provisions of that plan. The plan must be generally consistent with the planning provisions in operation in Queensland, including State Planning Policy and strategies, and relevant aspects of the Brisbane City Plan.

The planning requirements at Archerfield Airport are implemented as follows:

- The Master Plan vision identifies the overall framework for the airport (8 and 20 years), consistent with AACs development objectives.
- Land use zones have been applied to each precinct (Figure 19). Each zone includes a statement of the zone purpose, and outcomes that are sought.
- The precinct descriptions and PSPs describe the focus of each precinct/sub precinct, the potential land uses and ground transport requirements.
- Appendix E contains a schedule with a comprehensive list of land use terms, provides a definition for each term (with examples), and sets out for each precinct/sub precinct the uses that are 'accepted' (no further planning assessment), 'assessable', or 'prohibited'.
- The 2031 vision identifies the priority projects for the initial 8 years of the Master Plan.
- Section 18.5 sets out the matters that AAC considers when assessing the merits of a development application.

An overview of the development approvals process is provided in Figure 32.

The development objectives, land use zoning and requirements for development precincts are set out in Chapter 12.

The land use proposals in the Master Plan are consistent with the strategic direction for land use and development as described in State Planning Policy and guidelines, State planning strategies, and the City Plan, which recognise that Archerfield Airport is a site of State strategic significance, uniquely positioned as a transport, technology, engineering and education hub, and also a significant site in the SWIC REC/SWIG. This is discussed in sections 3.3-3.6, and Chapters 8 and 12.

AAC has adapted to the airport zone descriptions and outcomes from City Plan to facilitate the implementation of AACs development objectives for the airport, the long term vision, and aviation and land use strategy for the airport. The

Master Plan also provides additional information about preferred land use and development outcomes in each airport precinct, and the priority projects for the initial 8 year period, and longer term 20 year timeframe.

Land use terms have been defined in Appendix E of the Master Plan, drawing on the relevant provisions in the Queensland *Planning regulation, Queensland Planning Provisions, Airports Act* and *City Plan*.

The PSPs provide guidance on the preferred uses in each part of the airport, and access arrangements which respond to the conditions and opportunities in each location at the airport, the current and future needs for aviation and complementary land use, and the interfaces to surrounding land.

AAC, when assessing the merits of specific proposals and deciding whether to grant planning approval, a lease to a tenant and consent to the activity will assess the proposed use and development against AACs development objectives, the Master Plan vision, the zone outcomes in section 12.3, the land use terms in Appendix E, the relevant provisions of the AES (including heritage management), consistency with other airport requirements (including environmental management for the construction and/or operational phases of a proposal), the assessment criteria in section 18.5, and Environmental Management Procedure AA1-*Environmental assessment of new tenancy or lease renewal*.

AAC will also refer to the following codes in City Plan, as relevant to the proposal:

- *Special purpose zone code* (SP5 provisions);
- *Special purpose code*;
- *Industry zone code* (General industry B provisions) for the AIN2 zoned land;
- *Industry code*;
- *Conservation zone code* (for the ACN1 land adjacent to Oxley Creek);
- *Community facilities zone code* (for the ACF3 for God's Acre); and
- *Transport, access, parking and servicing code*.

Where there is a difference between the provisions of a code or other provision of City Plan; and the Master Plan, AES, airport safeguarding requirements, or other policies, standards, guidelines or procedures that are applied at Archerfield Airport, the Archerfield Airport provisions in the Master Plan prevail.

In determining whether to refuse or consent to a proposal, AAC must consider the significance of any inconsistencies. AAC must not refuse consent if doing so is inconsistent with an obligation of the company as a lessor under a sublease, or under an interest to which the Airports Act applies.



Figure 32. **Overview of development approvals process**

Major developments

For major developments that require a MDP, AAC must also be satisfied that the proposal is consistent with the MDP approved by the Minister for the activity.

AAC assesses the building activity against the relevant provisions of the Master Plan and the MDP approval, and the ABC is then responsible for approval of the building activity. More information about MDPs is provided in section 1.4.3.

Sensitive developments

Sensitive developments are prohibited on Commonwealth-leased airports except in exceptional circumstances.

The Airports Act defines *sensitive developments* as the development of, or a redevelopment that increases the capacity of, any of the following:

- (a) a residential dwelling;
- (b) a community care facility;
- (c) a pre-school;
- (d) a primary, secondary, tertiary or other educational institution;
- (e) a hospital.

A *sensitive development* does not include:

- (a) an aviation educational facility;
- (b) accommodation for students studying at an aviation educational facility at the airport;
- (c) a facility with the primary purpose of providing emergency medical treatment and which does not have in-patient facilities;
- (d) a facility with the primary purpose of providing in-house training to staff of an organisation conducting operations at the airport.

Aviation educational facility means any of the following:

- (a) a flying training school;
- (b) an aircraft maintenance training school;
- (c) a facility that provides training in relation to air traffic control;
- (d) a facility that provides training for cabin crew;
- (e) any other facility with the primary purpose of providing training in relation to aviation related activities.

Community care facility includes the following:

- (a) a facility that provides aged care within the meaning given by the *Aged Care Act 1997*;
- (b) a retirement village within the meaning given by the *Social Security Act 1991*;

(c) a facility that provides respite care within the meaning given by the *Aged Care Act 1997*.

Some of these terms have a different meaning under State and local planning provisions. For the purpose of implementing the land use provisions of the Master Plan, the definitions in the Airports Act and in Appendix E to this Master Plan take precedence over State or local provisions.

A new sensitive development, or proposed increase in the capacity of an existing sensitive development can only be allowed if:

- it is identified in the airport master plan (in accordance with S71A of the Airports Act), and
- the Minister approves the preparation of a preliminary draft Major Development Plan (pdMDP) for the proposed sensitive development; and
- the MDP application is prepared, exhibited, assessed and approved in accordance with the requirements of the Airports Act.

In the ASP5 and AIN2 zones, specific sensitive developments, including for pre-school and some other educational institution uses may be considered in nominated locations. These are marked with an * in the land use table in Appendix E, and shown as 'assessable' in the relevant precinct.

The Minister (rather than AAC) assesses the merits of a proposed sensitive development, through the Major Development Plan (MDP) process.

The Minister may approve the preparation of a preliminary draft MDP if satisfied there are exceptional circumstances that support its preparation. In allowing the preparation of a pdMDP, the Minister is not bound to subsequently approve the application.

18.3.2 Role of AAC in land use planning and development external to the airport site

Land use and development decisions relating to land in the vicinity of the airport have the potential to impact on the sustainable, safe and efficient operation of Archerfield Airport.

Key aspects are:

- maintaining obstacle clearances to allow for safe aircraft movement and aviation communications (in accordance with the obstacle limitation surfaces and PANS-OPS shown in Figures 11 and 12);
- controlling lighting to minimise the potential for adverse effects on pilots approaching landing at the airport (in accordance with the light intensity zones shown in Figure 13);

- ensuring that the colours and finishes of external building materials on and in the vicinity of the airport are selected so as to avoid causing excessive glare or reflection that could adversely affect pilots;
- identifying areas that are forecast to be subject to aircraft related noise, ensuring that new noise sensitive uses are not located in areas forecast to be exposed to significant aircraft noise, and that appropriate noise amelioration measures are implemented in developments to provide acceptable amenity for the proposed land use (in accordance with AS2021: *Acoustics – Aircraft Noise Intrusion – Building Siting and Construction*);
- managing the concentration of birds and other wildlife in the areas around the airport, to minimise strike hazards for aircraft;
- identifying areas in the vicinity of the runways that are sensitive to wind shear or turbulence; and ensuring that these aspects are addressed in the siting, design and construction of any development;
- adhering to the public safety areas and other relevant provisions of the *National Airports Safeguarding Framework* guideline; and *State Planning Policy* and related guideline; and
- participating in the assessment of any wind farms or wind monitoring towers that have the potential to impact on the continued safe and efficient operation of the airport; to ensure that safeguarding requirements are adhered to.

AAC will continue to work with BCC, State government and other authorities responsible for land use and development decisions in the areas in the vicinity of the airport to ensure that these aspects are addressed, and that the provisions of the *National Airports Safeguarding Framework* are implemented consistently.

AAC will continue to assist with providing landholders and project proponents with advice on current obstacle clearances, wildlife buffer management, appropriate colours and finishes, requirements for wind shear and turbulence assessments, lighting requirements and forecast aircraft noise distribution; and will provide referral advice on development applications being assessed by government.

Cranes and temporary structures

AAC also assesses proposals for cranes or other temporary obstacles, which are 'controlled activities' under the *Airports (Protection of Airspace) Regulations 1996*. AAC may also decide to refer proposals to DITRDCA for assessment and decision.

AAC issues approval where the proposal meets airspace height and operational requirements, and other provisions of the regulations.

Further information about airspace protection requirements, and the application process for developments or temporary proposals such as cranes or similar proposals is provided in section 9.2 and on the AAC web site, under '*Building rules and regulations*'.

18.4 NEW FACILITIES/APPLICATIONS

AAC will require new tenants or proponents of new aviation or non-aviation facilities or activities on the airport to apply for approvals as provided for in the *Airports Act, 1996*.

The consent of AAC is also required before the ABC can approve a development application.

AAC is responsible for ensuring that all development proposals are consistent with the airport Master Plan and AAC's planning objectives. AAC will in each case assess the impact of the proposal on infrastructure and the operations of the airport, and before providing consent to a proposed building activity may impose conditions on building activities.

After a building consent is granted by the ABC, the proponent of the activity must apply to AAC for permission to commence works.

In addition to the requirements of the ABC, the application to AAC for consent will need to detail:

- the activities and operations proposed, in accordance with the *Archerfield Airport Environmental Management Procedures* (EMPs);
- any chemicals to be used or stored on the site including type and maximum quantities;
- evidence that the proposal meets any applicable legislative requirements and guidelines for the construction and operation of the activity or site; and
- evidence that the proposal will meet any applicable occupational health and safety, storage and placarding requirements.

Procedures for this and relevant forms are set out in the Airport EMPs.

These include:

- *Procedure AA1-Environmental assessment of new tenancy or lease renewal;*
- *Procedure AA8- Assessment of environmental effects of new works;*
- *EMP1 Lease proposal/tenant questionnaire;* and
- *EMP6 Environmental management checklist for new works.*

The information provided with applications will assist AAC and the tenant/proponent to identify all potential issues or impacts, and to also clarify

applicable legislative requirements and best practice management guidelines that will be applied. If required, the AEO will be provided with this information.

In cases where a proposal has the potential to impact sites or features of heritage value (as identified in the AES), the application must include an appropriate assessment in accordance with the procedures in the AES.

18.5 ASSESSMENT

The assessment by AAC of new works will consider, as appropriate:

- consistency with the *Master Plan vision* and development objectives;
- consistency with the land use strategy for the airport, the zoning of the land, the outcomes sought for each zone as set out in section 12.3, and the land use terms as applied to each precinct in Appendix E;
- the relevant Precinct Structure Plan(s);
- compliance with CASA standards in relation to new works;
- implications of the proposal for airside operations both during and following construction;
- compliance with airspace protection requirements (including assessment of any temporary works required during construction), and the *Airports (Protection of Airspace) Regulations 1996*;
- the type, location, shape, height, and external appearance of the proposed development;
- the siting of any proposed building;
- the effect of any proposed development on buildings and other structures on adjoining land at the airport;
- compatibility of any new activities on the site with existing land uses on and adjacent to the airport, and with the zoning of that land; and if any significant incompatibility is identified, whether there are any reasonable measures that could be implemented to achieve acceptable compatibility;
- potential impacts of the proposal on the amenity of surrounding land, including through the emission of noise, dust or odour, and any measures required to mitigate those impacts. In assessing acceptable separation distances from other uses, on and off the airport, consideration will be given to the separation distances in the *Industry code* in City Plan;
- the building design and its presentation in the streetscape and precinct, ensuring that it achieves the quality sought by AAC for new developments at the airport;
- the appropriateness of any proposed signage, having regard to its function, appearance, and any implications for airport operations;

- existing utility services, and any protection measures, infrastructure upgrading or connections required during and/or following construction;
- efficient use of potable water, including by specifying water efficient fittings and equipment; and/or by considering opportunities for on site detention and reuse of stormwater for appropriate beneficial purposes such as toilet flushing, washdown, or irrigation of landscaping;
- energy efficiency, including optimising the use of available energy, and using renewable sources where feasible;
- the adequacy of access to the proposal by motor vehicles, pedestrians and cyclists, and consistency with the *Ground transport plan* and the PSP(s);
- the adequacy of existing and proposed car parking and service vehicle/loading facilities and manoeuvring areas to cater for the needs of the proposal, having regard to the relevant provisions of the *Transport, access, parking and servicing code* in City Plan. There is flexibility for car parking and service vehicle/loading requirements to be satisfied on or off the development site (within the airport), including where there is demonstrated capacity in shared parking and/or loading areas on airport land. Approval of any significant variation to the standards in the code, including for a reduction in the standard rate of car parking spaces or the specifications for service areas for a proposal should be based on an assessment that demonstrates that the practical requirements of the development will be satisfied;
- management of impacts on any significant native flora that may be in the *Archerfield Airport Conservation (Local)* zone adjacent to Oxley Creek, in accordance with the AES;
- management of Aboriginal cultural heritage, and built heritage values in accordance with the existing conditions assessment, potential impacts, management, and implementation targets set out in section 16.2 of the AES, and the Heritage Management Plan;
- potential risk of soil or air pollution, and any management or mitigation measures required in accordance with the AES (sections 16.4 and 16.7);
- noise impacts, including from existing uses in the vicinity of the proposal or from aircraft, potential uses of nearby land (including General industry C zoned land off airport), and any measures required to ensure acceptable amenity for users of the proposed development;
- groundwater, including potential changes to groundwater levels and/or water quality on or off airport;
- management of surface water, including ensuring that the quantity and quality of stormwater discharged from the site of the proposal meets relevant standards prior to discharge from the airport drainage system;

- containment of asbestos, where works relate to buildings or plant listed in the airport asbestos register;
- the potential for the works to result in the introduction or spreading of Fire Ants, and any mitigation measures required; and
- any other significant impact the building activity, or resulting development, is likely to have on the environment or the airport, and if an adverse impact is likely, whether it is reasonably possible to protect against that impact, or mitigate the effects.

In assessing proposals, AAC will have regard to best practice building development and environment protection practices, including the relevant provisions of the AES, and protocols applied in comparable circumstances by State government and BCC. It may require specialist advice (for example on acoustics, traffic or other aspects) to assist with the assessment and decision.

The following standards and considerations will apply to all works on the airport:

- *Airports (Building Control) Regulations—Building Code of Australia* as applied in Queensland (adopted by reference), and other relevant standards;
- structures must have a wind rating in accordance with *AS 1170 Part 2 - Structural design actions - Wind actions* (2011);
- all structures and site features must comply with the OLS/PANS-OPS applicable to Archerfield and the surrounding area. Approval of any development constituting a 'controlled activity' (including cranes or other structures or works required for the construction phase) must be addressed in accordance with the relevant regulations;
- regard must be had to noise attenuation requirements, or arrangement of activities to minimise adverse exposure of occupants to aircraft or other noise sources, taking into account the noise environment, the characteristics of the intended use, and whether it is temporary or permanent; and the relevant provisions of *AS2021: Acoustics - Aircraft Noise Intrusion - Building Siting and Construction*;
- any proposed landscaping must be consistent with any overall landscaping theme adopted by AAC for the precinct within which the building sits. Plant selection and layout should provide amenity, without creating unacceptable risk for increased bird or other wildlife strike on aircraft, or impacting airspace through intrusion into the OLS/PANS-OPS surfaces;
- adequate provision should be made for car parking, service and emergency vehicle access, loading and storage facilities to meet the operational requirements of the proposal; and

- the relevant provisions of the AES (including for the management of cultural and built heritage, flora and fauna, air emissions, ozone depleting substances, surface water and groundwater, soil, hazardous materials and waste, noise, and PFAS), the requirements for preparation and use of environmental management plans, and the environment protection requirements of relevant regulatory bodies must be met.

If, on reviewing the proposal, potential impacts are identified, AAC will work with the proponent to identify how impacts can be mitigated. The preparation of an *Environmental Management Plan* for the construction and/or operational phases may also be required.

18.6 CONSULTATION ON DEVELOPMENT APPLICATIONS ON THE AIRPORT

All new proposals for the airport land will be reviewed by AAC against the Master Plan, the AES, and other relevant policies, guidelines or standards.

The AEO will be involved in assessing and advising on the environmental aspects of any major new developments on the airport site, including any Environmental Management Plan for the construction or operational phases.

If in the opinion of AAC, the development could result in a significant off-site impact, AAC will consult with relevant stakeholders, including BCC and possibly State agencies and/or the community, and their comments taken into consideration.

Information concerning new proposals will be provided to the AEO, in accordance with the Airport EMPs.

All comments received will be reviewed and considered by AAC before deciding on whether the proposal should proceed, and if relevant, under what conditions.

Where the *Airports Act 1996* requires consultation with the community (such as in the case of a Major Development Plan), AAC will undertake an appropriate consultative process. Comments received from external parties will be considered by AAC when deciding whether the proposal should proceed.

18.7 BUILDING APPROVAL REQUIREMENTS

DITRDCA has appointed an Airport Building Controller (ABC) who is responsible for ensuring that activities at Archerfield Airport meet the appropriate building and engineering standards.

The ABC must be notified in writing of all proposed construction and building activities, including minor repairs, alterations and signs. Some minor works are exempt from formal approval.

Building and construction must comply with the *Building Code of Australia* (BCA) as operational in Queensland and any other relevant standards. Where the BCA does not apply (for example in relation to civil engineering works) the relevant Australian Standard or international standard will apply. The ABC identifies the appropriate standards.

Structural design will be required to be certified by an appropriately qualified Structural Engineer to meet the appropriate wind rating.

A Certificate of Compliance for Occupancy is required for all building or construction work that requires formal approval by the ABC. A Certificate of Compliance for Occupancy is issued before a building can be occupied, and a Certificate of Compliance for Use is required before engineering works, electrical works or other utility services can be used.

Further information on the airport building control process, and ABC requirements is provided in the *Airport Building Control Operations Manual* published by DITRDCA.

18.8 PERMISSION TO COMMENCE WORKS

Once a development application has been approved by the ABC, the proponent is required to obtain from AAC permission to commence work on site.

AAC will require the appointed contractor to:

- prepare a safe work plan for the building/works activity;
- ensure that Queensland legislation and related requirements for work health and safety is complied with during the operations;
- provide security fences, hoardings, barricades and other controls set out in its Construction Management Plan to prevent public access and protect people from injury arising from the work activity;
- provide appropriately qualified and experienced staff to ensure there is no unauthorised entry into the workplace;
- protect airport property;
- remove all building debris and rubbish from the site on completion of the project and dispose of it at a suitably licensed disposal facility/area in accordance with State and local requirements; and
- return all retained building fabric and/or landscaping to a condition at least equivalent to the prior condition of the site of the building/works activity.

18.9 PROPERTY MANAGEMENT

18.9.1 Leasing conditions

For all new leases, conditions will be included that ensure that facilities are constructed and operated in accordance with the Master Plan, the AES and relevant environmental requirements.

Following construction of the facility, AAC will inspect the premises and verify compliance with any requirements stipulated in the development approval.

18.9.2 Encroachments on airport land

AAC is conscious that there may be situations where there is a discrepancy between the title boundary of airport land and developments or uses associated with neighbouring properties. AAC will work progressively with neighbouring landholders and the Commonwealth to rectify any anomalies, to ensure the integrity of the Commonwealth land.

18.10 BUILDING PRESENTATION STANDARDS

AAC seeks to encourage the progressive improvement of the airport environment, and is particularly concerned to see improvement in the quality and presentation of buildings on the site. This includes the standard and quality of building design and layout, the materials and finishes used, and the landscaping provided.

The principal objective is to ensure that the profile and presentation of the airport is continuously upgraded from the state to which it had deteriorated prior to privatisation.

AAC will require that landscaping surrounding new developments will be of a standard complementary to the expectations of BCC.

AAC will apply appropriate siting and design guidelines to all applications for advertising signs proposed on airport. When assessing an application for a sign, AAC will refer to signage guidelines applied in similar development contexts by BCC. This will assist AAC to ensure that the character of the airport and surrounding neighbourhood is protected and where possible enhanced.

18.11 IMPLEMENTATION OF THE AES

18.11.1 AAC's role in implementing the AES

The successful implementation of the AES requires the constructive involvement and commitment of a number of parties both on and off airport. AAC will facilitate this by:

- providing information about the AAC environment protection policy; its objectives, environmental issues, management and mitigating measures, actions to be taken, and outcomes of ongoing monitoring and review, to interested parties;
- working with key stakeholders with a common interest or responsibilities to address environmental issues;
- disseminating information about environmental issues and initiatives being undertaken;
- training AAC personnel on the environmental management needs of the airport, environmental management issues and requirements specific to their role, and their obligations under the Airports Act and Regulations;
- requiring airport tenants to undertake environmental training, including induction on the AES and related environmental management system, any requirements provided for in their lease (including in any EMP(s) that apply to their activities), and any specific training identified through tenancy reviews;
- requiring that contractors engaged by AAC receive induction on relevant provisions of the Master Plan and AES, and compliance requirements for their undertaking on the airport;
- encouraging others operating from, or using the airport to develop and apply environmental awareness, consistent with the AES;
- continuing to include environmental management requirements in airport leases and development approvals; and
- reporting on achievements and outstanding matters to assist all stakeholders to monitor the implementation of the Strategy.

AAC is committed to ensuring that the AES and Master Plan remain focused on the relevant current and future planning and environmental requirements of the airport.

To this end, it will consider and address all future proposals for improvement to, or refinement of the AES and the Master Plan. These improvements will be formally consolidated in revised documentation arising from periodic reviews.

18.11.2 Annual environmental performance report

An environmental performance report is supplied to DITRDCA—Airports Division every 12 months, and copied to the AEO. The performance report details:

- the results of any site environmental reviews which have been conducted over the previous 12 months;
- achievement of AAC's environment protection and management objectives and targets;

- progress in implementing the AES;
- the results of the groundwater and surface water quality monitoring program;
- a summary of any environmental incidents that occurred over the previous 12 months and the findings of any incident investigations; and
- a summary of complaints received and actions taken.

AAC will advise the AEO if monitoring indicates that discharges from the site were excessive.

AAC will as soon as practicable advise the AEO of any event resulting in a spill of material that may adversely affect either the on-site or off-site environment.

BCC and the Queensland DESI will also be advised if environmental impacts have occurred external to the site.

18.11.3 Continuous improvement

The environmental management process at the airport is subject to ongoing monitoring, review and improvement.

As a part of maintaining the ongoing responsibilities identified in this AES it is important that there are mechanisms in place to monitor and identify any potential or emerging issues.

Key environmental aspects will be monitored through the following actions:

- an ongoing, annual assessment of groundwater quality on the airport; and review of the network of monitoring bores and the sampling and testing program to ensure that it is effective and provides meaningful information;
- annual reviews of airport tenants that have hazardous chemicals on site, to monitor compliance with chemical handling and storage requirements;
- cyclical environmental reviews of each airport tenant to determine the environmental performance of the activities carried out and achievement of environmental management objectives against their *Site Environmental Management Plan* (where applicable);
- maintaining a register of known hazardous materials (including wastes) that are on the airport site;
- ensuring that with each new building application the appropriate environmental systems and considerations are put in place;
- annual assessment of the quality of the airport stormwater run-off. AAC will continue the practice of conducting assessments each year with sampling taken in each sub catchment on airport, and will maintain these data on a database;

- ensuring that tenants secure any Trade Waste Agreement required prior to commencing activities on the airport;
- monitoring and reviewing products and chemicals used by AAC to ensure that environmental issues are considered and best practice is applied; and
- investigating any complaints about nuisance noise relating to ground based activities, including those by tenants.

The AEO will be advised if monitoring indicates that any discharges are excessive.

There are currently no other known emissions to the environment that warrant monitoring. If an issue arises, or is identified during environmental reviews of activities or works by AAC or tenants, a monitoring program will be implemented as required.

Airport Environmental Management Procedures (EMPs)

The EMPs are dynamic and subject to regular review and refinement.

The main opportunities for improvement arise from:

- quarterly AAEMF meetings involving the AAC, AEO and the ABC;
- monthly management reviews by AAC of key issue areas;
- cyclical tenant reviews; and
- revisions and recommendations arising from the annual environmental management report to DITRDCA.

AAC undertakes a general review of the EMPs every two years.

Authority for revision of the procedures in the EMPs rests with the Airport General Manager. Policy and strategies can only be revised with the approval of the AAC Board.

Tenant reviews and engagement on environmental issues

Tenants are classified according to the level of risk, and those rated as 'high' (level 3) are required to develop and implement an EMP for their operations.

The implementation of tenant EMPs is reviewed annually.

AAC advises relevant tenants of the findings of its environmental reviews. The feedback is provided in accordance with EMP AA6 *Tenant Environmental Reviews* and the EMP form ENV-05 *Review of Environmental Non-Conformance*.

In the case of recommendations arising from a tenant environmental review, or identification of non conformance:

- non-conformances and recommendations for the tenancy are recorded in the *Inspections Register*, which also indicates the status of each item (closed-open);
- specific plans are formulated to address recurring environmental issues;
- AAC conducts follow-up inspections; and
- the item is closed out in the *Inspections Register* when satisfactorily resolved.

AAC will also communicate with tenants on related environmental issues on an as needed basis; for example, when tenants first arrive, or following an environmental incident, or when there is a significant change to airport environmental management strategies or procedures, policies or regulations.

In exceptional circumstances, the AEO will also be involved to ensure the implementation of the AES is achieved.

Implementation of AES objectives and action plan

The achievement of the AES objectives and action plan targets will be monitored by AAC on a six-monthly basis.

AAC will review the *Airport Environment Protection Action Plan* on a 12 monthly basis. It will check on the risk rating given to each action, progress on individual actions, and whether the Plan needs to be modified. It will provide the results of this review in the annual report to DITRDCA.

18.11.4 Qualifications of personnel

Monitoring and reporting on the airport environment will be undertaken by appropriately qualified and experienced personnel, and will accord with all applicable standards.

At minimum:

- personnel responsible for designing and overseeing the completion of monitoring of an environmental aspect will hold a Bachelor of Science degree (or equivalent), or a combination of undergraduate and post graduate qualifications relevant to this work;
- personnel responsible for undertaking sampling of environmental aspects will hold a TAFE certificate in environmental monitoring and management (or similar), appropriate to the sampling tasks; and
- personnel responsible for analysing and reporting on the findings of monitoring will hold a Bachelor of Science degree (or equivalent), or a combination of undergraduate and post graduate qualifications relevant to this work.

AAC is responsible for ensuring that environmental monitoring and reporting is undertaken by responsible personnel in accordance with these requirements.

18.12 OTHER CONSULTATIVE PROCESSES

18.12.1 Consultation during implementation of the Master Plan and AES

AAC will continue to consult in a variety of ways to provide for appropriate and timely input to its decision making processes.

Similarly, AAC will seek to have input to planning and development decisions by others, where those decisions may have implications for the operation, amenity or safety of the airport.

AAC is particularly concerned that other parties are cognisant of AAC needs and requirements and seeks to work in partnership with its neighbours where there are common issues to be resolved.

AAC is engaged in a continuing program of consultation with parties involved in the airport, both on the site (tenants and operators) and external to the site.

Key aspects include:

- facilitation by AAC of the *Archerfield Airport Environmental Management Forum* (AAEMF);
- a rolling program of reviews of tenant operations;
- community consultation on major projects;
- regular 12 monthly reporting of environmental matters to the Commonwealth Government;
- environmental awareness training and education for AAC personnel, and contractors; and
- ensuring that proponents of developments in the vicinity of the airport, and authorities responsible for development planning and assessment have accurate information about airport safeguarding requirements, in accordance with the NASF, the provisions of the Master Plan and the relevant State and local planning provisions.

Archerfield Airport Planning Coordination Forum (PCF)

There are several ongoing issues that AAC shares with BCC, State Government and Commonwealth agencies responsible for the environment, roads, and planning. These include:

- planning for, and providing utility services infrastructure required to support the planned developments at Archerfield;

- land use and development controls to ensure that on airport activities are consistent with the Master Plan, complementary to the strategic direction of the City, and are compatible with neighbouring land use;
- opportunities to enhance the South West Industrial Gateway by the provision of complementary aviation services, and land uses;
- land use and development controls to ensure that land around the airport is used and developed in a way that will allow the continued safe and efficient operation of the airport, and minimise the opportunity for activities to establish that are intolerant to aircraft noise or other aspects of airport operation;
- airspace protection and removal of obstacles;
- identifying and conserving features and areas of heritage and natural significance;
- managing emissions to the environment; and
- facilitating the timely and equitable upgrading of the regional and local road network, to address existing capacity problems, particularly relating to Beatty Road.

AAC will continue to work to address these issues with the relevant authorities.

The strategic planning meetings that took place as part of the master planning process for the 2011-31 Master Plan provided a valuable opportunity for a number of these issues to be clarified and further considered by AAC, DITRDCA, the State Government and BCC.

The ongoing consultation is now facilitated by the *Archerfield Airport Planning Coordination Forum* which meets on a regular basis to discuss strategic issues relevant to the implementation of the Master Plan and plans for the areas around the airport, and disseminate information.

The meeting frequency is resolved with the forum members, and depends on the issues that need to be addressed. There is also the flexibility for special meetings to be arranged to address specific issues as required.

Community Aviation Consultation Group (CACG)

AAC recognises the importance of effective consultation with the range of community stakeholders with an interest in the airport. The issues are often complex, and attract divergent views.

AAC has through this and past master plans identified and implemented various approaches to consulting with stakeholders, and providing information on the strategic issues shaping the airport.

There is always scope to improve these processes, and with this in mind, AAC established the *Archerfield Airport Community Aviation Consultation Group*.

The group meetings provide the opportunity for dissemination of information about airport related issues, and provide feedback to AAC.

The inaugural meeting of the group took place on 2 November 2011. It was attended by approximately 30 people, including individuals and representatives of community groups from the areas around the airport, airport businesses and business groups, other local businesses, BCC Councillors, BCC officers, CASA, AsA, DITRDCA, and TMR.

The group has an independent Chairperson, and currently meets three times per year.

Airport Environment Management Forum

The *Archerfield Airport Environment Management Forum* (AAEMF) provides a forum for AAC, the ABC and the AEO to discuss current and emerging environmental issues, monitor aviation activities, and disseminate information relevant to the environmental management of the airport and its environs.

It is facilitated by AAC and meets quarterly. It was established more than 10 years ago as part of AAC's commitment to implement an appropriate on-going consultation process.

Consultation with airport tenants and airport users

AAC publishes newsletters which are circulated to the individuals and organisations on the AAC contact list. The newsletters are circulated via email, included in other correspondence with tenants and airport users, and are also posted on the airport notice board in the Terminal Building.

AAC also holds meetings with airport tenants and users, at which information about current issues is presented and discussed.

18.12.2 Reintroduction of RPT

Background

Archerfield Airport was once Brisbane's primary and international RPT airport before operations relocated to Eagle Farm in the late 1940's.

The Master Plan provides for the reintroduction of RPT services to Archerfield, utilising modern aircraft on the recently upgraded main runway and related aviation infrastructure.

A viable RPT service at Archerfield would improve access to niche airline services for people in the SWIG, Brisbane and the wider region; and would be complementary to other aviation activity at Archerfield.

The timing for a possible recommencement of an RPT service at Archerfield is dependent on industry requirement for the service; a genuine commitment from an operator; and any lead time involved in establishing the service, for example if new or upgraded terminal or other supporting facilities are required by the operator.

The ANEF includes modelling of RPT services with 12 arrivals and 12 departures per day, including departures from both ends of the main runway. These movements, and take offs in particular, contribute to the forecast aircraft noise exposure footprint, including the extent of the 30 ANEF contour anticipated in 2042.

This scale and frequency of services included in the modelling reflects the likely requirements for RPT, based on current industry practices and likely future needs in the region.

The operating requirements for a RPT service will be dependent on several factors that will be unique to the operator, including passenger capacity, the timetable and frequency of the service, the characteristics of their aircraft, the routes operated, and the terminal or other supporting facilities that are required.

Implementation

Once AAC secures from an RPT operator a commitment to provide service using aircraft with greater than 40 passenger capacity and operating more than six arrivals and/or departures per day on the 10L/28R runway, AAC will as part of the planning phase engage with stakeholders through the Community Aviation Consultation Group (and other means if appropriate), to provide an opportunity to identify and address any potential implications including for aircraft noise, ground access and use of surrounding roads, adequate provision for on-airport parking, and any effects on other airport operations.

To address aircraft noise management within the 30 ANEF contour shown in the 2042 ANEF, prior to commencement of a RPT service as described above, AAC will:

- work with the operator to identify areas off airport that are likely to fall within a 30 ANEF contour based on the operator's proposed movements and considering other aircraft movements included in the endorsed ANEF for Archerfield Airport;
- work with the operator and AsA to identify any feasible measures to minimise aircraft noise within any resultant potential 30 ANEF area extending from the east end of the 10L/28R runway;
- engage with landholders within any resultant 30 ANEF area in advance of the service commencing to confirm the measures that the RPT operator will

implement to minimise the aircraft noise impacts of their operation (for example frequency and times of operations, or runway direction used); and

- ensure, through ongoing engagement with the operator and AsA (and BCC as appropriate, either through the PCF or by direct contact), that the noise management aspects of the RPT operation are implemented on an ongoing basis, and any issues are addressed in a timely manner.

In addition to RPT considerations, AAC will also continue to engage with the State government, BCC and landholders within the 30 ANEF contour in the 2042 ANEF, to:

- provide information about forecast aircraft noise;
- the implications that aircraft noise exposure has for land use and development; and
- actions that can be taken to ensure that new land use and development is planned, sited, constructed and operated to minimise the impact of aircraft noise.

18.12.3 Major developments

Major developments, including the proposed reconfiguration, modernisation and optimisation of the secondary grass 04/22 runway complex, or the provision of new or lengthened runways as part of the 10/28 complex will require the preparation and approval of a Major Development Plan under the *Airports Act 1996*.

AAC will consult with potentially affected stakeholders in accordance with the requirements of the Act. The *Planning Coordination Forum* and the *Community Aviation Consultation Group* will be engaged in these consultation processes.

18.12.4 Other information

AAC maintains a range of literature and other publicly available documentation relating to the safe and efficient operation and management of the airport. This information currently includes:

- historic records about the airport;
- standard guidelines and other information about appropriate land use and development on the airport site (and in proximity to the airport);
- obstacle clearance requirements for Archerfield;
- brochures describing environment management at airports and the development approvals process;
- the current Airport Environment Strategy;
- the current approved ANEF (with aircraft movements modelled to 2042);

- N70 modelling showing potential noise effects of aircraft movements by the year 2042; and
- fact sheets and other material that describes key aspects of the current Master Plan.

AAC is proactive in working with any party that could either be impacted by airport operational requirements, or have the potential to compromise airport functionality; to ensure that the safety, operational needs and amenity of the airport is maintained.

18.13 EXTERNAL INFRASTRUCTURE

During the process of preparing the 2011-2031 Master Plan, BCC and AAC agreed to work together to determine:

- the infrastructure requirements for the developments described in the Master Plan;
- the likely sequence, timing and triggers for the delivery of required infrastructure; and
- any contributions from AAC toward the cost of providing infrastructure adjacent to the airport that is required because of airport developments.

This consultation process has continued over the intervening 13+ years, as specific projects (such as the development of Transition Estate) have progressed.

Any infrastructure works, or other contributions such as the provision of land for road works (such as widenings or intersections) required for airport developments will be implemented in accordance with agreements to be negotiated between BCC and AAC.



Appendices



Appendix A-Glossary of terms

| | |
|------------------|---|
| AAC | Archerfield Airport Corporation |
| AAEMF | Archerfield Airport Environment Management Forum |
| AEDT | Aviation Environmental Design Tool (FAA) |
| AEPAP | <i>Archerfield Airport Environment Protection Action Plan</i> |
| ABC | Airport Building Control Officer |
| ACN | Aircraft Classification Number |
| ACR | Aircraft Classification Rating |
| AEO | Airport Environment Officer (Commonwealth) |
| ALC | Airport Leasing Company (AAC) |
| ANEF | Australian Noise Exposure Forecast |
| AsA | Airservices Australia |
| ATC | Air Traffic Control |
| ATS | air traffic services |
| ARF | Aviation Rescue Firefighting |
| BAC | Brisbane Airport Corporation Limited |
| BCC | Brisbane City Council |
| BOM | Bureau of Meteorology |
| CASA | Civil Aviation Safety Authority |
| CASR | <i>Civil Aviation Safety Regulations 1998</i> , and relevant provisions of <i>Civil Aviation and Civil Aviation Safety Amendment Regulations 2009</i> (No. 1) |
| City Plan | Brisbane City Plan (2014) (as amended) |
| CTAF | common traffic advisory frequency |
| DESI | Department of Environment, Science and Innovation (State) |
| DITRDCA | Department of Infrastructure, Transport, Regional Development, Communications and the Arts (Commonwealth) |
| DSDILGP | Department of State Development, Infrastructure, Local Government and Planning (State) |
| EMPs | Archerfield <i>Environmental Management Procedures</i> |

| | |
|--------------------|---|
| FAA | Federal Aviation Administration (US) |
| FATO | Final Approach and Take Off |
| GA | general aviation |
| GAAP | General Aviation Aerodrome Procedures |
| GPS | Global Positioning System |
| ICAO | International Civil Aviation Organisation |
| IFR | instrument flight rules |
| ILS | instrument landing systems |
| INM | FAA Integrated Noise Model (now superseded by AEDT) |
| MOS 139 | <i>Manual of Standards Part 139-Aerodromes</i> |
| MTOW | maximum take-off weight |
| OLS | obstacle limitation surfaces |
| PAPI | Precision Approach Path Indicator lights |
| PAL | Pilot Activated Lighting |
| PANS-OPS | Procedures for Air Navigation Services – Aircraft Operations |
| PCN | Pavement Classification Number |
| PSP | Precinct Structure Plan |
| RPT | Regular Public Transport |
| SEQ | South-East Queensland |
| SPP | State Planning Policy (QLD) |
| SWIC REC | South West Industrial Corridor Regional Economic Cluster (ShapingSEQ) |
| SWIG | South West Industrial Gateway of Brisbane |
| Tenant | All occupiers of AAC land or facilities at Archerfield Airport (other than AAC), including lessees and sub lessees. |
| Tie Down | aircraft parking position |
| TMR | Department of Transport and Main Roads (State) |
| VMC | visual meteorological conditions |
| White Paper | National Aviation Policy White Paper: <i>Flight Path to the Future (2009)</i> |

Appendix B-Legal register

The following is a list of Commonwealth and State planning, environment protection, health and safety or dangerous goods management acts and regulations that may apply to Archerfield Airport and/or its various tenants.

COMMONWEALTH LEGISLATION AND REGULATIONS

Aboriginal and Torres Strait Islander Heritage Protection Act 1984
Airports Act 1996
Airports Regulations 2024
Airports (Building Control) Regulations 1996
Airports (Protection of Airspace) Regulations 1996
Airports (Environment Protection) Regulations 1997
Airspace Act 2007
Airspace Regulations 2007
Australian Heritage Council Act 2003
Aviation Transport Security Act 2004
Aviation Transport Security Regulations 2005
Civil Aviation Act 1988
Civil Aviation Safety Regulations 1998
Environment Protection & Biodiversity Conservation Act 1999 and Regulations 2000
Ozone Protection and Synthetic Greenhouse Management Act 1989

STATE LEGISLATION AND REGULATIONS

Aboriginal Land Act 1991
Aboriginal Cultural Heritage Act 2003
Coastal Protection and Management Act 1995
Environmental Protection Act 1994
Environmental Protection (Air) Policy 2019
Environmental Protection (Noise) Policy 2019
Environmental Protection (Water) Policy 2019
Environmental Protection Regulation 2019
Native Title (Queensland) Act 1993
Nature Conservation Act 1992

Planning Act 2016 and Planning Regulation (2017)

SEQ Water Security Program (2016-2046) and Urban Utilities Mandatory Water Restrictions

Torres Strait Islander Cultural Heritage Act 2003

Waste Reduction and Recycling Act 2011

Appendix C-References

Administrative Appeals Tribunal of Australia (2015) *Archerfield Airport Chamber of Commerce Inc & Minister for Infrastructure and Regional Development & Anor [2015] AATA 489*; Brisbane

Archerfield Airport Corporation (2009) *Archerfield Airport Planning Issues, Grass Runway Closure Investigation: 1989-2008*, AAC; Brisbane

Asbestos Audits Queensland (2003) *Asbestos Materials Report and Register for Archerfield Airport 2003*, Asbestos Audits Queensland

Australian Airports Association (2018) *Connecting Australia The economic and social contribution of Australia's airports*, Deloitte Access Economics

Australian Heritage Specialists Pty Ltd (2021) *Archerfield Airport Heritage Management Plan*; Australian Heritage Specialists, Brisbane

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Appendix D-Environment

Protection Action Plan

| Action | Risk rating | Action by: | Cycle | Start date | Finish date |
|---|-------------|-------------------------------------|---------------------------------|---|---------------------|
| Environmental Management System | | | | | |
| Review core Environmental Management Procedures (EMPs). | Minor | AAC and AEMF | 2 yearly | 2010 | 2023 and ongoing |
| Prepare additional EMPs as required. | Minor | AAC, Tenants | As required | As required | N/A |
| Provide framework for preparation of EMPs to those tenants undertaking activities that could cause environmental harm. | Minor | AAC with input from AEO as required | As required | As required | N/A |
| Administer Complaints Register. | Moderate | AAC | N/A | Ongoing | Ongoing |
| Ensure all new lease agreements for Airport tenants include the requirement that tenants address relevant environmental issues. | Moderate | AAC | Prior to grant/renewal of lease | Prior to grant/renewal of lease | On signing of lease |
| Identify new legislative requirements, relevant standards and guidelines for AAC activities. | Moderate | AEMF | Monthly | Ongoing | Ongoing |
| Management review of EMS for consistency with current version of AS/NZS ISO 14001 <i>Environmental Management Systems-Requirements with guidance for use</i> . | Moderate | AAC | 4 yearly | 2027 | Ongoing |
| Information, education and training | | | | | |
| Provide AAC staff with copies of quarterly newsletter and alert them to any new or emerging environmental issues or requirements that might impact on their work. | Moderate | AAC | Quarterly | Ongoing | Ongoing |
| Train AAC staff in environmental responsibilities, key environmental issues for the airport, and actions. | Major | AAC | Annual | 2010 | Ongoing |
| Educate staff on new legislation requirements. | Moderate | AAC | As required | As required, on release of new requirements | Ongoing |
| Inform tenants of their obligations under the AES. | Moderate | AAC with input from | N/A | As required | N/A |

| Action | Risk rating | Action by: | Cycle | Start date | Finish date |
|--|--------------|--|-------------|---|-------------|
| | | AEO as required | | | |
| Provide copies of relevant AAC EMPs if requested. | Minor | AAC | | 1999 | Ongoing |
| Encourage tenants to work with AAC and the AEO in formulating appropriate and workable EMPs to meet their environmental management obligations. | Moderate | AAC with input from AEO as required | N/A | At commencement, or following reviews or identification of specific issues. | As required |
| Include on AAC web site the AES, relevant Environment Management Procedures (EMPs) and EMP forms; standard environmental requirements for leases; summary information about regulatory requirements under the Airports Act 1996 and its regulations; fact sheets; and updates on any current environmental issues. | Moderate | AAC | As required | 2010 | Ongoing |
| Provide current airport-related environmental information to tenants via quarterly newsletter/email, AAC website environment section or summary with tenant invoices. | Major | AAC | Quarterly | Ongoing | Ongoing |
| Heritage | | | | | |
| Facilitate the conservation works at God's Acre cemetery by Friends of God's Acre Inc. | Minor | AAC | N/A | Ongoing | Ongoing |
| Apply the findings and recommendations of the <i>Heritage Management Plan</i> (2021) to assessment of proposals for development of sites of identified heritage value. | Major | AAC with input from AEO, ABC as required | N/A | In planning phase of potential projects | Ongoing |
| Flora and fauna | | | | | |
| Ensure new development on the airport does not cause an increase in bat or bird populations (due to drainage works, settlement ponds, storage of materials, or bird attracting landscaping). | Catastrophic | AAC with input from ABC, AEO as required | N/A | On assessment of each proposal | Ongoing |
| Encourage use of mainly indigenous plants in landscaping works. | Minor | AAC | N/A | Ongoing | Ongoing |

| Action | Risk rating | Action by: | Cycle | Start date | Finish date |
|---|-------------|-------------------------------------|--|---|---------------------------------------|
| Prior to any major development in areas along Oxley Creek not already intensively managed, investigate fauna and flora values. | Moderate | AAC | Prior to development | Prior to decision on proposed development | N/A |
| Undertake an assessment of flora and fauna values to confirm significant values that could occur at Archerfield Airport or potentially could be impacted by airport developments, and any conservation or management requirements that apply to identified values. | Moderate | AAC | Once off | Within 1 year of approval of the AES | Within 2 years of approval of the AES |
| Ensure that potential impacts on confirmed matters of national environmental significance (MNES) are addressed in the planning, design, construction, and operation of new developments, and where any referral or permit is required under the EPBC Act, this process is undertaken. | Moderate | AAC | As part of planning and design process for new developments | In planning phase of potential projects | N/A |
| Consider the potential impacts on MNES arising from light emissions from planned developments, having regard to the National Light Pollution Guidelines for Wildlife 2023. | Moderate | AAC | As part of planning and design process for applicable developments | In planning phase of potential projects | N/A |
| Emissions to air and ozone depleting substances (ODS) | | | | | |
| Continue to identify the presence of ODSs in AAC and tenant reviews. | Moderate | AAC with input from AEO as required | At tenant reviews | Ongoing | Ongoing |
| Advise tenants of their responsibility to obtain relevant environmental approvals for use of ODSs. | Major | AAC with input from AEO as required | At tenant reviews | Ongoing | Ongoing |

| Action | Risk rating | Action by: | Cycle | Start date | Finish date |
|---|-------------|--|---|---|---|
| Surface water | | | | | |
| Continue surface water monitoring for each sub catchment. | Moderate | AAC | Annual | 1998 | Ongoing annual monitoring and reporting |
| Carry out further investigations to identify pollution source(s) if results exceed acceptable limits in a catchment. | Major | AAC with input from AEO as required | Annual monitoring results, tenant reviews | On identification of issue | As required |
| Prepare management plan if pollution is attributed to AAC or present tenant(s). | Moderate | AAC, tenant, and with input from AEO as required | As required | On identification of issue and confirmation of appropriate management actions | As required |
| Identify management actions for pollution that is attributed to past activities. | Moderate | AAC, with input from AEO as required | As required | As required | As required |
| Groundwater | | | | | |
| Conduct annual assessment of groundwater quality. | Moderate | AAC | Annual | Ongoing | Ongoing |
| Review with AEO findings of annual groundwater monitoring reports and determine likely reasons for any elevated levels. Update monitoring program if required. | Moderate | AAC and AEO | Annual | 2010 | Ongoing |
| Review the scope of groundwater testing and sampling undertaken, and refine the annual monitoring program if required. | Minor | AAC | Annual | Ongoing | Ongoing |
| Review the condition and operation of the network of wells on an annual basis, and undertake works if required to ensure the integrity of the monitoring program. | Minor | AAC | Annual | Ongoing | Ongoing |

| Action | Risk rating | Action by: | Cycle | Start date | Finish date |
|---|-------------|---|---|-------------|-------------|
| AAC and tenants with USTs to monitor net quantities to identify any losses. Immediate integrity testing required if losses are identified. | Major | AAC and tenants | Annual | Ongoing | Ongoing |
| Soil and groundwater contamination | | | | | |
| Assess storage of potential contaminants, work methods, and equipment during tenant reviews to identify potential for contamination. | Major | AAC | At tenant reviews | Ongoing | Ongoing |
| Encourage tenants to install bunded above ground tanks, rather than USTs where feasible. | Major | AAC, tenants | Ongoing | Ongoing | Ongoing |
| Ensure all new tenant lease agreements cover contamination monitoring and remediation requirements. | Moderate | AAC | As tenancies are let or renewed | Ongoing | Ongoing |
| Require tenants to remediate any contamination. | Major | AAC | As required | As required | As required |
| Hazardous materials and waste management | | | | | |
| Implement recommendations of <i>Asbestos Management Plan and Register for Archerfield Airport</i> and keep asbestos register current. | Moderate | AAC, tenants modifying existing structures and services | As building demolition, works or modifications are undertaken, AAC acquires buildings | 2003 | Ongoing |
| Maintain up to date Hazardous Materials Register for AAC operations. | Major | AAC | Ongoing | Ongoing | Ongoing |
| Record hazardous materials at minor tenancies during environmental reviews. | Moderate | AAC and tenants | At tenant reviews | 2010 | Ongoing |
| Monitor hazardous materials on airport through tenant reviews and record quantities of hazardous materials in Hazardous Materials Register. | Major | AAC, tenants | 12 monthly | 2011 | Ongoing |

| Action | Risk rating | Action by: | Cycle | Start date | Finish date |
|---|-------------|-------------------------------------|---------------------------|---|--|
| Ensure that tenants have hazardous materials licences where applicable and have a HAZMAP located at the site entrance. | Major | Tenants | 12 monthly (with reviews) | 2010 | Ongoing |
| Monitor the quality and quantity of waste materials on airport. | Moderate | AAC with input from AEO as required | Ongoing | Ongoing | Ongoing |
| Use of natural resources and energy | | | | | |
| Encourage tenants to reduce energy and water use and make greater use of recycling by highlighting opportunities for resource recovery and reuse during environmental reviews of tenancies. | Minor | AAC and tenants | At tenant reviews | Ongoing | Ongoing |
| Include in new AAC developments rainwater harvesting and reuse where feasible. | Minor | AAC | Ongoing | At planning stage of project | Ongoing |
| Develop Drought Response Plan. | Minor | AAC | N/A | January 2025 | June 2026 |
| Review and update Water Efficiency Management Plan. | Minor | AAC | N/A | December 2024 | December 2025 |
| Identify opportunities in new developments for water conservation and reuse, efficient use of energy, natural light, and ventilation; and implement where feasible. | Minor | AAC | Ongoing | At planning stage of project | On completion of each project |
| Investigate and where feasible facilitate the implementation of expanded roof top solar generation or other feasible renewable energy projects at Archerfield Airport. | Minor | AAC | Ongoing | 2023 | Ongoing |
| Develop foundation of Sustainability Plan (Scope 1 and 2, and reporting) | Minor | AAC | N/A | Within the first two years of the AES collect baseline data for a Sustainability Plan, focusing on Scope 1 and 2 emissions related to energy, water, and waste. | Within three years, use this data to set sustainability targets, develop a plan, and establish annual reporting. |

| Action | Risk rating | Action by: | Cycle | Start date | Finish date |
|--|-------------|------------------------|---------------------------------------|----------------------------------|---|
| Noise | | | | | |
| Investigate any noise complaints related to on airport activities and consult with relevant stakeholders. If necessary, conduct noise monitoring. | Moderate | AAC and tenants | Regular follow up if issue identified | On receipt of noise complaint | On satisfactory completion of investigation and remedial action |
| Meet with AsA on an ongoing basis to identify and address any noise management requirements arising from aviation operations at Archerfield; and implement agreed actions that fall within AACs responsibilities. | Moderate | AAC, AsA | Quarterly | 2022 | Ongoing |
| Ensure that all AAC personnel are familiar with the noise complaints process, and the different responsibilities of AAC and AsA. Advise new employees during initial induction. | Minor | AAC | Annual | Ongoing | Ongoing |
| <p>Prior to commencement of a RPT service involving aircraft with more than a 40-passenger capacity, operating more than six arrivals and/or departures per day on the 10L/28R runway:</p> <ul style="list-style-type: none"> work with the operator and AsA to clarify the areas that are forecast to be exposed to 30 ANEF noise levels (based on an assessment of their proposed service), and identify any feasible measures to minimise aircraft noise from RPT within the 30 ANEF area in Acacia Ridge; engage with landholders within the resultant 30 ANEF contour area in advance of the RPT service commencing to confirm the noise management measures that the operator will implement; and ensure, through ongoing engagement with the operator and AsA (and BCC as appropriate), that the noise management aspects of the RPT operation are implemented on an ongoing basis, and any issues are addressed in a timely manner. | Moderate | AAC, AsA, RPT operator | N/A | Prior to commencement of service | Ongoing |

| Action | Risk rating | Action by: | Cycle | Start date | Finish date |
|--|-------------|-------------------------------------|--|--|---|
| Environmental monitoring and reviews | | | | | |
| Maintain updated tenant review schedule, in accordance with current tenant risk classification. | Moderate | AAC in consultation with AAEMF | N/A | Ongoing | Ongoing |
| Conduct tenant environmental reviews. | Major | AAC with AEO where required | At tenant reviews (12 monthly for tenants with hazardous materials, others as scheduled) | Ongoing | Ongoing |
| Identify opportunities during tenant reviews for improved waste management by AAC and tenants through cleaner production and potential synergies between activities on the airport. | Minor | AAC and tenants | At tenant reviews | Ongoing | Ongoing |
| Audit sites categorised as medium or high risk prior to tenant departure to confirm environmental condition, removal of plant and equipment, condition of utility services, and to identify any remediation or reinstatement required by tenant. | Major | AAC with input from AEO as required | Lease end | 3 months before tenant vacates premises. | 2 months before tenant vacates premises |
| Ensure compliance of tenant with any actions arising from audit. | Moderate | AAC with input from AEO as required | N/A | 1 month prior to tenant vacating | Prior to release of tenant from lease |
| Investigate and report on received complaints. | Minor | AAC | As required | On receipt of complaint | On satisfactory completion of investigation and remedial action |

| Action | Risk rating | Action by: | Cycle | Start date | Finish date |
|--|-------------|------------|-------------|-------------|-------------|
| Communication and consultation | | | | | |
| Facilitate the Archerfield Airport Environmental Management Forum (AAEMF). | Minor | AAC | Quarterly | 2000 | Ongoing |
| Undertake consultation with relevant stakeholders on major projects. | Minor | AAC | As required | As required | As required |
| Continuous improvement | | | | | |
| Review progress of implementation of the Environment Protection Action Plan. | Moderate | AAC | Annually | July 2010 | Ongoing |
| Review contents of Environment Protection Action Plan and revise as required, consistent with the AES. | Moderate | AAC | Annually | June 2011 | Ongoing |

Appendix E-Land use provisions

Land use terms

The land use terms in Table E-1 apply to Archerfield Airport.

The table provides a definition for each land use term, and examples. It also sets out the uses and development that are 'accepted', 'assessable', or 'prohibited' in each part of the airport.

Table E-2 provides additional information to assist with classifying an industry use as *low*, *medium* or *high* impact, or as *special industry*.

The land use provisions must be read in conjunction with the Master Plan vision; AACs development objectives (12.2); the land use zone that has been applied to the land (12.3); the relevant precinct description, concept, and PSP (12.4 to 12.12 inclusive); and are subject to any additional guidance or advice provided by AAC.

The planning and development application requirements and approval process are set out in Chapter 18.

Sensitive developments

Sensitive developments are prohibited on Commonwealth-leased airports except in exceptional circumstances.

The Airports Act defines *sensitive developments* as follows:

A *sensitive development* is the development of, or a redevelopment that increases the capacity of, any of the following:

- (a) a residential dwelling;
- (b) a community care facility;
- (c) a pre-school;
- (d) a primary, secondary, tertiary, or other educational institution;
- (e) a hospital.

A *sensitive development* does not include the following:

- (a) an aviation educational facility;
- (b) accommodation for students studying at an aviation educational facility at the airport;
- (c) a facility with the primary purpose of providing emergency medical treatment and which does not have in-patient facilities;
- (d) a facility with the primary purpose of providing in-house training to staff of an organisation conducting operations at the airport.

Aviation educational facility means any of the following:

- (a) a flying training school;
- (b) an aircraft maintenance training school;
- (c) a facility that provides training in relation to air traffic control;
- (d) a facility that provides training for cabin crew;
- (e) any other facility with the primary purpose of providing training in relation to aviation related activities.

Community care facility includes the following:

- (a) a facility that provides aged care within the meaning given by the *Aged Care Act 1997*;
- (b) a retirement village within the meaning given by the *Social Security Act 1991*;
- (c) a facility that provides respite care within the meaning given by the *Aged Care Act 1997*.

Some of these terms have a different meaning under State and local planning provisions. For the purpose of implementing the land use provisions of the Master Plan, the definitions in the Airports Act and in the following tables take precedence.

A new sensitive development, or proposed increase in the capacity of an existing sensitive development can only be allowed if:

- it is identified in the airport master plan (in accordance with S71A of the Airports Act), and
- the Minister approves the preparation of a preliminary draft Major Development Plan (pdMDP) for the proposed sensitive development; and
- the MDP application is prepared, exhibited, assessed and approved in accordance with the requirements of the Airports Act.

The Minister may approve the preparation of a preliminary draft MDP if satisfied there are exceptional circumstances that support its preparation. In allowing the preparation of a pdMDP, the Minister is not bound to subsequently approve the application.

In the ASP5 and AIN2 zones, specific sensitive developments including for pre-school and some other educational institution uses may be considered in nominated locations. These are marked with an * in the table below, and shown as 'assessable' in the relevant precinct. The Minister (rather than AAC) assesses the merits of a proposed sensitive development, through the Major Development Plan (MDP) process. AAC encourages proponents of a proposed sensitive development to seek advice from AAC at an early stage, to confirm planning and approvals requirements.

Table E-1 Land use terms

| Land use zone key | | Use allowed in precinct | | Runway | Beatty | | | | Mortimer | Beaufighter | | Wirraway | Boundary | Ashover | Beaton | |
|---|---|---|--------------------------------|--------|--------|---------|------|-------|----------|-------------|------|----------|----------|---------|--------|------|
| ASP5 — <i>Special purpose (Archerfield Airport)</i> AIN2 — <i>Archerfield General industry B</i> ACN1 — <i>Archerfield Airport Conservation (Local)</i> ACF3 — <i>Archerfield Airport Community facilities-Cemetery</i> (applies to Gods Acre) Beatty sub precinct boundaries are shown in Figure 19 <i>Airport land use zoning</i> | | ✓ — accepted development A — assessable in accordance with the Master Plan P — prohibited * — a 'sensitive development' (Airports Act), and requires a MDP | | | | | | | | | | | | | | |
| Use term | Use definition | Examples | The use term does not include: | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | ASP5 |
| Accommodation activity (overview) | <p>Accommodation activity means—</p> <ul style="list-style-type: none">a. caretaker's accommodation; orb. a community residence; orc. a dual occupancy; ord. a dwelling house; ore. a dwelling unit; orf. a home-based business; org. a multiple dwelling; orh. nature-based tourism; ori. a relocatable home park; orj. a residential care facility; ork. a resort complex; orl. a retirement facility; orm. rooming accommodation; orn. rural workers' accommodation; oro. short-term accommodation; orp. a tourist park; or | | | | | | | | | | | | | | | |

Land use zone key

ASP5 – *Special purpose (Archerfield Airport)*

AIN2 – *Archerfield General industry B*

ACN1 – *Archerfield Airport Conservation (Local)*

ACF3 – *Archerfield Airport Community facilities-Cemetery (applies to Gods Acre)*

Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

| Land use zone key | | Use allowed in precinct | | Runway | Beatty | | | | Mortimer | Beaufighter | | Wirraway | Boundary | Ashover | Barton |
|-------------------|--|-------------------------|--|--------|--------|--|--|--|----------|-------------|--|----------|----------|---------|--------|
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Land use zone key

ASP5 – *Special purpose (Archerfield Airport)*

AIN2 – *Archerfield General industry B*

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Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

| | | Use allowed in precinct | | | | | | | | | | | | | |
|-----------------------------|---|---|--|--------|--------|---------|------|-------|----------|-------------|------|----------|----------|---------|--------|
| | | ✓ – accepted development | | | | | | | | | | | | | |
| | | A – assessable in accordance with the Master Plan | | | | | | | | | | | | | |
| | | P – prohibited | | | | | | | | | | | | | |
| | | * – a 'sensitive development' (Airports Act), and requires a MDP | | | | | | | | | | | | | |
| | | | | Runway | Beatty | | | | Mortimer | Beaufighter | | Wirraway | Boundary | Ashover | Barton |
| Use term | Use definition | Examples | The use term does not include: | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 |
| | The use terms are defined in the <i>Planning Regulation 2017</i> – Regulated Requirements except as noted below. If a use term is not defined in this table, the use is assessable. | | If a use listed in this column is not defined elsewhere in this table, the ordinary meaning applies. | | | | | | | | | | | | |
| | (b) includes a structure, or part of a building, the primary purpose of which is to support the sign, structure or device. | | | | | | | | | | | | | | |
| Aged care facility* | The use of premises for: a. a facility that provides aged care within the meaning given by the <i>Aged Care Act 1997</i> ; or b. a retirement village within the meaning given by the <i>Social Security Act 1991</i> ; or c. a facility that provides respite care within the meaning given by the <i>Aged Care Act 1997</i> . Note—definition from the <i>Airports Act 1996</i> . | Aged care*, aged respite care (as defined in the <i>Aged Care Act 1997</i>)*, retirement village (as defined in the <i>Social Security Act 1991</i> *) | | P | P | P | P | P | P | P | P | P | P | P | P |
| Agricultural supplies store | The use of premises for the sale of agricultural supplies and products. | Animal feed, bulk veterinary supplies, chemicals, farm clothing, fertilisers, irrigation materials, saddlery, seeds | Bulk landscape supplies, garden centre, outdoor sales, wholesale nursery | P | A | A | P | A | A | A | P | A | A | A | A |
| Air service | The use of premises for— a. the arrival or departure of aircraft; or b. housing, servicing, refuelling, maintaining or repairing aircraft; or plant, equipment or vehicles used in aviation operations; or c. the assembly and dispersal of passengers or goods on or from an aircraft; or | Airport, airstrip, helipad, public or private airfield, aircraft refuelling facility, aircraft washing facility, aviation training and education facility, aviation infrastructure, aircraft parking, freight handling, storage; hangar; aviation engineering, testing and maintenance. | | ✓ | ✓ | ✓ | A | ✓ | ✓ | ✓ | A | ✓ | ✓ | ✓ | ✓ |

Land use zone key

ASP5 – *Special purpose (Archerfield Airport)*

AIN2 – *Archerfield General industry B*

ACN1 – *Archerfield Airport Conservation (Local)*

ACF3 – *Archerfield Airport Community facilities-Cemetery* (applies to Gods Acre)

Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

| Land use zone key | | Use allowed in precinct | | Runway | Beatty | | | | Mortimer | Beaufighter | | Wirraway | Boundary | Ashover | | Porter |
|--|--|--|--|--------|--------|---------|------|-------|----------|-------------|------|----------|----------|---------|------|--------|
| | | | | | North | Central | ACF3 | South | | AIN2 | ACN1 | | | AIN2 | ASP5 | |
| ASP5 — Special purpose (Archerfield Airport) | | Use allowed in precinct | | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | ACN1 |
| AIN2 — Archerfield General industry B | | ✓ — accepted development | | | | | | | | | | | | | | |
| ACN1 — Archerfield Airport Conservation (Local) | | A — assessable in accordance with the Master Plan | | | | | | | | | | | | | | |
| ACF3 — Archerfield Airport Community facilities–Cemetery (applies to Gods Acre) | | P — prohibited | | | | | | | | | | | | | | |
| Beatty sub precinct boundaries are shown in Figure 19 <i>Airport land use zoning</i> | | * — a 'sensitive development' (Airports Act) , and requires a MDP | | | | | | | | | | | | | | |
| Use term | Use definition | Examples | The use term does not include: | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | ACN1 |
| | The use terms are defined in the <i>Planning Regulation 2017</i> —Regulated Requirements except as noted below. If a use term is not defined in this table, the use is assessable. | | If a use listed in this column is not defined elsewhere in this table, the ordinary meaning applies. | | | | | | | | | | | | | |
| | d. training and education facilities relating to aviation; or e. aviation facilities and infrastructure; or f. an activity that— i. is ancillary to an activity or facility stated in paragraphs (a) to (e); and ii. directly services the needs of aircraft passengers, students or personnel involved in providing air service(s). | Examples of ancillary uses include but are not limited to convenience shop, food and drink outlet, bar, overnight/shift accommodation for aviation personnel, office, fuel storage and distribution. Note: For the purpose of land use planning assessment, Air service is not subject to the industry thresholds stated in Table E2. | | | | | | | | | | | | | | |
| Animal husbandry | The use of premises for— a. producing animals or animal products on native or improved pastures or vegetation; or b. a yard, stable, temporary holding facility or machinery repairs and servicing, if the use is ancillary to the use in paragraph (a). | Cattle studs, grazing of livestock, non-feedlot dairying | Aviaries, catteries, kennels, stables, wildlife refuge | P | P | P | P | P | P | A | A | P | P | P | P | P |
| Aquaculture | The cultivation of live fisheries resources for sale other than in circumstances prescribed under a regulation. Note—definition from the <i>Fisheries Act 1994</i> . | Pond farms, tank systems, hatcheries, raceway system, rack and line systems, sea cages | Intensive animal husbandry | P | A | A | P | A | A | A | P | P | A | A | A | A |
| Aviation educational facility | The use of premises for: a. a flying training school; b. an aircraft maintenance training school; | | | ✓ | ✓ | ✓ | A | ✓ | ✓ | ✓ | A | ✓ | ✓ | ✓ | ✓ | ✓ |

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Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

Use allowed in precinct

✓ – accepted development

A – assessable in accordance with the Master Plan

P – prohibited

* – a 'sensitive development' (Airports Act), and requires a MDP

| Use term | Use definition | Examples | The use term does not include: | Runway | Beatty | Mortimer | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | 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Land use zone key

ASP5 – *Special purpose (Archerfield Airport)*

AIN2 – *Archerfield General industry B*

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Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

Use allowed in precinct

✓ – **accepted development**

A – **assessable in accordance with the Master Plan**

P – **prohibited**

* – a 'sensitive development' (Airports Act), and requires a MDP

| Use term | Use definition | Examples | The use term does not include: | | | | | | | | | | | |
|---------------------------|--|---|--|--------|--------|---------|------|-------|----------|-------------|----------|----------|---------|--------|
| | | | | Runway | Beatty | | | | Mortimer | Beaufighter | Wirraway | Boundary | Ashover | Barton |
| | | | | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 |
| Caretaker's accommodation | The use of premises for a dwelling for a caretaker of a non-residential use on the same premises. | | Air service, dwelling house* | P | P | P | P | P | P | P | P | P | P | P |
| Cemetery | The use of premises for interment of bodies or ashes after death. | Burial ground, crypt, columbarium, lawn cemetery, pet cemetery, mausoleum | Crematorium, funeral parlour | P | P | P | ✓ | P | P | P | P | P | P | P |
| Childcare centre | The use of premises for the care, education and minding, but not residence, of children. | Childcare, crèche, early childhood centre, kinder, outside-hours school care, vacation care | Educational establishment (pre-school and school)*, home-based child care, family day care | P | A | A | P | A | A | P | P | P | P | A |
| Club | The use of premises for— a. an association established for social, literary, political, sporting, athletic or other similar purposes; or b. preparing and selling food and drink, if the use is ancillary to the use in paragraph (a). | Club house, guide and scout clubs, surf lifesaving club, RSL, bowls club | Hotel, nightclub, entertainment facility, place of worship, theatre | P | A | A | A | A | A | A | A | A | A | A |
| Community care centre | Community care centre— a. means the use of premises for— i. providing social support to members of the public; or ii. providing medical care to members of the public, if the use is ancillary to the use in subparagraph (i); but | Disability support services, drop-in centre, respite centre (except for respite provided in accordance with the Aged Care Act 1997), integrated Indigenous support centre | Aged care facility*, childcare centre, family day care, health care service, home-based child care, residential care facility, retirement village* | P | A | A | P | A | A | P | P | A | A | A |

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Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

Use allowed in precinct

✓ – **accepted development**

A – **assessable in accordance with the Master Plan**

P – **prohibited**

* – a 'sensitive development' (Airports Act), and requires a MDP

| Use term | Use definition | Examples | The use term does not include: | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | SPF |
|----------------------|--|--|---|------|-------|---------|------|-------|------|------|------|------|------|------|------|-----|
| | The use terms are defined in the <i>Planning Regulation 2017</i> – Regulated Requirements except as noted below. If a use term is not defined in this table, the use is assessable. | | If a use listed in this column is not defined elsewhere in this table, the ordinary meaning applies. | | | | | | | | | | | | | |
| | b. does not include the use of premises for providing accommodation to members of the public. | | | | | | | | | | | | | | | |
| Community residence* | Community residence— a. means the use of premises for residential accommodation for— i. no more than— A. 6 children, if the accommodation is provided as part of a program or service under the <i>Youth Justice Act 1992</i> , or B. 6 persons who require assistance or support with daily living needs; and ii. no more than 1 support worker; and b. includes a building or structure that is reasonably associated with the use in paragraph (a). | Hospice* | Dwelling house, dwelling unit, residential care facility, rooming accommodation, short-term accommodation | P | P | P | P | P | P | P | P | P | P | P | P | P |
| Community use | The use of premises for— a. providing artistic, social or cultural facilities or community services to the public; or b. preparing and selling food and drink, if the use is ancillary to the use in paragraph (a). | Art gallery, community centre, community hall, library, museum | Cinema, club, entertainment facility, hotel, nightclub, place of worship | P | A | A | A | A | A | A | A | A | A | A | A | A |
| Crematorium | The use of premises for the cremation or aquamation of bodies. | | Cemetery | P | P | P | P | P | P | A | P | P | A | P | A | P |
| Cropping | The use of premises for— | Fruit, nut, vegetable and grain production, forestry for wood | Permanent plantations, intensive horticulture, rural industry | P | P | P | P | P | P | P | P | P | P | P | P | P |

Land use zone key

ASP5 – *Special purpose (Archerfield Airport)*

AIN2 – *Archerfield General industry B*

ACN1 – *Archerfield Airport Conservation (Local)*

ACF3 – *Archerfield Airport Community facilities-Cemetery* (applies to Gods Acre)

Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

| Land use zone key | | Use allowed in precinct | | | | | | | | | | | | | | | | | |
|--|---|--|--|--------|--------|---------|------|-------|----------|-------------|----------|----------|---------|--------|------|------|--|--|--|
| ASP5 — <i>Special purpose (Archerfield Airport)</i> | | ✓ — accepted development | | | | | | | | | | | | | | | | | |
| AIN2 — <i>Archerfield General industry B</i> | | A — assessable in accordance with the Master Plan | | | | | | | | | | | | | | | | | |
| ACN1 — <i>Archerfield Airport Conservation (Local)</i> | | P — prohibited | | | | | | | | | | | | | | | | | |
| ACF3 — <i>Archerfield Airport Community facilities-Cemetery</i> (applies to Gods Acre) | | * — a 'sensitive development' (Airports Act), and requires a MDP | | | | | | | | | | | | | | | | | |
| Beatty sub precinct boundaries are shown in Figure 19 <i>Airport land use zoning</i> | | | | | | | | | | | | | | | | | | | |
| Use term | Use definition | Examples | The use term does not include: | Runway | Beatty | | | | Mortimer | Beaufighter | Wirraway | Boundary | Ashover | Porter | | | | | |
| | The use terms are defined in the <i>Planning Regulation 2017</i> —Regulated Requirements except as noted below. If a use term is not defined in this table, the use is assessable. | | If a use listed in this column is not defined elsewhere in this table, the ordinary meaning applies. | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | ACF3 | | | |
| | a. growing and harvesting plants, or plant material, that are cultivated in soil, for commercial purposes; or | production, fodder and pasture production, plant fibre production, sugarcane growing, vineyard | | | | | | | | | | | | | | | | | |
| | b. harvesting, storing or packing plants or plant material grown on the premises, if the use is ancillary to the use in paragraph (a); or | | | | | | | | | | | | | | | | | | |
| | c. repairing and servicing machinery used on the premises, if the use is ancillary to the use in paragraph (a). | | | | | | | | | | | | | | | | | | |
| Department store | The use of a premises for a large store with a floor area greater than 2000m ² that offers for retail sale a wide range of consumer goods in different areas of the store, each area specialising in a product category (for example clothing, cosmetics, furniture, gardening, hardware, home appliances, houseware, paint, sporting goods, toiletries, and toys) (Note - definition derived from common usage) | Department store, discount department store | Shop with a gross floor area of less than 2000m ² , showroom | P | P | P | P | P | P | P | P | P | P | P | P | P | | | |
| Detention facility | The use of premises for the lawful detention of persons. | Prison, detention centre, youth detention centre | Police station, court cell complex, prisoner transfer facility | P | P | P | P | P | P | P | P | P | P | P | P | P | | | |
| Dual occupancy* | Dual occupancy— a. means a residential use of premises involving— i. 2 dwellings (whether attached or detached) on a single lot or 2 dwellings (whether attached or | Duplex, two dwellings on a single lot (whether or not attached), two dwellings within one single community title scheme under the <i>Body Corporate and Community Management Act</i> | Dwelling house, multiple dwelling | P | P | P | P | P | P | P | P | P | P | P | P | P | | | |

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Use allowed in precinct

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| Use term | Use definition | Examples | The use term does not include: | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | ASP5 |
|--|---|--|--|------|-------|---------|------|-------|------|------|------|------|------|------|------|------|
| | The use terms are defined in the <i>Planning Regulation 2017</i> – Regulated Requirements except as noted below. If a use term is not defined in this table, the use is assessable. | | If a use listed in this column is not defined elsewhere in this table, the ordinary meaning applies. | | | | | | | | | | | | | |
| | <div>detached) on separate lots that share a common property; and</div> <div>ii. any domestic outbuilding associated with the dwellings; but</div> <div>b. does not include a residential use of premises that involves a secondary dwelling.</div> | <i>1997</i> , two dwellings within the one body corporate to which the <i>Building Units and Group Title Act 1980</i> continues to apply | | | | | | | | | | | | | | |
| Dwelling house* | Dwelling house means a residential use of premises involving— <div>a. 1 dwelling and any domestic outbuildings associated with the dwelling; or</div> <div>b. 2 dwellings, 1 of which is a secondary dwelling, and any domestic outbuildings associated with either dwelling.</div> | | Caretaker's accommodation, dual occupancy, rooming accommodation, short-term accommodation, student accommodation, multiple dwelling | P | P | P | P | P | P | P | P | P | P | P | P | P |
| Dwelling unit* | The use of premises containing a non-residential use for a single dwelling, other than a dwelling for a caretaker of the non-residential use. | 'Shop-top' apartment | Caretaker's accommodation, dwelling house | P | P | P | P | P | P | P | P | P | P | P | P | P |
| Education and training (in house) | The use of premises for in-house training to staff of an organisation conducting operations at the airport Note—derived from definition of 'sensitive development' in the <i>Airports Act 1996</i> | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Educational establishment (pre-school and school)* | The use of premises for— <div>a. training and instruction to impart knowledge and develop skills to students in a pre-preparatory,</div> | Pre-school*, primary school*, secondary school*, special education facility* | Aviation educational facility, childcare centre, educational establishment (further education and training)*, family day care, | P | P | A | P | P | A | P | P | P | P | P | P | A |

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Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

| Land use zone key | | Use allowed in precinct | | Runway | Beatty | | | Mortimer | Beaufighter | Wirraway | Boundary | Ashover | Porter | | | |
|--|--|---|---|--------|--------|---------|------|----------|-------------|----------|----------|---------|--------|------|------|------|
| | | | | | | | | | | | | | | | | |
| ASP5 — <i>Special purpose (Archerfield Airport)</i> | | ✓ — accepted development | | | | | | | | | | | | | | |
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| | preparatory and primary school; secondary school; P-12; or special education facility; or b. student accommodation, before or after school care, or vacation care, if the use is ancillary to the use in paragraph (a). | | home-based child care, in-house training to staff of an organisation conducting operations at the airport | | | | | | | | | | | | | |
| Educational establishment (further education and training)* | The use of premises for— a. training and instruction to impart knowledge and develop skills; or b. student accommodation, before or after school care, or vacation care, if the use is ancillary to the use in paragraph (a). | College*, outdoor education centre; technical institute*; university*; vehicle, machinery or plant testing, proving or demonstration; vehicle, machinery or plant operator training and evaluation* | Aviation educational facility, childcare centre, family day care, home-based child care, in-house training to staff of an organisation conducting operations at the airport, research and technology industry | P | A | A | P | A | A | A | P | A | A | A | A | A |
| Emergency services | The use of premises by or on behalf of a government entity or community organisation to provide— a. essential emergency services; or b. disaster management services; or c. management support facilities for the services. | State emergency service facility, ambulance station, rural fire brigade, auxiliary fire and rescue station, urban fire and rescue station, police station, emergency management support facility, evacuation centre | Community use, hospital, residential care facility | ✓ | ✓ | ✓ | A | ✓ | ✓ | ✓ | A | ✓ | ✓ | ✓ | ✓ | ✓ |
| Emergency medical facility | A facility with the primary purpose of providing emergency medical treatment and which does not have in-patient facilities | | Hospital* | P | A | A | P | A | A | A | P | A | A | A | A | A |

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Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Beatty | Be |
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Land use zone key

ASP5 – *Special purpose (Archerfield Airport)*

AIN2 – *Archerfield General industry B*

ACN1 – *Archerfield Airport Conservation (Local)*

ACF3 – *Archerfield Airport Community facilities-Cemetery* (applies to Gods Acre)

Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

Use allowed in precinct

✓ – **accepted development**

A – **assessable in accordance with the Master Plan**

P – **prohibited**

* – a 'sensitive development' (Airports Act), and requires a MDP

| Use term | Use definition | Examples | The use term does not include: | | | | | | | | | | | | | | | | |
|-----------------------------|---|----------------------|--|------|-------|---------|------|-------|------|------|------|------|------|------|------|------|--|--|--|
| | The use terms are defined in the <i>Planning Regulation 2017</i> – Regulated Requirements except as noted below. If a use term is not defined in this table, the use is assessable. | | If a use listed in this column is not defined elsewhere in this table, the ordinary meaning applies. | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | ACF5 | | | |
| | b. preparing and providing food and liquor for consumption on the premises as part of a reception or function. | | | | | | | | | | | | | | | | | | |
| Funeral parlour | Funeral parlour— a. means the use of premises for— i. arranging and conducting funerals, memorials and other similar events; or ii. a mortuary; or iii. storing and preparing bodies for burial or cremation; but b. does not include the use of premises for the burial or cremation of bodies. | | Cemetery, crematorium, place of worship | P | P | A | P | A | A | A | P | P | A | A | A | A | | | |
| Garden centre | The use of premises for— a. selling plants; or b. selling gardening and landscape products and supplies that are mainly in pre-packaged form; or c. a food and drink outlet that is ancillary to the use in paragraph (a). | Retail plant nursery | Bulk landscape supplies, wholesale nursery, outdoor sales, department store | P | A | A | P | P | A | A | P | P | A | A | A | A | | | |
| Hardware and trade supplies | The use of premises for selling, displaying or hiring hardware and trade supplies, including, for example, house fixtures, timber, tools, paint, wallpaper or plumbing supplies. | | Shop, department store, discount department store, showroom, outdoor sales, warehouse | P | A | A | P | A | A | ✓ | P | P | ✓ | A | ✓ | A | | | |

Land use zone key

ASP5 – *Special purpose (Archerfield Airport)*

AIN2 – *Archerfield General industry B*

ACN1 – *Archerfield Airport Conservation (Local)*

ACF3 – *Archerfield Airport Community facilities-Cemetery* (applies to Gods Acre)

Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

| Land use zone key | | Use allowed in precinct | | | | Runway | Beatty | | | | Mortimer | Beaufighter | Wirraway | Boundary | Ashover | Barton | | | |
|----------------------|---|---|---|--|--|--------|--------|-------|---------|------|----------|-------------|----------|----------|---------|--------|------|------|------|
| | | ✓ – accepted development A – assessable in accordance with the Master Plan P – prohibited * – a 'sensitive development' (Airports Act), and requires a MDP | | | | | | | | | | | | | | | | | |
| Use term | Use definition | Examples | The use term does not include: | | | | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | ACF3 |
| Health care service | The use terms are defined in the <i>Planning Regulation 2017</i> – Regulated Requirements except as noted below. If a use term is not defined in this table, the use is assessable. The use of premises for medical purposes, paramedical purposes, alternative health therapies or general health care, if overnight accommodation is not provided on the premises. | Dental clinic, medical centre, natural medicine practice, nursing service, physiotherapy clinic | Air service, community care centre, hospital | | | | P | A | A | P | A | A | A | P | P | A | A | P | A |
| High impact industry | The use of premises for an industrial activity not otherwise defined in this table – a. that is the manufacturing, producing, processing, repairing, altering, recycling, storing, distributing, transferring or treating of products; and b. that complies with any thresholds for a high impact industry stated in Table E2 – Industry thresholds; and c. has one or more of the following attributes– i. potential for significant impacts on sensitive land uses due to off-site emissions including aerosol, fume, particle, smoke, odour and noise; ii. potential for significant off-site impacts in the event of fire, explosion or toxic release; iii. generates high traffic flows in the context of the locality or the road network; iv. generates a significant demand on the local infrastructure network; v. on-site controls are required for emissions and dangerous goods risks | Abattoirs, concrete batching plant, boiler making and engineering and metal foundry, other examples listed for the land use term 'High impact industry' in Table E2 – Industry thresholds, or any other industry use not otherwise listed in Table E2. Note—These and the examples shown in Table E2 – Industry thresholds only comprise a High impact industry when they comply with any threshold stated for the activity. | Air service, tannery, rendering plant, oil refinery, waste incineration, manufacturing or storing explosives, power plant, manufacturing fertilisers, research and technology industry, service industry, low impact industry, medium impact industry, special industry | | | | P | A | A | P | A | P | A | P | A | A | A | A | A |

Land use zone key

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Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

Use allowed in precinct

✓ – **accepted development**

A – **assessable in accordance with the Master Plan**

P – **prohibited**

* – a 'sensitive development' (Airports Act), and requires a MDP

| Use term | Use definition | Examples | The use term does not include: | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | SPF |
|-----------------------------|---|--|--|------|-------|---------|------|-------|------|------|------|------|------|------|------|-----|
| | The use terms are defined in the <i>Planning Regulation 2017</i> – Regulated Requirements except as noted below. If a use term is not defined in this table, the use is assessable. | | If a use listed in this column is not defined elsewhere in this table, the ordinary meaning applies. | | | | | | | | | | | | | |
| Home-based business | The use of a dwelling or domestic outbuilding on premises for a business activity that is subordinate to the residential use of the premises. | Bed and breakfast, home office, home-based childcare | Hobby, office, shop, warehouse, transport depot | P | P | P | P | P | P | P | P | P | P | P | P | P |
| Hospital* | The use of premises for— a. the medical or surgical care or treatment of patients, whether or not the care or treatment requires overnight accommodation; or b. providing accommodation for patients; or c. providing accommodation for employees, or any other use, if the use is ancillary to the use in paragraph (a) or (b). | | Health care service, residential care facility, emergency medical facility | P | P | P | P | P | P | P | P | P | P | P | P | P |
| Hotel | Hotel— a. means the use of premises for— i. selling liquor for consumption on the premises; or ii. a dining or entertainment activity, or providing accommodation to tourists or travellers, if the use is ancillary to the use in subparagraph (i); but b. does not include a bar. | Pub, tavern | Air service, entertainment facility, nightclub | P | A | A | P | A | A | P | P | P | P | A | P | A |
| Indoor sport and recreation | The use of premises for a leisure, sport or recreation activity conducted wholly or mainly indoors. | Amusement parlour, bowling alley, gymnasium, squash courts, enclosed tennis courts | Cinema, entertainment facility, hotel, nightclub, theatre | P | A | A | P | A | A | A | A | A | A | A | A | A |

Land use zone key

ASP5 – *Special purpose (Archerfield Airport)*

AIN2 – *Archerfield General industry B*

ACN1 – *Archerfield Airport Conservation (Local)*

ACF3 – *Archerfield Airport Community facilities-Cemetery* (applies to Gods Acre)

Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

| Land use zone key | | Use allowed in precinct | | Runway | Beatty | | | | Mortimer | Beaufighter | Wirraway | Boundary | Ashover | Porter | | |
|--|---|---|---|--------|--------|---------|------|-------|----------|-------------|----------|----------|---------|--------|------|------|
| | | | | | | | | | | | | | | | | |
| ASP5 — <i>Special purpose (Archerfield Airport)</i> | | ✓ — accepted development | | | | | | | | | | | | | | |
| AIN2 — <i>Archerfield General industry B</i> | | A — assessable in accordance with the Master Plan | | | | | | | | | | | | | | |
| ACN1 — <i>Archerfield Airport Conservation (Local)</i> | | P — prohibited | | | | | | | | | | | | | | |
| ACF3 — <i>Archerfield Airport Community facilities–Cemetery</i> (applies to Gods Acre) | | * — a 'sensitive development' (Airports Act) , and requires a MDP | | | | | | | | | | | | | | |
| Beatty sub precinct boundaries are shown in Figure 19 <i>Airport land use zoning</i> | | | | | | | | | | | | | | | | |
| Use term | Use definition | Examples | The use term does not include: | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | ACF3 |
| Intensive animal industry | Intensive animal industry— a. means the use of premises for— i. the intensive production of animals or animal products, in an enclosure, that requires food and water to be provided mechanically or by hand; or ii. storing and packing feed and produce, if the use is ancillary to the use in subparagraph (i); but b. does not include the cultivation of aquatic animals. | Feedlots, piggery, poultry and egg production | Animal husbandry, aquaculture, drought feeding, milking sheds, shearing sheds, weaning pens | P | P | P | P | P | P | A | P | P | P | P | P | P |
| Intensive horticulture | Intensive horticulture— a. means the use of premises for— i. the intensive production of plants or plant material carried out indoors on imported media; or ii. the intensive production of plants or plant material carried out outside using artificial lights or containers; or iii. storing and packing plants or plant material grown on the premises, if the use is ancillary to the use in subparagraph (i) or (ii); but b. does not include the cultivation of aquatic plants. | Greenhouse and shade house plant production, hydroponic farms, mushroom farms | Wholesale nursery | P | A | A | P | A | A | A | P | P | A | A | A | A |
| Landing | The use of premises for a structure— | Boat ramp, jetty, pontoon | Air service, marina | P | P | P | P | P | P | P | A | P | P | P | P | P |

Land use zone key

ASP5 – *Special purpose (Archerfield Airport)*

AIN2 – *Archerfield General industry B*

ACN1 – *Archerfield Airport Conservation (Local)*

ACF3 – *Archerfield Airport Community facilities-Cemetery* (applies to Gods Acre)

Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

| Land use zone key | | Use allowed in precinct | | Runway | | Beatty | | | Mortimer | | Beaufighter | | Wirraway | | Boundary | | Ashover | | Porter | |
|---|--|--|--|--------|-------|---------|------|-------|----------|------|-------------|------|----------|------|----------|------|---------|---|--------|---|
| ASP5 — <i>Special purpose (Archerfield Airport)</i> AIN2 — <i>Archerfield General industry B</i> ACN1 — <i>Archerfield Airport Conservation (Local)</i> ACF3 — <i>Archerfield Airport Community facilities-Cemetery</i> (applies to Gods Acre) Beatty sub precinct boundaries are shown in Figure 19 <i>Airport land use zoning</i> | | ✓ — accepted development A — assessable in accordance with the Master Plan P — prohibited * — a 'sensitive development' (Airports Act), and requires a MDP | | | | | | | | | | | | | | | | | | |
| Use term | Use definition | Examples | The use term does not include: | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | ACF3 | | | | |
| | <p>The use terms are defined in the <i>Planning Regulation 2017</i> – Regulated Requirements except as noted below. If a use term is not defined in this table, the use is assessable.</p> <p>a. for mooring, launching, storing and retrieving vessels; and</p> <p>b. from which passengers embark and disembark.</p> | | | | | | | | | | | | | | | | | | | |
| Low impact industry | <p>The use of premises for an industrial activity not otherwise defined in this table—</p> <p>a. that is the manufacturing, producing, processing, repairing, altering, recycling, storing, distributing, transferring or treating of products; and</p> <p>b. that complies with any thresholds for a low impact industry stated in Table E2 -- Industry thresholds; and</p> <p>c. has one or more of the following attributes—</p> <p>i. negligible impacts on sensitive land uses due to off-site emissions including aerosol, fume, particle, smoke, odour and noise;</p> <p>ii. minimal traffic generation and heavy-vehicle usage;</p> <p>iii. demands imposed upon the local infrastructure network consistent with surrounding uses;</p> <p>iv. off-site impacts from storage of dangerous goods are negligible;</p> <p>v. the use is primarily undertaken indoors.</p> | <p>Repairing motor vehicles, fitting and turning workshop, other examples listed for the land use term 'Low impact industry' in Table E2 – Industry thresholds.</p> <p>Note—These and the examples shown in Table E2 - Industry thresholds only comprise a Low impact industry when they comply with any threshold stated for the activity</p> | <p>Air service, panel beating, spray painting or surface coating, tyre recycling, drum re-conditioning, wooden and laminated product manufacturing, research and technology industry, service industry, medium impact industry, high impact industry, special industry</p> | P | A | A | P | A | A | A | P | A | A | A | A | A | A | A | A | A |
| Major electricity infrastructure | Major electricity infrastructure— | Powerlines greater than 66kV | Air service, minor electricity infrastructure, substation | A | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | A | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

Land use zone key

ASP5 – *Special purpose (Archerfield Airport)*

AIN2 – *Archerfield General industry B*

ACN1 – *Archerfield Airport Conservation (Local)*

ACF3 – *Archerfield Airport Community facilities-Cemetery* (applies to Gods Acre)

Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

Use allowed in precinct

✓ – **accepted development**

A – **assessable in accordance with the Master Plan**

P – **prohibited**

* – a 'sensitive development' (Airports Act), and requires a MDP

| Use term | Use definition | Examples | The use term does not include: | Runway | Beatty | Mortimer | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | 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Land use zone key

ASP5 – *Special purpose (Archerfield Airport)*

AIN2 – *Archerfield General industry B*

ACN1 – *Archerfield Airport Conservation (Local)*

ACF3 – *Archerfield Airport Community facilities-Cemetery* (applies to Gods Acre)

Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

| Land use zone key | | Use allowed in precinct | | Runway | Beatty | | | | Mortimer | Beaufighter | Wirraway | Boundary | Ashover | Porter | | |
|--|---|---|--|--------|--------|---------|------|-------|----------|-------------|----------|----------|---------|--------|------|------|
| | | | | | | | | | | | | | | | | |
| ASP5 – Special purpose (Archerfield Airport) | | ✓ – accepted development | | | | | | | | | | | | | | |
| AIN2 – Archerfield General industry B | | A – assessable in accordance with the Master Plan | | | | | | | | | | | | | | |
| ACN1 – Archerfield Airport Conservation (Local) | | P – prohibited | | | | | | | | | | | | | | |
| ACF3 – Archerfield Airport Community facilities–Cemetery (applies to Gods Acre) | | * – a 'sensitive development' (Airports Act), and requires a MDP | | | | | | | | | | | | | | |
| Beatty sub precinct boundaries are shown in Figure 19 <i>Airport land use zoning</i> | | | | | | | | | | | | | | | | |
| Use term | Use definition | Examples | The use term does not include: | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | ACF3 |
| | The use terms are defined in the <i>Planning Regulation 2017</i> – Regulated Requirements except as noted below. If a use term is not defined in this table, the use is assessable. | | If a use listed in this column is not defined elsewhere in this table, the ordinary meaning applies. | | | | | | | | | | | | | |
| | <ul style="list-style-type: none">a. selling goods to the public mainly from temporary structures, including, for example, stalls, booths or trestle tables; orb. providing entertainment, if the use is ancillary to the use in paragraph (a). | | | | | | | | | | | | | | | |
| Medium impact industry | <p>The use of premises for an industrial activity not otherwise defined in this table—</p> <ul style="list-style-type: none">a. that is the manufacturing, producing, processing, repairing, altering, recycling, storing, distributing, transferring or treating of products; andb. that complies with any thresholds for a medium impact industry stated in Table E2 --Industry thresholds; andc. has one or more of the following attributes—<ul style="list-style-type: none">i. potential for noticeable impacts on sensitive land uses due to off-site emissions including aerosol, fume, particle, smoke, odour and noise;ii. potential for noticeable off-site impacts in the event of fire, explosion or toxic release;iii. generates high traffic flows in the context of the locality or the road network;iv. generates an elevated demand on the local infrastructure network; | <p>Spray painting and surface coating, wooden and laminated product manufacturing (including cabinet making, joining, timber truss making or wood working), other examples listed for the land use term 'Medium impact industry' in Table E2 – Industry thresholds.</p> <p>Note—These and the examples shown in Table E2 - Industry thresholds only comprise a Medium impact industry when they comply with any threshold stated for the activity</p> | Air service, concrete batching, tyre manufacturing and retreading, metal recovery (involving a fragmentiser), textile manufacture, chemically treating timber and plastic product manufacture, research and technology industry, service industry, low impact industry, high impact industry, special industry | P | A | A | P | A | A | A | P | A | A | A | A | A |

Land use zone key

ASP5 – *Special purpose (Archerfield Airport)*

AIN2 – *Archerfield General industry B*

ACN1 – *Archerfield Airport Conservation (Local)*

ACF3 – *Archerfield Airport Community facilities-Cemetery* (applies to Gods Acre)

Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

| Land use zone key | | Use allowed in precinct | | Runway | Beatty | | | | Mortimer | Beaufighter | | Wirraway | Boundary | Ashover | Porter |
|-------------------|--|-------------------------|--|--------|--------|--|--|--|----------|-------------|--|----------|----------|---------|--------|
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Land use zone key

ASP5 – *Special purpose (Archerfield Airport)*

AIN2 – *Archerfield General industry B*

ACN1 – *Archerfield Airport Conservation (Local)*

ACF3 – *Archerfield Airport Community facilities-Cemetery* (applies to Gods Acre)

Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

Use allowed in precinct

✓ – **accepted development**

A – **assessable in accordance with the Master Plan**

P – **prohibited**

* – a 'sensitive development' (Airports Act), and requires a MDP

| Use term | Use definition | Examples | The use term does not include: | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | SPF |
|----------------------------------|---|---|---|------|-------|---------|------|-------|------|------|------|------|------|------|------|-----|
| | The use terms are defined in the <i>Planning Regulation 2017</i> – Regulated Requirements except as noted below. If a use term is not defined in this table, the use is assessable. | | If a use listed in this column is not defined elsewhere in this table, the ordinary meaning applies. | | | | | | | | | | | | | |
| Navigational aids | Any aircraft surveillance equipment, control towers, radars, visual and non-visual navigation aids or the like. | | | ✓ | ✓ | ✓ | A | ✓ | ✓ | ✓ | A | ✓ | ✓ | ✓ | ✓ | ✓ |
| Nightclub entertainment facility | The use of premises for— a. providing entertainment that is cabaret, dancing or music; or b. selling liquor, and preparing and selling food, for consumption on the premises, if the use is ancillary to the use in paragraph (a). | | Club, hotel, tavern, pub, indoor sport and recreation, theatre, concert hall | P | A | A | P | A | P | P | P | P | P | P | P | A |
| Office | Office— a. means the use of premises for— i. providing an administrative, financial, management or secretarial service or function; or ii. the practice of a profession; or iii. providing business or professional advice or services; but b. does not include the use of premises for making, selling or hiring goods. | Bank, real estate agent, administration building | Air service, home-based business, home office, shop, outdoor sales, office ancillary to another use of the premises | P | A | A | P | A | A | P | P | A | P | A | P | A |
| Outdoor sales | The use of premises for— a. displaying, demonstrating, selling, hiring or leasing vehicles, boats, caravans, machinery, equipment or other similar products, if the use is mainly conducted outdoors; or | Agricultural machinery sales/hire/leasing yard, motor vehicle sales/hire/leasing yard | Bulk landscape supplies, market | P | A | A | P | A | ✓ | ✓ | P | A | A | A | ✓ | A |

Land use zone key

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Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

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✓ – **accepted development**

A – **assessable in accordance with the Master Plan**

P – **prohibited**

* – a 'sensitive development' (Airports Act), and requires a MDP

| Use term | Use definition | Examples | The use term does not include: | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | ACPF |
|------------------------------|--|---|--|------|-------|---------|------|-------|------|------|------|------|------|------|------|------|
| | The use terms are defined in the <i>Planning Regulation 2017</i> – Regulated Requirements except as noted below. If a use term is not defined in this table, the use is assessable. | | If a use listed in this column is not defined elsewhere in this table, the ordinary meaning applies. | | | | | | | | | | | | | |
| | b. repairing, servicing, selling or fitting accessories for the products stated in paragraph (a), if the use is ancillary to the use in paragraph (a). | | | | | | | | | | | | | | | |
| Outdoor sport and recreation | The use of premises for— a. a recreation or sporting activity that is carried on outdoors and requires areas of open space; or b. providing and selling food and drink, change room facilities or storage facilities, if the use is ancillary to the use in paragraph (a). | Driving range, golf course, swimming pool, tennis courts, football ground, cricket oval | Air service; major sport, recreation and entertainment facility; motor sport facility, park, community use | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Outstation | The use of premises for— a. cultural or recreation activities by Aboriginal people or Torres Strait Islanders; or b. facilities for short-term or long-term camping activities, if the use is ancillary to the use in paragraph (a). | Indigenous camp site | Dwelling house, hostel, multiple dwelling, relocatable home park, short-term accommodation, tourist park | P | P | P | P | P | P | P | P | P | P | P | P | P |
| Park | The use of premises, accessible to the public free of charge, for sport, recreation and leisure activities and facilities. | Urban common | Air service, tourist attraction, outdoor sport and recreation | P | A | A | A | A | A | A | A | A | A | A | A | A |
| Parking station | The use of premises for parking vehicles, other than parking that is ancillary to another use. | Car park, 'park and ride', bicycle parking | | A | ✓ | ✓ | P | ✓ | ✓ | ✓ | A | ✓ | ✓ | ✓ | ✓ | ✓ |
| Party house | Premises containing a dwelling that is used to provide, for a fee, accommodation or facilities for guests if— | | | P | P | P | P | P | P | P | P | P | P | P | P | P |

Land use zone key

ASP5 – *Special purpose (Archerfield Airport)*

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Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

Use allowed in precinct

✓ – **accepted development**

A – **assessable in accordance with the Master Plan**

P – **prohibited**

* – a 'sensitive development' (Airports Act), and requires a MDP

| Use term | Use definition | Examples | The use term does not include: | | | | | | | | | | | | | | | | |
|----------------------|---|---|--|------|-------|---------|------|-------|------|------|------|------|------|------|------|------|------|------|------|
| | The use terms are defined in the <i>Planning Regulation 2017</i> – Regulated Requirements except as noted below. If a use term is not defined in this table, the use is assessable. | | If a use listed in this column is not defined elsewhere in this table, the ordinary meaning applies. | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | ASP5 | AIN2 | ASP5 | AIN2 |
| | <div>a. guests regularly use all or part of the premises for parties (bucks parties, hens parties, raves, or wedding receptions, for example); and</div> <div>b. the accommodation or facilities are provided for a period of less than 10 days; and</div> <div>c. the owner of the premises does not occupy the premises during that period.</div> | | | | | | | | | | | | | | | | | | |
| Permanent plantation | The use of premises for growing, but not harvesting, plants for carbon sequestration, biodiversity, natural resource management or another similar purpose. | Permanent plantations for carbon sequestration, biodiversity or natural resource management | Forestry for wood production, biofuel production | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Place of worship | The use of premises for— <div>a. organised worship and other religious activities; or</div> <div>b. social, education or charitable activities, if the use is ancillary to the use in paragraph (a).</div> | Church, chapel, mosque, synagogue, temple | Community use, childcare centre, funeral parlour, crematorium | P | A | A | A | A | A | A | P | A | A | A | A | A | A | A | A |
| Port service | The use of premises for— <div>a. the arrival and departure of vessels; or</div> <div>b. the movement of passengers or goods on or off vessels; or</div> <div>c. storing, servicing, maintaining or repairing vessels; or</div> <div>d. ancillary uses that directly service the needs of passengers of the vessels.</div> | Marina, ferry terminal | Air service, landing | P | P | P | P | P | P | P | A | P | P | P | P | P | P | P | P |

Land use zone key

ASP5 – *Special purpose (Archerfield Airport)*

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Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

Use allowed in precinct

✓ – accepted development

A – assessable in accordance with the Master Plan

P – prohibited

* – a 'sensitive development' (Airports Act), and requires a MDP

| Use term | Use definition | Examples | The use term does not include: | Runway | Beatty | Beatty sub precinct boundaries are shown in Figure 15: Airport land use zoning | | | | Beaufighter | Wirraway | Boundary | Ashover | Barton | | |
|----------------------------------|--|--|--|--------|--------|--|------|-------|------|-------------|----------|----------|---------|--------|------|------|
| | | | | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | ASP5 |
| | The use terms are defined in the <i>Planning Regulation 2017</i> – Regulated Requirements except as noted below. If a use term is not defined in this table, the use is assessable. | | If a use listed in this column is not defined elsewhere in this table, the ordinary meaning applies. | | | | | | | | | | | | | |
| Relocatable home park* | The use of premises for— a. relocatable dwellings for long-term residential accommodation; or b. amenity facilities, food and drink outlets, a manager’s residence, or recreation facilities for the exclusive use of residents, if the use is ancillary to the use in paragraph (a). | | Tourist park | P | P | P | P | P | P | P | P | P | P | P | P | P |
| Renewable energy facility | Renewable energy facility— a. means the use of premises for the generation of, and/or storage of electricity or energy from a renewable energy source, including, for example, sources of bio-energy, geothermal energy, hydropower, ocean energy, solar energy or wind energy; but b. does not include the use of premises to generate electricity or energy that is to be used mainly on the premises (that use is accepted development in all precincts). | Solar farm, wind farm, tidal power, hydroelectric power, geothermal power, battery | Air service, research and technology industry | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Research and technology industry | The use of premises for an innovative or emerging industry that involves designing and researching, assembling, manufacturing, maintaining, storing or testing machinery or equipment. | Aeronautical engineering, biotechnology industries, computer component manufacturing, computer server facilities, energy industries, medical laboratories; research, development and deployment of | Air service, low impact industry, medium impact industry, high impact industry, service industry, special industry | A | ✓ | ✓ | P | ✓ | ✓ | ✓ | P | ✓ | ✓ | ✓ | ✓ | ✓ |

Land use zone key

ASP5 – *Special purpose (Archerfield Airport)*

AIN2 – *Archerfield General industry B*

ACN1 – *Archerfield Airport Conservation (Local)*

ACF3 – *Archerfield Airport Community facilities-Cemetery* (applies to Gods Acre)

Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

| Land use zone key | | Use allowed in precinct | | Runway | | Beatty | | Mortimer | | Beaufighter | | Wirraway | | Boundary | | Ashover | | Porter | |
|---|---|---|---|--------|-------|---------|------|----------|------|-------------|------|----------|------|----------|------|---------|---|--------|---|
| ASP5 – <i>Special purpose (Archerfield Airport)</i> AIN2 – <i>Archerfield General industry B</i> ACN1 – <i>Archerfield Airport Conservation (Local)</i> ACF3 – <i>Archerfield Airport Community facilities–Cemetery</i> (applies to Gods Acre) Beatty sub precinct boundaries are shown in Figure 19 <i>Airport land use zoning</i> | | ✓ – accepted development A – assessable in accordance with the Master Plan P – prohibited * – a 'sensitive development' (Airports Act), and requires a MDP | | | | | | | | | | | | | | | | | |
| Use term | Use definition | Examples | The use term does not include: | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | ACF3 | | | |
| | Note - It may include administration, promotion, conference, training, education, display, laboratory, assembly, and manufacturing areas. | renewable energy, including generation, storage and deployment | | | | | | | | | | | | | | | | | |
| Residential care facility | The use of premises for supervised accommodation, and medical and other support services, for persons who— a. cannot live independently; and b. require regular nursing or personal care. | Convalescent home, nursing home | Community residence, dwelling house, dual occupancy, hospital, multiple dwelling, retirement facility | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P |
| Resort complex | The use of premises for— a. tourist and visitor accommodation that includes integrated leisure facilities— bars, meeting and function facilities, restaurants, sporting and fitness facilities; or b. staff accommodation that is ancillary to the use in paragraph (a); or c. transport facilities for the premises, including, for example, a ferry terminal or air service. | Island resort | | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P |
| Retirement facility* | A residential use of premises for— a. accommodation for older members of the community, or retired persons, in independent living units or serviced units; or b. amenity and community facilities, a manager's residence, health care and support services, | Retirement village* | Residential care facility | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P |

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Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

| Land use zone key | | Use allowed in precinct | | Runway | Beatty | | | | | Mortimer | Beaufighter | | Wirraway | Boundary | Ashover | | Porter |
|---|---|--|---|--------|--------|---------|------|-------|------|----------|-------------|------|----------|----------|---------|------|--------|
| ASP5 – <i>Special purpose (Archerfield Airport)</i> AIN2 – <i>Archerfield General industry B</i> ACN1 – <i>Archerfield Airport Conservation (Local)</i> ACF3 – <i>Archerfield Airport Community facilities–Cemetery</i> (applies to Gods Acre) Beatty sub precinct boundaries are shown in Figure 19 <i>Airport land use zoning</i> | | ✓ – accepted development A – assessable in accordance with the Master Plan P – prohibited * – a 'sensitive development' (Airports Act) , and requires a MDP | | | | | | | | | | | | | | | |
| Use term | Use definition | Examples | The use term does not include: | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | ACF3 | |
| | preparing food and drink or staff accommodation, if the use is ancillary to the use in paragraph (a). | | | | | | | | | | | | | | | | |
| Roadside stall | The use of premises for the roadside display and sale of goods in a rural area. | Produce stall | Market | P | P | P | P | P | P | P | P | P | P | P | P | P | |
| Rooming accommodation | The use of premises for— a. residential accommodation, if each resident— i. has a right to occupy 1 or more rooms on the premises; and ii. does not have a right to occupy the whole of the premises; and iii. does not occupy a self-contained unit, as defined under the <i>Residential Tenancies and Rooming Accommodation Act 2008</i> , schedule 2, or has only limited facilities available for private use; and iv. shares other rooms, facilities, furniture or equipment outside of the resident's room with 1 or more other residents, whether or not the rooms, facilities, furniture or equipment are on the same or different premises; or b. a manager's residence, an office or providing food or other service to residents, if the use is ancillary to the use in paragraph (a). | Boarding house, monastery, hostel, off-site student accommodation | Air service, hospice, community residence, dwelling house, short-term accommodation, student accommodation, multiple dwelling | P | P | P | P | P | P | P | P | P | P | P | P | P | |

Land use zone key

ASP5 – *Special purpose (Archerfield Airport)*

AIN2 – *Archerfield General industry B*

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Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

Use allowed in precinct

✓ – **accepted development**

A – **assessable in accordance with the Master Plan**

P – **prohibited**

***** – a 'sensitive development' (Airports Act), and requires a MDP

| Use term | Use definition | Examples | The use term does not include: | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | ASP5 |
|------------------------------|---|---|--|------|-------|---------|------|-------|------|------|------|------|------|------|------|------|
| | The use terms are defined in the <i>Planning Regulation 2017</i> – Regulated Requirements except as noted below. If a use term is not defined in this table, the use is assessable. | | If a use listed in this column is not defined elsewhere in this table, the ordinary meaning applies. | | | | | | | | | | | | | |
| Rural industry | The use of premises for— a. storing, processing or packaging products from a rural use carried out on the premises or adjoining premises; or b. selling products from a rural use carried out on the premises or adjoining premises, if the use is ancillary to the use in paragraph (a). | Packing shed | Intensive animal husbandry, intensive horticulture, roadside stall, wholesale nursery, winery, abattoir, agricultural supply store | P | P | P | P | P | P | P | P | P | P | P | P | P |
| Rural workers' accommodation | The use of premises for accommodation, whether or not self-contained, for employees of a rural use, if the premises, and the premises where the rural use is carried out, are owned by the same person. | Farm workers accommodation | Short-term accommodation building, caretaker's accommodation, dual occupancy, dwelling house, nature or rural based tourist accommodation, workforce accommodation, multiple dwellings | P | P | P | P | P | P | P | P | P | P | P | P | P |
| Sales office | The use of premises for the temporary display of land parcels or buildings that— a. are for sale or proposed to be sold; or b. can be won as a prize in a competition. | Display dwelling | Bank, office | P | A | A | P | A | A | A | P | A | A | A | A | A |
| Service industry | The use of premises for an industrial activity that— a. does not result in off-site air, noise or odour emissions; and b. is suitable for location with other non-industrial uses. | Audio visual equipment repair, bicycle repairs, clock and watch repairs, computer repairs, dry cleaning, film processing, hand engraving, jewellery making, | Air service, small engine mechanical repair workshop, cabinet making, shop fitting, sign writing, tyre depot, low impact industry, medium impact industry, | A | ✓ | ✓ | P | ✓ | ✓ | A | P | A | ✓ | ✓ | A | A |

Land use zone key

ASP5 – *Special purpose (Archerfield Airport)*

AIN2 – *Archerfield General industry B*

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Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

Use allowed in precinct

✓ – **accepted development**

A – **assessable in accordance with the Master Plan**

P – **prohibited**

***** – a 'sensitive development' (Airports Act), and requires a MDP

| Use term | Use definition | Examples | The use term does not include: | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | ASP5 |
|--------------------------|--|---|---|------|-------|---------|------|-------|------|------|------|------|------|------|------|------|
| | The use terms are defined in the <i>Planning Regulation 2017</i> – Regulated Requirements except as noted below. If a use term is not defined in this table, the use is assessable. | | If a use listed in this column is not defined elsewhere in this table, the ordinary meaning applies. | | | | | | | | | | | | | |
| | | laundromat, locksmith, picture framing, shoe repairs, tailor | high impact industry, special industry | | | | | | | | | | | | | |
| Service station | The use of premises for— a. selling fuel, including, for example, petrol, liquid petroleum gas, automotive distillate or alternative fuels (including hydrogen and electricity); or b. a food and drink outlet, shop, trailer hire, or maintaining, repairing, servicing or washing vehicles, if the use is ancillary to the use in paragraph (a). | Fuel storage, fuel sales, alternative energy storage and sales, electric charging station, vehicle servicing and maintenance workshop | Air service, car wash | P | A | A | P | A | A | A | P | A | A | A | A | A |
| Shop | The use of premises for— a. displaying, selling or hiring goods; or b. providing personal services or betting to the public. | Corner store, convenience shop, hairdresser, discount variety store, liquor store, betting agency | Adult store, air service, department store, discount department store, food and drink outlet, market, showroom, supermarket | P | A | A | P | A | A | A | P | A | A | A | A | A |
| Shopping centre | The use of premises for an integrated shopping complex consisting mainly of shops. | | | P | A | A | P | P | A | P | P | P | P | P | P | A |
| Short-term accommodation | Short-term accommodation— a. means the use of premises for— i. providing accommodation of less than 3 consecutive months to tourists or travellers; or ii. a manager’s residence, office, or recreation facilities for the exclusive use of guests, if the | Motel, backpackers, cabins, serviced apartments, accommodation hotel | Air service, hostel, rooming accommodation, student accommodation, tourist park | P | A | A | P | A | A | P | P | P | P | P | P | A |

Land use zone key

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AIN2 – *Archerfield General industry B*

ACN1 – *Archerfield Airport Conservation (Local)*

ACF3 – *Archerfield Airport Community facilities-Cemetery (applies to Gods Acre)*

Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

| Land use zone key | | Use allowed in precinct | | Runway | Beatty | | | | Mortimer | Beaufighter | Wirraway | Boundary | Ashover | Porter | | |
|--|--|--|--|--------|--------|---------|------|-------|----------|-------------|----------|----------|---------|--------|------|------|
| | | | | | | | | | | | | | | | | |
| ASP5 — Special purpose (Archerfield Airport) | | ✓ — accepted development | | | | | | | | | | | | | | |
| AIN2 — Archerfield General industry B | | A — assessable in accordance with the Master Plan | | | | | | | | | | | | | | |
| ACN1 — Archerfield Airport Conservation (Local) | | P — prohibited | | | | | | | | | | | | | | |
| ACF3 — Archerfield Airport Community facilities–Cemetery (applies to Gods Acre) | | * — a 'sensitive development' (Airports Act), and requires a MDP | | | | | | | | | | | | | | |
| Beatty sub precinct boundaries are shown in Figure 19 <i>Airport land use zoning</i> | | | | | | | | | | | | | | | | |
| Use term | Use definition | Examples | The use term does not include: | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | ACF3 |
| | use is ancillary to the use in subparagraph (i); but b. does not include a hotel, nature-based tourism, resort complex or tourist park. | | | | | | | | | | | | | | | |
| Showroom | The use of premises for the sale of goods that are of— a. a related product line; and b. a size, shape or weight that requires— i. a large area for handling, display or storage; and ii. direct vehicle access to the building that contains the goods by members of the public, to enable the loading and unloading of the goods. | Bulky goods sales, motor vehicles sales showroom, bulk stationery supplies, bulk home supplies, furniture sales | Air service, food and drink outlet (except where ancillary to the showroom), shop, outdoor sales | P | A | A | P | A | A | A | P | P | A | A | A | A |
| Special industry | The use of premises for an industrial activity not otherwise defined in this table— a. that is the manufacturing, producing, processing, repairing, altering, recycling, storing, distributing, transferring or treating of products; and b. that complies with any thresholds for a special industry stated in Table E2-Industry thresholds; and c. has one or more of the following attributes— i. significant potential for extreme impacts on sensitive land uses due to off-site emissions including aerosol, fume, particle, smoke, odour and noise; | Tanneries, rendering plants, oil refineries, waste incineration, manufacturing or storing explosives, power plants, manufacturing fertilisers, other examples listed for the land use term 'Special industry' in Table E2 – Industry thresholds. Note—These and any examples shown in Table E2 - Industry thresholds only comprise a Special industry when they | Air service, low impact industry, medium impact industry, high impact industry, service industry, research and technology industry | A | A | A | P | A | A | A | P | A | A | A | A | A |

Land use zone key

ASP5 – *Special purpose (Archerfield Airport)*

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ACN1 – *Archerfield Airport Conservation (Local)*

ACF3 – *Archerfield Airport Community facilities-Cemetery* (applies to Gods Acre)

Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

| Land use zone key | | Use allowed in precinct | | | | Runway | Beatty | | | | Mortimer | Beaufighter | Wirraway | Boundary | Ashover | Barton | | | |
|-----------------------|---|---|--|--|--|--------|--------|-------|---------|------|----------|-------------|----------|----------|---------|--------|------|------|------|
| | | ✓ – accepted development A – assessable in accordance with the Master Plan P – prohibited * – a 'sensitive development' (Airports Act), and requires a MDP | | | | | | | | | | | | | | | | | |
| Use term | Use definition | Examples | The use term does not include: | | | | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | ACF3 |
| | The use terms are defined in the <i>Planning Regulation 2017</i> – Regulated Requirements except as noted below. If a use term is not defined in this table, the use is assessable. | | If a use listed in this column is not defined elsewhere in this table, the ordinary meaning applies. | | | | | | | | | | | | | | | | |
| | <ul style="list-style-type: none">ii. potential for extreme off-site impacts in the event of fire, explosion or toxic release;iii. on-site controls are required for emissions and dangerous goods risks;iv. the use generally involves night-time and outdoor activities;v. the use may involve the storage and handling of large volumes of dangerous goods;vi. requires significant separation from non-industrial uses. | comply with the thresholds stated for the activity. | | | | | | | | | | | | | | | | | |
| Strategic airport | A strategic airport within the meaning of the State Planning Policy. | Archerfield Airport | | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Student accommodation | Accommodation for students studying at an aviation educational facility at the airport. Note—derived from definition of 'sensitive development' in the <i>Airports Act 1996</i> | | Short term accommodation | | | | P | A | A | P | A | A | P | P | A | A | P | P | A |
| Substation | The use of premises— <ul style="list-style-type: none">a. as part of a transmission grid or supply network to—<ul style="list-style-type: none">i. convert or transform electrical energy from one voltage to another; orii. regulate voltage in an electrical circuit; oriii. control electrical circuits; oriv. switch electrical current between circuits; or | Substations, switching yards | Air service, major electricity infrastructure, minor electricity infrastructure | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | A | ✓ | ✓ | ✓ | ✓ | ✓ |

Land use zone key

ASP5 – *Special purpose (Archerfield Airport)*

AIN2 – *Archerfield General industry B*

ACN1 – *Archerfield Airport Conservation (Local)*

ACF3 – *Archerfield Airport Community facilities-Cemetery* (applies to Gods Acre)

Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

Use allowed in precinct

✓ – **accepted development**

A – **assessable in accordance with the Master Plan**

P – **prohibited**

* – a 'sensitive development' (Airports Act), and requires a MDP

| Use term | Use definition | Examples | The use term does not include: | Runway | Beatty | Mortimer | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | 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Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | Beaufighter | Wirraway | Boundary | Ashover | Barton | 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Land use zone key

ASP5 – *Special purpose (Archerfield Airport)*

AIN2 – *Archerfield General industry B*

ACN1 – *Archerfield Airport Conservation (Local)*

ACF3 – *Archerfield Airport Community facilities-Cemetery* (applies to Gods Acre)

Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

Use allowed in precinct

✓ – **accepted development**

A – **assessable in accordance with the Master Plan**

P – **prohibited**

* – a 'sensitive development' (Airports Act), and requires a MDP

| Use term | Use definition | Examples | The use term does not include: | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | ASP5 |
|--------------------|---|---|--|------|-------|---------|------|-------|------|------|------|------|------|------|------|------|
| | The use terms are defined in the <i>Planning Regulation 2017</i> – Regulated Requirements except as noted below. If a use term is not defined in this table, the use is assessable. | | If a use listed in this column is not defined elsewhere in this table, the ordinary meaning applies. | | | | | | | | | | | | | |
| | iv. set construction workshops; v. sound stages. | | | | | | | | | | | | | | | |
| Tourist attraction | The use of premises for— a. providing entertainment to, or a recreation facility for, the general public; or b. preparing and selling food and drink for consumption on the premises, if the use is ancillary to the use in paragraph (a). | Theme park, zoo | Air service, hotel, major sport, recreation and entertainment facility, nightclub entertainment facility, museum | P | P | P | P | P | P | P | P | P | P | P | P | P |
| Tourist park | The use of premises for— a. holiday accommodation in caravans, self-contained cabins, tents or other similar structures; or b. amenity facilities, a food and drink outlet, a manager’s residence, offices, recreation facilities for the use of occupants and their visitors, or staff accommodation, if the use is ancillary to the use in paragraph (a). | Camping ground, caravan park, holiday cabins | Relocatable home park, tourist attraction, short-term accommodation, workforce accommodation | P | P | P | P | P | P | P | P | P | P | P | P | P |
| Transport depot | The use of premises for— a. storing vehicles, or machinery, that are used for a commercial or public purpose; or b. cleaning, repairing or servicing vehicles or machinery, if the use is ancillary to the use in paragraph (a). | Contractor’s depot, taxi depot, bus depot, truck yard, heavy machinery yard | Air service, home-based business, warehouse, low impact industry, service industry | P | A | A | P | A | A | A | P | A | A | A | A | A |

Land use zone key

ASP5 – *Special purpose (Archerfield Airport)*

AIN2 – *Archerfield General industry B*

ACN1 – *Archerfield Airport Conservation (Local)*

ACF3 – *Archerfield Airport Community facilities-Cemetery* (applies to Gods Acre)

Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

Use allowed in precinct

✓ – **accepted development**

A – **assessable in accordance with the Master Plan**

P – **prohibited**

* – a 'sensitive development' (Airports Act), and requires a MDP

| Use term | Use definition | Examples | The use term does not include: | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | ASP5 |
|----------------------|--|---|---|------|-------|---------|------|-------|------|------|------|------|------|------|------|------|
| | The use terms are defined in the <i>Planning Regulation 2017</i> – Regulated Requirements except as noted below. If a use term is not defined in this table, the use is assessable. | | If a use listed in this column is not defined elsewhere in this table, the ordinary meaning applies. | | | | | | | | | | | | | |
| Utility installation | The use of premises for— a. a service for supplying or treating water, hydraulic power or gas; or b. a sewerage, drainage or stormwater service; or c. a transport service; or d. a waste management service; or e. a maintenance depot, storage depot or other facility for a service stated in paragraphs (a) to (d). | Sewage treatment plant, mail depot, network infrastructure, pumping station, water treatment plant | Air service, telecommunications tower, major electricity infrastructure, minor electricity infrastructure, substation, renewable energy facility, transport depot | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | A | ✓ | ✓ | ✓ | ✓ | ✓ |
| Veterinary service | The use of premises for— a. the medical or surgical treatment of animals; or b. the short-term stay of animals, if the use is ancillary to the use in paragraph (a). | | Animal keeping | P | A | A | P | A | A | A | P | A | A | A | A | A |
| Warehouse | The use of premises for— a. storing or distributing goods, whether or not carried out in a building; or b. the wholesale of goods, if the use is ancillary to the use in paragraph (a). | Distribution centre, commercial display, mail or parcel sorting and distribution, self-storage sheds or facility, storage yard, store | Air service, hardware and trade supplies, outdoor sales, showroom, shop | P | A | A | P | A | ✓ | ✓ | P | A | ✓ | A | ✓ | A |
| Wholesale nursery | The use of premises for— a. the wholesale of plants grown on or next to the premises; or b. selling gardening materials, if the use is ancillary to the use in paragraph (a). | | Bulk landscape supplies, garden centre | P | A | A | P | A | A | ✓ | P | P | A | A | A | A |

Land use zone key

ASP5 – *Special purpose (Archerfield Airport)*

AIN2 – *Archerfield General industry B*

ACN1 – *Archerfield Airport Conservation (Local)*

ACF3 – *Archerfield Airport Community facilities-Cemetery* (applies to Gods Acre)

Beatty sub precinct boundaries are shown in Figure 19 *Airport land use zoning*

| Land use zone key | | Use allowed in precinct ✓ – accepted development A – assessable in accordance with the Master Plan P – prohibited * – a 'sensitive development' (Airports Act), and requires a MDP | | Runway | Beatty | | | | Mortimer | Beaufighter | | Wirraway | Boundary | Ashover | Porter | |
|-------------------------|---|--|---|--------|--------|---------|------|-------|----------|-------------|------|----------|----------|---------|--------|------|
| | | | | | | | | | | | | | | | | |
| Use term | Use definition | Examples | The use term does not include: | ASP5 | North | Central | ACF3 | South | ASP5 | AIN2 | ACN1 | ASP5 | AIN2 | ASP5 | AIN2 | ACDF |
| Winery | The use of premises for— a. making wine; or b. selling wine that is made on the premises. | | Rural industry | P | A | P | P | P | P | A | P | P | A | P | A | P |
| Workforce accommodation | Workforce accommodation— a. means the use of premises for— i. accommodation that is provided for persons who perform work as part of— A. a resource extraction project; or B. a civil, building, infrastructure or other construction project on the airport; or C. a rural use; or ii. recreation and entertainment facilities for persons residing at the premises and their visitors, if the use is ancillary to the use in subparagraph (i); but b. does not include rural workers' accommodation. | Contractor's camp, construction camp, single person's quarters, temporary workers' accommodation | Air service, relocatable home park, short-term accommodation, tourist park, temporary offices and amenities for building or development activities on the airport | P | P | A | P | P | P | A | P | P | P | P | P | P |

The following table sets out the thresholds for categorising low, medium and high impact industry, and special industry. These thresholds do not apply to uses that are separately defined in the table above, including for example air service, research and technology industry, or service industry.

Table E2 - Industry thresholds

| Use term | Additional examples include |
|-------------------------------|--|
| Low impact industry | <ul style="list-style-type: none"> a. Light engineering works, including assembling, fabricating or repairing metal or sheet metal products or components, not including boiler making, metal finishing, spray painting or foundry activities. b. Assembling, fabricating or repairing wood products, including furniture, kitchens, shop fitting, cabinet making, joinery if not involving: <ul style="list-style-type: none"> i. outdoor plant or machinery including dust extraction plant ii. spray painting, spraying glue or spraying surface coatings c. Dismantling automotive or mechanical equipment, if not including debonding brake or clutch components d. Fitting and turning workshop e. Repairing or servicing tools, garden equipment, lawn mowers or outboard engines f. Repairing or servicing motor vehicles including mechanical components, radiators, electrical components, wheel alignments, exhausts, tyres, suspension, bull bars, roof racks or air conditioning, if not including spray painting g. Assembling or manufacturing plastic products, including moulding and extruding and not involving casting, liquid resins or fibre-glassing h. Clothing or footwear manufacturing or repair i. Assembling or repairing domestic furniture or fittings if not involving: <ul style="list-style-type: none"> i. outdoor plant or machinery including dust extraction plant ii. spray painting, spraying glue or spraying surface coatings j. Upholstering k. Printing, with a gross floor area less than 1,000m² <p>Note—Spray painting does not include the sole use of aerosol cans or air brushing for the purpose of this industry threshold table</p> |
| Medium impact industry | <ul style="list-style-type: none"> a. Abrasive blasting facility, if using less than 10 tonnes of abrasive material per annum b. Anodising or electroplating workshop, if the tank area is less than 400m² c. Battery recycling or reprocessing workshop d. Boat repairing or maintaining works e. Boiler making or engineering works other than metal foundry or casting, if producing less than 10,000 tonnes of metal product per annum f. Clay or ceramic product, including bricks, tiles, pipes and pottery goods manufacturing, if producing less than 200 tonnes per annum g. Contractor's depot or storage yard h. Distilling alcohol in works, if producing less than 2,500 litres per annum i. Enamelling workshop, if using less than 15,000 litres of enamel per annum j. Fibreglass, foam plastic, composite plastic or rigid fibre-reinforced plastic manufacturing or product manufacturing works other than producing fibreglass boats, tanks and swimming pools, if producing less than 5 tonnes per annum k. Food, beverages or pet food processing, smoking, drying, curing, milling, bottling or canning works, if producing less than 200 tonnes per annum l. Fuel burning where not a utility installation, with an installed capacity of 0.1 MW or less, if: |

| Use term | Additional examples include |
|-----------------------------|---|
| | <ul style="list-style-type: none"> i. operating more than 100 hours per year; ii. not involving coal combustion m. Galvanising works, if using less than 100 tonnes of zinc per annum n. Glass fibre manufacturing works, if less than 200 tonnes per annum o. Glass or glass product manufacturing works, if producing less than 250 tonnes per annum p. Medium density fibreboard, chipboard, particle board, plywood, laminated board or wood veneer product manufacturing works, if producing less than 250 tonnes per annum q. Plastic manufacturing PET, PETE, polypropylene and polystyrene plastic or plastic products, if less than 10,000 tonnes per annum r. Manufacturing substrate for mushroom growing s. Metal foundry, if producing: <ul style="list-style-type: none"> i. less than 10 tonnes of ferrous metal castings per annum; or ii. less than 50 tonnes of non-ferrous metal castings per annum t. Plaster manufacturing, if processing less than 5,000 tonnes of gypsum per annum u. Printing workshop producing advertising material, magazines, newspapers, packaging or stationery v. Powder coating workshop, if using less than 500 tonnes of coating per annum w. Reconditioning metal or plastic drums x. Sawmilling, wood chipping and kiln drying timber and logs, if producing less than 500 tonnes per annum y. Scrap metal yard (if not including a fragmentiser) or dismantling automotive or mechanical equipment including debonding brake and clutch components z. Spray painting workshop including spray painting vehicles, heavy machinery, signs, equipment or boats, if using: <ul style="list-style-type: none"> i. less than 20,000 litres of paint product per annum; ii. spray equipment other than the sole use of aerosol cans or air brush. aa. Tyre recycling or reprocessing, including retreading workshop bb. Vegetable oil or oilseed processing works, with a design production capacity of less than 1,000 tonnes per annum cc. Wooden product manufacturing, including cabinet making, joinery or making timber frames or roof trusses involving: <ul style="list-style-type: none"> i. outdoor plant or machinery ii. spraying paint, glue or surface coatings |
| High impact industry | <ul style="list-style-type: none"> a. Abattoir, if not involving rendering b. Abrasive blasting facility, if using 10 tonnes or greater of abrasive material per annum c. Anodising or electroplating workshop, if the tank area is 400m² or greater d. Battery manufacturing e. Boiler making or engineering works, if producing 10,000 tonnes or greater of metal product per annum |

| Use term | Additional examples include |
|----------|--|
| | <ul style="list-style-type: none"> f. Clay or ceramic product manufacturing, if including bricks, tiles, pipes and pottery goods, producing 200 tonnes or more per annum g. Concrete batching plant or works for producing concrete products h. Enamelling workshop, if using 15,000 litres or more of enamel per annum i. Fibreglass, foam plastic, composite plastic or rigid fibre-reinforced plastic manufacturing or product manufacturing works including producing fibreglass boats, tanks and swimming pools, if producing 5 tonnes or more per annum j. Food, beverages or pet food processing, smoking, drying, curing, milling, bottling or canning works, if producing 200 tonnes or more per annum k. Fuel burning where not a utility installation with an installed capacity of more than 0.1 MW, if: <ul style="list-style-type: none"> i. less than 10 MW; ii. not involving coal combustion l. Galvanising works, if using 100 tonnes or greater of zinc per annum m. Glass fibre manufacture, if producing 200 tonnes or more per annum n. Glass or glass product manufacturing, if producing 250 tonnes or more per annum o. Manufacturing tyres, asbestos products, asphalt, cement, mineral wool or ceramic fibre p. Medium density fibreboard, chipboard, particle board, plywood, laminated board or wood veneer product manufacturing works, if producing 250 tonnes or more per annum q. Metal foundry, if producing: <ul style="list-style-type: none"> i. 10 tonnes or more of ferrous metal castings per annum; or ii. 50 tonnes or more of non-ferrous metal castings per annum r. Plaster manufacturing, if processing 5,000 tonnes or more of gypsum per annum s. Plastic manufacturing works for PET, PETE, polypropylene and polystyrene plastic or plastic products, if producing 10,000 tonnes or greater per annum t. Powder coating workshop, if using 500 tonnes or more of coating per annum u. Recycling chemicals, oils or solvents v. Recycling, storing or reprocessing regulated waste, where not a Utility installation and if not involving a waste incinerator w. Sawmilling, wood chipping or kiln drying timber and logs, if producing 500 tonnes or more per annum x. Scrap metal yard including a fragmentiser y. Spray painting workshop including spray painting vehicles, heavy machinery, equipment, signs or boats, if using 20,000 litres or more of paint per annum z. Soil conditioners manufacturing by receiving, blending, storing, processing, drying or composting organic waste, including animal manures, sewage, septic sludges and domestic waste aa. Treating timber for preservation using chemicals including copper, chromium, arsenic, borax or creosote bb. Vegetable oil or oilseed processing in works with a design production capacity of 1,000 tonnes or more per annum |

| Use term | Additional examples include |
|-------------------------|--|
| | <p>cc. Waste disposal facility, where not a Utility installation and if not involving a waste incinerator</p> <p>dd. Wooden product manufacturing including cabinet making, joinery or making timber frames or roof trusses, if producing 500 tonnes or more per annum</p> |
| Special industry | <p>a. Distilling alcohol in works, if producing 2,500 litres or more per annum</p> <p>b. Fuel burning where not a Utility installation, with an installed capacity of 10 MW or greater or burning coal or coal products</p> <p>c. Storage, use or handling of dangerous goods/hazardous chemicals in quantities that exceed the threshold quantities in Schedule 15 of the Work Health and Safety Regulation, or a major hazard facility under the Work Health and Safety Regulation</p> <p>d. Manufacturing fertilisers involving ammonia</p> <p>e. Metal refining or smelting</p> <p>f. Oil refining or processing facility</p> <p>g. Polyvinyl chloride plastic manufacturing works</p> <p>h. Producing, refining or processing gas or fuel gas</p> <p>i. Producing, quenching, cutting, crushing or grading coke</p> <p>j. Pulp or paper manufacturing</p> <p>k. Rendering plant</p> <p>l. Sugar milling or refining</p> <p>m. Tannery or works for curing animal skins, hides or finishing leather</p> <p>n. Textile manufacturing including carpet manufacturing, wool scouring or carbonising, cotton milling or textile bleaching, dying or finishing</p> <p>o. Tobacco processing</p> <p>p. Waste incinerator</p> |

