

Gannawarra Aerodromes Development Plan



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1. Introduction

This report identifies the

- Current state and capability of the Kerang and Cohuna Aerodromes including their capacity to accommodate additional operators (private or commercial) – see Section 2
- Impact of the Kerang and Cohuna Aerodromes on the Gannawarra local economy – see section 3
- The characteristics of airports/aerodromes in the wider region – see Section 4
- Trends in population, visitation and the General Aviation industry that may influence the requirements of the Kerang and Cohuna Aerodromes – see Section 5

The report has also involved consultation with a range of stakeholders including current operators and key service providers including Ambulance Victoria

The report identifies a number of potential options for future development and investment in the Kerang and Cohuna Aerodromes

2. Overview of Existing Capability, Arrangements and Usage of Kerang and Cohuna Aerodromes

This section provides an overview of the existing capability, arrangements and the level of usage of the Kerang and Cohuna Aerodromes

2.1 Current Capacity/Functionality of Kerang/Cohuna Aerodromes

The following provide an overview of the current capacity and functionality of Kerang/Cohuna Aerodromes

	Kerang Aerodrome	Cohuna Aerodrome
CASA Status	CASA Registered Aerodrome 10/11/05	Authorised Landing Area
Total Area	180 ha	43 ha
Zoning	Public Use 6 - Local Government	Public Use 1 - Services & Utility
Ownership of Aerodrome Land	Gannawarra Shire Council	Coliban Water
Aviation Facilities		
Main Runway		
Length	1,067 m	964 m
Width	18 m	18 m
Orientation	14/32	15/33
Surface	Asphalt	Asphalt

	Kerang Aerodrome	Cohuna Aerodrome
Lighting	Pilot Activated Airfield Lighting Control (PAALC)	Pilot Activated Airfield Lighting Control (PAALC)
Secondary Runway		
Length	691 m	
Orientation	05/23	
Surface	Slab fill (Stone, Dust & Clay)	
Lighting	None	
Taxiways	Yes – connection to refuelling facility	No
Hardstand Area	Yes – 450 m2	Yes - 450 m2
Navigation Aids	RNAV	No
Refuelling Facilities	Yes	No
Terminal Facilities	No – Mid Murray Flying Club has a clubhouse facility	No
Additional Aircraft Tie-down Areas	Yes	Yes
Utilities & Services		
Power	Yes	Yes – for lighting
Water	Yes	No
Sewer	Yes	No
Public Toilets	Yes	No
Connectivity		
Broadband	Fixed line/wireless	Fixed line/wireless NBN build has commenced
Driving time from Town Centre	5 mins	8 mins
Driving time from nearest main health facility	Kerang District Hospital 8 mins	Cohuna District Hospital 9 mins Note Rotary Wing Ambulance is able to land alongside the Hospital
Nearest PT stop	Kerang Railway Station 2.1 kms	Vline Bus Stop, Cohuna Post Office 7.3 kms
Driving time to nearest RPT service	Melbourne Airport 2 hrs 45 mins	Melbourne Airport 3 hrs

2.2 Recent Upgrades of the Kerang and Cohuna Aerodromes

Kerang Aerodrome

The following upgrades were undertaken at the Kerang Aerodrome over the period 2013 to 2015

- i. Reseal on main runway and line-marking – provides 10/15 year life expectancy for main runway
- ii. Upgrade of aviation fuel storage – increased storage/metering allows for commercial operation and adequate refuelling capability during major events (Credit card only).
- iii. Upgrade of Pilot Activated Airfield Landing Control (PAALC) to meet current standards
- iv. Widening and levelling of taxiway to meet CASA standards and improve access to hangar
- v. Re-sheeting of gravel (secondary) runway
- vi. Design and implementation of RNAV/GNSS procedure to enable use of runway during inclement weather/nighttime
- vii. Installation of back-up power generator

The cost of the upgrades was \$776,000 - \$150,000 provided by GSC and \$626,000 from the Regional Aviation Fund.

Cohuna Aerodrome

The following upgrades were undertaken at the Cohuna Aerodrome over the period 2012 to 2013

- i. Installation of mains power through to runway from aerodrome gate
- ii. Upgrade of Pilot Activated Airfield Landing Control (PAALC) to meet current CASA standards
- iii. Re-alignment of runway drainage to be clear of designated flight safety area
- iv. Widening of runway (15/33) from 15 to 18 metres to meet CASA standards
- v. Relocation of windsock to outside of obstacle limitation zone

The cost of the upgrades was \$329,000 - \$60,000 provided by GSC and \$279,000 from the Regional Aviation Fund

2.3 Current Management Regimes of Kerang and Cohuna Aerodromes

The Kerang and Cohuna Aerodromes are operated and maintained by Gannawarra Shire Council – there are no Committees of Management for either facility.

Council provides a Council Officer as the designated Aerodrome Reporting Officer (ARO)/ Works Safety Officer (WSO). These positions meet the minimum requirements of the Civil Aviation Act (1988) and Civil Aviation Regulations and Orders, and address the duty of care responsibilities of aerodrome operators.

The aircraft refuelling facility at the Kerang Aerodrome is operated and maintained by a commercial fuel distributor business.

2.4 Current Operating Costs for Kerang and Cohuna Aerodromes

The 2014/15 operating cost for the Kerang and Cohuna Aerodromes was \$65,601.34 – the facilities generated \$1,192.01 in leasing fees

Expenditure		
	\$11,289.47	Labour
	\$194.35	Labour Overtime
	\$5,983.73	Labour Oncost
	\$9,909.56	Operational Materials
	\$22,739.36	Operational Services
	\$662.50	Royalties/Licence Fees
	\$3,917.01	Internal Plant Charge
	\$1,541.74	Electricity
	\$570.64	Water
	\$520.00	Subscriptions and Memberships
	\$463.77	Telephone, Fax & Data
	\$7,097.54	Staff Training (Excl. Wages)
	\$701.37	Conferences Accommodation
	\$10.30	
<i>Total</i>	\$65,301.34	
Revenue		
<i>Total</i>	\$1,192.01	Lease Fees
<i>Expenditure less</i>		
<i>Revenue</i>	\$64,409.33	

2.5 Current Users and Level of Usage of Kerang and Cohuna Aerodromes

There is no record of total aircraft movements to and from the Kerang and Cohuna Aerodromes. The following provides an overview of the various users

2.5.1 Air Ambulance

The Kerang and Cohuna Aerodromes are used by Ambulance Victoria for fixed wing patient transport. This is a vital service for the Gannawarra community.

Recent widening of the Cohuna Aerodrome runway and the installation of the Pilot Activated Airfield Landing Control (PAALC) supports 24-hour operation of the Ambulance Victoria's fixed wing ambulance aircraft.

No data is available at this time from Ambulance Victoria regarding the number of aircraft movements to either aerodrome.

2.5.1.1 Future Air Ambulance Operating Aircraft

Ambulance Victoria (AV) have advised GSC that currently and for the next five years Air Ambulance will be using the Beechcraft Kingair 200 as their fleet. In the future Ambulance Victoria may change to the Beechcraft Kingair 350 as the 200 will no longer be in production. As this is a bigger aircraft and will have different requirements. In the event of this change GSC could then look at the requirements for the Beechcraft Kingair 350.

The Beechcraft Kingair 350 manufacturers website (<http://beechcraft.txtav.com/en/king-air-350i>) advises that a Kingair 350 will require a runway 3,300 ft (1,006 m) in length for takeoff.

Depending on any additional operational requirements that AV may have, works may be required at both Kerang and Cohuna Aerodromes in order to ensure ongoing use by the Air Ambulance.

2.5.1.2 Patient Transfer Shelters

Ambulance Victoria have noted that their preference is for the development of facilities that provide shelter to patients/crew involved in the transfer of patients from road to air ambulances. There is no particular specification for the size and/or functionality of such shelters.

The shelter also provides a designated area for the family members/friends that often accompany patients to gather in so that they are safely away from the aircraft operations.

At present there are no such facilities at either Kerang or Cohuna Aerodromes and there are no public toilets or access to water at the Cohuna Aerodrome. The Mid Murray Flying Club have indicated that they are willing to discuss with GSC how their Kerang Aerodrome facility may be used and/or modified to provide shelter for patient transfers.

The development/installation of such a facility at the Cohuna Aerodrome – including access to toilets, water and power could be shared with aerodrome users, and visitors, as well as providing shelter for ambulance patient transfers.

2.5.1.3 Other Medical Flights

The Kerang Aerodrome is regularly used by medical specialists who travel to Kerang to provide their services in the town. This is also a key service for the Gannawarra community.

2.5.2 Other Users

The Kerang and Cohuna Aerodromes also support other users as noted in the following table

	Kerang Aerodrome	Cohuna Aerodrome
Commercial Operators	(1) agricultural aviation services	Nil
Private Hangar Leaseholders	2 Last Planning Application – 2012	4 Last Planning Application – 1992 (although an application is currently under consideration)
Recreational Clubs	Mid Murray Flying Club MMFC also lease a hangar for aircraft storage	Model Aircraft Club

Commentary – Kerang Aerodrome

The Mid Murray Flying Club report they are intending to increase their level of activity at Kerang Aerodrome and are working towards Kerang becoming a satellite training location to their main facility at Swan Hill Aerodrome.

Commentary – Cohuna and Kerang Aerodromes

Business Usage

Some private hangar leaseholders operate aircraft that are also used by their businesses to travel to interstate clients and/or projects.

Commentary – Cohuna Aerodrome

Lack of Amenities

Aerodrome users have no access to water, power or toilets

Model Aircraft Club

The Model Aircraft Club operates from an area in the southwest corner of the Cohuna Aerodrome adjoining Chuggs Road – they have operated in this location since 1980 – and have developed clubroom facilities at this site. This area (of approx. 2ha) is subleased from GSC - the lease is valid until 2018.

Some users at Cohuna Aerodrome have noted their concerns regarding the proximity of the Model Aircraft Club and the potential safety hazards this may represent to aircraft using the Cohuna Aerodrome. Other users believe that appropriate operational communications between all users mitigate potential hazards – however, it has been noted that not all users make contact prior to landing.

Notwithstanding the above, the nature of the activities undertaken by Model Aircraft Club is consistent with CASA regulations applicable to the operation of an Authorised Landing Area (ALA) – which is the current designation of the Cohuna Aerodrome.

2.5.2.1 Visitors/Tourists Arriving via Aerodromes

A number of stakeholders have indicated the importance of the aerodromes with respect to accommodating visiting business operators.

There is no clear information regarding the number of other types of visitors that arrive in Gannawarra via the aerodromes. Council's recently adopted Strategic Tourism Plan 2015 - 2019 does not include any commentary regarding the need/demand for visitation via the Shire's aerodromes, although the Plan does seek to build a tourism product that will result in increased general visitation to the Shire.

It can be assumed that some visitors arrive via the aerodromes however the number is a very small percentage (i.e. less than 1%) of the current level of visitation to the Shire (the Strategic Tourism Plan estimates this to be at "294,000 domestic visitor nights spent in the shire per annum - Statistics for domestic day trips are unavailable").

The only facilities to service visitors at present would be the

- Aircraft refueling facilities at Kerang Aerodrome – it can be assumed that the absence of aircraft refueling facilities at Cohuna Aerodrome would have some impact on aircraft operators decision to use this aerodrome. The fuel through put at the Kerang Aerodrome in the period since February 2016 has been 16,000 litres (Avgas) and 56,000 litres (Jet A1).
- Public toilets at Kerang Aerodrome

2.5.3 Capacity for an Increased Number of Tenants at Aerodromes

There is capacity to increase the number of tenants at the Kerang and Cohuna Aerodromes.

The Kerang Aerodrome - with a total area of 180 ha - has a significant level of vacant area that can accommodate an increased number of aviation related buildings – i.e. aircraft hangars

The Cohuna Aerodrome, with a total area of 43 ha, has less capacity for expansion – however, following discussions with Goulburn Murray Water, a solution to allow further development in the vicinity of the current aerodrome buildings has been identified. The extent of the area available for additional building was initially thought to be constrained by the need to retain a setback of 30m from the Salinity Control Channel – operated by GMW - that runs along the eastern boundary of the aerodrome. GMW have subsequently confirmed that they are willing

to reduce the required setback to 10m (providing development occurs on land owned by Coliban Water and leased to Council) in order to release more developable land at the aerodrome.

The indicative layout plan attached at Appendix 2 to this report shows the development potential of three locations for hangars (or other buildings). Subject to confirmation of the land ownership boundary (shown as a yellow line on the plan), sites A, B and C can all be developed should the demand arise – whilst also maintaining the required setback from the Salinity Control Channel. Of these sites, it is likely that the development of hangars at site B would be the initial preferred option (although this would require the relocation of the access door to the adjacent hangar to the South). Development at sites A and C would require either an extension to the existing apron or a realignment of the existing access road and parking area – all of which can be readily accommodated on site should the need arise.

In addition to the above, the area occupied by the Model Aircraft Club could also be used to accommodate new hangars (subject to the suitable relocation of the Club). However, this option would require significant additional servicing and cost – and, in view of the extent of the developable land in the vicinity of the existing aerodrome buildings, such an option would not appear to be justified or cost effective. This option is quantified in Section 6 of this report (Option 9).

2.5.3.1 Future Demand for Aircraft Storage

Two of the current private aircraft operators at Cohuna Aerodrome store their aircraft outdoors – and another person is undertaking flying lessons at present. These individuals have expressed interest in securing a lease at the aerodrome and developing a hangar in which would accommodate the storage of their aircraft.

2.5.3.2 Recent/Pending Planning Applications

In view of the above noted current demand for new hangar space, Gannawarra Shire Council has prepared and submitted a planning permit application (April 2016) to approve the footprint of a new hangar which can accommodate three aircraft. This permit application is based upon the indicative layout plan attached at Appendix 2. Once issued, this permit will be an important step in facilitating the development of the new hangar by the aircraft operators.

2.6 Passenger Transport Services

Passenger transport services can be in the form of: -

- Regular Public Transport (RPT) services that provide schedule services on varying routes; or
- Charter services where an aircraft (and pilots) are chartered to provide a range of services including passenger transport

There are no RPT or charter service, or providers, based at the Kerang and Cohuna Aerodromes. The closest RPT services are located at :-

- Melbourne Airport – approximately 3 hrs driving time from Kerang and Cohuna
- Mildura Airport – 3 hr 20 mins driving time from Kerang - and 3 hr 40 mins from Cohuna

2.7 Non-Aviation Uses of the Kerang and Cohuna Aerodromes

In some locations aerodromes/airport provide space for the operation of non-aviation related industry - there are no non-aviation uses of the Kerang and Cohuna Aerodromes.

GSC advise that the :-

- Level of supply of industrial zone land and/or recent changes to the use of farming zone land means that there is no requirement for land at the Kerang and Cohuna Aerodromes to be used for non-aviation purposes
- Other industrial uses of the land at the Kerang and Cohuna Aerodromes would not be consistent with their Public Use zoning

2.8 Key Implications

The Kerang and Cohuna Aerodromes both can both receive fixed wing air ambulance operations – this is a key and fundamental service for the Gannawarra community. This capability would need to be reviewed in the event that Ambulance Victoria introduces new aircraft in the future.

There is an opportunity to provide improved amenity and safety for ambulance patient transfers at the Kerang and Cohuna Aerodromes – this is not a requirement for the continuation of this service

There is an absence of utilities/amenities at Cohuna Aerodrome – this includes the absence of

- any public toilet facilities which can be inconvenient for current operators and, in particular, any visitors
- access to water which means current operators cannot wash down their aircraft and can be inconvenient for any visitors

There is limited capacity for additional operators/leaseholders at the Cohuna Aerodrome – indications are that if current interest in additional leases are pursued this capacity will be exhausted, and this would necessitate additional works (e.g. realignment of the salinity control channel) to accommodate further expansion in the future.

3. Current Economic impact of Kerang and Cohuna Aerodromes

The Kerang and Cohuna Aerodromes provide an important link for local businesses and their ability to service clients and/or accommodate potential investors.

GSC, and the engagement with stakeholders, has noted that a number of significant businesses in the local economy utilise the aerodromes to service regional/interstate clients and investors (including international investors) – these businesses include: -

Cohuna

- Ellwaste – large waste business that provides services to a number of regional clients
- AWMA – manufacture water industry components and provides services across Australia.
- Archards Irrigation – similar to AWMA provides services to a number of regional clients
- Mawsons – A large quarry and concrete business that provides services to a number of regional clients

Kerang:

- Dunstan Engineering - Large manufacturing business that services a national market
- Kerfab and Equipco – both businesses provide services to the Australian mining industry.

- Goulburn Murray Water – mainly during the system upgrades
- Corporate Farming – businesses such as KILTER who are establishing global agriculture opportunities as well as potential new agriculture investments
- The emerging energy projects in Kerang are all managed by interstate and overseas companies, and could result in increased usage and demand for services at the Kerang Aerodrome.

Tourism

- Potential tourism projects - mainly around Cohuna and Koondrook. – have the potential to increase visitation to the Shire, and this may result in an attendant demand for increased capacity at the Cohuna and Kerang Aerodromes (however, at the time of writing, this demand is unquantifiable).

3.1 Implications for the Kerang and Cohuna Aerodromes

The ongoing presence of the Kerang and Cohuna Aerodromes is key to operations of a number of major businesses in the Gannawarra local economy.

The presence of the aerodromes provides an opportunity to support the future development of visitor products that would benefit from access to air transport services – including charter passenger services.

4 Overview of Airports and Aerodromes in the Wider Region

There are a number of airports and aerodromes within the wider region. These airports compete for public and private investment and influence the operation of the regional tourism industry. The following table provide a comparison of aerodromes located within a radius of some 150 km from Kerang and Cohuna Aerodromes. Of note is that there nearest aerodrome to Kerang is Cohuna

Aerodrome Location	Owner – Operator	CASA Registered	Sealed Runway (m)	Unsealed Runway (m)	Refuelling Facilities?	GA Employment?	Flying Club?
Bendigo	Greater Bendigo CC	Yes	1,600		Avgas Jet A1	Yes	Yes
Swan Hill	Swan Hill RCC	Yes	1,495	769 Grass 709 Grass	Avgas	Yes	Yes
Deniliquin	Deniliquin SC	Yes	1,219	1,487 Grass	Avgas Jet A1	Yes	Yes
Balranald	Balranald SC	Yes	1,185	650 Grass	No	No	No
Donald	Buloke SC	Yes	1,166	788 Grass	No	No	No
Echuca	Campaspe SC	Yes	1,102	510 Gravel	Avgas	No	Yes
Kerang	Gannawarra SC	Yes	1,067	691 Gravel	Avgas Jet A1	Yes	Yes
Birchip	Buloke SC	Yes	1,045	524 Clay	No	No	No
Maryborough	Central Goldfields SC	Yes	1,040	642 Gravel	No	No	No
St Arnaud	Northern Grampians SC	Yes	999	533 Gravel	No	No	No
Cohuna	Gannawarra SC	No	965	None		No	No
Sea Lake	Buloke SC	Yes	-	1,040 Grass	No	No	No

Aerodrome Location	Owner – Operator	CASA Registered	Sealed Runway (m)	Unsealed Runway (m)	Refuelling Facilities?	GA Employment?	Flying Club?
				700 Grass			
Wycheproof	Buloke SC	Yes	-	1,032 Clay 718 Clay	No	No	No

As can be seen from the above table: -

- Kerang is only one of four airport locations with general aviation (GA) related employment – all regional locations with GA related employment have refuelling facilities – there is no GA related employment at regional aerodromes without refuelling facilities
- Bendigo and Deniliquin are the only regional airports/aerodromes offering GA related maintenance and aircraft charter
- Recreational flying operations/activities are widespread within the region – established Flying Clubs are located at regional aerodromes where there are refuelling facilities

4.1 Bendigo Airport

The Bendigo Airport is some 130 km/1.5 hours driving time to the south of Kerang and is operated by the Greater Bendigo City Council. The Council has recently received funding to upgrade the sealed runway to 1,600 m in length and 30 m in width.

There are no RPT services operating from Bendigo Airport.

An aircraft charter business - My Jet - operates from Bendigo Airport. My Jet relocated from its former facilities at Essendon Airport and has developed a \$1.5 million purpose-built facility, which can house up to five aircraft, including three turboprop or jet aircraft. It also includes a new passenger lounge and administration offices.

The airport also has GA related maintenance businesses, houses a rotary wing ambulance facility and is regarded by the CFA as a priority location for the operation of fixed wing fire fighting aircraft during a major fire event.

4.2 Implication for the Kerang and Cohuna Aerodromes

The absence of refueling facilities at Cohuna Aerodrome appears to be an inhibitor to GA and/or increased recreational activity.

5 Review of Factors Impacting Future Demand and Opportunities for the Kerang and Cohuna Aerodromes

This section provides an overview of the factors that are likely to impact the demand for capability and/or capacity of the Kerang and Cohuna Aerodromes these factors include

- Population and visitation trends
- Changes in aviation related regulations
- Trends in the provision of Regular Public Transport (RPT) services
- Trends in the General Aviation (GA) industry

5.1 Population and Visitation Trends

This section reviews how the projected changes the Gannawarra Shire's population and the levels of visitation to the Shire may impact the future capability and capacity of the Kerang and Cohuna Aerodromes.

5.1.1 Impact of Projected Population Changes

The Victoria in the Future (VIF) projects that the Gannawarra Shire population will decrease over the next 15 years as noted in the following table

	2016	2021	2026	2031	Change 2016 to 2031
0-4	490	456	485	518	28
5-14	1,147	1,012	928	945	-202
15-24	1,133	1,142	1,059	976	-157
25-34	721	804	1,074	1,143	422
35-49	1,522	1,243	1,072	1,140	-381
50-59	1,347	1,225	1,045	849	-498
60-69	1,435	1,337	1,267	1,196	-239
70-84	1,606	1,746	1,868	1,845	239
85+	371	383	442	552	181
totals	9,771	9,348	9,238	9,164	-607

Recreational Usage

The projected decrease in the 35 to 69 year old population suggests that there may be a decline in demand for recreational use as many of the current members of the Mid Murray Flying Club are in this age range. The level of usage will be largely influenced by the Mid Murray Flying Club's future level of activity and the promotion of such activities. The Mid Murray Flying Club is working to increase their current level of membership

Demand for Aviation Ambulance Services

Within the projected population changes is a growth in the number of people aged 70 years plus. This age group are most highly represented in hospital admissions and this trend may result in an increased demand for aviation related ambulance services.

5.1.2 Impact of Visitation

The Gannawarra Shire Tourism Strategic Plan 2014 - 19 notes that: -

- Domestic visitation to Gannawarra Shire has been relatively steady over the last 5 years with approximately 294,000 domestic visitor nights spent in the shire per annum
- There is good road access via major highways from Melbourne, Ballarat and Bendigo, – this accessibility reduces the need for air passenger services
- The caravan, motorhome and camping segment is growing – this segment has no need for air passenger services

The Plan has not identified the need for improved air travel or the need to improve the capability of the Kerang and Cohuna Aerodromes – although development of an enhanced general tourism product may result in increased levels of visitation to the Shire in the future.

5.2 Passenger Transport Services and Service Trends

This section provides an overview of trends, opportunities and benefits with regard to air transport services including Regular Public Transport (RPT), aircraft charter and airfreight

services and how these may impact future operations at the Kerang and Cohuna aerodromes.

5.2.1 RPT Trends in Australia

The 2013 Bureau of Infrastructure, Transport and Regional Economics (BITRE) survey of GA operators notes that Regional Airlines recorded an increase of 31.3 per cent in flying hours. However, the Australian Airports Association* notes that: -

- There has been a declining trend in the number of regional airports with RPT services over the last two decades.
- A shift towards greater “hubbing” of regional air routes - some regional centres (e.g. Mildura Airport) - have developed into key regional hubs.
- The use of aircraft with 30-100 seats has trended significantly upwards and the use of smaller aircraft on regional routes (less than 18 seats and 18-29 seats) has trended heavily downwards.
- The trend towards the use of larger aircraft impacts on the ability of airports to cater for a larger number of arrivals at a single time; and may require some infrastructure including runway changes, airside pavements, terminals and security equipment

These trends discount the Kerang and Cohuna aerodromes as future RPT facilities.

Note * Australia’s Regional Airports - Facts, Myths & Challenges Australian Airports Association - November 2012

5.2.2 Aircraft Charter Services

The Australian Airports Association notes that “charter and private flights on smaller aircraft allow the business and leisure travel of Australians to and from smaller airports where it is not economical for commercial airlines to operate a RPT service.” The BITRE 2013 survey noted that Charter related activity was down by 3.2 per cent from the previous year.

5.2.2.1 Aircraft Charter Services at Kerang/Cohuna Aerodromes

There are no charter services operating from the Kerang/Cohuna Aerodromes. The nearest aircraft charter services are located at Bendigo, Deniliquin and Melbourne

Charter services from other locations can access the Kerang/Cohuna Aerodromes. The length of the runways will limit the size of the aircraft that use the facilities including many of the larger twin engine aircraft operated by regional RPT providers and twin engine jet aircraft operated by some charter operators and/or private operators

Feedback from an aircraft charter provider based at Essendon Airport indicated that the cost of the charter flight from the Kerang and Cohuna Aerodromes to Essendon Airport and return would be \$3,500 to \$4,000. This would be a twin engine, eight seat, unpressurised aircraft with one crew based at Essendon Airport and includes the cost of ferrying the aircraft to the Kerang and Cohuna aerodromes for the charter and back to Essendon after the charter. This translates to \$440 to \$500 per seat along with the other associated costs (i.e. travel from Essendon Airport to other Melbourne locations). The same provider identified that faster, pressurized twin engine aircraft can also be used at present to service the Kerang and Cohuna Aerodromes (at a greater cost than indicated above).

5.2.2.2 CASA Requirements for Runways Used by Charter Operators

GSC has been advised by CASA that there are no pending changes in CASA regulations that will require changes to the length of landing strips at the Kerang or Cohuna Aerodromes to

accommodate charter aircraft services. CASA has advised that aircraft operators (commercial and private) will continue to be responsible for determining if the length of the runway is appropriate for the safe operation of their aircraft.

As discussed earlier the current length of the landing strips are not suitable for larger aircraft including the many of the larger twin engine aircraft operated by regional RPT providers and twin engine jet aircraft operated by some charter operators and/or private operators.

5.2.2.3 Travel Times to Bendigo and Melbourne from Kerang and Cohuna

The Gannawarra community often has a need to access Bendigo, the nearest regional service centre, and Melbourne in order to access health services, business clients and/or suppliers and/or the ports for reasons of business or leisure.

Kerang is located on the Murray Valley Highway some 129 kms from Bendigo and 341 kms from the Melbourne CBD. The current travel options are by private vehicle or a passenger rail public transport service.

Cohuna is located on the Murray Valley Highway some 124 kms from Bendigo and 280 kms from the Melbourne CBD.

The following table provides an overview of travel times including those possible through aircraft related services.

	<i>Connection</i>	<i>Travel Time</i>	<i>Comment</i>
<i>VLine</i>	Kerang to Bendigo	1 hr 30 mins to 2 hrs 15 mins	<ul style="list-style-type: none"> • 4 services/day weekdays • 3 services/day weekends • Daily return services allow up to 8 hours in Bendigo for completing desired activities
	Cohuna to Bendigo	55 mins to 1 hr 55 mins	<ul style="list-style-type: none"> • 3 services/day weekdays • 2 services/day weekends • Daily return services allow up to 11 hours in Bendigo for completing desired activities
	Kerang to Melbourne	3 hrs 45 mins to 4 hrs 30 mins	<ul style="list-style-type: none"> • Daily return services allow up 4 services/day weekdays • 3 services/day weekends • Daily return services allow up to 8 hours in Melbourne for completing desired activities
	Cohuna to Melbourne	3 hrs 55 mins to 4 hrs 55 mins	<ul style="list-style-type: none"> • Daily return services allow up 4 services/day weekdays • 3 services/day weekends • Daily return services allow up to 8 hours in Melbourne for completing desired activities
<i>Driving</i>	Kerang to Bendigo	1 hr 30 mins	
	Kerang to Melbourne	3 hours	Can be significantly longer depending on peak traffic times in Melbourne
	Cohuna to Bendigo	1 hr 30 mins	
	Cohuna to Melbourne	3 hours	Can be significantly longer depending on peak traffic times in Melbourne
<i>Flying</i>	Kerang to Bendigo via Bendigo Airport	30 mins* – includes time for boarding/taxiing	10 mins driving time from Bendigo Airport to Bendigo CBD/ Bendigo Hospital

		All up travel time – Approximately 40 mins	
	Kerang to Melbourne via Essendon Airport	50 mins * - includes time for boarding/taxiing	Driving time from Essendon Airport to: - <ul style="list-style-type: none"> • Melbourne CBD - is less than 20 minutes • Royal Melbourne Hospital - is less than 15 minutes • Melbourne Airport - is less than 15 minutes All times longer in peak traffic
		All up travel time – Approximately 1 hr 10 mins	

***Note** – Estimated - depends on aircraft type used

As can be seen from the above a flight connection can offer a substantive saving in travel time between Kerang or Cohuna and Melbourne in particular – i.e. around 3 1/2 hours on a round trip.

5.2.3 Impacts of Digital Connectivity

A range of services including health, education, retail and finance and are already being delivered via the Internet. This trend is projected to grow as service providers develop their capability to digitally deliver services, communities and businesses become more accepting of accessing this form of service delivery and the speed of digital connectivity increases.

Feedback from businesses indicates that an increased use of internet based communications is reducing the need for travel.

These trends will reduce the need for travel to Bendigo and Melbourne from Kerang and Cohuna.

5.3 General Aviation (GA) Industry Trends

The GA sector is made up of all non-scheduled flying activity in Australian-registered aircraft, other than that performed by the major domestic and international airlines. The major categories of flying are private, business, training, aerial agriculture, charter and aerial work. In addition, the sport aviation segment of GA includes operations in ultralight aircraft, gliders, hang gliders and autogyros.

There is a GA related businesses operating from the Kerang Aerodrome. The opportunities for growth and the subsequent demands on the Kerang Aerodrome's capability are, in part, determined by trends in the GA industry.

The Australian Airports Association (of which GSC is a member) notes that "while meaningful traffic figures for Australian non-RPT aviation are not available, it is readily apparent that regional airports accommodate the vast majority of such activities' and "both the general aviation (GA) industry and regional airports are under significant pressure to remain operational and efficient.

The 2013 BITRE survey notes the following trends in GA related activity

- Total hours flown by Australian VH registered aircraft in the General Aviation and Regional Airline sectors were 2 million in 2013, an increase of 5.3 per cent compared with the previous year.
- Activity in the General Aviation sector rose in 2013, with an increase in flying hours of 2.2 per cent to 1.7 million hours.
 - Regional Airlines recorded an increase of 31.3 per cent in flying hours.

- In 2013 increases in flying hours in General Aviation were recorded in Test and Ferry (14.6 per cent), Aerial Work (11.4 per cent), Training (5.0 per cent), and Business (0.3 per cent).
- Three flying categories showed a decrease in activity—Agriculture (down by 10.4 per cent), Charter (down by 3.2 per cent), and Private flying (down by 0.6 per cent).
- Charter and Aerial Work flying made up the two largest activity categories in the General Aviation sector, representing 27.9 per cent and 23.6 per cent respectively of all General Aviation flying hours during 2013.
- Training hours was the third largest activity category (21.8%).
- Private and Business flying together represented 20.8 per cent of total General Aviation activity.
- The number of aircraft covered by the survey increased 9.3 per cent in 2013 to 13,585.
 - The number of fixed wing, single engine aircraft increased by 7.5 per cent to 9 076, or 66.8 per cent of all registered aircraft in the General Aviation and Regional Airline sectors.
 - Fixed wing, multi-engine aircraft increased by 13.1 per cent to 2 053 (15.1 per cent of the total).
 - The number of helicopters increased by 14.3 per cent to 2 077 (15.3 per cent of the total), with the number of single engine helicopters increasing by 14.2 per cent to 1 850 and the number of multi-engine helicopters increasing by 15.2 per cent to 227.
- In 2013, 1,398 amateur-built aircraft accounted for 10.3 per cent of all aircraft in the General Aviation and Regional Airline fleet. This represents a 7.4 per cent increase over the number of amateur-built aircraft in 2012 (1,302 aircraft).
- The Australian General Aviation and Regional Airline fleet contains many older aircraft, with the average age being 27.9 years, which is an increase compared to 2012 (27.7 years). A total of: -
 - 658 thousand hours (or 32.7 per cent of all flying) were performed in aircraft under 11 years old,
 - 388.4 thousand hours (19.3 per cent) in aircraft aged between 11 and 20 years old,
 - 293.1 thousand hours (14.6 per cent) in aircraft between 21 and 30 years old; and
 - 670.6 thousand hours (33.4 per cent) in aircraft over 30 years old.

5.4 Implications for the Kerang and Cohuna Aerodromes

The above trends have the following implications for the Kerang and Cohuna Aerodromes

5.4.1 Charter Passenger Services

Both Kerang and Cohuna Aerodromes can receive charter passenger services – operators are able to use multi-seat, twin engine, pressurized cabin, aircraft

The demand for visitor related usage is unlikely to increase unless there is increased investment in the Shire's current :-

- Industry – ie expansion of current and/or introduction of new industry
- Tourism product mix (i.e. say the development of fly-in golf experience)

That would generate increased demand for fly-in visitation

5.4.2 Runway Lengths

There is no current regulatory requirement to extend the length of the runways at Kerang and Cohuna Aerodromes. However, as noted previously, any future introduction of new aircraft by Ambulance Victoria may require the extension of runways or other works at the aerodromes.

5.4.3 GA Businesses

The only GA related business operating from either aerodrome is an agriculture business at Kerang – overall the GA “agriculture” sector experienced reduced flying hours – the current operator uses sub-contractors during peak periods.

There are no other GA businesses operating from either aerodrome. GSC has received no applications for the establishment of additional GA businesses

5.4.4 Sports/Recreation Aircraft

There was significant increase in this category. The majority of Mid Murray Flying Club members operate recreational aircraft and have intentions to increase the number of members. MMFC has employed two Chief Flying Instructors to underpin this growth. The CFIs will be based at Swan Hill and the MMFC hopes to include Kerang as a satellite training facility.

6 Options for Future Development of Kerang and Cohuna Aerodromes

The following represent options for the development of the Kerang and Cohuna Aerodromes

Options	Description/Estimated Costs
Option 1- No Further Development	<p>No further development is required to enable current AV aircraft to access the aerodromes</p> <p>Current users will be able to continue to operate from the aerodromes</p> <p>Both Cohuna and Kerang Aerodromes can be accessed by aircraft charter operators using pressurised twin engine aircraft</p> <p>There is a limit to additional operators that can be based at Cohuna Aerodrome</p> <p>-----</p> <p>Establishment Cost – no costs</p> <p>Ongoing maintenance costs ≈ \$65K/year (for both aerodromes)</p>
Option 2 – Improved Amenity for Patient Transfer at Kerang Aerodrome	<p>Assumes that GSC wishes to improve amenity of Kerang Aerodrome for AV patient transfers</p> <p>This Option would involve discussions with the MMFC regarding how their facility may be access and/or modified to provide shelter for ambulance patient transfers</p> <p>-----</p> <p>Establishment Cost < \$25,000</p> <p>Ongoing maintenance costs ≈ \$65K/year</p>
Option 3a - Improved Amenity for Patient Transfer at Cohuna Aerodrome	<p>Assumes that GSC wishes to improve amenity of Cohuna Aerodrome for AV patient transfers</p> <p>Establish a facility alongside/nearby the existing hardstand area that provides:</p> <ul style="list-style-type: none"> • Shelter for patient transfer • Toilet facilities • Access to water <p>-----</p> <p>Establishment Cost</p> <p>Cost of toilet block ≈ \$90,000</p> <p>Installation of water supply tank ≈ \$5,000</p> <p>Cost of remodeling hangar ≈ \$10,000</p> <p>To have main door facing runway and allow relocatable facility to be nearby the hardstand area</p> <p>-----</p> <p>Total ≈ \$105,000</p> <p>Ongoing maintenance costs ≈ \$66K/year (includes 10 water deliveries @ \$200/delivery)</p>

Options	Description/Estimated Costs
Option 3b	<p>As above but with town water supply – existing/new operators could then connect town water supply to their own facilities at their cost</p> <p>-----</p> <p><u>Establishment Cost</u></p> <p>Option 3a Establishment Costs ≈ \$30,000</p> <p>Cost of connecting town water supply to existing operator area ≈ \$56,000</p> <p>Total ≈ \$86,000</p> <p>Ongoing maintenance costs ≈ \$67K/year (<i>includes water usage costs</i>)</p>
Option 3c	<p>As above with connection to 3 phase power supply - – existing/new operators could then connect power supply supply to their own facilities</p> <p>-----</p> <p><u>Establishment Cost</u></p> <p>Option 3b Establishment Costs ≈ \$86,000</p> <p>Cost of connection to 3 phase power ≈ \$80,000</p> <p>Total ≈ \$166,000</p> <p>Ongoing maintenance costs ≈ \$70K/year (<i>includes water/power usage costs</i>)</p>
Option 4 – Develop Remaining Operator Area at Cohuna Aerodrome	<p>Assumes that there will be applications for additional leases at Cohuna Aerodrome.</p> <p>The remaining area nearby the existing hardstand area can be developed/leased – this will likely accommodate up to 9 additional aircraft hangars (or combined as larger buildings) depending on the facility developed.</p> <p>-----</p> <p><u>Establishment Cost</u></p> <p>≈ \$5,000</p> <p>Ongoing maintenance costs ≈ \$65K/year (for both aerodromes)</p>
Option 5 – Expand the Existing Operator Area at Cohuna Aerodrome	<p>Assumes that there will be applications for a greater quantum of development than that assumed in the layout plan attached at Appendix 2.</p> <p>This could be achieved through the realignment of the Salinity Control Channel to enable an increase in area for leases – however, such realignment may not be required in view of the reduced setback requirements.</p> <p>-----</p> <p><u>Establishment Cost (should channel need to be realigned)</u></p> <p>Approximate cost of realignment of salinity control channel ≈ \$50,000</p> <p>Ongoing maintenance costs ≈ \$65K/year (for both aerodromes)</p>

Options	Description/Estimated Costs
Option 6	Combination of Options 3a, or 3b, or 3c, 4 and 5 - Could be staged ----- <u>Establishment Cost</u> Estimated cost of Option 3c ≈ \$166,000 <i>Facility, Toilet, Water Supply, Electricity Supply</i> Estimated cost of Option 5 ≈ \$50,000 ----- Total ≈ \$216,000 Ongoing maintenance costs ≈ \$70K/year (<i>includes water/power usage costs</i>)
Option 7 – Runway extensions at Kerang/Cohuna Aerodromes	Assumes that current runways will need to be extended to accommodate future AV aircraft operating requirements ----- <u>Establishment Cost</u> Needs to be confirmed - allow \$80m2
Option 8 – Expansion of Cohuna Aerodrome	Combination of Options 3c, 5 and 7 ----- <u>Establishment Cost</u> Unknown
Option 9 – Develop new/expanded operator area at Cohuna Aerodrome	Assumes that demand for leaseholds is beyond what can be addressed by Option 5 Redevelop existing Model Aircraft Club lease area as an expanded GA operator area ----- <u>Establishment Cost</u> Relocation of Model Aircraft Club ≈ \$20,000 New taxiway/hardstand area ≈ \$460,000 Public facility – patient shelter, meeting space, toilets ≈ \$208,000 Refuelling facility ≈ \$130,000 Connection to town water ≈ \$56,000 Connection to 3 phase power ≈ \$80,000 ----- Total ≈ \$954,000
Option 10 – Redevelopment of Cohuna Aerodrome	Combination of 7 and 9

6.1 Preferred Option

In view of the above, and mindful of the nature of consultee feedback and current demand, the implementation of Option 2 would meet a current demand at the Kerang Aerodrome. Implementation of Options 3a and 4 at the Cohuna Aerodrome would address the need for patient transfer facilities and also meet current demand for new hangar space. Future expansion at Cohuna (beyond that illustrated at Appendix 2) can be accommodated in the vicinity of the current aerodrome buildings (Option 5). This future development option may or may not require the realignment of the Salinity Control Channel – the cost of which will be dramatically lower than any more radical reconfiguration of the aerodrome.

Appendix I – Summary of Stakeholder Consultation

Ambulance Victoria

Desire (not require) appropriate shelter/amenity for crew/patients

Note – both aerodromes already support Incoming medical specialists flights

Business

Universal agreement regarding importance of aerodromes as a support for business

Kerang Aerodrome

- Works as is – accommodates smaller business jets
- Accommodates fixed wing ambulance – including new Kingair 350 aircraft
- Access to shelter for ambulance patients/charter passengers
- Possibly access existing aero club facility

Cohuna

Medical Transport

- Accommodates fixed wing ambulance
- Rotary wing ambulance can land next to Cohuna Hospital if there is an emergency

Landing strip

- Some advocating for extension in order to handle larger charter aircraft – i.e. business jets
- Landing strip can accommodate charter aircraft – not smaller business jets
 - Note** aircraft charter operators are required to/will make operational decisions about any aerodrome they can use
- Access to manual lighting - needs to be improved (ease of access/spiders!)

Additional Hangars

2/3 operators desire to build new hangar – could be a shared facility (planning permit submitted)

Water Supply

Inconvenient for visitors

Operators unable to wash down aircraft

Refuelling

- Ideally available – regular users make other arrangements
- Aircraft charters from Melbourne can fly to/back without refuelling

Amenity

Provision of *shelter/toilets – wide support for this

- Will also support improved safety for relatives/friends of ambulance patients
- Access road to aerodrome needs to be well maintained to ensure comfort of road ambulance patients

*Note Could be serviced/maintained by local operators

Aircraft Modellers

- Wide opinion\ regarding the ongoing presence of model aircraft activity – from cease immediately - to - can be accommodated
- What is Council's risk appetite?
- Modellers could be relocated (but at a cost) – want access to same amenity/not too far from town

Redevelopment of Cohuna Aerodrome

A number of operators have prepared a proposal for the redevelopment of the Cohuna Aerodrome that includes:

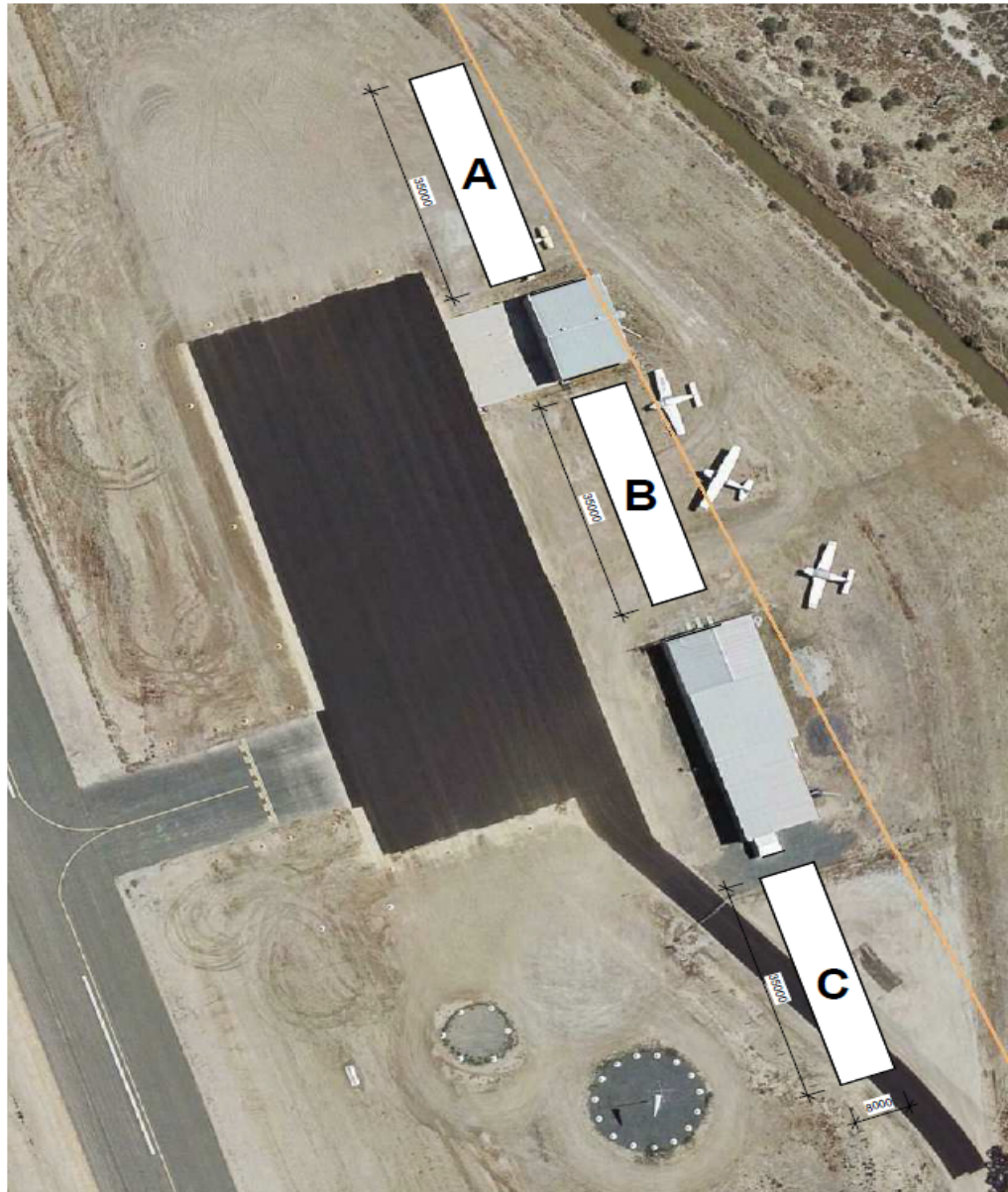
- Lengthen landing strip – to accommodate larger aircraft
- Relocate hangars to area adjoining Chuggs Rd to enable increase in the number of hangars (would involve relocation of Model Aircraft Club)
- Provide public facility/toilets
- Relocate taxiway/turnaround area
- Connection to town water and power
- Establish refuelling facilities - \$150K

Improved economic impact through _

- Improved CA amenity will attract new residents/more visitors
- Opportunity to establish a major General Aviation (GA) industry event

Note - Some operators are content with current arrangements

Appendix 2 – Proposed Hangars Extension at Cohuna Aerodrome



① Proposed Hangar Extension
1 : 500



**GANNAWARRA
SHIRE COUNCIL**

Gannawarra Shire
Council

PO Box 287
Kerang VIC 3579
T: (03) 5450 9333
F: (03) 5450 3023
E: council@gannawarra.vic.gov.au

Written dimensions are to take precedence
over scale.

Do not scale off drawing.

No.	Description	Date

**COHUNA
AERODROME**

Proposed Extension

Project number	
Date	31/3/16
Drawn by	SP
Checked by	Checker
1 OF 1	
Scale	1 : 500