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NARROMINE AERODROME STRATEGIC & MASTER PLAN

NOVEMBER 2019

## Narromine Shire Council (2019) Revision History

Date	Version	Auth.
November 2015	1.0	Manager Planning
2 <sup>nd</sup> August 2019	2.0	Director Community and Economic Development

Narromine Shire Council | 1

## AERODROME MASTER PLAN

## Contents

Table of ContentsContents	2
Executive Summary	3
Background	5
Regional Characteristics	6
Constraints Identification & Analysis	17
Master Plan	24
Strategic Plan	27
References	36

## **Executive Summary**

This document is known as the Narromine Aerodrome Strategic and Master Plan which will form the basis for development and management of the Aerodrome over the next 25 years. The Plan should be reviewed every 5 years and amended if necessary. The previous revision of the plan was in 2015. That document is the basis for this revision.

A Master Plan proposes suitable land uses for an area, based on planning and environmental constraints. A Strategic Plan is a more illustrative version of a land use plan, which also identifies infrastructure works and stages for development. The outcomes are divided into short, medium and long-term time frames.

This project aims to provide further strategic direction for the Narromine Aerodrome based on the history and potential of the site. The data and recommendations from these plans is intended to feed into Councils Integrated Planning and Reporting documentation as well as development controls and planning policies.

#### Purpose of the Plan

The purpose of the Strategic and Master Plan is to provide long- term direction for the development and operation of the Aerodrome.

The Narromine Aerodrome Strategic and Master Plan aims to:

- 1. Investigate options for short, medium and long-term development on the Aerodrome.
- 2. Identify and assess the planning constraints surrounding the development.
- 3. Provide recommendations on potential development areas, desired development types and development control measures for the area to ensure the long term viability of the site and to ensure it best serves the community.
- 4. Provide the nexus between Council's strategic direction and the local Economic Development Group to facilitate economic growth in the Narromine Local Government Area.
- 5. Assist Council in determining the level of service needed to support and grow the site.

#### Relationship with other Plans

This Plan provides the strategic framework for the development of the Narromine Aerodrome as well as forming a basis for the Asset Management Plan for the Narromine Aerodrome and fulfils requirements 2.2.1, 2.2.2 and 3.5.2 of Councils Community Strategic Plan.

# Background

There has been extensive consultation into previous reports and strategic planning in regards to the Narromine Aerodrome. These documents developed in 1995 (reviewed 2004) and 2009 helped to inform the 2015 strategic plan and now the 2019 revision.

Much of the strategy outlined in the 1995 document has been used to guide development since.

## Consultation

In terms of consultation, this study aimed to engage not only the current aerodrome users, but also:

- Adjoining land owners
- Business owners (both within and out of Narromine)
- Council's Infrastructure and Engineering Department and MANEX
- The wider Narromine Shire community

Comment has been sought in the drafting process for this revision with several comments received. These have been incorporated in this document.

Council would like to thank the parties involved in the discussion and consultation process for their input.

# **Regional Characteristics**

From the Narromine Shire Community Strategic Plan:

Narromine, known as the "Gliding Capital of Australia", is considered to be the best gliding area in Australia, and one of the three best in the world. With beautiful weather and thermals, along with no airspace restrictions, pilots from around the world visit regularly to participate in recreational flying, gliding and to take part in the National and State Gliding Championships.

The aerodrome is also utilised each year to host the 'Ausfly' event which is a national fly in for general aviation and has recently hosted both the State and National aerobatic championships.

The 2022 World Gliding Championships will be held at the Narromine Aerodrome.

## **Current Position**

Site Location and Zoning (Ref Appendix 1)

From the Narromine Shire Community Strategic Plan:

"Located in the heart of New South Wales between Dubbo and Nyngan, Narromine Shire covers an area of 5,224km2 with a population of 6550, living in three urban centres of Narromine (3500), Trangie (1000) and Tomingley (50) as well as the surrounding rural areas. The aerodrome is 225 metres above sea level.

The Aerodrome is located on the North Western edge of Narromine and is zoned SP2 Infrastructure – Aerodrome. The site occupies 322.3 hectares and is surrounded by agricultural, recreational and residential land uses.

The Objectives of the SP2 Infrastructure Zoning (Narromine LEP, 2011) are: To provide for infrastructure and related uses. To prevent development that is not compatible with or that may detract from the provision of infrastructure.



### **Economic Environment**

As stated in the Aerodrome Asset Management Plan (2019), Council's goal in managing infrastructure assets is to "meet the required level of service in the most cost effective manner for present and future users". The strategic objectives of the Asset Management Plan are to:

- 1. Provide aerodrome services to a standard that supports the outcomes identified in the Council Community Strategic Plan;
- 2. Ensure that infrastructure is maintained at a safe and functional standard, as set out in the Asset Management Plan;
- 3. Ensure that aerodrome infrastructure assets are managed to deliver the requirements of Council's Asset Management Policy and Strategic Asset Management Plan.

The primary income collected from the site is from leases on Council buildings, rates and land sales from the Skypark development.

The primary expenses attributed to the aerodrome are due to the maintenance and operation of the site. These expenses total approximately \$169,000 per year. This figure does not include capital works or depreciation.

Current funding commitments are for the purposes of the maintenance, renewal and upgrade of tarmac, hangars and aerodrome buildings, the resealing and remarking of runways and installation of groundwater monitoring equipment at the fuel bowsers.

The Aerodrome Asset Management Plan (2019) estimates the Narromine Aerodrome has a fair value of \$15.6 million. (calculated at June 2016).

The Aerodrome and the operations at the aerodrome make a significant contribution towards the economic well being of the Narromine Shire. The aerodrome now hosts the tourist information centre and hosts a number of significant events each year. The Aerodrome hosts and enables many businesses in the area who use the facilities for business, storage of aircraft and recreation amongst other pursuits.

The Aerodrome provides a significant opportunity for growth of the regions Gross Regional Product and will be important into the future as it provides increase industrial and residential opportunities.

### A Brief History of the Narromine Aerodrome

The Narromine aerodrome has seen many changes over the years. Formed as an airstrip in 1919, the Narromine aerodrome became the home of the first regional Aero Club in Australia in 1929. In 1940, the Royal Australian Air Force established No 5 Elementary Flying Training School, instructing pilots to fly the Tiger Moth aircraft. Shortly after, the original runways were sealed in 1942.

The RAAF, in the form of many units remained at the site until 1947. QANTAS briefly set up a training base at Narromine in 1967 and in 1974, the Aerodrome was handed over to Narromine Municipal Council, which following amalgamation with Timbrebongie Shire Council in December 1980, became Narromine Shire Council.

Evidence of the history of the aerodrome is evident on the site in the form of buildings, runways, layout and plaques.



ABOVE: RAAF Narromine (Approximately 1940)

BELOW: The former Narromine Aero Club Building



### **AERODROME MASTER PLAN**

### **Current Uses**

The Narromine Aerodrome is currently owned and operated by Narromine Shire Council. Private operations on the site include agricultural activities, gliders, private and recreational aircraft, ultralight aircraft, as well as emergency services. The Aerodrome is home to the Narromine Aviation Museum, Narromine Aero Club, Narromine Gliding Club, the Sport Aircraft Association of Australia and other private operations in agriculture, gliding and ultralight training.







## **Aviation Activity**

#### Aircraft Movements

The site experiences regular private aviation activities involving light to medium aircraft all year round. The peak gliding season is throughout the summer months.

Larger events tend to be held from spring through to autumn, taking advantage of the favourable weather conditions.

#### **Runway Capacity**

The runways and taxiways on site are capable of catering for medium sized, long winged aircraft. It is noted that taxiway C is restricted up to a maximum all up weight (MAUW) of 5700kg as noted in EW Route Supplement Australia (ERSA) for the aerodrome, as published by Air Services Australia.

#### **Runway Characteristics**

The site includes two bitumen sealed runways, 04/22 and 11/29, and three grassed runways, 04/22 grass left, 11/29 grass right, and 36/18. Note that the grass runways are identified as glider runways.

Identification	Length	Width	Construction	
04/22	1100m	30m	Bitumen Seal	
11/29	1521m	30m	Bitumen Seal	
04/22 Grass L	1040m	90m	Grass	
11/29 Grass R	814m	60m	Grass	
36/18	848m	90m	Grass	

Aerial View of Narromine Airshow



## The Built Environment

The site is sparsely covered by buildings including hangars, office space and light industry buildings with an average age of approximately 35 years. The buildings are currently a combination of leased and privately owned by private operators and related businesses.

The concept of the Narromine Aviation Museum building was an initiative of the Narromine Aero Club, with funding provided by Government Grants, Council and the community. The Aviation Museum currently holds a 15 year lease on the building.



## **Traffic and Transport**

Access is gained from a dual direction driveway.

In 2018 in a partnership between the NSW State Government and Narromine Shire Council the entrance, internal road and carparking were upgraded along Tom Perry Drive. The roadway and drainage has now been finalised to a high standard in recognition of the increased usage of the aerodrome and the development of the Aviation Museum.

A designated car parking area is located adjacent to the museum building. Informal car parking is also located alongside the arterial road.





## **Utilities and Services**

The Aerodrome is currently serviced with electricity, telephone, water and sewerage mains. The residential Skypark area also has access to mains gas. A public amenities block on the aerodrome is now owned by the Narromine Tourist Park.



## **Recreational Opportunities**

There are currently limited public recreational and open space opportunities on the site; one exception being an informal walking track along an irrigation channel.

## **Connections with the Community**

The aerodrome is a historical site and major tourist attraction for the Shire.

There are ancillary benefits identified with organised events and attractions on the aerodrome site; these include increased tourism and revenue generated for local businesses.



## Skypark

The Narromine Skypark is a residential estate that is closely connected with the aerodrome and is a unique development situated between the two runways allowing aircraft owners to 'park their aircraft in their backyard' with direct access to a taxiway and the runways. This development is ideal for pilots and people with an interest in aviation. Additionally, the development benefits from larger lots, a location slightly removed from the town centre and land adjoining the Narromine Golf Club.



As at October 2019 all but one lots have been sold of the 43 blocks allocated for stages 1 to 5. Stages 6, 7 and 8 are due for release late in 2020 with a further 27 blocks available.



## **Adjoining Land Uses**

The adjoining land uses and industries around the site include: recreational, residential, rural residential, intensive plant agriculture and rural activity.

This mix of adjoining land uses is due to the position of the Aerodrome being on the fringe of the Narromine Township. This characteristic however, also provides opportunity for compatible mixed-use development on the site.

Any further development on and around the site should take into consideration the potential impacts on the neighbouring land uses and the aerodrome.

An aerial view of Narromine Aerodrome with adjoining land uses 2010.



# Constraints Identification & Analysis

### Flooding & Drainage

The site is identified as flood prone as referenced in the Narromine Floodplain Risk Management Study and Plan (2011). Any development on the site is required to comply with the controls listed in the Narromine Flood Policy. A localised flood study has been done to identify specific levels of flooding across part of the site. Additionally, the proposed extension of the Narromine Levee Bank may also affect the flood liability on the site. Areas of high flood affectation should be avoided for development.

Due to the size of the site, stormwater should be carefully managed to ensure minimal impact on development from inefficient drainage systems. These considerations may require alternative solutions for stormwater management such as water sensitive design, particularly onsite collection, storage and reuse of storm water.

Throughout 2017, 18 and 2019 planning has been underway for improvements to the town levee system. Once finalised this may reduce flooding risks to the aerodrome.

#### Groundwater Vulnerability

The site is identified as a high groundwater vulnerability risk. This risk can be mitigated through appropriate controls in relation to effective management of effluent and other potentially hazardous land uses. These controls would entail connection to sewer mains or aerated wastewater treatment systems.

#### Heritage

The site is currently listed as a heritage item in the Narromine Local Environmental Plan 2011. Any development should be sympathetic to the heritage values of the site as identified in the Community Based Heritage Study and the site's associated statement of significance.

In May 2018 the Narromine Aerodrome Conservation Management Plan was completed. Two parts of the aerodrome are seen to have high heritage significance. These are:

- Hangar number 1. (built 1937) and
- Bellman Hangar (c 1943)

Of moderate significance are:

- The former parade ground
- The site layout (established WW2)
- Former lesser QANTAS building (relocated)

• Bitumen paved apron

#### Waste

The site is serviced by Council's contract waste collection service.

#### Contamination

Based on the past history of the site, there is potential for contamination on the apron and runway areas. Further investigations would need to be conducted on the site to determine the most suitable land use and if any remediation works are required. These investigations can be undertaken on a case-by-case basis, dependant on the type of the proposed development in an area.

### Traffic

Currently, the traffic usage on the site is low, with the exception of large events, in which traffic and parking becomes difficult to manage. Any further development on the site should consider the requirement for traffic impact studies to determine applicable construction and maintenance to cater for increased traffic movements. These requirements may include dedicated car parking areas and traffic management systems.

### **Existing Infrastructure**

#### Water & Sewer

The current water systems at the aerodrome are sufficient for the existing level of development, however any further developments will necessitate the upgrading of these systems. The anticipated increased consumption of water will need to be considered and quantified prior to any works.

In 2020 works are underway to upgrade the sewer pump station located at the entrance to the aerodrome. This system captures waste from the buildings on Tom Perry Drive and will also capture the waste from the new industrial subdivision.

#### Power

Electricity is primarily delivered to the site via aboveground services. The exception to this is the Skypark site and hangar sites beyond the main access road.

#### Telephone/Internet

The site has access to existing telephone and Internet services as provided by relevant telecommunications companies.

#### **Noise and Vibration**

With increased activity on site, it is anticipated the ambient noise levels will increase moderately over time. While a dramatic increase in noise and vibration is not expected as a

result of development on site, building design and construction should encompass noise and vibration mitigation measures.

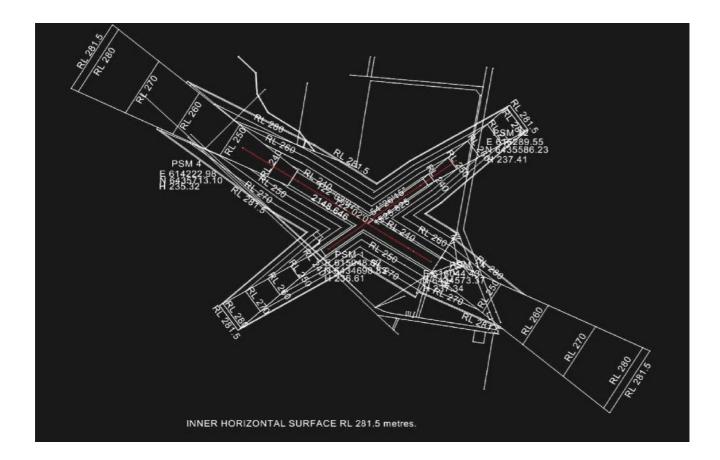
#### Amenity

The site enjoys low ambient noise levels and a scenic outlook. Consideration should be given to maintaining these elements in the design of proposed building works and facilities. The proximity to the golf club and the Macquarie River adds to the scenic outlook and recreational opportunities for the site.

#### **Obstacle Limitation Surfaces**

The Obstacle Limitation Surfaces are the heights at which development in the area is not to exceed. This is to reduce the risk of obstruction to aircraft flight paths. Any development on or around the aerodrome site must consider these height limitations.

Below: Narromine Obstacle Limitation Surfaces. Please note this image is an extract only of the OLS Plan held at Council.



#### Instrument Approaches

To assist pilots in navigation there are two windsocks to indicate wind speed and direction. Additionally, pilots may also utilise a GPS approach. Airservices Australia publish a certified RNAV approach. The document is entitled RNAV-Z (GNASS) RWY-11. The document can be found at <u>https://www.airservicesaustralia.com/aip/pending/dap/NRMGN01-</u> <u>147\_27FEB2020.pdf</u>.

#### Lighting

Pilot activated runway edge lighting (PAL) is installed along runway 11/29 and taxiway centre lighting on the bitumen sealed taxiway.

#### Security

The site consists of security measures such as restricted access gates, fencing and signs delineating the public and airside areas. As part of the Narromine Aerodrome Manual and CASA Regulations, security measures must be installed on the site, dependent on the classification and operations on the site.

#### **Refuelling Facilities**

A 24 hour Avgas fuel bowser is managed on site by a private operator under lease from Council. Additionally, an unused facility is located in the apron area. These facilities are required to comply with the Underground Petroleum Storage System Regulation 2014 in terms of monitoring and protection systems.

#### **Regulatory Framework**

The Aerodrome is required to comply with the Civil Aviation Legislation and Regulations.

As a Registered Aerodrome, the Narromine Aerodrome must comply with Part 139 in the Civil Aviation Safety Authority (CASA) Manual of Standards. Although an Aerodrome Manual is not required, the site must comply with the physical standards identified and ensure the data in the En-Route Supplement Australia (ERSA) is accurate and current.

#### **Planning Framework**

The planning framework governs land use and is identified by the Environmental Planning & Assessment Act 1979 which is administered by the NSW Department of Planning, Industry and Environment.

Locally, the Narromine Local Environmental Plan 2011, the Narromine Development Control Plan 2015, and the Section 94A Development Contributions Plan (s.7.12) are the principle planning documents for new developments in the Shire. These documents apply to the aerodrome site. Council has also undertaken various land use strategies to assist in the development of future planning instruments.

All of these documents combine to guide development and minimise negative impacts in terms of environment, economy, public health and safety and social interaction.

#### Narromine Local Environmental Plan (LEP) 2011

The LEP is a legislative document which, based on land use zones, determines permissible and prohibited development in various areas of the Shire and nominates selected development standards. The Land Use Table for the SP2 zone is included below. The applicable clause to this document from the LEP relates to airspace operations

#### Zone SP2 Infrastructure

#### 1 Objectives of zone

- To provide for infrastructure and related uses.
- To prevent development that is not compatible with or that may detract from the provision of infrastructure.
- 2 Permitted without consent Roads
- 3 Permitted with consent

Aquaculture; The purpose shown on the Land Zoning Map, including any development that is ordinarily incidental or ancillary to development for that purpose

4 Prohibited

Any development not specified in item 2 or 3

#### Applicable LEP Clauses Narromine

#### 6.9 Airspace operations

(1) The objectives of this clause are as follows:

(a) to provide for the effective and ongoing operation of the Narromine Airport by ensuring that such operation is not compromised by proposed development that penetrates the Limitation or Operations Surface for that airport,

(b) to protect the community from undue risk from that operation.

(2) If a development application is received and the consent authority is satisfied that the proposed development will penetrate the Limitation or Operations Surface, the consent authority must not grant development consent unless it has consulted with the relevant Commonwealth body about the application.

(3) The consent authority may grant development consent for the development if the relevant Commonwealth body advises that:

(a) the development will penetrate the Limitation or Operations Surface but it has no objection to its construction, or

(b) the development will not penetrate the Limitation or Operations Surface.

(4) The consent authority must not grant development consent for the development if the relevant Commonwealth body advises that the development will penetrate the Limitation or Operations Surface and should not be constructed.

(5) In this clause:

Limitation or Operations Surface means the Obstacle Limitation Surface or the Procedures for Air Navigation Services Operations Surface as shown on the Obstacle Limitation Surface Map or the Procedures for Air Navigation Services Operations Surface Map for the Narromine Airport.

#### **Development Control Plan 2011**

relevant Commonwealth body means the body, under Commonwealth legislation, that is responsible for development approvals for development that penetrates the Limitation or Operations Surface for the Narromine Airport.

air transport facility means an airport or a heliport that is not part of an airport, and includes associated communication and air traffic control facilities or structures.

airport means a place that is used for the landing, taking off, parking, maintenance or repair of aeroplanes, and includes associated buildings, installations, facilities and movement areas and any heliport that is part of the airport.

The applicable clauses from the Narromine DCP 2015 include guidance on aircraft noise, height limitations, reflective materials, and certain restricted developments.

#### Council Policy

Council must demonstrate responsible management of assets, compliance with regulatory requirements and identify funding needed to provide the required services.

#### Narromine Section 7.12 Contributions Plan

This contributions Plan, adopted by Council in November 2019, sets out a framework for council to levy developments to contribute to ongoing costs associated with infrastructure service provision and necessary upgrades. Section 7.12 of the Act provide Council with the means to levy contributions towards the cost of public facilities and services to meet the increased demand created by development. Section 7.12 contributions do not require a nexus between the development, infrastructure and the contribution.

# Master Plan

This Master Plan provides detail on desired land uses and development objectives. It provides an 'entire picture' approach to ensure all facets of development are complementary and reduce land use conflicts.

The objectives of development on the site are:

- To ensure the ongoing operations of the aerodrome as an aerodrome for the benefits of all aviators and the aviation community.
- To provide a range of mixed-use development including business, industrial and community and accommodation land uses.
- To encourage employment and economic development through business opportunities, tourism activities and enhancing airside operations.



• To encourage development that is innovative while being sympathetic with the character of the area.

Development is guided by Land Use Zones, which identify permissible development in the area and development objectives. The Land Use Zones recommended in this Plan are:

- SP2 Infrastructure This zone is utilised on land that is unlikely to be used for a different purpose in the future. The type of infrastructure applicable to this land is also listed in the Local Environmental Plan (LEP), which in this case, is 'Air Transport Facilities'.
- R1 General Residential This zone allows for a range of housing types and densities, as well as development, which is consistent with residential housing such as neighbourhood shops and community facilities. This is the current zoning for 'Skypark'
- SP1 Special Purpose Zone This zone is generally intended for land uses or sites with special characteristics that cannot be accommodated in other zones. The permitted use is annotated on the map along with any development that is ordinarily ancillary to that use.
- IN1 General Industrial This zone is intended to be used for a wide range of industrial and warehouse uses. These uses may be light industrial, or heavy industry activities such as depots and warehouses.

RE1 Public Recreation – This zone is used for land reserved for recreational and community facilities. The site is divided up into precincts, depending on primary land use and objectives. The intentions of these

### precincts are as follows:

	Skypark Residential Estate
Precinct 1	This area is currently and is suggested to be retained as R1 General Residential Zoning. The intent of the area is to be an aviation-compatible residential estate. Proposed development controls would ensure compatibility with the aerodrome operations, as well as maintaining the desirability of the
	Active Airside
Precinct 2	This area is to remain an active airside area and subject to all civil aviation requirements. The proposed land use zoning is as current, SP2 Infrastructure.
	Community and Commercial
Precinct 3	This area is central to the connections between the local aviation and non- aviation communities. The proposed land use zoning for this area is SP1 Special Activities or Purpose Zone, which allows for a combination of aviation-related, and commercial uses. This area will form the 'hub' of the public interface with the aerodrome. Development controls for this area will encourage active use of the site, generate community interest and provide opportunity for the establishment of aviation related businesses.
	Aviation related commercial uses and Hangar Area
Precinct 4	The objective of this area is to provide opportunity for aviation related commercial businesses to establish including aircraft construction and maintenance, and hangars. The suggested land use zone in this precinct is SP1, as for precinct 3 and development controls, are to be implemented in relation to compatibility, amenity and public access.
	Industrial and Transport
Precinct 5	The desired land uses of the industrial and transport precinct include storage, transport and construction to take advantage of the adjoining transport networks of road, rail, and air traffic. This is a long term vision and site-specific studies incorporating supply and demand for such land would be required prior to developing this precinct.
	Expansion Reserve
Precinct 6	This area is reserved for compatible rural and residential land uses, subject to obstacle limitation surfaces and potential flight paths. It is not considered an immediate to medium term priority for the strategy, however may be considered in conjunction with long-term development strategies for the township of Narromine. Further consultation should be undertaken about the benefits and costs of this expansion. Consider optimum levels of development and alternative areas.



# Strategic Plan

The recommendations discussed in this document were collected from previous aerodrome plans and as suggestions during the consultation phase. The recommendations were then assessed against the constraints as identified in pages 18-23 of this document; the accepted results are presented below as actions.

It should be noted that all development is subject to individual development assessment. Considerations include: aviation interface, operations, natural hazards and adjoining land uses. Hence, the final results may differ from those described in this plan.

The actions are divided into categories, depending on context and given a reference number. This number is further utilised in the Staging Plan which assigns a time frame for the completion of that aspect, the responsible party and a suggested funding option. Depending on external influences and dependencies, these suggestions may change following timely review of the Plan.

## Actions

1	1. Planning and Regulatory Framework				
No.	Description	Details	Timeframe		
1.1	Conservation Management Plan	Ensure that development within the aerodrome considers the issues and priorities raised within the Conservation Management Plan 2018.	Ongoing		
1.2	Subdivide land for individual ownership	Facilitate development through the subdivision and sale of existing buildings (such as hangars, offices and ablutions block) and surrounding land. Additionally, new, serviced development sites should be offered for sale.	Short term		
1.3	Enforce covenants and restrictions	To mitigate land use conflicts and improvement of amenity through appropriate development controls. These site-specific controls can be detailed in the Development Control Plan.	Ongoing		
1.4	Asset Management Planning	To ensure consistent management of the site in accordance with CASA, Air Services Australia and Council requirements, the most effective option is for the CASA requirements of aerodrome operations to be included in a management plan for the aerodrome. These requirements include: security, navigation and safety compliance. This document would replace the current Aerodrome Manual.	Ongoing		

## AERODROME MASTER PLAN

2.	2. Aviation Activity				
No.	Description	Details	Timeframe		
2.1	Ensure runway and airside facilities meet modern requirements	<ul> <li>Continue to allow for provision of runway renewal and maintenance</li> <li>Continue to maintain and improve aerodrome fencing</li> <li>Explore the potential and need for an additional glider runway</li> <li>Be open to further development of the facility in line with future events and the needs of the developing industrial area</li> <li>Develop additional tie down facilities if required and within budget considerations</li> </ul>	Medium to long term		
2.2	Amend ERSA with updated information	With constant changes taking place on the site, the ERSA (En Route Supplement Australia) is required to be maintained with current information.	Ongoing		
2.3	Draft obstacle limitation surfaces	Draft Obstacle Limitation Surfaces for glider and aerobatic operations for use with development planning, aviation activities and events planning	Short		

3.	3. Built Environment			
No.	Description	Details	Timeframe	
3.1	Private hangarage options	<ol> <li>Individual hangar sites for glider storage</li> <li>Additional hangar sites for larger aircraft</li> <li>Combination of private and business hangar sites</li> <li>Hangar sites with 'weekender' accommodation options</li> <li>While Council is not in a position to construct individual hangars, it can facilitate the subdivision and sale of land for the purpose of this and other development such as flying schools and aircraft maintenance facilities.</li> </ol>	Short	
3.2	Continue Skypark development	Continue to provide accommodation options in the Skypark area.	Short	
3.3	Establish a formal glider trailer storage area	To facilitate convenient and orderly glider trailer tie down and storage.	Medium	
3.4	Events facilities and infrastructure	To encourage aviation events to the site, preparation should be made to incorporate the necessary facilities required for these events. These facilities include amenities, car parking, undercover display areas, control towers, and viewing areas.	Medium	
3.5	Develop facilities to encourage aerodrome use by peak aviation bodies, clubs and instructors.	Given the rich history of usage by peak governing bodies such as SAAA and the ongoing opportunities for additional events consideration to develop purpose built facilities to accommodate increased usage for events and by peak bodies should be given.	Short- medium	
3.6	Heritage Conservation	Based on the rich history of the site, Council should consider carefully managing the heritage significance through conservation and adaptive reuse initiatives.	Ongoing	
3.7	Glider amenities block	Seek to establish additional amenities alongside the Glider runway to assist in the running of events. Eg toilet, shade, water.	Short	

4.	4. Traffic and Transport				
No.	Description	Details	Timeframe		
4.1	Improve and extend internal road network	Improve public roads within the precinct when funding is available	Ongoing		

5.	5. Community Connections			
No.	Description	Details	Timeframe	
5.1	Community benefits	Assets and facilities of Council provide benefit to the community by direct use of the item, however these facilities can provide indirect benefits to the local economy through the accommodation and catering of visitors/events etc. Calculation of these indirect benefits can provide valuable data to Council and the community for decision-making purposes and grant funding applications. Ideally, this task would be based on accurate data such as: number of visitors, vehicles, aircraft (number, type and origin) etc. Undertaken model of direct and indirect benefits of gerodrome.	Medium	
5.2	Public Open Space	The provision of public open space and recreational facilities provides for additional uses on the site and increased community and user connections. Open space facilities encourage healthy, active living and improve amenity. Further planning should be undertaken in regards to the recreation facilities, landscaping and approved usage of the parade ground particularly in regards to the heritage of the site.	Ongoing Ongoing	
5.3	Events Planning	The drafting of an events plan would ensure that facilities and infrastructure for the site are integrated within the needs for conducting and management of events on the site.	Short	

## 6. Infrastructure

No.	Description	Details	Timeframe
6.1	Water/Sewer Services	Council would be required to anticipate water consumption and sewer usage associated with further development to determine required upgrades and expansion works.	Ongoing
6.2	Electricity Supply	Due to the nature of the aerodrome, it is necessary to consider underground electricity supply for future development on the site.	Medium
6.3	Public Transport Connections	With the anticipated increase in visitors and residents to the aerodrome, it is important to maintain public transport links with the town centre.	Ongoing
6.4	Underground Petroleum Storage Systems	There are currently two existing fuel storage facilities on the site, only one currently in use. Council is responsible for the compliance of these facilities with the UPSS Regulations and is subsequently required to install monitoring equipment around the facilities. Issues to be considered in this action include: the current use of the facility, the cost of installing the monitoring equipment, the impacts of Council absolving responsibility of the units and the possible costs of installing alternative systems.	Ongoing

## AERODROME MASTER PLAN

7.	7. Economic Development			
No.	Description	Details	Timeframe	
7.1	Funding Options	Council has adopted a series of fees and charges for those using the site. Ongoing charges and income are derived from: Leases Proceeds from the sale of land Developer contributions Hire fees Land Rates It should be noted that landing fees are not considered an option for revenue due to the possible discouragement of aircraft to the site, the cost prohibitive nature of the management of the system and the aim to remain competitive with other similar aerodromes. Additionally, the Skypark lots were advertised for sale, stating 'no landing fees' were incurred on the site.	Ongoing	
7.2	Advertising and Signage	<ul> <li>To encourage visitors, local residents and businesses to the site, Council should actively undertake advertising of the site.</li> <li>The updating of a 'prospectus' for businesses and residents interested in relocating to the site, once the developments are serviced. This prospectus should include information on the likelihood of noise from the activities on the site.</li> <li>Improved directional and business identification signage on and around the site.</li> </ul>	Short	

8.	8. Amenity				
No.	Description	Details	Timeframe		
8.1	Landscaping	The amenity of the site can be improved through appropriate landscaping including: trees, shrubs, fencing, mowing and weeding. These actions provide opportunity for community involvement in the shaping and maintenance of the site.	Short- medium		

9. Natural Environment			
No.	Description	Details	Timeframe
9.1	Flooding	To ensure minimal impact from flooding the aerodrome precinct should continue to be included in plans for the development of the town levee. This is important for the residential and industrial future of the site and also to ensure emergency access to the aerodrome in times of major flooding.	Ongoing

# References

Aerodrome Operation Support Pty Ltd. (1995). Narromine Aerodrome Planning Strategy and Management Plan. Narromine

Narromine Shire Council. (2017). Community Strategic Plan: Narromine Shire 2027. Narromine

Narromine Shire Council. (2015). Narromine Aerodrome Planning Strategy and Management Plan. Narromine

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