



# RISK ASSESSMENT REPORT 2023

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Hazards and Risks of ALA  
Operations - Emu Park  
Aerodrome

March 2023

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**LIVINGSTONE SHIRE COUNCIL**

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## Introduction

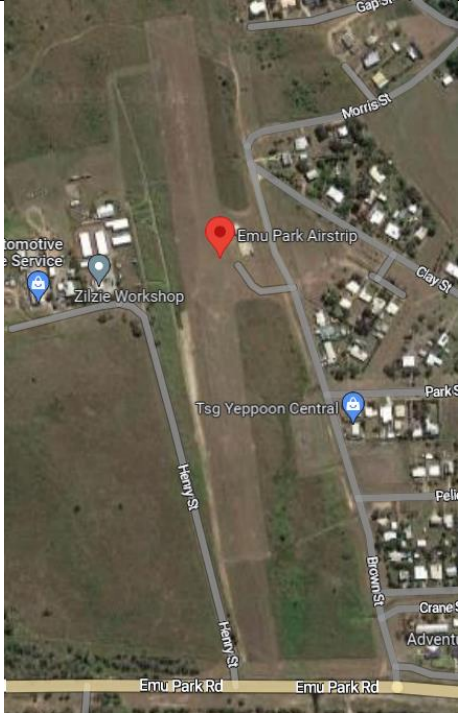


The Emu Park Aircraft Landing Area (ALA) is an uncertified Aerodrome (as per the Civil Aviation Safety Authority aerodrome categories).

Livingstone Shire Council (Council) is trustee of the land as a 'Reserve for Landing Ground of Aircraft'. The reserve was placed under Council's control as trustee on the 6<sup>th</sup> October 1966.

As trustee of the land, Council assumes the role of Aerodrome Operator.

## Site Particulars

ICAO Designator	YEMP
Location:	Lot 48 on SP183053
Land Ownership:	Queensland Government. Council is trustee of the land as a 'Reserve for Landing Ground of Aircraft'.
Registered Aerodrome Operator (AO):	Livingstone Shire Council
Land Classification:	'Aircraft Landing Area' (ALA) which is an uncertified Aerodrome (as per CASA Aerodrome Categories).
	Day use only (Visual Flight Rules – VFR) ONLY.
	No lighting provided. Night Ops not permitted.
Runway Particulars:	Runway 16/34. Length 673m. Unsealed natural grass.
Aircraft Operations:	Recreational and other light fixed-wing aircraft operations, and some emergency helicopter operations.  The largest aircraft for the purpose of determining applicable standards is code number 1 and code letter A, with a maximum take-off weight (MTOW) of 2000kg.
Aerodrome Communications:	CTAF 132.2
Facilities:	<u>No</u> animal perimeter, terminal shelter, toilets, telephone and/or taxi.
Authorised Persons:	Catherine Parfitt (ARO, AROC, AELP Certified) Greg Abbotts (Training scheduled - May 2023)
Conditions of Use (by public):	Prior permission required.  Pilot to be satisfied that the ALA is suitable for their operation.

<p>Site Map (full):</p>		
<p>(Movement Area   Aircraft Parking Area)</p>		
<p>Wind Direction Indicator &amp; Signal Circle</p>		

## Regulatory Oversight

Civil Aviation Act 1988

Civil Aviation Regulations 1988

Civil Aviation Safety Regulations 1998

Manuals of Standards (MOS) 139

Civil Aviation Orders (CAO's) and other instruments

CASA Guidance Material, Manuals & Handbooks

There are no standards for aerodromes that are not certified, however regulation 91.410 requires the aerodrome to be suitable. CASA has developed guidance information for ALAs in Civil Aviation Advisory Publication (CAAP) 92-1. The CAAP includes references to relevant legislation including regulations 92, 93 and 235 of the CAR 1988. Refer to 'AC 91-02 Advisory Circular: Guidelines for aeroplanes with MTOW not exceeding 5700 kg – suitable places to take off and land'.

**NOTE 1:** The following guidelines for aircraft landing areas were repealed on 2<sup>nd</sup> December 2021:

- CAR, Part 9 – Aerodromes
- CAAP 92-1(1) Guidelines for aeroplane landing areas

**NOTE 2:** There is no obligation for Emu Park Aerodrome to conform to the standards in Manual of Standards (MoS) Part 139 because it operates as an ALA and is not being used for air transport operations by aircraft that are greater than 5700 kg MTOW or have more than nine passenger seats.

**NOTE 3:** There is no obligation for the physical characteristics of the Emu Park Aerodrome to adhere to the guidance provided in CAAP 92-1(1); however, the guidelines set out factors that may be used to determine the suitability of a place for the landing and take-off of aerodromes.

## Compliance Inspections

The following inspections have been undertaken on the aerodrome:

- Compliance Inspection (2012) – Aerodrome Operation Support
- Compliance Inspection (February 2020) – Aviation Projects
- Obstacle Limitation Survey – Airport Operations (January 2020)
- Serviceability Inspection (March 2023) – Catherine Parfitt + Greg Abbotts (LSC Authorised Persons)

**NOTE:** Aerodrome Technical Inspections are not required, however regular inspection by suitably qualified persons is recommended.

## Responsibilities

**Pilots:** Pilots are required to seek permission to land at an ALA and use that communication process to clarify the current condition of the ALA.

**Aerodrome Operator:** The ALA operator also has a duty of care to ensure the aerodrome is serviceable and suitable for use by the intended aircraft. **NOTE:** aerodrome suitability refers to maintaining characteristics, the surrounding terrain and obstacles.

Subpart 175.D of CASR Part 175 allocated responsibilities to Aerodrome Operators (ADO's) in relation to the aeronautical data and information published in the IAIP and on aeronautical charts. The ADO needs to register the AIP Responsible Person with Airservices Australia. The AIP Responsible Person has the primary responsibility for providing and maintaining data or information, as listed in the Data Product



Specification (DPS). CASR Part 175.D requires the Aerodrome Operator to review, at least annually, the aeronautical data and information published in the IAIP.

## Risk Assessment

The primary objective of risk management is to carefully examine the aerodrome's operating environment to identify aviation safety risks and assess those risks to determine if enough precautions have been taken to eliminate the risks, or where the risks cannot be eliminated, mitigate those risks to an acceptable level.

**Methodology:** Australian Standard AS/NZ 4360:2004 Risk Management provides a framework for identifying and evaluating risks. Council's Enterprise Risk Management framework has been developed in accordance with the abovementioned standard.

This risk assessment has been undertaken with context to CASA's Sector Safety Risk Profile for Aerodromes.

Council's approach to risk management of the ALA involves the following:

- establishing the context in which risk is being assessed;
- identifying hazards from operation of the airstrip;
- identifying consequences arising from the hazard;
- identifying the likelihood of these consequences happening in their entirety;
- carrying out an analysis and assessment of the risk issues identified taking note of mitigation measures that are in place; and
- Recording of information in the Corporate Risk Register.

In preparation of this risk assessment, stakeholder engagement was undertaken with the following personnel:

- Greg Abbotts (Manager Development & Environment)
- Matthew Kerr (Coordinator Open Spaces)

**Establishing Context (Aviation Safety Risk):** At an aerodrome, aviation safety risk management is about the impact of hazards and risks that are present to aircraft (in flight, parked on the apron or manoeuvring on the ground), and aerodrome personnel and passengers, from operating aircraft.

**Summary of Key Risks:** The key risks to Council associated with operation of the Emu Park Aerodrome are outlined as follows:

- Aircraft Crash Incidents (caused by ineffective aerodrome management and operations - poor monitoring and maintenance of runway surface conditions, Obstacle Limitation Surface, foreign object debris, wildlife management, security, wind direction indicator (WDI), ground-to-air communications and staff training).
- Public and Staff Safety (Aerodrome is not fenced and has insufficient signage notifying the public that the aerodrome is operational and subject to restricted access).
- Known hazards not sufficiently documented in En Route Supplement Australia (ERSA).
- Aerodrome obstacles (to Obstacle Limitation Surface) not actively managed.
- Town Planning Scheme fails to support Obstacle Limitation Surface (OLS) of Aerodrome.
- No emergency response planning.
- Limited 'ground-to-air' communications.
- Community/social responsibility (lack of meaningful engagement with community to determine suitability of aerodrome characteristics and facilities against community needs, expectations, and interests).

- Breach of Trustee duties and responsibilities (Land Act 1994) due to commercial use of Aerodrome.
- No replacement schedule or respective budget considerations for ongoing replacement of aerodrome equipment (markers, gables and windsock).

Refer to Annexure A 'Risk Register – Emu Park Aerodrome' for details on hazard identification, risk assessment, and additional mitigation measures required.

### Mitigation Measures

The following risk mitigation measures have been developed to assist Council with managing risks associated with ongoing management of the Emu Park Aerodrome (ALA):

1. Develop an Aerodrome Operating Procedure (to include:
  - Maintenance arrangements – specific intervention levels and associated responsibilities.
  - Replacement schedule of equipment (markers, windsock).
  - Inspection schedule and associated checklist.
  - Communication Procedures – ground-to-air via signal circle | notification of hazards via ERSA (Airservices Australia) and internal communications for authorised use.
  - Training and education requirements for officers with respective roles and responsibilities).
2. Develop an Emergency Response Plan (for inclusion within the Aerodrome Operation Procedure).
3. Update the En Route Supplement Australia (ERSA) to include known hazards.
4. Review Obstacle Limitation Surface (OLS) requirements from a town planning perspective.
5. Review last Obstacle Limitation Survey (2020) to determine required actions associated with vegetation control.
6. Investigate what agreements are in place for commercial activities and use of the Aerodrome.
7. Training of relevant officers (post implementation of the Aerodrome Operating Procedure).
8. Install signage at all entry points to the aerodrome to make the public aware of aerodrome operations and restricted access.

### Risk Summary

The purpose of this risk assessment was to identify and assess operational risks to Council associated with operation of the Emu Park Aerodrome (ALA).

The assessment indicates that the level of risk posed to Council through operation of the Emu Park Aerodrome is **HIGH**, and although control measures may assist to reduce the likelihood of a risk, the severity of risks will remain high due to the nature of aviation operations.

Council must therefore be willing to **ACCEPT** the high level of risk, but also execute its duty of care to manage these known risks appropriately to support the safe operations of this community facility.

Management should therefore commit to the undertaking of the mitigation strategy, as outlined above, to ensure ongoing effective risk management of aerodrome operations.

ANNEXURE A - 'RISK REGISTER - EMU PARK AERODROME'

Risk Register - Emu Park Aerodrome (YEMP)

Risk Title		Risk Cause		Consequences		Inherent Risk	Controls (existing)		Residual	Risk Owner	Treatment Plan
						Rating			Rating		Additional control measures required
Aircraft Crash/ Incidents		Ineffective aerodrome management and operations (poor monitoring and maintenance of runway surface conditions, Obstacle Limitation Surface, Foreign Object Debris, wildlife management, security, Wind Direction Indicator, ground-to-air communications, staff training).		Safety - loss of life (pilots, passengers, groundsmen, public). Legal and financial litigation. Reputation.		High	Aerodrome subject to routine vegetation maintenance by Council's Open Spaces Team. Aerodrome operations guided by AC 91-02 Advisory Circular: Guidelines for aeroplanes with MTOW not exceeding 5 700 kg – suitable places to take off and land'.		High	Aerodrome Manager	Develop an Aerodrome Operating Procedure (outlines maintenance arrangements and associated intervention levels, inspection regime, responsibilities, safety risk management, communication procedures for pilots seeking permission to use ad/or information on hazards.
Public and Staff Safety		Aerodrome operations. The aerodrome is not fenced, and may be accessed by people without valid reason for doing so (including access to other properties). Insufficient signage notifying public that the aerodrome is operational, with restricted access.		Safety - loss of life.		High	One signpost containing 2 signs currently exists on main entrance, however one sign is faded and the other sign states 'No Entry - Authorised Personnel only'. Signs do not sufficiently advise of aerodrome operations.		High	Aerodrome Manager	Install signage at all entry points to the aerodrome to make the public aware that the aerodrome is operational, and to be aware of aircraft.
Known hazards not sufficiently documented in En Route Supplement Australia (ERSA).		Lack of commitment and action by Management to rectify known hazards/ operational deficiencies, and or inclusion of known hazards in ERSA to advise pilots of safety risks. NOTE: YEMP is not a certified aerodrome and therefore not part of the NOTAM system. En Route Supplement Australia (ERSA) should therefore list all 'known' hazards. Refer to 2020 Compliance Audit - Recommendation 5 - 'Consider publishing a note in ERSA regarding the steep initial slope of the northern end of the runway', and Recommendation 7 'Consider publishing a note in ERSA regarding excessive transverse slope at the northern and southern ends of the runway'.		Pilot/passenger safety - loss of life.		High	Pilots required to visually check suitability of ALA prior to landing, and perform a go-around if required.		High	Aerodrome Manager	Update ERSA to include known hazards.
Aerodrome obstacles (to 'Obstacle Limitation Surface') not actively managed		Lack of commitment and action by Management to rectify known hazards as identified through Obstacle Limitation Surveys.		Pilot/passenger safety - loss of life.		High	It is the responsibility of the pilot to determine suitability of the aerodrome for use.		High	Aerodrome Manager	Review last Obstacle Limitation Survey (2020) to determine action/maintenance required. Determine appropriate frequency for the undertaking of OLS Surveys.
Town Planning Scheme fails to support Obstacle Limitation Surface (OLS) of Aerodrome.		Council's planning scheme fails to take into account the Obstacle Limitation Surface (OLS) surrounding the Aerodrome. Council have an option within town planning provisions to control infrastructure developments on land adjacent to the aerodrome to protect the OLS.		Safety - loss of life.		High	NIL		High	Aerodrome Manager	Review OLS requirements from a Town Planning perspective.
No Emergency Response Planning.		No internal procedures documenting process to follow during/post an aviation incident (i.e. placing aerodrome under unserviceable status and advising Airlservices Australia, preservation of incident scene etc.		Safety.		High	QFES Fire & Emergency Services Station located within Emu Park, serviced by Auxiliary Staff. QFES would assume incident control responsibilities.		High	Aerodrome Manager	Develop an Emergency Response Plan as an annexure to the Aerodrome Operating Procedure (i.e. list of key contacts, procedures for communicating that the ALA is unserviceable etc).
Limited 'Air to Ground' Communications.		Communication between groundsmen and aircraft limited to signal circle as Council do not have CTAF radios.		Safety of pilot/passengers, and/or LSC groundsmen and public.		High	Signal Circle. Maintenance crew trained on how to mark 'unserviceability' of aerodrome by placing an 'X' in the signal circle.		High	Aerodrome Manager	Deliver refresher training to maintenance crew Re: Aerodrome Safety for Groundsmen
Community/ Social Responsibility.		Lack of meaningful engagement with community to determine suitability of aerodrome characteristics and facilities against community needs, expectations and interests.		Reputation -loss of confidence in Council.		Medium			Medium	Aerodrome Manager	
Breach of Trustee duties/responsibilities (Land Act 1994) due to commercial use of Aerodrome .		Ski Diving Capricorn utilise the aerodrome for commercial purposes.		Legal Litigation and enforced penalties.		High	NIL		High	Aerodrome Manager	Investigate what agreements are in place for commercial activities.
No replacement schedule and respective budget considerations for ongoing replacement of aerodrome equipment (markers, gables and windsock).		Lack of forward planning for aerodrome.		Financial - budget implications.		High	NIL		High	Aerodrome Manager	Maintenance Plan incorporating a Replacement Schedule to be included within Aerodrome Operating Procedure (yet to be developed).