



Policies, Procedures and Guidelines

DRONE OPERATING POLICY

1. OBJECTIVE

The objective of this policy is to ensure that any use of a Remotely Piloted Aircraft (Drone) by Council staff and contractors is undertaken in accordance with Civil Aviation Safety Authority requirements and industry standards and applicable relevant legislation.

2. SCOPE

This policy applies to workers and contractors completing work for Lachlan Shire Council that makes use of drone technology.

The scope of this policy relates to use of a drone that's no more than 2kg in weight. Use of any larger drones are out of scope and not permitted under this policy, unless approved by the General Manager.

3. DEFINITION

Drone - An unmanned aircraft, unmanned aerial vehicle (UAV) or unmanned aircraft system (UASe). A remotely piloted aircraft (RPA) is a drone flown for business or as part of your job – commercially. Essentially, a drone is a flying robot that can be remotely controlled or fly autonomously through software-controlled flight plans in their embedded systems, working in conjunction with on-board sensors and GPS.

4. POLICY

Drone operation is regulated by the Civil Aviation Safety Authority (CASA) and Lachlan Shire Council employees and contractors will follow all Rules and Regulations set out by CASA.

4.1 Drone Registration

Any drone to be used for Council business needs to be [registered with CASA](#).

4.2 Drone Operation

Only staff who hold a current Aviation Reference Number and have completed RPA operator accreditation with CASA may fly a drone for Lachlan Shire Council. You do not need an operator accreditation if you hold a [remote pilot licence \(RePL\)](#)

Drone operation is also subject to:

- Submitting a flight plan for pre-approval via your line manager or director
- Conducting a risk assessment for each planned flight
- Maintaining a flight log, noting the CASA can ask to see records at any time
- Acceptable Council business use only at all times
- No personal or private use at any time

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A remote pilot licence (RePL) is not required, unless there is a need to fly:

- a drone larger than 2 kg for commercial operations - any time you earn money for flying
- outside the drone safety rules (standard operating conditions)

General Manager approval is required for the above activities.

4.3 Drone Safety

To protect yourself and the safety of other people when you fly, you must follow the [CASA's Standard Operating Conditions](#).

You **must**:

- a) only fly one drone at a time
- b) always fly the drone within visual line-of-sight — this means:
 - flying only during the day
 - avoid flying in cloud, fog or heavy rain
 - you can see your drone with your own eyes at all times — not by using binoculars or watching a video screen
 - not flying behind trees, buildings or anything else that stops you seeing your drone at all times.

You **must not** fly your drone:

- a) higher than 120m above ground level (please note Drone is automatically locked at 100m)
- b) closer than 30 m to people — other than those helping to fly or navigate your drone
- c) over or above people at any time or height
- d) in a way that creates a hazard to another person, aircraft or property
- e) near emergency situations, unless authorised by the controlling emergency service authority
- f) in prohibited or restricted airspace
- g) closer than 5.5 km to a **controlled** aerodrome or airfield (usually those with a control tower).

You may operate the drone within 5.5 km of a **non-controlled** aerodrome or helicopter landing site only if:

- a) there are no manned aircraft (one or more people inside) flying to or from the aerodrome
- b) you land as soon as safely possible if you see any manned aircraft flying to or from the aerodrome
- c) you stay outside the airfield boundary*
- d) you do not operate in approach or departure paths*.

The above must be checked as current within CASA guidelines [RPA Operations](#)

4.4 Privacy

Drones are to be used in accordance with the pre-approved flight plan, and at no time are they to invade the privacy of people. This means residents in the area may need to be consulted on / advised about the planned flight in advance, to ensure there is no real or perceived invasion of privacy. This includes owner approval to fly over any private property.

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All imagery, video and audio collected by Lachlan Shire Council staff and contractors is subject to the *Privacy and Personal Information Protection Act 1998* (PIIP Act) and Lachlan Shire Council's Privacy Management Plan (as adopted) and remains the property of Lachlan Shire Council.

5. RELATED DOCUMENTS

Work Health and Safety Act 2011

Privacy and Personal Information Protection Act 1998 (PIIP Act)

CASA Standards

Lachlan Shire Council Code of Conduct

Greg Tory

GENERAL MANAGER

Appendix 1: Drone Operating Procedure

Appendix 2: Drone usage Checklist

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APPENDIX 1 DRONE OPERATING PROCEDURE

Accreditation and Registration

Pilot Accreditation: <https://www.casa.gov.au/drones/accreditation>

Drone Registration: You must also [register your drone or RPA](#) if it's flown for business or as part of your job.

Booking:

When the use of a drone is required, a booking must be made with Information Services (IS) branch a minimum of 7 days prior to the required date including details on the need for a pilot if required.

Flight Plan

Flight plans should be created of the proposed work area well in advance of operating the drone on site and submitted for approval via your line manager or director.

Staff should use the following for internal use to Council, and only submit it to CASA if Flight Authorisation is required and this requires pre-approval by the General Manager.

When creating the plan, the pilot must comply with all CASA 'standard operating conditions'.

This will need to include, but not be limited to:

1. Restricting people movement, to ensure no people are within the operating area
2. Ensure the pilot has clear line of sight

In addition, the following can be used to help map / capture flight data and assess risk:

- AVCRM: this is the preferred system which is provided at no cost to Council. Contact IS for access [AVCRM contact](#)
- Pix4d and/or Digiflight and/or any IS approved systems

Pre-Flight Checklist:

Prior to taking the drone out into the field the following list of items must be checked:

- Remote Control is charged
- Drone Batteries are charged
- Mobile Device is charged
- Firmware up to date

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- SD Card of adequate size
- USB cable to connect mobile device to controller
- Flight plan has been created
- Weather on site
- Propellers are in good condition

See Appendix 2 for a paper based Drone Usage Checklist or log in AVCRM or other acceptable system.

Risk Assessment:

A flight specific risk assessment must be completed before any drone is launched.

You **must** follow the:

- [drone safety rules](#) that apply to all [types of drones](#)
- standard operating conditions for micro and excluded category RPA.

To understand the rules and standard operating conditions that apply:

- download or print the [Micro and Excluded Category RPA Plain English Guide](#)

Take off/Landing Zone:

Once the pre-flight checks are complete a suitable take-off and landing area for the drone must be identified. Things to consider are:

- Drone is on stable, level ground
- Immediate area is clear of obstructions
- Overhead is clear of obstructions

The area must be clear of people other than the drone operator.

Flight log

A flight log must be used to record flight details, using the [CASA RPA flying hours log book](#) or AVCRM.

Drone Operation:

The operation of each drone will vary however the following basic steps should be considered;

- 1) Connect the mobile device to the controller
- 2) Turn on mobile device, controller then the drone.
- 3) Start preferred flight software (DJI, Litchi or Drone deploy)
- 4) Controller and drone should synchronize and the drone will connect to GPS Satellites.
- 5) Upload flight path to drone via the flight software,(N/A for free flight)
- 6) Configure the required video or imagery settings.

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- 7) Press play on the mission, but pause the mission once drone is about a meter off the ground to make sure it is working correctly.
- 8) Resume mission.
- 9) Drone will return home on completion of the uploaded flight path or when the home command is given. Please note that drone will automatically return home when pre- determined battery levels are or have been reached.

Post Flight

- Log book completed
- Check Drone for any damage (Report all damage to IS staff)
- Remote Control packed away
- Batteries packed away
- Mobile Device packed away
- Drone packed away

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APPENDIX 2 DRONE USAGE CHECKLIST

Drone Usage Checklist

Date: _____ Time: _____ Location: _____

Drone Operator: _____

Aviation Reference Number: _____ Expiry Date: _____

Purpose: Weed Insp. Asset Insp. Illegal Dumping

Other specify _____

Weather Conditions: _____

Pre-Flight Inspection

Flight plan approved: Yes / No CASA notified of flight: Yes / No

Flight log book filled in: Yes / No People management in place: Yes / No

Firmware Updated Yes / No Maps Downloaded Yes / No

App Updated Yes / No SD Card Available Yes / No

Drone Batteries Status Full Half Low (do not operate)

Transmitter (Controller) Full Half Low (do not operate)

Inspect Drone for obvious defects Yes / No

Propellers tightened / locked and checked for defects Yes / No

Remove Gimbal Guard Yes / No

Antenna up Yes / No

Transmitter turned on Yes / No

App of choice switched on and connected Yes / No

Drone turned on Yes / No

Compass calibrated Yes / No

Minimum RTH height set Yes / No

Check satellite status Yes / No

Drone in safe launch and landing position Yes / No

Check home point Yes / No

Area clear of people Yes / No

If you answer NO to any of the above, DO NOT launch the drone. Rectify first. This may mean you need to reschedule the flight.

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Pre- flight comments:

Take-Off Checklist

Check for any other aircraft overhead	Yes / No
Warn bystanders of imminent take-off	Yes / No
Hover for 20 seconds – look / listen for defects?	Yes / No
Monitor battery power	Yes / No

Post Flight Checklist

Power down drone	Yes / No
Install Gimbal Guard	Yes / No
Store batteries or recharge	Yes / No
Power down display device and remove	Yes / No
Power down controller and store	Yes / No
Propellers removed and stored	Yes / No
Flight log book filled in:	Yes / No

Post Flight comments:

Signed: _____

Name: _____

Date: _____

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