

# JANDAKOT AIRPORT FERAL ANIMAL MANAGEMENT PLAN

# CONSERVATION MANAGEMENT PLAN APPENDIX F

Jandakot Airport Holdings Pty Ltd 16 Eagle Drive Jandakot WA 6164

## **Amendment History**

Version	Issue Date	Description	Prepared By	Approved By (JAH)	Approved by (DOEE)
1	15/07/2011	First version	Joanne Wann (JAH EM)	J. Fraser	
2	22/01/2014	Major revision	Joanne Wann (JAH EM)	J. Fraser	S.Gaddes 8/4/14
3	03/06/2019	Minor revision	Joanne Wann (JAH EM)	J. Fraser	TBC

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#### 1 Introduction

The objective of this Feral Animal Management Plan (FAMP) is to control populations of feral and overabundant native species so that:

- Impacts on native wildlife and associated values are minimised
- Impacts on human health and safety are minimised.

This plan is aligned with the Jandakot Airport Master Plan 2014 and is a component of the Jandakot Airport Conservation Management Plan. JAH has also developed a Wildlife Hazard Management Plan (WHMP), however the aims and objectives of the WHMP are different to that of the FAMP. Required under the Civil Aviation Safety Regulation 1998, the purpose of the WHMP is to minimise the risks to aircraft and operations caused by wildlife activities on and in the vicinity of the airport.

It is recognised that feral animal management within remnant bushland in an urban setting is a complex task, especially when there is increasing pressure from surrounding urban development and neighbouring properties are subjected to differing (or no) feral management practices.

Reinfestation of targeted feral animals is likely to eventually occur in most instances. Whilst benefits may be achieved by potentially coordinating feral animal management programs with neighbouring landholders, in reality, 'control' is considered more realistic and achievable than eradication at Jandakot Airport.

## 1.1 Related and Supporting Procedures

The following Jandakot Airport documentation pertains to this FAMP and the WHMP:

- PR501 Handling of Animal Remains
- PR212 Wildlife Culling and Dispersal Procedure
- PR218 Reporting Animal Strikes
- PR710 Firearm Procedure.

#### 2 Domestic Animals

The JAH Policy on domestic animals (specifically cats and dogs) is that all domestic animals are prohibited from conservation and airside precincts of Jandakot Airport. Domestic animals are permitted within landside areas, though they are not permitted to be housed on site. In these instances, local laws and regulations in regards to domestic cats and dogs are applicable at Jandakot Airport. The airport lies entirely within the boundary of the City of Cockburn, with the northern boundary of the airport forming the southern boundary of the City of Melville and the north east Airport boundary abutting the City of Canning.

#### 2.1 Cats

Domestic cats from nearby residences may hunt for birds, reptiles and other animals, especially at night.

Under the *Cat Act 2011* (the Cat Act), all domestic cats over 6 months of age need to be sterilised, micro-chipped and registered. Local governments are responsible for administering and enforcing the legislation.

The City of Cockburn supports responsible cat ownership and provides advice and guidance on keeping cats within the City in accordance with the requirements of relevant legislation. The City of Melville and the City of Canning have similar approaches.

Domestic cats captured at Jandakot airport will be passed on to the City of Cockburn Ranger Service (Tel. 9411 3444) or the Shenton Park Cat Haven (Tel. 9442 3600) where they will be either returned to their owners (if micro-chipped) or re-homed.

### 2.2 Dogs

Local government authorities are responsible for administering and enforcing the *Dog Act* 1976 within their municipalities. The Act states that 'a dog shall not be in a public place unless it is:

- a) Held by a person who is capable of controlling the dog; or
- b) Securely tethered for a temporary purpose; by means of a chain, cord, leash or harness of sufficient strength and not exceeding the prescribed length.'

These rules apply at Jandakot Airport.

In the event that a domestic dog is found unrestrained without their owner at Jandakot Airport, the City of Cockburn Ranger Service (Tel. 9411 3444) will be contacted.

## 3 Overabundant Native Species

Overabundance of native species is considered to occur when:

- Animals exceed the carrying capacity of the property
- Animals cause unwanted effects to their ecosystems
- Animals impact on endangered species
- Animals impact on humans (particularly from a safety perspective) and/or livestock.

Management of Overabundant Native Species is addressed below.

## 3.1 Macropods (Wallabies and Kangaroos)

Kangaroos (Western Grey Kangaroos, *Macropus fuliginosus*) and wallabies (Western Brush Wallabies, *Macropus irma*) pose a high risk to aircraft in the vicinity of the runways. Refer also to the Jandakot Airport Conservation Management Plan for management actions associated with Western Brush Wallabies.

#### 3.1.1 Management Methods

**Exclusion.** Exclusion of macropods is generally an effective way to manage macropods in the vicinity of an airport. In recent years JAH has taken action to ensure that bushland habitats supporting macropod populations (1A, 1B and 2A) are appropriately fenced from aircraft movement areas and landside developments where they may otherwise pose a risk to aircraft safety and vehicles. Where there is a risk of macropods digging beneath fences, fence lines are regularly inspected and any diggings are filled in, or are fitted with vermin-proof 'skirts'.

<u>Deterrence.</u> Deterring macropods from aircraft movement areas generally involves removing features of the airport and its surrounds that are attractive to problem species. Given that macropods are now physically excluded from aircraft movement areas, deterrence is no longer considered a necessary or practical method to employ at Jandakot Airport.

<u>Harassment.</u> In the rare event of a breach of exclusion fencing by a macropod, harassment/hazing and dispersal from runways and airstrips is the most immediately effective method. Methods of harassment/hazing to encourage a macropod to return to a Conservation Precinct (via existing gates) include use of pyrotechnic charges (e.g. bird fright cartridges), vehicles and personnel on foot.

Lethal Management. Limited lethal control methods will be employed at Jandakot Airport when warranted, based on the risk posed by the species and their activities. Lethal control methods on macropods will only be necessary in the event of an animal breaching exclusion fencing into aircraft movement areas and staff being unable to safely remove the animal. As such, lethal control methods are rarely used for macropods at Jandakot Airport. An annual "Licence to Take Dangerous Fauna" is obtained from the WA Department of Biodiverity, Conservation and Attractions (DBCA) allowing for an agreed number of Western Grey Kangaroos and Western Brush Wallabies to be 'taken' annually.

#### 3.2 Birds

Birds and bird strike are a recognised problem at many airfields and airports both nationally and internationally. Bird strike can pose a significant safety risk to pilots and passengers and can result in considerable damage to both rotary and fixed wing aircraft. Bird strike is more common during take-off and landing than at other times during an aircraft's flight.

Impacts from bird strikes are primarily associated with safety, increased costs and reduced flying time. Whilst a severe bird strike can potentially result in an aircraft crash, the majority of bird strikes generally result in damage to the aircraft. The extent of impact is dependent on many factors, including the size and number of birds, the speed of the aircraft and the component hit (turbines and windscreens are the most vulnerable). Generally, bird strikes that have resulted in crashes have been due to flocks of large birds that have been ingested into the engine causing failure, or collided with the windscreen resulting in loss of visibility during a critical time (e.g. during take-off and landing).

The WHMP is the primary document addressing management of birds that pose a risk to aircraft safety. The information below is consistent with the WHMP.

## 3.2.1 Management Methods

<u>Exclusion.</u> Exclusion of problem birds is difficult and this method will generally be effective only for flightless birds. Exclusion of the birds from attractive areas and features is more commonly used and this may include constructions that minimise perching, access to nesting sites and artificial water supplies. Excluding birds is difficult and expensive and may only be feasible in certain situations. Exclusion methods are not generally applicable at Jandakot Airport but will be considered if warranted.

<u>Deterrence.</u> Deterrence is often the easiest and most effective way of reducing the incidence and severity of bird strike. It generally involves removing features of the airport and its surrounds that are attractive to problem bird species. Deterrence should be integral to the airport's design, operation and maintenance. Therefore the effect that all development, operation or management activities will have on bird and wildlife management needs to be considered.

Appropriate drainage management and grass maintenance are important to ensure that the area is not attractive to birds. Some grass and sedge species are known food sources for birds, whilst wading birds are attracted to drains that contain emergent vegetation as a food source. Eliminating standing water on pavements, maintaining grass at a height between 50 and 300 mm, removing food sources such as seed heads and removing cover so that the airfield is less attractive to the birds are all important management activities that can be considered, although these will depend on the species of the problem bird. Other deterrence activities may include:

- regularly inspecting and maintaining drains (removing emergent vegetation) to discourage wading birds
- controlling insects or removing insect attractants, including extinguishing runway lights when not required to reduce the number of insects available as a food source
- removing dead birds and other animals, and managing wastes to avoid attracting scavenger birds
- removing nests, roost sites and perch sites where possible (note depending on the type of species and the stage of breeding, the removal of nests may require a licence/permit from the DBCA).

Deterrent methods are and will continue to be employed at Jandakot Airport to reduce the risk of bird strike. In particular, grassed vegetation in the proximity of runways will be maintained at an appropriate level to deter bird activity, and stormwater and irrigation will be managed to reduce pooling on pavements and within open drain systems. Any dead birds found on or in the vicinity of runways will be removed and reported in line with the existing Safety Management System and Air Transport Safety Bureau (ATSB) requirements.

<u>Harassment.</u> Bird harassment and dispersal of birds from runways and airstrips is usually the most immediately effective tool in bird management. However, harassment will generally need to be associated with a real threat to be effective in the long term as birds will soon learn that the threat is not real. The use of a real threat is therefore a more effective harassment technique in the long term. Harassment should be undertaken during operational hours. Concerted harassment effort in the first two hours after sunrise can result in a reduced number of birds for the rest of the day. Other harassment and dispersal methods that can be effective include vehicle lights, sirens and horns, pyrotechnic charges (e.g. Bird Frite), recordings of distress calls, whips and firearms. In some circumstances bird scaring devices may also be used to deter specific species of birds from nesting in aircraft and facilities.

Harassment methods at Jandakot Airport will primarily be utilised in the form of Bird Fright cartridges and other auditory deterrents as required in response to potentially unsafe bird activity.

**<u>Lethal Management</u>**. In some situations, lethal management methods must be used where there is a significant threat to safety and non-lethal methods do not adequately mitigate the risks. They should generally be considered as an emergency or short-term solution only. Lethal methods can also increase the effectiveness of related non-lethal methods, such as a combination of noisemakers and the actual shooting of birds.

Limited lethal control methods will be employed at Jandakot Airport when warranted based on the risk posed by the species their activities. Currently, an annual "Licence to Take Dangerous Fauna" is obtained annually from the DBCA that includes:

- Banded Lapwing (Vanellus tricolour)
- Australian Raven (Corvus coronoides)
- Australian Shelduck (*Tadoma tadornoides*)
- Galah (Cacatua roseicapilla)
- Maned Duck (Chenonetta jubata)
- Pacific Black Duck (Anas superciliosa)
- Straw-necked Ibis (*Threskiornis spinicollis*)
- Eastern Long-billed Corella (Cacatua tenuirostris).

#### 4 Feral Animals

Feral animals are those species that have the potential to cause serious impact on natural systems through direct effects such as predation, habitat destruction, competition for food and territory, introduction of disease, and through environmental degradation such as that caused by over-grazing. Feral animals can be either native species that are impacting on nature conservation values (for instance, from unsustainable populations) or introduced species that have established wild or naturalised populations.

Introduced animals such as feral cats, foxes, rabbits and bees potentially occur at Jandakot Airport and all have a detrimental effect on nature conservation values. The control and removal of these introduced animals will help protect the native fauna and flora of Jandakot Airport.

#### 4.1 Rabbits

Rabbits at Jandakot Airport are controlled using 1080 oat rabbit baits. Whilst rabbit baiting can occur at any time of year, baiting is usually conducted in later summer to early autumn when feed is at a minimum and rabbits are foraging for food.

Rabbit baiting at Jandakot Airport will be undertaken according to conditions detailed in the approved permit. This typically includes:

- Ensuring nominated approved users are appropriately trained
- Compliance with relevant sections of the Poisons Act 1964 and the 1080 Code of Practice.

Airport tenants and neighbouring landholders need to be advised of the baiting program 3-14 days in advance of the baiting event. A sign check should also be conducted prior to the bait laying session and any missing signs replaced.

All rabbit carcasses found should be buried on site. Following a baiting event, the number of rabbit carcasses found on site should be noted by Airport Services Officers/Grounds Staff and details (number, date and located) forwarded to the Jandakot Airport Holdings Environment Manger for inclusion in the Environmental Site Register. This will aid in assessing the effectiveness of the baiting program.

If JAH do not have the internal resources to undertake 1080 rabbit baiting, the baiting may be undertaken by a licensed contracted vertebrate pest controller.

Outside of approved 1080 baiting windows, rabbits may be controlled, if warranted, using alternative methods such as firearms, trapping and warren destruction.

If rabbit activity is monitored and assessed to be low, possibly as a result of myxomatosis or the rabbit haemorrhagic disease virus (RHDV) moving through the population, then 1080 baiting (and the risks associated with undertaking 1080 baiting) may not be warranted. Similarly, if alternative control methods are successfully employed (e.g. a managed release of RHDV), then 1080 baiting may not be warranted. If a scheduled 1080 baiting event is not undertaken, this must be documented with justification and reported within the Annual Report.

#### 4.2 Foxes

Foxes at Jandakot Airport are controlled using 1080 baits. The most effective fox control is usually achieved in late winter and spring. At this time food demands are high as foxes are rearing young. Foxes are also less mobile so reinfestation of baited areas can be delayed. At other times (especially autumn), foxes are more mobile. Jandakot Airport will undertake at least one fox baiting event annually, with a second event to potentially occurr in conjunction with the peak rabbit baiting event (i.e. late summer to autumn) if required.

Fox baiting at Jandakot Airport will be undertaken according to conditions detailed in the approved permit. This typically includes:

- Ensuring nominated approved users are appropriately trained
- Compliance with relevant sections of the Poisons Act 1964 and the 1080 Code of Practice.

Airport tenants and neighbouring landholders need to be advised of the baiting program 3-14 days in advance of the baiting event. A sign check should also be conducted prior to the bait laying session, with any missing signs replaced. Therefore, there are potential efficiencies in conducting rabbit and fox baiting concurrently.

All fox carcasses found should be buried on site. The number of fox carcasses found on site should be noted by Airport Services Officers/Grounds Staff and details (number, date and located) forwarded to the Jandakot Airport Holdings Environment Manger for inclusion in the Environmental Site Register.

If JAH do not have the internal resources to undertake 1080 fox baiting, the baiting may be undertaken by a licensed contracted vertebrate pest controller.

Outside of approved 1080 baiting windows, foxes may be controlled, if warranted, using alternative methods such as firearms and trapping.

## 4.3 1080 Approvals

Approval to use 1080 is obtained from the relative regulatory agency (either the DBCA or the Department of Primary Industries and Regional Development (DPIRD)) in advance of the planned baiting. The 1080 Authorisation Voucher/Permit is received by an accredited site staff member or contractor who then procures the baits from a certified supplier. Baits are handled and laid according to the approved permit.

### 4.4 Cat Trapping

Feral cat trapping can potentially be conducted throughout the year. Cat trapping is undertaken by either approved Airport Services Officers or a contractor. As cat trapping is potentially very labour intensive, it is typically only undertaken in response to reported repeated cat sightings/evidence. If trapping is required, it is typically undertaken for a 1-week period and repeated every 4-6 weeks until multiple cat sightings/evidence are no longer noted.

Captured feral cats are euthanased and buried in approved pits. All trapping events are to be recorded along with details of the number of animals trapped and euthanased.

Trapping and euthanasia should be conducted in accordance with "Model Code of Practice for the Humane Control of Feral Cats" NSW Department of Primary Industries. This document refers to relevant Standard Operating Procedures (SOPs) that should be adhered to, including:

- Ground shooting of feral cats
- Trapping of feral cats using cage traps
- Trapping of feral cats using padded-jaw traps.

The above documents can be found at:

http://www.environment.gov.au/biodiversity/invasive/publications/humane-control.html

In addition to the Code of Practice and SOPs, the following should be noted:

- As a general guide, traps can be 'set' after sunset (e.g. after 6pm) and should be checked and disabled as soon as practical after sunrise (e.g. before 7am). Trapping during the day is likely to capture non-target animals and should therefore be avoided.
- Traps should be set where morning shade will lie to avoid hot conditions and to maximise cover during cold or wet conditions.
- Traps should be covered in hessian top and sides. This increases cover and comfort (wind, sun and some dampness) for the trapped animals, as well as making the trap more appealing.
- Traps should be marked with stakes and flagging tape to prevent them being lost and to allow another operator to find them in an emergency.
- Traps and hessian must be kept clean and hygienic. Pressure-wash the traps on completion of use and dispose of any soiled hessian.
- Feral cats like a smelly bait, but rotten bait is not humane or effective.
- Fauna often found in cage traps include bandicoots, crows and bobtails. Bobtails and crows are diurnal and indicate that the trap has been 'set' too early in the evening. Assess fauna briefly for injuries or distress before releasing where caught.

#### 4.5 Bees

Feral honeybees (*Apis mellifera*) are introduced bees that originally escaped from hives and have become established in the wild. Colonies can be found in many parts of WA, usually living in tree hollows.

Honeybees have several impacts on native environments. They:

- take tree hollows that are needed by native birds and animals, making it hard for some species to find shelter or breed
- eat nectar and pollen which native birds, insects and other animals need to survive, possibly forcing these native species out of an area
- may affect the pollination of native plant species.

Feral honey bee hives are generally not known to occur in the Conservation Precincts due to the absence of large hollow bearing trees. Hives and swarming bees are occasionally found in aircraft, hangars and other buildings at the airport, primarily in spring. Any hives found at Jandakot Airport will be removed by specialists (beekeepers or pest controllers).

## 5 Monitoring

All sightings and reports of feral and overabundant native species associated with air safety management are to be recorded in the JAH Safety Management System. Additionally, sightings and incidents not directly associated with aircraft safety will also be recorded.

The JAH Environment Manager is responsible for maintaining a record of all feral and overabundant native species incidents within the JAH Safety Management System and providing a summary in the JAH Environmental Site Register.

### 6 Reporting Requirements

Reporting against actions described in this plan will be included within the Jandakot Airport Annual Environment Report (AER). In line with the *Airports (Environment Protection)* Regulations 1997, the AER will be submitted to the Department of Infrastructure, Regional

Development and Cities (DIRDC) by 28<sup>th</sup> October each year. A copy of the report will be provided to DOEE by 28<sup>th</sup> October each year.

## 7 Review and Amendment of Feral Animal Management Plan

As with the overarching The Conservation Management Plan, the Feral Animal Management Plan will require regular review and amendment in order to meet practical requirements on site as changing circumstances demand.

Once amended, the Feral Animal Management Plan will be submitted to the DoEE for the Minister's approval (ref Conditions 6 and 12 of EPBC 2009/4796 approval). The approved management plan will be implemented.

The Feral Animal Management Plan will undergo a comprehensive review every 5 years. The next comprehensive review will be undertaken in 2023, however it may be reviewed earlier if required following approval of Master Plan 2019.

#### 8 **Summary of Actions**

The Table below contains a list of summary actions relating to the Jandakot Airport Feral Animal Management Plan.

Table 1. Feral Animal Management Plan Summary of Actions.				
Action		Responsibility	Timing	
Overabundant Nat	ive Species			
FAMP1	Apply for DBCA Annual Licence to Take Dangerous Fauna.	JAH EM in consultation with the OM and SASO.	Annually (or sooner if quota on licence is reached prior to expiry date).	
FAMP2	Complete 'Licence Return' for Licence to Take Dangerous Fauna and submit to DBCA.	JAH EM in consultation with the OM and SASO.	Within one month of the expiration of the license.	
FAMP3	Utilise pyrotechnics, hazing and other appropriate methods to deter bird and macropod activity.	JAH OM supported by ASOs.	Immediately in response to bird/macropod sighting in (or in vicinity of) air movement areas.	
Fox and Rabbit Ba	aiting			
FAMP4	Apply for 1080 permit renewal.	JAH EM.	Timing depends on the current processes within the issuing Department. Action should be taken to ensure the permit is issued in time for the next 1080 baiting 'window'.	
FAMP5	Notify tenants and neighbouring landholders.	JAH EM	At least 3 days prior to baiting event.	
FAMP6	Install warning signs in accordance with permit (not required if old signs are still intact).	JAH EM	At least 3 days prior to baiting event.	
FAMP7	Undertake rabbit baiting.	JAH EM, JAH EC and 1080-trained ASOs.	Annually March/April	
FAMP8	Undertake 1080 fox baiting.	JAH EM, JAH EC and 1080-trained ASOs.	Annually late winter/spring	
FAMP9	Report to JAH EM the number/date/location of any carcasses found.	JAH ASOs.	In the 2 weeks following a baiting event.	
Cat Trapping				
FAMP10	Undertake cat trapping in response to reported cat sightings and report trapping outcomes.	JAH EM in consultation with the OM and SASO.	Traps to be deployed within 5 days of a triggering event (i.e. repeated sightings or evidence of 'activity') for a period of 7 days.	
Monitoring and Reporting Requirements				
FAMP11	Report in SMS all	JAH ASOs and JAH	Within 48 hours of	

Table 1. Feral Animal Management Plan Summary of Actions.				
Action		Responsibility	Timing	
	incidents/near misses (including 'action taken') associated with feral and overabundant native species*.	EM.	incident occurring.	
FAMP12	Report all use of firearms (Bird Frite and culling) on the Firearms Register and in the SMS/AVCRM.	JAH ASOs	Within 48 hours of using firearm.	
FAMP13	Enter 'animal hazard' and feral animal incident data from SMS onto Site Environment Register and analyse for reporting within the AER.	JAH EM	Annually prior to 28 October.	
FAMP14	Report against actions of the FAMP within an Annual Compliance Report (ref Condition 16 of EPBC 2009/4796) and publish on the JAH website.	JAH EM	28 October Annually.	
FAMP15	Report against actions of the FAMP within the Jandakot Airport Annual Environment Report (AER) and provide copies to DIRDC and DOEE.	JAH EM	28 October Annually.	
Review and Amendment of FAMP				
FAMP16	Update and revise the existing Feral Animal Management Plan.	JAH EM	2023	

<sup>\*</sup> It is recognised that rabbit sightings are a common occurrence in areas of Jandakot Airport and appropriate management action is taken. Rabbit sighting are excluded from the SMS (unless associated with a specific safety incident or extenuating circumstances) in order to prevent the data being skewed in relation to the higher risk incidents.

# Glossary.

Annual Environment Report			
Agricultural and Related Resources Protection Act			
Airport Services Officer			
Air Transport Safety Bureau			
Conservation Management Plan			
Department of Biodiversity, Conservation and Attractions (Formerly			
DPAW, DEC and CALM).			
Department of Environment and Conservation. On 1 July 2013 the			
Department of Environment and Conservation separated into two			
agencies, the Department of Parks and Wildlife (DPAW - now DBCA) and			
the Department of Environment Regulation (DER – now DWER).			
Department of Agriculture and Food Western Australia (now DPIRD)			
Department of Environment, Water, Heritage and the Arts (now DOEE)			
Department of Infrastructure, Regional Development and Citi			
(previously DIRD and DIT)			
Department of Infrastructure and Transport (now DIRDC)			
Department of the Environment and Energy (previously DOE, DEWHA			
and DSEWPaC)			
Department of Parks and Wildlife (formerly DEC).			
Department of Primary Industries and Regional Development			
Department of Sustainability, Environment, Water, Population and			
Communities (Previously DEWHA and now DOEE)			
Environmental Protection and Biodiversity Conservation Act 1999			
Feral Animal Management Plan			
Jandakot Airport Holdings			
Jandakot Airport Holdings Environment Manager			
Operations Manager			
Senior Airport Services Officer			
Safety Management System (An access database used by JAH to record			
all Incidents).			
Standard Operating Procedure			
Wildlife Hazard Management Plan			

## **END OF DOCUMENT**