



Fauna Management Plan



TABLE OF CONTENTS

1. INTRODUCTION.....3

1.1 PURPOSE3

1.2 SCOPE.....3

1.3 BACKGROUND.....3

1.3.1 Vertebrate pests.....4

2. POTENTIAL IMPACTS4

3. MANAGEMENT AND IMPLEMENTATION STRATEGY5

4. STAKEHOLDER CONSULTATION..... 11

5. TRAINING AND AWARENESS..... 11

6. PERFORMANCE MONITORING 11

7. AUDITING AND REPORTING 11

8. REVIEW AND REVISION..... 12

9. REFERENCES..... 12

9.1 INTERNAL DOCUMENTS..... 12

9.2 RELEVANT LEGISLATION 12

10. DEFINITIONS 12



1. INTRODUCTION

1.1 PURPOSE

The purpose of this plan is to detail the fauna management requirements (including pest management) at Edna May Operations (EMO) with the aim of minimising or avoiding adverse impacts to fauna and fauna habitats surrounding the operations. The objectives of this plan are to:

- Prevent or minimise impacts to the abundance, diversity, geographic distribution and productivity of fauna at species and ecosystem levels;
- Minimise impacts to fauna habitats;
- Identify and control species which impact native flora and fauna;
- Adopt practices aimed at minimising impacts on fauna, including: controlling the extent of open excavations; regularly checking areas where animals could become trapped; actively managing features such as raw water storages, domestic waste storages, processing water storage, tailings supernatant pond and lighting which may attract fauna;
- Disturb land only within approved clearing envelopes; and
- Ensure that land rehabilitation is implemented progressively.

1.2 SCOPE

This plan applies to all activities undertaken at Edna May Operations and applies to all Ramelius Resources Ltd (RMS) employee, contractors and visitors.

1.3 BACKGROUND

From published records and observations, a wide variety of fauna may reside on the tenements where the Edna May Operation is located. The most recent fauna report (Outback Ecology/MWH, 2014) identified a total of 37 species (34 native species) comprising, 23 native birds, 8 native mammals, 3 reptiles and 3 introduced species. None of these species are of conservation significance and all were identified by the database searches as potentially occurring in the Study Area. The desktop study undertaken by Outback Ecology/MWH concluded that 13 species of conservation significance could potentially occur in the study area, see Table 1 below.

Table 1: Potential Occurrence of Species of Conservation Significance

LIKELIHOOD OF OCCURRENCE WITHIN THE SURVEY AREA	SPECIES OF CONSERVATION SIGNIFICANCE
Very likely to occur	Western Spiny-tailed Skink (<i>Egernia stokesii badia</i>) Rainbow Bee-eater (<i>Merops ornatus</i>) Snails of the Short-range Endemic genus <i>Bothriembryon</i>
Likely to occur	Carnaby's Black Cockatoo (<i>Calyptorhynchus latirostris</i>) Carpet Python (<i>Morelia spilota imbricata</i>) Bush Stone-curlew (<i>Burhinus grallarius</i>) Brush Bronzewing (<i>Phaps elegans</i>)
Possible to occur	Malleefowl (<i>Leipoa ocellata</i>) Shield-backed Trapdoor Spider (<i>Idiosoma nigrum</i>) Tree-stem Trapdoor Spider (<i>Aganippe castellum</i>) Chuditch (<i>Dasyurus geoffroii</i>) Red-tailed Phascogale (<i>Phascogale calura</i>) Australian Bustard (<i>Ardeotis australis</i>)

If present, these species would most likely reside in remnant vegetation areas surrounding the mining operation rather than the disturbed areas associated with the current mine and cleared agricultural land. A number of feral animals have been reported and eradication / capture programmes are implemented where required.

1.3.1 Vertebrate pests

Vertebrate pests which are known to occur locally include the following:

- Red Fox (*Vulpes vulpes*);
- European Rabbit (*Oryctolagus cuniculus*);
- Cats (*Felis catus*); and
- Wild dogs (*Canis lupus familiaris*).

Feral cat numbers fluctuate on site and where required a feral cat trapping programme is implemented (FIGURE). This programme relies on the support of the Shire Ranger based in Merredin who also covers the Westonia Shire. This ensures that all trapped feral cats are able to be euthanised whilst complying with relevant legislation and guidelines.

A fox and rabbit control programme using 1080 baiting is also implemented on site during autumn and spring periods. Baiting is completed under a current valid Restricted Chemical Product (RCP) permit issued by DPIRD and baiting is only undertaken by a nominated person listed on the Permit who is an Authorised Person and has successfully completed the DPIRD restricted chemical product training.



Figure 1: A Feral Cat caught onsite in the trapping programme

2. POTENTIAL IMPACTS

Potential impacts to fauna from mine activities and vertebrate pests include:

- Habitat loss as a result of clearing or land contamination;
- Population isolation as a result of habitat fragmentation;
- Noise impacting natural behavioural patterns of fauna;



- Death as a result of vehicle collisions;
- Death as a result of cyanide poisoning;
- Death as a result of becoming trapped in mine infrastructure and water storages; and
- Disturbance to rare or endangered species.
- Damage to crops and native vegetation;
- Competition with livestock and native animals for pasture and food;
- Erosion;
- Livestock losses; and
- Damage to neighbour relationships.

3. MANAGEMENT AND IMPLEMENTATION STRATEGY

The management actions which are implemented at EMO are detailed in Table 2. These actions ensure EMO is compliant with relevant legal requirements and aim to minimise adverse impacts to fauna and fauna habitats.



Table 2: Management Actions

REF		MANAGEMENT ACTIONS	TIMING	DELEGATED RESPONSIBILITY	EVIDENCE
General	FnMIS 1	All land clearing activities and activities with the potential to impact on fauna habitat at Edna May operations will comply with clearing permits, programme of works (POW), relevant local and state regulations and Australian standards.	Prior to Clearing	General Manager, Senior Environmental Advisor	Clearing and Ground Disturbance Procedure, Clearing Register, Internal and External Clearing permits
Stakeholder Consultation	FnMIS 2	Where required, Edna May Operations will liaise with the operations neighbours and stakeholders where land clearing, or activities may have or have had impact upon the region's flora and fauna.	Prior to Clearing	General Manager, Senior Environmental Advisor	Communications register and records. Incident reporting (INX)
	FnMIS 3	Maintain a Complaints Register to assist in indicating improvements or failings in flora and fauna management actions.	Continuous	Senior Environmental Advisor	Complaints register included in incident database (INX), Summarised in the Annual Environmental Report (AER)
Native fauna management	FnMIS 4	Firearms are not permitted within the Edna May tenement boundary without Registered Manager approval. No shooting or deliberate harming of native fauna is permitted.	Continuous	General Manager	Induction presentation. No fire arms onsite.
	FnMIS 5	Direct contact with fauna is to be avoided including no feeding of fauna, whether native or introduced.	Continuous	General Manager	Induction presentation.
	FnMIS 6	Snakes and other reptiles will not be wilfully harmed or killed. Reptiles within work areas that pose a risk to people or the animal will be reported to the Environment Department immediately. A trained reptile handler will remove and relocate the reptile to a safe location away from work area.	Continuous	Environmental Advisor, Trained Reptile Handlers	Induction, Incident reporting (INX), Reptile Handlers licence, list and training certificates, Snake relocation register
	FnMIS 7	Suspected sightings of any species of conservation significance will be reported to an Environmental Advisor. The sighting will be followed-up, investigated and confirmed and any potential risk to the species by the mining activities avoided.	Continuous	Environmental Advisor	Incident reporting (INX)
	FnMIS 8	All fauna injuries and deaths must be reported to the Environment Department immediately. If an animal is injured during mining operations (including vehicle strike traveling to and from site or a suspected poisoning)	Continuous	Environmental Advisor	Induction presentation, Incident reporting (INX)



Fauna Management Plan

EMO

Environment

REF		MANAGEMENT ACTIONS	TIMING	DELEGATED RESPONSIBILITY	EVIDENCE
		stop and check the animal. If the animal is dead and is a female marsupial check if there is any offspring in the pouch that can be saved. If offspring is alive, contact the Environment department immediately. If fauna is injured during mining operations and it is unlikely that the animal can be saved, the Environmental Advisor will organise for the animal to be euthanised using the most humane method possible. If the animal can be saved the Environmental Advisor will organise for the animal to be taken to a qualified veterinarian or carer.			
Land clearing / ground disturbance – mining and exploration activities	FnMIS 9	Conserve fauna habitat where possible by: (i) minimise the amount of native vegetation to be cleared; and (ii) reduce the impact of clearing on any environmental value. Clearing and exploration activities will only be undertaken in accordance with the Flora Management Plan and the Clearing and Ground Disturbance Procedure.	Continuous	General Manager	Clearing and Ground Disturbance Procedure, Internal and External Clearing permits, Clearing Register
Introduced fauna	FnMIS 10	An autumn and spring 1080 Baiting Programme will be completed each year to control foxes and rabbits. Cat trapping will be conducted regularly to control feral cat numbers. Cats will be humanely euthanised by the Shire Ranger or a veterinarian. Rodent baiting will be completed as required.	As required	Environmental Advisor	Cat Trapping Register, 1080 Baiting records and licence
	FnMIS 11	Appropriate waste management (including the regular covering of the landfill) and ensuring bins on site / village containing food scraps have lids to prevent attraction of fauna and increase in feral animal population. For further detail on waste management refer to the Waste Management Plan.	Continuous	General Manager	Landfill covering procedure, Weekly landfill inspection records.
	FnMIS 12	Domestic dogs and cats are not permitted within the Edna May tenement boundary. This is to prevent domesticated dogs and cats from harming native fauna.	Continuous	General Manager	Induction presentation. No domestic cats and dogs on site.
	FnMIS 13	All employees are to report animal sightings (including feral animals) to the Environmental Department.	Continuous	Environmental Officer	Incident reporting (INX) Cat trapping register
Dust	FnMIS 14	To minimise the impact of dust on fauna and their habitat dust will be managed as per the EMO Air Emissions Management Plan and Crusher and Coarse Ore Stockpile Dust Management Plan	Continuous	General Manager, Processing Manager, Mining Manager	Documented Procedures, Dust analysis readings and reports, Effective dust control



Fauna Management Plan

EMO

Environment

REF		MANAGEMENT ACTIONS	TIMING	DELEGATED RESPONSIBILITY	EVIDENCE
					systems in place and operational
Vehicle usage	FnMIS 15	In order to minimise disturbance and prevent unintentional impacts through the use of machinery and vehicles, no vehicles are to travel off designated road / tracks.	Continuous	All personnel	No vehicle off designated roads/ tracks. Incident reporting (INX)
Fauna entrapment (and impact from water bodies and excavations)	FnMIS 16	Access by fauna to the decant pond within the TSF will be limited during operations and WAD CN levels to be maintained below 50 mg/L during operations.	Continuous	Processing Manager	Monitoring records of TSF Decant. Incident reporting (INX)
	FnMIS 17	The surface of the TSF will be capped and rehabilitated with a design developed during operations.	Mine Closure	Environmental Advisor	Mine Closure Plan
	FnMIS 18	An egress point will be in place where required on the edges of water storage ponds to prevent fauna from becoming trapped and drowning.	Continuous	Processing Manager	Evidence of egress points in place.
	FnMIS 19	Excavations, sumps and drill holes will be backfilled or plugged shortly after use to prevent fauna entrapment.	Continuous	Exploration Manager, General Manager	Evidence that excavations, sumps, drill holes are backfilled or covered.
Vertebrate pests	FnMIS 20	Site and Camp bins which may contain food to utilise lids to dissuade animal pests.	Ongoing	All employees / contactors	Field Inspections
	FnMIS 21	Landfill areas to be fenced and covered with fill on a weekly basis	Weekly	Mining Supervisors	Weekly Landfill Inspection Sheets
	FnMIS 22	Vertebrate pest control activities will implement current best practice	Ongoing	Environmental Department	Weekly, monthly reports
	FnMIS 23	Site will implement a fox and rabbit baiting programme and also participate in any community-coordinated baiting activities	Ongoing	Environmental Department	Weekly, monthly reports
	FnMIS 24	A record of trapping activities will be kept	Ongoing	Environmental Department	Trapping Record Spreadsheet
Training and awareness	FnMIS 25	General site inductions and monthly prestart presentations will be used to raise the awareness of the workforce about conservation issues in regard to fauna and fauna habitat.	Continuous	Environmental Advisor	Fauna impacts and management included in induction presentation,



Fauna Management Plan

EMO

Environment

REF		MANAGEMENT ACTIONS	TIMING	DELEGATED RESPONSIBILITY	EVIDENCE
					Monthly Environmental Awareness Presentations
Monitoring and Contingencies	FnMIS 26	Regular inspections of the TSF cells (as per the Tailings Operating Manual) including the observation of any stress or deaths of fauna surrounding or within the TSF.	Operations	Processing Manager	Tailings Operating Manual, Daily TSF Inspection Log Sheets
	FnMIS 27	Regular monitoring for entrapment in excavations, sumps and water storage ponds will be undertaken.	Daily/ Weekly	Processing Manager, Mining Manager Geology Manager	Weekly Borefields line inspections, Daily processing checks
	FnMIS 28	Regular inspections for signs or observations of introduced fauna.	Continuous	Environmental Advisor	Records of inspection findings.
	FnMIS 29	If adverse impacts to fauna or fauna habitat are observed, the Environment department will be notified immediately, and an incident report prepared and submitted within 24 hrs. The incident report will identify corrective actions to be implemented and the date for their completion.	Continuous	General Manager	Incident reporting (INX). Summarised in the AER Inspection and audit reports, complaints register, stakeholder consultation database and records
	FnMIS 30	A minimum of 72 hours' notice will be given in writing to all landholders adjacent to Edna May prior to any baiting activities taking place	Ongoing	Environmental Department	Copies of Landholder Notification Letters
	FnMIS 31	All personnel collecting, or handling 1080 baits will have successfully completed the DPIRD restricted chemical product training and be an approved user	Ongoing	Environmental Department	Valid DPIRD permit
	FnMIS 32	1080 baiting signage will be displayed around site and at farm entrances as per the DPIRD permit map	Ongoing	Environmental Department	Field Inspections
Auditing and reporting	FnMIS 33	Fauna related activities and impacts will be summarised in the AER.	Annually	Environmental Advisor	Summarised in the AER
	FnMIS 34	If adverse impacts to fauna or fauna habitat are observed, the Environment Department will be notified immediately and an incident report will be prepared and submitted within 24 hrs. The incident report will identify	Continuous	All Personnel	Incident reports within INX These incident reports should document contingency



Fauna Management Plan

EMO

Environment

REF		MANAGEMENT ACTIONS	TIMING	DELEGATED RESPONSIBILITY	EVIDENCE
		contingency actions to be implemented and the date for completion of contingency actions.			actions. Summarised in the AER
	FnMIS 35	Breaches of licence or tenement conditions will be reported to the relevant authority (DWER or DMIRS) within 24 hrs, and summarised through the Annual Audit Compliance Report (AACR) and the AER, as part of the operating licence. External reporting of incidents is the responsibility of the General Manager with assistance from the Environmental Advisor.	Continuous	General Manager / Environmental Advisors	Incident database. Summarised in AER. Communications register.
	FnMIS 36	EMO incident management system will be used to record all environmental incidents; to track and manage corrective actions resulting from environmental incidents; to track and address community complaints; and to record audit outcomes.	Continuous	All Personnel	Incident reporting (INX) Action tracking (INX) Summarised in the AER
	FnMIS 37	Annual environmental audits will be organised by the Group Environment Manager.	Annually	General Manager	Audit reports
Review and revision	FnMIS 38	The General Manager will review this EMP, and allocate resources to implement it. They will ensure appropriate action is being taken on non-compliances, and offer support to environmental staff through directives to site personnel	Annually	General Manager	Fauna management actions on site
	FnMIS 39	The Fauna Management Plan will be internally reviewed as required. Reviews will be conducted at key stages of the Project based on planning requirements; review of incidents, audits and corrective actions; legal requirements; and analysis of monitoring results. The reviews will incorporate feedback from relevant Community Stakeholders and DWER / DMIRS staff.	As required	Environmental Advisor	Revision Record



4. STAKEHOLDER CONSULTATION

EMO aims to maintain a healthy relationship with neighbouring stakeholders by promoting open and honest communications. In the case that a complaint is received, EMO will record the complaint and the relevant corrective actions in the site Complaints Register.

Further detail regarding community consultation undertaken for the EMO is provided in the Environmental Management Plan.

5. TRAINING AND AWARENESS

Awareness information regarding the management of native fauna and pests is provided in the general site induction, toolbox meetings and pre-start meetings. Additional area specific training is undertaken where required.

Awareness information is also provided via alert and posters on noticeboards.

6. PERFORMANCE MONITORING

The following monitoring activities are undertaken:

- Daily inspections of the TSF cells (as per Tailings Operating Manual) including the observation of any stress or deaths of fauna surrounding or within the TSF (tailings ponded water);
- Regular monitoring for entrapment in excavations, sumps and water storage ponds will be undertaken;
- Regular inspections for signs or observations of introduced fauna;
- Undertake flora and vegetation monitoring as per the Flora Management Plan for the monitoring of fauna habitat;
- Incidence of vertebrate pests reported are tracked and reviewed;
- Inspections by regulatory bodies such as the DWER and DMIRS; and
- Annual environmental audits.

7. AUDITING AND REPORTING

This management plan will be audited and revised where required. The key management actions identified in Table 2 will be the basis for this audit.

The Edna May internal reporting system of INX will record any incidents relating to the management of native fauna and vertebrate pests, including corrective actions.

The results of inspections, audits, incident reports and complaints received will be included in the AER submitted to the statutory authorities.

Breaches of licenses, permits or tenement conditions which result in an adverse effect on the environment will be reported to DWER or DMIRS as soon as practicable but no later than 5pm of the next working day and summarised in the AER. External reporting of incidents is the responsibility of the General Manager with assistance from the Environmental Department.

Compliance assurance audits will be undertaken by Ramelius on an annual basis and may include this Management Plan.



8. REVIEW AND REVISION

This plan will be reviewed on at least a two-yearly basis or in the case of the following:

- Following a relevant incident
- Signification operational scope changes
- Changes to legal or other obligations (including licences and approvals).

9. REFERENCES

9.1 INTERNAL DOCUMENTS

- **EMO Traffic Management Plan/Pit Permit Road Rules**
- **EMO Flora Management Plan**
- **EMO Landfill Management Plan**
- **EMO Clearing and Ground Disturbance Procedure**
- **EMO Covering of Landfill Procedure**
- **EMO Native Fauna Procedure**
- **EMO Managing Injured and Deceased Native Fauna Procedure**
- **EMO Offset Rehabilitation Plan**
- Outback Ecology (MWH) (2014) Edna May and Greenfinch Projects Level 1 Fauna Assessment. Report for Evolution Mining Limited

9.2 RELEVANT LEGISLATION

- *Animal Welfare Act 2002*
- *Biodiversity Conservation Act 2016*
- *Biodiversity Conservation Regulations 2018*
- *Cat Act 2011*
- *Conservation and Land Management Act 1984*
- *Environment Protection and Biodiversity Conservation Act, 1999 (Cth)*
- *Environmental Protection Act 1986*
- *Environmental Protection Regulations 1987*
- *Work Health and Safety Act 2020*
- *Soil and Land Conservation Act 1945*
- *Wildlife Conservation Act, 1950*
- *DMP/EPA (2015) Guidelines for Preparing Mine Closure Plans*

10. DEFINITIONS

Term	Definition
Adverse impacts	With reference to fauna and fauna habitat, an adverse impact (threatening process) is a practice that reduces or will reduce the biodiversity and ecological integrity of a regional ecosystem and its wildlife. Relevant processes that are threats to wildlife include unlawful land clearing, invasive plants and animals and firewood collection.
Fauna	All the animals that live in a particular area, time period, or environment.
Habitat	The natural home or environment of an animal, plant, or other organism.
Vertebrate Pest	A skeletal animal which can cause problems of a social, environmental or economic nature