

# **Karara Mining Limited**

## **Environmental Plan – Fauna Management**

**CORP-EN-PLN-1008**

15 November 2024

## SYNOPSIS

*This document presents the 'Fauna Management Plan' for Karara Mining Limited (KML). This Plan is used to detail the methods, systems and strategies to be implemented for management of the document and data management functions.*

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REV	DESCRIPTION	ORIG	REVIEW	APPROVED	DATE
0	Issue for Use	 K L'Estrange	 L Purves	 R Houlihan	10-Apr-14
1	Issue for Use	 P Steel	 J Baker	 R Houlihan	20-Oct-14
2	Issue for Use	 J Baker	 J Sansom	 R Houlihan	30-Nov-15
3	Issue for Use	 J Jansom	 C Courtauld	 R Houlihan	17-Nov-17
4	Issue for Use	 A Marais	 M Chen	 G Trench	5-Apr-22
5	Issue for Use	 D Juniper	 M Chen	 G Trench	21-Jun-23
6	Issue for Use	 V Scott	 M Chen	 G Trench	15-Nov-24

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## 1 PURPOSE AND SCOPE

This Environmental Plan – Fauna Management CORP-EN-PLN-1008 (the Plan) is to address the requirements for the management of terrestrial fauna during the operations of the Greater Karara Iron Ore Project (the Project). The Project consists of all mining and processing activities along with operations at Geraldton Port and associated linear infrastructure including haul roads, railway and raw water pipeline, with the exception of the 330kV Transmission line. Specifically the Plan addresses the following:

- Karara Mining Limited's (KML's) objectives for avoiding, minimising and mitigating impacts to native fauna; and
- Legislative requirements and commitments made during the environmental assessment process for the Project, as reflected in the KML obligations register.

### 1.1 Objectives

The objectives of this Plan are to:

- Comply with relevant legal requirements;
- Minimise the potential impacts to native fauna, particularly those of listed conservation significance (local, State and/or national), during all phases of the Project including mobilisation, construction, operation, maintenance and closure;
- Maintain the abundance, diversity, geographic distribution and productivity of native fauna (including vertebrates, invertebrates and subterranean fauna) at species and ecosystem levels; and
- Protect the significant fauna habitat within the greater project footprint, including the Priority Ecological Community (PEC) and Threatened Ecological Community (TEC) vegetation complexes.

## 2 DEFINITIONS

*Table 1: Terms of Reference*

Term	Description
AER	Annual Environmental Report
BCE	Bamford Consulting Ecologists
DBCA	Department of Biodiversity, Conservation and Attractions (Formerly Department of Parks and Wildlife [DPaW]).
DEMIRS	Department of Energy, Mines, Industry, Regulation and Safety (Formerly Department of Mines and Petroleum [DMP]).
DCCEEW	Department of Climate Change, Energy, the Environment and Water (Formerly Department of Agriculture, Water and the Environment [DAWE])
DWER	Department of Water and Environmental Regulation (Formerly Department of Environment Regulation [DER], the Department of Water [DoW] and Office of the Environmental Protection Authority [OEPA])
EMS	Environmental Management System
GD	Ground Disturbance
GIS	Geographic Information System
INX	InControl Occupational Health and Safety Management Software
KIOP	Karara Iron Ore Project
KML	Karara Mining Limited
MIOP	Mungada Iron Ore Project
PEC	Priority Ecological Community including Blue Hills (Mount Karara/Mungada Ridge/Blue Hills) vegetation complexes (banded ironstone formation)
PER	Public Environmental Review

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<b>Term</b>	<b>Description</b>
The Plan	Environmental Plan – Fauna Management CORP-EN-PLN-1008
The Project	All mining and processing activities of the Greater Karara Iron Ore Project along with operations at Geraldton Port and associated linear infrastructure including haul roads, railway and raw water pipeline, with the exception of the 330kV Transmission line.
WStS	Western Spiny-tailed Skink

## 3 PLANNING

### 3.1 Legal and Other

The relevant Commonwealth and State legislation to this Plan are listed below:

- *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth)
- *Environmental Protection Act 1986* (WA)
- *Mining Act 1978* (WA)
- *Biosecurity and Agriculture Management Act 2007* (WA)
- *Biodiversity and Conservation Act 2016* (WA)
- *Animal Welfare Act 2002* (WA)
- *Medicines and Poisons Act 2014* (WA)

In addition to these Acts, the following documents have also been considered in preparing this Plan:

- Tenement conditions of granted exploration and mining leases issued by the Department of Energy, Mines, Industry, Regulation and Safety (Formerly Department of Mines and Petroleum [DMP]) under the *Mining Act 1978*;
- Commitments made within the Mungada Iron Ore Project (MIOP) and Karara Iron Ore Project (KIOP) Public Environmental Reviews (PER); and
- Ministerial Conditions of Approval (and subsequent changes to the proposal made under Section 45C) issued under Part IV of the *Environmental Protection Act 1986* for Ministerial Statements 805 (KIOP), 806 (MIOP), and 968 (Hinge Iron Ore Project).

KML will acquire and maintain all required permits and licences as dictated by State and Commonwealth regulatory bodies. In relation to Geraldton Port activities, KML will adhere to all relevant Midwest Port Authority plans and procedures in relation to fauna monitoring and management.

### 3.2 Roles and Responsibilities

All KML employees and contractors are required to comply with this Plan through its implementation at all times. The main body of this Plan should be referred to where clarification is required. Table 2 provides a summary of the relevant roles and responsibilities that are required to implement this Plan.

**Table 2: Roles and Responsibilities**

Role	Responsibility
KML General Manager of Operations	<ul style="list-style-type: none"> <li>• Accountable for operation-related environmental matters</li> <li>• Ensuring the requirements of this Plan are implemented</li> </ul>
KML General Manager – HSEC	<ul style="list-style-type: none"> <li>• Overall responsibility for development, implementation, maintenance and compliance with this Plan</li> <li>• Overall responsibility to ensure that KML meets its legal obligations, objectives and targets in relation to this Plan</li> <li>• Facilitate environmental auditing and compliance monitoring</li> </ul>
KML Environment and Communities Department	<ul style="list-style-type: none"> <li>• Provide advice and training to allow effective implementation and compliance with this plan and any supporting plans or procedures</li> <li>• Co-ordinate and facilitate environmental monitoring in relation to this Plan</li> <li>• Maintain all documentation for auditing purposes and report all required data</li> <li>• Maintenance and compliance with all related licences and permits associated with the Plan</li> </ul>
KML Employees and Contractors	<ul style="list-style-type: none"> <li>• Comply with requirements of the Plan and any related procedures</li> <li>• Report all environmental incidents as they occur</li> <li>• Participate in environmental training, meetings or audits as required</li> </ul>

### 3.3 Competence, Training and Awareness

Prior to commencing work on the Project, all personnel will undertake the KML induction as per the Safety Procedure - Training and Induction (CORP-HS-PRO-1001) as well as a refresher induction every second year. KML Environment Department personnel are to be trained in relation to the requirements of this Plan. Site KML Environment Department personnel shall undergo fauna handling training to engage in approved handling and euthanasia methods in accordance with the KML Environmental Safe Work Procedure –

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Fauna Handling, Relocation and Euthanasia (EN-SWP-042) and Feral Predator Trapping, Euthanasiation and Dissection (EN-SWP-007).

Additional awareness on specific fauna species and issues shall be presented and reinforced through delivery of toolbox presentations. Educational and awareness posters and handouts will be presented in prominent locations around the site.

## 4 IMPLEMENTATION AND OPERATION

This section describes the existing fauna values found during surveys within the Project area, focussing primarily on conservation significant fauna and fauna habitat. Fauna survey results are entered in KML's Geographic Information System (GIS) database and survey reports are located in KML's centralised filing system (i.e. iManage).

### 4.1 Fauna

#### 4.1.1 Significant Fauna Habitats within the Project Area

Significant fauna habitats within the Project area are the Blue Hills (Mount Karara/Mungada Ridge/Blue Hills) vegetation complexes (banded ironstone formation), a listed PEC under the provisions of the *Biodiversity Conservation Act 2016* and Koolanooka System, a listed TEC under the provisions of the *Biodiversity Conservation Act 2016* and *Environment Protection and Biodiversity Conservation Act 1999*. This habitat is protected and managed through the KML Environmental Plan – Flora and Vegetation Management Plan (CORP-EN-PLN-1011).

#### 4.1.2 Fauna of Conservation Significance

The Project area has a potential faunal assemblage of 210 vertebrate species including 32 vertebrate species of conservation significance (BCE, 2020). Bamford Consulting Ecologists (BCE) conducted an assessment of the terrestrial vertebrate and invertebrate fauna values of the Project area in 2006 (BCE, 2007). Further field surveys for specific species of conservation significance were undertaken by BCE from 2007 to 2009 with the most recent survey undertaken in 2020. These surveys concentrated on the following species:

- Malleefowl, *Leipoa ocellata*;
- Northern Shield-backed Trapdoor Spider, *Idiosoma clypeatum* (previously reported as Shield-backed Trapdoor Spider *Idiosoma nigrum*);
- Western Spiny-tailed Skink, *Egernia stokesii badia* (WStS);
- Gilled Slender Blue-tongue Lizard, *Cyclodomorphus branchialis*;
- Major Mitchell's Cockatoo, *Lophochroa leadbeateri*; and
- Woolley's Pseudantechinus, *Pseudantechinus woolleyae*.

The surveys identified the presence of all of these species within the Project area. Fauna specialists advised that only the Malleefowl and WStS require ongoing monitoring.

### 4.1.3 Feral Fauna

Introduced species were recorded in all field surveys of the Project area including the house mouse (*Mus musculus*), rabbit (*Oryctolagus cuniculus*), red fox (*Vulpes vulpes*), cat (*Felis catus*) and goat (*Capra hircus*). It is considered that predation by the red fox and feral cats have contributed to the extinction of many native species and the decline in numbers of the protected Malleefowl (*Leipoa ocellata*) both locally and across Australia. In addition, the rabbit and goat have adversely impacted native vegetation by reducing the quality and distribution of habitat and feed for native fauna species (Glen and Dickman, 2005).

Feral animal management and monitoring within the Project area is addressed in the KML Environmental Procedure - Feral Animal Management and Monitoring (CORP-EN-PRO-1050).

## 5 POTENTIAL IMPACTS

### 5.1 Impacts

Specific potential impacts on species and suites of species have been evaluated through the KIOP and MIOP PERs as well as the Rail referral document and Hinge mining proposal. Fauna Management specific to the 330kV Transmission Line is addressed in the KML 330kV Transmission Line Eneabba to Koolanooka Environmental Management Plan (CORP-EN-PLN- 1003). The following section outlines the impacts that may affect native fauna and if specific management actions are required.

#### 5.1.1 Habitat Loss and Degradation

The loss and degradation of habitat can result in the reduction of distribution, abundance and productivity of native fauna species. If managed inappropriately, the Project activities could potentially result in the following:

- Habitat loss, fragmentation and degradation through clearing and disturbance of native vegetation;
- Introduction and/or spread of weed species causing habitat degradation and increasing susceptibility to fire;
- Introduction of plant pathogens causing habitat degradation;
- Habitat degradation from uncontrolled feral herbivores through alteration and damage to vegetation structure and composition and soil erosion;
- Alteration of surface water flow, which alters fresh water availability and vegetation structure;
- Failure of rehabilitation measures to re-establish fauna habitat appropriate to the region and the species of the region; and
- Accidental fires.

#### 5.1.2 Direct Mortality

Direct mortality of individuals can result from:

- Land clearing activities;
- Collision with vehicles and machinery;

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- Uncontrolled feral animals through direct predation, competition for resources and transmission of disease;
- Accidental fires;
- Entrapment in open trenches and excavations;
- Isolation of individuals from habitats by mine and associated infrastructure; and
- Uncontrolled off-road recreational activities by employees and contractors.

Direct mortality impacts are of particular concern for Malleefowl, as they are known to be susceptible to road kill and are known to occur at low population densities.

### **5.1.3 Indirect Disturbance**

Indirect disturbance of fauna species could occur through Project-related emissions, such as light overspill, noise, vibration and dust.

KML has implemented management measures to address these Project-related emissions, and specific monitoring programs will determine if such emissions are having an impact on conservation significant fauna species. To date, no indirect disturbance impacts on conservation significant fauna have been detected within the Project area.

## **5.2 Key Indicators**

Key indicators associated with the objectives stated in Section 1.1 are:

- Inductions: Fauna management measures are included in induction materials and all employees and contractors have been inducted and trained as required;
- Fauna surveys: Prior to disturbance, 100% of disturbance areas are surveyed for all conservation significant fauna and habitat. All WStS inhabited logs within the disturbance area are relocated as per KML Environmental Procedure – Western Spiny Tailed Skink Management, Monitoring and Translocation (CORP-EN-PRO-1024); and
- Ground Disturbance Permits: No disturbance is to occur outside of the approved footprint or without a Ground Disturbance (GD) Permit.

In relation to these key indicators, detailed management actions and evidence of their implementation are discussed in Section 6.2 of this Plan.

## 5.3 Management Actions

Terrestrial fauna will be managed in accordance with the KML Environmental Procedure – Terrestrial Fauna Management (CORP-EN-PRO-1010) and include the following management measures:

- Reporting and management measures are in place and implemented for retrieval of entrapped animals, dealing with sick and injured animals, and reporting of fauna deaths;
- Feral animal management and monitoring measures are in place and implemented as per the KML Environmental Procedure – Feral Animal Management and Monitoring (CORP-EN-PRO-1050); and
- Rehabilitation is undertaken progressively as soon as practicable after disturbance and includes habitat restoration as per the KML Environmental Procedure – Land Rehabilitation (CORP-EN-PRO-1002).

Species which are listed under the *Environmental Protection and Biodiversity Conservation Act 1999* and have the potential to be impacted by the Project's activities are managed in accordance with the following KML procedures:

- Environmental Procedure – Malleefowl Monitoring and Management (CORP-EN-PRO-1035); and
- Environmental Procedure – Western Spiny Tailed Skink Management, Monitoring and Translocation (CORP-EN-PRO-1024).

## 6 MONITORING

### 6.1 Monitoring Programs

Monitoring programs have been established for conservation significant fauna species, where it is determined that the Project could significantly impact those species. Information gathered during fauna surveys has been used to develop an appropriate monitoring program for each species. The monitoring requirements are detailed in the following documents:

- KML Environmental Procedure – Malleefowl Monitoring and Management (CORP-EN-PRO-1035); and
- KML Environmental Procedure – Western Spiny Tailed Skink Management, Monitoring and Translocation (CORP-EN-PRO-1024).

All monitoring records are maintained in KML's EMS database.

### 6.2 Opportunistic Recordings

Opportunistic observational records of Malleefowl and mounds will be recorded by KML employees and contractors. Staff will also report sightings of feral animals and conservation significant fauna using the KML Environmental Form - Fauna Sighting, Relocation and Mortality (CORP-EN-FRM-1045). Conservation significant fauna mortalities will be reported through the KML Safety Procedure – Incident Management (CORP-HS-PRO-1046). All records are maintained in the KML Fauna Register and EMS database.

## **7 CHECKING**

### **7.1 Incident Reporting**

Any unauthorised variance to this Plan shall be reported as an incident. All incidents are documented and investigated in accordance to the KML Safety Procedure – Incident Management (CORP-HS-PRO-1046) and documented in INX for tracking and completion.

### **7.2 Control of Records**

All information relating to fauna trapping, sightings and mortality are maintained in the Fauna Register (Filesite folder 7.3) and updated by the KML Environment and Communities Department. All conservation significant fauna information shall be managed as per the Environment and Heritage Data Management Procedure (CORP-EN-PRO-1045).

Conservation significant fauna mortalities resulting from the Project activities will be recorded in accordance with the KML Safety Procedure – Incident Management (CORP-HS-PRO-1046) and reported to the Department of Biodiversity, Conservation and Attractions (DBCA), Department of Climate Change, Energy, the Environment and Water (DCCEEW), and DWER.

A summary of monitoring and audit results and the status of conservation significant fauna species within the Project area will be submitted in the Annual Environmental Report (AER) to DCCEEW, DWER, DEMIRS and DBCA.

### **7.3 Audits and Inspection**

KML shall monitor compliance with this plan through annual EMS audits, as per the KML workload schedule and KML Environmental Procedure – Compliance Auditing (CORP-EN-PRO-1006). Actions arising from internal and external audits will be documented in INX.

## 8 DOCUMENTS LIST

*Table 3: Document List*

Document Title	Document Number
Environmental Plan – Fauna Management	CORP-EN-PLN-1008
Environmental Plan – Flora and Vegetation Management	CORP-EN-PLN-1011
Environmental Procedure – Feral Animal Management and Monitoring	CORP-EN-PRO-1050
Environmental Plan – 330kV Transmission Line Eneabba to Koolanooka Environmental Management Plan	CORP-EN-PLN-1003
Environmental Procedure – Land Rehabilitation	CORP-EN-PRO-1002
Environmental Procedure – Compliance Auditing	CORP-EN-PRO-1006
Environmental Procedure – Terrestrial Fauna Management	CORP-EN-PRO-1010
Environmental Procedure – Western Spiny Tailed Skink Management, Monitoring and Translocation	CORP-EN-PRO-1024
Environmental Procedure – Malleefowl Management and Monitoring	CORP-EN-PRO-1035
Environmental Procedure - Environment and Heritage Data Management	CORP-EN-PRO-1045
Environmental Form – Fauna Sighting, Relocation and Mortality	CORP-EN-FRM-1045
Safety Procedure – Incident Management	CORP-HS-PRO-1046
Safety Procedure – Training and Induction	CORP-HS-PRO-1001
Environmental Safe Work Procedure – Fauna Handling, Relocation and Euthanasia	EN-SWP-042
Feral Predator Trapping, Euthanasia and Dissection	EN-SWP-007

## 9 REFERENCES

Bamford, M. (2007). '*Fauna values of Gindalbie Metals' Karara and Mungada Hematite/Magnetite Projects*'. Report prepared for Woodman Environmental Consulting Pty Ltd, Perth, Western Australia.

Bamford, M. (2020). '*Fauna Assessment of Two Proposed Expansion Areas, July 2020*'. Unpublished report prepared for Karara Mining Ltd.

Glen, A. and Dickman, C. (2005). *Complex interactions among mammalian carnivores in Australia, and their implications for wildlife management*. Biological Review 80: 387-401.