

Iron Bridge

Fauna Management

Procedure

27 July 2021

662NS-0000-PR-EN-0006

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1. INTRODUCTION

1.1 Purpose

The purpose of this Fauna Management Procedure (662NS-0000-PR-EN-0006) (Procedure) is to outline Principal and Contractor environmental management requirements with regards to fauna and fauna habitat during construction activities at the Iron Bridge Project (the Project).

This Procedure forms part of the Principal Construction Environmental Management Plan (CEMP; 662NS-0000-PL-EN-0003) which provides the basis for an environmental management system (EMS) to manage the environmental impacts of the Project.

The Principal environmental management plans (EMPs) are supported by a number of procedures, guidelines, forms, registers and other documentation including this Procedure.

1.2 Scope

This Procedure applies to all Principal and Contractor personnel undertaking construction works in the Mine (M), Pipeline (PL) and Port (P) areas of the Project where works have the potential to impact fauna or fauna habitat.

2. DEFINITIONS AND ABBREVIATIONS

2.1 Definitions

Table 2.1 Definitions

Term	Definitions
Contractor	Any entity undertaking construction works on behalf of the Principal
Fauna Handler	Specifically trained personnel in the rescue, handling and/or removal of fauna. Fauna handlers must be appropriately certified to handle specific fauna and all certifications must be verified by the Principal prior to handling fauna within the Project area.
Principal	Iron Bridge Joint Venture
Project	Iron Bridge Project
Procedure	This Fauna Management Procedure (662NS-0000-PR-EN-0006)
Shall	Indicates a mandatory requirement which must be complied with.
Conservation Significant Fauna and Fauna Habitat	Species and associated habitats of species listed as critically endangered, endangered, vulnerable or migratory under Environmental Protection Biodiversity Conservation Act 1999, and/or the Biodiversity Conservation Act 2016; or otherwise indicated by the Principal. A list of conservation significant species found within the Project area is provided in EPBC Listed Threatened Fauna Management Plan (NS-PL-EN-0003).
Feral fauna	Non-native animal introduced to the area (i.e. feral cats) and may negatively impact on existing native species and habitats.

2.2 Abbreviations

Table 2.2 Abbreviations

Term	Definition
BMS	Business Management System
CEMP	Construction Environmental Management Plan
DBCA	Department of Biodiversity, Conservation and Attractions
DAWE	Department of Agriculture, Water and the Environment
DP	Disturbance Permit
EMP	Environmental management plans
EMS	Environmental management system
EPA	Environmental Protection Authority
LUC	Land Use Certificate
m	Metre
M	Mine
MEZ	Mine Exclusion Zone
P	Port
PL	Pipeline

2.3 Reference Documents

Table 2.3 Principal Reference Documents

Document Number	Document Title
662NS-0000-PL-EN-0003	Construction Environmental Management Plan
662NS-0000-PR-EN-0001	Dust Management Procedure
100-PR-SA-0011	Incident Event Management Procedure
662NS-0000-PL-EN-0001	Iron Bridge Traffic Management Plan
662NS-0000-PR-EN-0003	Land Use and Disturbance Procedure
662NS-0000-PR-EN-0010	Fire Management Procedure
NS-AP-EN-0012	Mining Proposal: North Star Stage 2 Phase A
662NS-0000-PR-EN-0012	Noise and Vibration Procedure
100-PR-SA-1018	Prohibited and Restricted Items Register
662NS-0000-PR-EN-0005	Rehabilitation (Construction) Procedure
662NS-0000-PR-EN-0009	Waste Procedure
662NS-0000-PR-EN-0013	Water Management Procedure
662NS-0000-PR-EN-0004	Weed Procedure

Table 2.4 Project Specific Documents

Document Number	Document Title
-	Ministerial Statement 993 issued by the Minister for the Environment, Western Australia
662MI-5500-PL-EN-0001	Northern Quoll Management Plan
NW-RP-EN-0032	Pilbara Leaf Nosed Bat Habitat Survey Plan
TBC	Trench Inspection Form
662NS-0000-TE-EN-0001	Contractor Environmental Monthly Report Template

3. OBJECTIVES AND TARGETS

3.1 Objectives

- Prevent significant impacts to the abundance, species diversity and geographical distribution of fauna within the Project area
- Minimise significant impacts to native fauna within the Project area resulting from construction activities
- Minimise the temporary and/or permanent degradation, reduction and/or fragmentation of fauna habitat within the Project area
- Prevent significant impacts to conservation significant fauna and their habitat
- Minimise the potential for mortality of conservation significant fauna.

3.2 Targets

- No mortality of fauna resulting from preventable incidents
- No unauthorised interaction with fauna by Principal staff or Contractors
- No unauthorised disturbance to significant fauna habitats
- No mortality of conservation significant fauna
- Compliance with all regulatory approval commitments that relate to fauna and fauna habitat.

4. MANAGEMENT REQUIREMENTS

Table 4.1 Management Requirements

Item	Requirement	Responsibility	Project Area
1. Conservation Significant Fauna Management and Habitat Disturbance Management			
1.1	A Disturbance Permit (DP) must be obtained by the Contractor from the Principal prior to the commencement of any disturbance activities, as required by the Land Use and Disturbance Procedure (662NS-0000-PR-EN-0003).	<i>Contractor</i>	All
1.2	<p>The Land Use and Disturbance Procedure (662NS-0000-PR-EN-0003) will ensure the following management measures are implemented to manage potential impacts to fauna:</p> <ul style="list-style-type: none"> • DP applications assess activities proximity to conservation significant fauna habitats • DP applications assess activities in relation to regulatory approvals relating to conservation significant fauna and fauna habitats • specify site-specific management measures (i.e. avoidance, buffer zones), where applicable • flag the boundaries (including a 10 m buffer) of significant fauna habitats with green and white environmental tape, where in close proximity to the DP area • contractors and Principal attend site visit prior to commencement of activities to visually inspect DP boundaries and any significant environmental features (i.e. conservation significant fauna habitats) • Principal Environment Team representative may provide oversight of disturbance activities conducted within 20 m of any conservation significant fauna areas. 	<i>Principal Contractor</i>	All

Item	Requirement	Responsibility	Project Area
1.3	The Contractor shall keep clearing to the minimum area necessary, while allowing for safe construction works, particularly in the vicinity of significant fauna habitats.	<i>Contractor</i>	All
1.4	<p>Implement the Principal Northern Quoll Management Plan (662MI-5500-PL-EN-0001) to manage impacts of Project construction activities on the local Northern Quoll (<i>Dasyurus hallucatus</i>) population. Management measures in addition to the general measures outlined in this Procedure include:</p> <ul style="list-style-type: none"> • use of confined blasting techniques (in preference of unconfined methods) • relocation of Northern Quoll individuals when encountered during construction activities by suitable qualified fauna handlers (as verified by the Principal) • use directional lighting on active construction areas to minimise potential for light overspill • where practical, utilise stockpiles (i.e. topsoil stockpiles) as noise barriers near conservation significant fauna habitats • implement the Dust Management Procedure (662NS-0000-PR-EN-0001) to minimise impacts from excessive dust. 	<i>Contractor Principal</i>	M
1.5	Implement the Principal Pilbara Leaf Nosed Bat Habitat Survey Plan (NS-RP-EN-0032) to manage impacts of Project construction activities on the local Pilbara Leaf Nosed Bat (<i>Rhynonictoris aurantiaia</i>) and its habitat. The plan provides a systematic and adaptable survey plan and standard operating procedures for surveying the Pilbara Leaf Nosed Bat habitats within the Project area.	<i>Contractor Principal</i>	M
1.6	The Contractor shall undertake progressive rehabilitation activities in accordance with the Principal Rehabilitation (Construction) Procedure (662NS-0000-PR-EN-0005). Rehabilitation activities may be prioritised in areas comprising significant fauna habitat, or as advised by the Principal Environment Team.	<i>Contractor</i>	All

2. Vehicle and Traffic Management

Item	Requirement	Responsibility	Project Area
2.1	All Principal staff and Contractors shall implement the Principal Traffic Management Plan (662NS-0000-PL-EN-0001) to manage all vehicle, equipment and machinery movements throughout the Project area.	<i>Principal Contractor</i>	All
2.2	All vehicles, machinery and equipment are restricted to designated roads and access tracks, unless authorised by the Principal, in order to minimise the risk and/or severity of vehicle strikes and incidents with fauna.	<i>Principal Contractor</i>	All
2.3	Speed limits shall be imposed on all Project roads and tracks in accordance with the Principal Traffic Management Plan (662NS-0000-PL-EN-0001) to minimise the risk and/or severity of vehicle strikes and incidents with fauna.	<i>Principal Contractor</i>	All
2.4	Install fauna related signage along roads and tracks in areas close to conservation significant fauna habitats (or other fauna as advised by the Principal) to minimise the risk and/or severity of vehicle strikes and incidents.	<i>Principal</i>	All
2.5	All Principal staff and Contractors shall limit driving at dusk, dawn and nighttime to minimise the risk and/or severity of vehicle strikes and incidents to nocturnal animals.	<i>Principal Contractor</i>	All
3. Fauna Handling Requirements			
3.1	Principal staff and Contractors shall avoid interactions and/or handling of fauna within the Project area at all times, unless authorised by the Principal and have relevant fauna handling permits (verified by the Principal Environmental Team).	<i>Principal Contractor</i>	All
3.2	<p>Only suitability qualified fauna handlers (as verified by the Principal Environmental Team) shall attempt to capture and release fauna within the Project area. This shall only be attempted when two or more people are present.</p> <p>Records of all capture and release activities shall be documented and maintained for the duration of the Project, including the species, location, and location of release.</p>	<i>Contractor</i>	All

Item	Requirement	Responsibility	Project Area
3.3	<p>In the event that conservation significant fauna habitats are to be disturbed during construction activities (as authorised by the Principal), a suitably qualified fauna handler (as verified by the Principal) shall inspect work areas for the presence of conservation significant fauna.</p> <p>If individuals are found, details of capture and release activities shall be reported to the Principal Environmental Team and via the Business Management System (BMS), including a photo, the species (if known), location, and location of release.</p>	Contractor	All
3.4	<p>Where safe to do so, deceased animals (e.g. road kill) shall be removed from the vicinity of Project activities to reduce the risk of vehicle impact to scavenging species and buried where possible. The Contractor shall consult with the Site Environment Team to determine an appropriate burial or disposal site.</p>	Contractor	All
4. General Fauna Management			
4.1	<p>Principal staff and Contractors are prohibited from feeding of wildlife, including feral animals, at all times during Project activities.</p>	Principal Contractor	All
4.2	<p>Principal staff and Contractors are prohibited from keeping pets in the Project area.</p>	Contractor	All
4.3	<p>Principal staff and Contractors are prohibited from keeping firearms in the Project area, unless authorised by the Principal.</p> <p>Where authorised by the Principal, the Contractor shall report all firearms to the Principal and recorded in the Principal Prohibited and Restricted Items Register (100-PR-SA-1018).</p>	Contractor	All

Item	Requirement	Responsibility	Project Area
4.4	<p>All trenches (other than those within PL areas) shall be constructed with the following measures to manage impacts to fauna:</p> <ul style="list-style-type: none"> • keep trenches open for the minimal time required to undertake the works • install fauna egress ramps and/or fauna refuges at the end of a trench, or at appropriate intervals (as determined by the Principal) • maintain suitable access to allow for regular monitoring of trenches for trapped fauna • backfill trenches immediately upon completion of work. 	<i>Contractor</i>	M, P
4.5	The Contractor may implement site-specific feral animal control measures if deemed necessary and authorised by the Principal Environment Team.	<i>Principal</i>	All
4.6	Implement the Principal Waste Procedure (662NS-0000-PR-EN-0009) to ensure waste is managed appropriately to minimise the potential attraction of feral animals and other wildlife to the Project area.	<i>Principal Contractor</i>	All
4.7	Implement the Principal Water Management Procedure (662NS-0000-PR-EN-0013) to ensure all water related infrastructure (i.e. turkeys nests, water storage facilities) is adequately fenced, barricaded or covered to prevent accidental fauna access, entrapment and/or drowning.	<i>Contractor</i>	All
4.8	Implement the Principal Noise and Vibration Procedure (662NS-0000-PR-EN-0012) to ensure all Project construction activities do not cause excessive noise and vibrations that may impact on conservation significant fauna or sensitive fauna.	<i>Contractor</i>	All
4.9	Implement the Fire Management Procedure (662NS-0000-PR-EN-0010) to ensure adequate fire prevention measures are applied during construction activities to minimise impacts of accidental fires on fauna and fauna habitats.	<i>Contractor</i>	All

Item	Requirement	Responsibility	Project Area
5. Pipeline Infrastructure Fauna Protection Measures			
5.1	All trench work shall be staged to allow for trenches to remain open only for the minimal time required to undertake the works.	<i>Contractor</i>	PL
5.2	Open trench lengths shall not exceed a length capable of being inspected and cleared by the fauna handlers within the required times (as specified in Item 5.4).	<i>Contractor</i>	PL
5.3	<p>Open trenches must be cleared of trapped fauna by fauna handlers at least twice daily as follows:</p> <ul style="list-style-type: none"> • prior to any construction, or no later than three hours after sunrise (which ever event occurs first) • between the hours of 3:00 pm and 6:00 pm • No more than one hour prior to backfilling of trenches. 	<i>Contractor</i>	PL
5.4	Fauna egress ramps and/or fauna refuges providing suitable shelter from the sun and predators for trapped fauna shall be installed at either end of the trench and at intervals along the trench not exceeding 50 m.	<i>Contractor</i>	PL
5.5	All constructed pipe ends shall be capped at the completion of each day to prevent accidental fauna access and entrapment.	<i>Contractor</i>	PL
5.6	Trenches shall be backfilled as soon as practicable after pipe laying to avoid fauna entrapment.	<i>Contractor</i>	PL

5. MONITORING REQUIREMENTS

Table 5.1 Monitoring Requirements

Item	Requirement	Responsibility	Project Area
6.1	The Contractor shall complete weekly site inspections of active work areas to identify any trapped, injured or deceased fauna resulting from Project activities and to ensure ongoing compliance with this Procedure.	<i>Contractor</i>	All
6.2	The Principal may complete regular site inspections of the active work areas to ensure Contractor's compliance with this Procedure.	<i>Principal</i>	All
6.3	<p>The Contractor's fauna handlers shall inspect open trenches to ensure they are cleared of trapped fauna at least twice daily, as follows:</p> <ul style="list-style-type: none"> • prior to any construction, or no later than three hours after sunrise (which ever event occurs first) • between the hours of 3:00 pm and 6:00 pm • No more than one hour prior to backfilling of trenches. 	<i>Contractor</i>	PL

6. REPORTING REQUIREMENTS

Table 6.1 Reporting Requirements

Item	Requirement	Responsibility	Project Area
7.1	Any fauna injuries or deaths and/or activities shall be reported to the Principal Environment Team and will be entered into the Principal Business Management System (BMS) as per the Incident Event Management Procedure (100-PR-SA-0011).	<i>Contractor Principal</i>	All
7.2	The Contractor shall report sightings of any injured, sick or feral wildlife (including its location) to the Principal Environment Team as soon as practicable.	<i>Contractor</i>	All
7.3	The Contractor shall report any feral animal sightings to the Principal Environmental Team monthly using the Contractor Environmental Monthly Report Template (662NS-0000-TE-EN-0001). The Principal shall maintain all feral animal sightings in the Principal Plant and Animal Register stored within the Principal BMS.	<i>Contractor Principal</i>	All
7.4	Records of all capture and release activities conducted by suitably qualified fauna handlers shall be documented and maintained for the duration of the Project, and made available to the Principal upon request.	<i>Contractor</i>	All
7.5	The Contractor shall maintain a Trench Inspection Register and include results of inspections in the Contractor Environmental Monthly Report Template (662NS-0000-TE-EN-0001) for activities conducted within PL areas. Trench inspection forms (to be developed)) shall be maintained by the Contractor for the duration of the Project and made available to the Principal upon request.	<i>Contractor</i>	PL

7. TRAINING REQUIREMENTS

Table 7.1 Training Requirements

Item	Requirement	Responsibility	Project Area
8.1	<p>All Principal staff and Contractors shall complete a site induction that includes awareness of conservation significant fauna and fauna habitats, and their personal responsibilities regarding the protection and management of fauna during construction activities.</p> <p>Site induction material and induction attendance records shall be retained by the Principal as evidence of appropriate training.</p>	<p><i>Contractor Principal</i></p>	<p><i>All</i></p>
8.2	<p>The Principal shall undertake fauna awareness campaigns to all Contractors through communications such as tool box meetings, pre-starts and site notices. Awareness materials (such as posters) shall also be made readily available for presentation in common Contractor staff areas (i.e. crib rooms).</p>	<p><i>Principal Contractor</i></p>	<p><i>All</i></p>
8.3	<p>The Contractor shall ensure an appropriate number of fauna handlers (to the satisfaction of the Site Environment Team) are trained and certified in snake handling procedures prior to performing any capture and release activities. Relevant certifications and/or permits must be verified by the Principal prior to nominated fauna handlers conducting any snake handling within the Project area.</p>	<p><i>Contractor Principal</i></p>	<p>All</p>
8.4	<p>Fauna handlers performing trench inspections and fauna rescue activities within PL areas shall hold appropriate licences required for fauna rescue, in accordance with the requirements of the <i>Biodiversity Conservation Act 2016</i> and verified by the Principal Environment Team prior to conducting any inspections or fauna rescue activities within the Project area.</p> <p>Fauna handlers must be trained in following, as a minimum:</p> <ul style="list-style-type: none"> • fauna identification, capture and handling • identification of tracks, scats, burrows and nests 	<p><i>Contractor Principal</i></p>	<p>PL</p>

Item	Requirement	Responsibility	Project Area
	<ul style="list-style-type: none">• fauna vouchering of deceased animals• assessing injured fauna for release, rehabilitation or euthanasia• familiarity with the ecology of species of the Pilbara• performing euthanasia.		

