



APPENDIX D ROLES AND RESPONSIBILITIES

All Fortescue employees and contractors are required to comply with the requirements of this Plan.

Accountability for fulfilling the requirements of this Plan is dependent on the stage of project development (construction, operations, decommissioning) and the project type (rail or mine).

During construction stages, whether activities are undertaken by an external service provider or internal Fortescue personnel, the Project Director (rail or mine) will be accountable for ensuring the requirements of this Plan are met.

During operational, decommissioning and closure stages, the General Manager (rail or mine) will be accountable for ensuring the requirements of this Plan are met.

Where responsibilities are delegated, this must be clearly recorded and communicated.

The RASCI framework should be utilised to delegate roles, responsibilities, and review and approval levels. RASCI is used to denote:

- | | |
|----------------------|---|
| R-Responsible | Those who do the work to achieve the task. |
| A-Accountable | Those who are ultimately accountable for the completion of the deliverable or task and the one to whom the Responsible person is accountable. |
| S-Supportive | Resources allocated to the Responsible person and who will also assist in completing the task. |
| C-Consulted | Those whose opinions are sought, two-way communication. |
| I-Informed | Those whom are kept informed, one-way communication. |



APPENDIX E MAINLINE RAIL BASELINE MONITORING REPORT (R-RP-EN-0067)



**APPENDIX F PORT BASELINE MONITORING REPORT (100-RP-
EN-9638)**



APPENDIX G SOLOMON AND HAMERSLEY RAIL BASELINE MONITORING REPORT (SO-00000-AD-EN-0001)



**APPENDIX H ELIWANA MINE AND RAIL BASELINE
MONITORING REPORT (EW-0000-RP-EN-0001)**



APPENDIX I WEED HYGIENE PROCEDURE (45-PR-EN-0035)



APPENDIX J WEED CONTROL GUIDELINES (45-GU-EN-0011)



Appendix 8: Conservation Significant Fauna Management Plan



Plan

Conservation Significant Fauna Management Plan

Pilbara Operations Environment

1 November 2024

45-PL-EN-0034

Rev 0



EXECUTIVE SUMMARY

State approval							
Proponent name	Fortescue Ltd						
Proposal name	Pilbara Iron Ore & Infrastructure Project: Port & North-South Railway (Stage A)	Cloudbreak Life of Mine	Christmas Creek Mine, East-West Railway and Mindy Mindy Mine	Solomon Iron Ore Project – Sustaining Production	Eliwana Railway Project	Eliwana Iron Ore Mine Project	
Ministerial number	MS 690	MS 899	MS 1033	MS 1062	MS 1108	MS 1109	
Condition/s	7	10	6 and 8	7 and 12	10	10	
Plan status	Approved: 100-PL-EN-0022 Rev 2 (UID-40643; 25/09/2014)	Approved: 100-PL-EN-0022 Rev 0 (UID-47486; 27/11/2013)	Approved: 100-PL-EN-0022 Rev 3b (UID-79154; 13/03/2018)	Approved: 100-PL-EN-0022 Rev 4a (UID-83724; 21/08/2018)	Approved: 100-PL-EN-0022 Rev 6e (UID-108293; 8/06/2020)	Approved: 100-PL-EN-0022 Rev 6e (UID-108294; 8/06/2020)	
Purpose of EMP	To identify the potential direct and indirect impacts on conservation significant fauna species and develop management and monitoring measures that maximize the ongoing protection and long term conservation of these species within and adjacent to Fortescue controlled sites.						
Environmental factor	Terrestrial Fauna						
Objective	"To protect terrestrial fauna so that biological diversity and ecological integrity are maintained."						
Federal approval							
Proponent name	Fortescue Ltd						
ACN	002594872						
Project name	Cloudbreak Open Pit Iron Ore Mine	Additional Rail Infrastructure between Herb Elliot Port Facility and Cloudbreak Mine Site	Christmas Creek Iron Ore Mine expansion project	Solomon Iron Ore Project	Solomon Iron Ore Project – Sustaining Production	Eliwana Iron Ore Project	Eliwana Railway Project
Instrument number	EPBC 2005/2205	EPBC 2010/5513	EPBC 2013/7055	EPBC 2010/5567	EPBC 2014/7275	EPBC 2017/8024	EPBC 2017/8025
Condition/s	1	2	9d	4	3h	2	2
Approved action	To develop an iron ore mine within the Chichester Range of the Pilbara region of Western Australia	The construction and operation of additional rail infrastructure along the existing rail line between the Herb Elliot Port Facility at Port Hedland and the Cloudbreak Mine Site in the Pilbara region, WA.	To expand existing mining operations at Christmas Creek, located on the southern slopes of the Chichester Range, in the East Pilbara approximately 200 km east of Tom Price, WA	The approved action is the Solomon Iron Ore project, which includes the construction and operation of two mining areas, namely the Kings and Firetail deposits, and a new heavy duty standard gauge railway line and rail spur in the Pilbara region of Western Australia. The action also incorporates the construction of support infrastructure, including ore processing and storage facilities, haul roads and accommodation camps.	To expand existing mining operations at Solomon Iron Ore Project, located in the Pilbara approximately 60 km north of Tom Price, WA	To clear native vegetation to allow for the development of above and below water table mine pits, along with associated infrastructure, processing facilities, water management infrastructure for groundwater abstraction and surplus water disposal, temporary and permanent waste landforms and tailings storage facilities.	To clear native vegetation to construct a 120 km railway corridor linking Eliwana Iron Ore Mine with the existing Fortescue rail network, approximately 90 km west-north-west Tom Price, in the Pilbara region of Western Australia.
Location of the action	Cloudbreak Mine, Pilbara, Western Australia.	East West Rail, Pilbara, Western Australia.	Christmas Creek Mine, Pilbara, Western Australia.	Solomon Mine, Pilbara, Western Australia.	Solomon Mine, Pilbara, Western Australia.	Eliwana Mine, Pilbara, Western Australia.	Eliwana Rail, Pilbara, Western Australia.
Plan Status	Approved: 100-PL-EN-0022 Rev 5c (UID-95201; 02/07/2019)	Approved: 100-PL-EN-0022 Rev 5c (UID-952031; 02/07/2019)	Submitted: 100-PL-EN-0022 Rev 3 (UID-71761; 08/08/2017)	Approved: 100-PL-EN-0022 Rev 5c (UID-95204; 02/07/2019)	Submitted: 100-PL-EN-0022 Rev 4a (UID-81605; 19/06/2018)	Submitted: 100-PL-EN-0022 Rev 7 (UID-108313; 10/06/2020)	Submitted: 100-PL-EN-0022 Rev 7 (UID-108314; 10/06/2020)
EMP preparation date	Conservation Significant Fauna Management Plan (45-PL-EN-0034 Rev 0) - November 2024						



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1 INTRODUCTION

Fortescue Ltd (Fortescue) is an integrated green technology, energy, and metals company. The mining assets in the Pilbara region of Western Australia comprises of mine, rail, and port operations (Figure 1). Background details regarding Proposals are outlined in Appendix A.

1.1 Legislative context

Fortescue employees and contractors are obliged to comply with all relevant environmental Commonwealth and State legislation. Environment legislation directly relevant to this Plan is provided in Appendix B.

The conditioned objectives for fauna management are outlined in Table 1. State and federal approval conditions relevant to this Plan and how they are addressed are outlined in Appendix C. Schedules and provisions tables are provided for approval conditions under MS 1033 (Appendix E), MS 1062 (Appendix F), MS 1108 (Appendix G) and MS 1109 (Appendix H).

1.2 Definitions

Definitions of terms and acronyms used throughout this Plan are provided in Appendix I.

1.3 Objective

This Plan addresses EPA's objective for the key environmental factor Terrestrial Fauna: "*to protect terrestrial fauna so that biological diversity and ecological integrity are maintained.*"

The objective of this Plan is to identify the potential direct and indirect impacts on conservation significant fauna species and develop management and monitoring measures that maximize the ongoing protection and long-term conservation of these species within and adjacent to Fortescue controlled sites¹.

1.4 Rationale and approach

For the purposes of this Plan, conservation significant fauna (refer to Appendix I for definition) have been limited to terrestrial vertebrate fauna species and terrestrial invertebrate fauna (including short range endemics) that have been recorded within Fortescue controlled sites and/or management/monitoring requirements have been specified in State and/or Federal conditions. Table 2 outlines the conservation significant fauna species at each of the Fortescue sites and is correct at the time of writing and will be updated when the Plan is reviewed to reflect any changes.

¹ Fortescue controlled site means sites that are under the legislative control of Fortescue including exploration sites, sites under construction, operational sites (sites that are managed and operated by Fortescue and sites that are managed by Fortescue but operated by contractors) and the Perth offices.



Table 1: Conditioned environmental management objectives / requirements and measures / targets

Approval	Condition type	Conditioned environmental objective / requirement ²	Measure / target
MS 690 Condition 7	Management	<p>Condition: Conduct fauna surveys prior to ground-disturbing activities and if significant fauna are identified, do not disturb the land surface until significant fauna have been relocated or otherwise appropriately protected in accordance with a Site Fauna Management Plan.</p> <p>Objective 1: Identify the potential direct and indirect impacts on conservation significant fauna and their critical habitats within Fortescue controlled sites.</p>	100% of conservation significant fauna high risk areas are identified and available in the spatial system
		<p>Objective 2: Establish management strategies to minimise the potential impacts on conservation significant fauna and their critical habitats within Fortescue controlled sites.</p>	<p>No direct mortality to recorded conservation significant fauna within their recorded habitats as a result of ground disturbance activities within the project area.</p> <p>No direct loss to recorded conservation significant fauna habitat within the project area that is not approved³ for disturbance.</p>
		<p>Objective 3: Where species presence and critical habitat has been confirmed within Fortescue controlled sites, develop monitoring programs to detect any impacts on conservation significant fauna and their critical habitats</p>	<p>No statistically significant⁴ decline in the relative abundance of conservation significant species across impact sites compared to reference sites.</p> <p>OR</p> <p>Conservation significant species recorded within the area of impact for the project continue to have an ongoing presence.⁴</p>
MS 899 Condition 10	Management	<p>Objective 1: Identify the potential direct and indirect impacts on conservation significant fauna and their critical habitats within Fortescue controlled sites.</p>	100% of conservation significant fauna risk areas are identified and available in the spatial system
		<p>Objective 2: Establish management strategies to minimise the potential impacts on conservation significant fauna and their critical habitats within Fortescue controlled sites.</p>	<p>No direct mortality to recorded conservation significant fauna within their recorded habitats within the project area as a result of ground disturbance activities.</p> <p>No direct loss to recorded conservation significant fauna habitat that is not approved³ for disturbance within the project area.</p>
		<p>Objective 3: Where species presence and critical habitat has been confirmed within Fortescue controlled sites, develop monitoring programs to detect any impacts on conservation significant fauna and their critical habitats</p>	<p>No statistically significant⁴ decline in the relative abundance of conservation significant species across impact sites compared to reference sites.</p> <p>OR</p> <p>Conservation significant species recorded within the area of impact for the project continue to have an ongoing presence.⁴</p>
MS 1033 Condition 8 EPBC 2013/7055	Management	<p>Condition: Minimise direct and indirect impacts on conservation significant fauna species and their habitat, including but not limited to the Pilbara Olive Python, Northern Quoll, Greater Bilby, Night Parrot and migratory birds.</p> <p>Objective 1: Identify the potential direct and indirect impacts on conservation significant fauna and their critical habitats within Fortescue controlled sites.</p>	100% of conservation significant fauna risk areas are identified and available in the spatial system.
		<p>Objective 2: Establish management strategies to minimise the potential impacts on conservation significant fauna and their critical habitats within Fortescue controlled sites.</p>	<p>No direct mortality to recorded conservation significant fauna within their recorded habitats within the project area as a result of ground disturbance activities.</p> <p>No direct loss to recorded conservation significant fauna habitat within the project area that is not approved³ for disturbance.</p>
		<p>Objective 3: Where species presence and critical habitat has been confirmed within Fortescue controlled sites, develop monitoring programs to detect any impacts on conservation significant fauna and their critical habitats.</p>	<p>No statistically significant⁴ decline in the relative abundance of conservation significant species across impact sites compared to reference sites.</p> <p>OR</p> <p>Conservation significant species recorded within the area of impact for the project continue to have an ongoing presence.⁴</p>
MS 1062 Condition	Management	<p>Condition: Minimise direct and indirect impacts on conservation significant fauna species and their habitat, including, but not limited to the Pilbara Olive Python, Northern Quoll, and Pilbara Leaf-nosed Bat.</p>	100% of conservation significant fauna risk areas are identified and available in the spatial system.

² Under EPBC 2005/2205, EPBC 2010/5513, EPBC 2010/5567, EPBC 2012/6530. EPBC 2013/7055 - there are no conditioned environmental objectives

³ Approved refers to an approval issued under the *Environmental Protection Act 1986*, *Environment Protection and Biodiversity Conservation Act 1999*, the *Mining Act 1978* or the *Bush Fires Act 1954*.

⁴ When conservation significant species have been recorded in low densities during previous baseline surveys, they may not have adequate population numbers to allow statistical comparison over time. Analytical test and power levels will be set at appropriate levels to detect change in spatial distribution and relative abundance of low density species. Where records are still inadequate, only ongoing presence will be measured to demonstrate compliance with Objective 3.



Approval	Condition type	Conditioned environmental objective / requirement ²	Measure / target
12 EPBC 2014/7275		Objective 1: Identify the potential direct and indirect impacts on conservation significant fauna and their critical habitats within Fortescue controlled sites.	
		Objective 2: Establish management strategies to minimise the potential impacts on conservation significant fauna and their critical habitats within Fortescue controlled sites.	No direct mortality to recorded conservation significant fauna within their recorded habitats within the project area as a result of ground disturbance activities. No direct loss to recorded conservation significant fauna habitat within the project area that is not approved ³ for disturbance.
		Objective 3: Where species presence and critical habitat has been confirmed within Fortescue controlled sites, develop monitoring programs to detect any impacts on conservation significant fauna and their critical habitats	No statistically significant ⁴ decline in the relative abundance of conservation significant species across impact sites compared to reference sites. OR Conservation significant species recorded within the area of impact for the project continue to have an ongoing presence. ⁴
EPBC 2005/2205	Management	Ensure protection and management of the Night Parrot (<i>Pezoporus occidentalis</i>) in Fortescue controlled areas. Objective 1: Establish management strategies to minimise the potential impacts on the Night Parrot and its habitats at Cloudbreak.	No direct mortality to Night Parrot within its recorded habitats within the project area as a result of ground disturbance activities. No direct loss to Night Parrot habitat within the project area that is not approved ³ for disturbance.
		Objective 2: Undertake spatially and temporally comprehensive Night Parrot surveys within and immediately adjacent to Fortescue's areas of operation at the Fortescue Marsh using the best available information about Night Parrot ecology, survey design and analyses systems.	Night Parrot Monitoring program developed and implemented in accordance with the requirements of 100-PP-EN-0041.
EPBC 2010/5513 EPBC 2010/5567	Management	Protect and manage EPBC Act listed threatened fauna species within the Fortescue controlled areas both during construction and operation of the project. Objective 1: Identify the potential direct and indirect impacts on conservation significant fauna and their habitats within Fortescue controlled sites.	100% of conservation significant fauna risk areas are identified and available in the spatial system.
		Objective 2: Establish management strategies to minimise the potential impacts on conservation significant fauna and their habitats within Fortescue controlled sites.	No direct mortality to recorded conservation significant fauna within their recorded habitats within the project area as a result of ground disturbance activities. No direct loss to recorded conservation significant fauna habitat within the project area that is not approved ³ for disturbance.
		Objective 3: Where species presence and habitat has been confirmed within Fortescue controlled sites, develop monitoring programs to detect any impacts on conservation significant fauna and their habitats	No statistically significant ⁴ decline in the relative abundance of conservation significant species across impact sites compared to reference sites. OR Conservation significant species recorded within the area of impact for the project continue to have an ongoing presence. ⁴
MS 1108 Condition 10 EPBC 2017/8025	Management	Condition: Avoid where possible, and minimise direct and indirect impacts to significant fauna and their habitats, including, but not limited to: (a) Pilbara Leaf-nosed Bat (b) Ghost Bat (c) Pilbara Olive Python (d) Northern Quoll. Objective 1: Identify the potential direct and indirect impacts on conservation significant fauna and their habitats within Fortescue controlled sites.	100% of conservation significant fauna risk areas are identified and available in the spatial system.
		Objective 2: Establish management strategies to minimise the potential impacts on conservation significant fauna and their habitats within Fortescue controlled sites.	No direct mortality to recorded conservation significant fauna within their recorded habitats within the project area as a result of ground disturbance activities. No direct loss to recorded conservation significant fauna habitat within the project area that is not approved ³ for disturbance.
		Objective 3: Where species presence and habitat has been confirmed within Fortescue controlled sites, develop monitoring programs to detect any impacts on conservation significant fauna and their habitats	No statistically significant ⁴ decline in the relative abundance of conservation significant species across impact sites compared to reference sites. OR Conservation significant species recorded within the area of impact for the project continue to have an ongoing presence. ⁴



Approval	Condition type	Conditioned environmental objective / requirement ²	Measure / target
MS 1109 Condition 10 EPBC 2017/8024	Management	<p>Condition 10-1(1): Avoid where possible, and minimise direct and indirect impacts to significant fauna and their habitats, including, but not limited to:</p> <ul style="list-style-type: none"> (a) Pilbara Leaf-nosed Bat (b) Ghost Bat (c) Pilbara Olive Python (d) Northern Quoll. <p>Objective 1: Identify the potential direct and indirect impacts on conservation significant fauna and their habitats within Fortescue controlled sites.</p>	100% of conservation significant fauna risk areas are identified and available in the spatial system.
		<p>Objective 2: Establish management strategies to minimise the potential impacts on conservation significant fauna and their habitats within Fortescue controlled sites.</p>	<p>No direct mortality to recorded conservation significant fauna within their recorded habitats within the project area as a result of ground disturbance activities.</p> <p>No direct loss to recorded conservation significant fauna habitat within the project area that is not approved³ for disturbance.</p>
		<p>Objective 3: Where species presence and habitat has been confirmed within Fortescue controlled sites, develop monitoring programs to detect any impacts on conservation significant fauna and their habitats</p>	<p>No statistically significant⁴ decline in the relative abundance of conservation significant species across impact sites compared to reference sites.</p> <p>OR</p> <p>Conservation significant species recorded within the area of impact for the project continue to have an ongoing presence.⁴</p>
MS 1109 Condition 10	Management	<p>Condition 10-1(2) Avoid all impacts to the known location of the short range endemic species <i>Antichiropus</i> 1021DNA02 as described in Eliwana Iron Ore Mine Project: Environmental Review Document (FMG, October 2018) until the species has been demonstrated to the satisfaction of the CEO to exist in an area unlikely to be disturbed by any foreseeable proposal.</p>	<p>No direct impact to known locations of <i>Antichiropus</i> 1021DNA02⁵.</p> <p>OR</p> <p>No direct or indirect impact to the known locations of <i>Antichiropus</i> 1021DNA02⁶.</p>

⁵ This management target applies when survey results are limited to locations within impact areas and the criteria for a monitoring program is unable to be met.

⁶ This management target applies when survey results demonstrate species locations inside and outside proposed impact areas. This target does not apply where surveys demonstrate the species exists in an area unlikely to be disturbed by any foreseeable proposal.



Table 2: Conservation significant fauna species recorded in Fortescue controlled sites

Class	Genus	Species (Terrestrial) Taxon (Invertebrate)	Subspecies	Common Name	EPBC Act	BC Act	Other	Port	Cloudbreak	Christmas Creek	Solomon	Mainline Rail (including duplication)	Hamersley Rail	Eliwana Railway	Eliwana Mine
Aves	<i>Pezoporus</i>	<i>occidentalis</i>		Night Parrot	EN	CR			Recorded	MS1033 ⁷		EPBC 2010/5513 ^{7,8}			
Mammalia	<i>Dasyurus</i>	<i>hallucatus</i>		Northern Quoll	EN	EN			Recorded	MS1033 ⁷	Recorded	Recorded	Recorded		Recorded
Mammalia	<i>Rhinonicteris</i>	<i>aurantia</i>		Pilbara Leaf-nosed Bat	VU	VU			Recorded ⁹		Recorded ⁷	EPBC 2010/5513 ⁷	EPBC 2010/5567	Recorded ⁷	Recorded
Mammalia	<i>Macrotis</i>	<i>lagotis</i>		Greater Bilby	VU	VU				Recorded		Recorded			
Mammalia	<i>Macroderma</i>	<i>gigas</i>		Ghost Bat	VU	VU				Recorded	Recorded	Recorded		Recorded ⁷	Recorded
Reptilia	<i>Liasis</i>	<i>olivaceus</i>	barroni	Pilbara Olive Python	VU	VU				Recorded	Recorded	EPBC 2010/5513 ^{7,8}		Recorded	Recorded
Aves	<i>Falco</i>	<i>hypoleucos</i>		Grey Falcon		VU			Recorded			Recorded	Recorded		
Aves	<i>Apus</i>	<i>pacificus</i>		Fork-tailed Swift	M	MI					Recorded			Recorded	Recorded
Aves	<i>Tringa</i>	<i>glareola</i>		Wood Sandpiper	M	MI				Recorded		Recorded			
Aves	<i>Tringa</i>	<i>nebularia</i>		Common Greenshank	M	MI				Recorded		Recorded			
Aves	<i>Actitis</i>	<i>hypoleucos</i>		Common Sandpiper	M	MI						Recorded			
Aves	<i>Falco</i>	<i>peregrinus</i>		Peregrine Falcon ⁴		OS			Recorded	Recorded	Recorded	Recorded	Recorded	Recorded	Recorded
SRE	<i>Antichiropus</i>	1021DNA02					SRE								Restricted ¹⁰

⁷ This species has not been recorded and is not likely to occur within Fortescue sites however MS 1033, pending Ministerial Statements for Eliwana Railway and Mine and/or Controlled Actions, EPBC 2010/5513, 2005/2205, and EPBC 2010/5706 requires management and/or monitoring strategies to be implemented.

⁸ Monitoring for this species ceased in 2015 following a review of monitoring and absence of confirmed records within the project areas. See Annual EPBC Compliance Audit and Milestone Report 2015 (100-RP-EN-9634).

⁹ This species has been recorded foraging within Fortescue controlled sites but no roosting or nesting sites have been recorded and as a result no management and monitoring strategies will be implemented.

¹⁰ In accordance with Condition 10-1(2) of MS 1109 for Eliwana Mine this species requires management and monitoring strategies to be implemented until the species has been demonstrated to the satisfaction of DWER to exist in an area unlikely to be disturbed by any foreseeable proposal.



1.4.1 Relevant standards and guidelines

The following Federal and State guidelines are of relevance to this Plan:

EPBC Referral Guidelines:

- *EPBC Act Referral guidelines for the endangered northern quoll, Dasyurus hallucatus. EPBC Act Policy Statement 3.25.* Australian Government, Department of the Environment (2016).

EPBC Survey Guidelines:

- *EPBC Act Survey Guidelines for Australia's Threatened Bats, Guidelines for Detecting Bats Listed as Threatened Under the EPBC Act 1999.* Australia Government. Department of Water, Heritage and the Arts (2010).
- *EPBC Act Survey Guidelines for Australia's Threatened Birds, Guidelines for Detecting Birds as Threatened Under the EPBC Act 1999.* Australian Government. Department of Water, Heritage and the Arts (2010). (Note, for Night Parrot refer to the Night Parrot recovery team's survey methods: <https://nightparrot.com.au/index.php/advice/>).
- *EPBC Act Survey Guidelines for Australia's Threatened Frogs, Guidelines for Detecting Frogs Listed as Threatened Under the EPBC Act 1999.* Australian Government. Department of Water, Heritage and the Arts (2010).
- *EPBC Act Survey Guidelines for Australia's Threatened Fish, Guidelines for Detecting Fish Listed as Threatened Under the EPBC Act 1999.* Australian Government, Department of Sustainability, Environment, Water, Population and Communities (2011).
- *EPBC Act Survey Guidelines for Australia's Threatened Mammals, Guidelines for Detecting Mammals Listed as Threatened Under the EPBC Act 1999.* Australian Government, Department of Sustainability, Environment, Water, Population and Communities (2011).
- *EPBC Act Survey Guidelines for Australia's Threatened Reptiles, Guidelines for Detecting Reptiles Listed as Threatened Under the EPBC Act 1999.* Australian Government, Department of Sustainability, Environment, Water, Population and Communities (2011).

Conservation Advice:

- Conservation Advice, *Pezoporus occidentalis (Night Parrot)*, Threatened Species Scientific Committee (2016).
- Conservation Advice, *Rhinoicteris aurantia (Pilbara form)* (Pilbara Leaf-nosed Bat), Threatened Species Scientific Committee (2016).



- Conservation Advice, *Macrotis lagotis* (Greater Bilby), Threatened Species Scientific Committee (2016).
- Conservation Advice, *Lialis olivaceus barroni* (Olive Python – Pilbara subspecies), Threatened Species Scientific Committee (2008).
- Conservation Advice, *Macroderma gigas* (Ghost Bat), Threatened Species Scientific Committee (2016).

Recovery Plans:

National Recovery Plan for the Greater Bilby *Macrotis lagotis*, Northern Territory Department of Natural Resources, Environment and the Arts (2006).

- National recovery Plan for the Northern Quoll *Dasyurus hallucatus*, Northern Territory Department of Natural Resources, Environment and the Arts (2010).

Threat Abatement Plans:

- Threat Abatement Plan for Predation by Feral Cats, Commonwealth of Australia, 2015.
- Threat Abatement Plan for Predation by the European Red Fox, Department of the Environment, Water, Heritage and the Arts (2008).

Western Australian Technical Guidance

- *Guidelines for surveys to detect the presence of bilbies, and assess the importance of habitat in Western Australia*, Department of Biodiversity, Conservation and Attractions (2017).
- *Pilbara Northern Quoll Regional Project, Surveying and monitoring Dasyurus hallucatus in the Pilbara*. West Australian Government, Department of Parks and Wildlife (2014).
- *Technical Guidance – Terrestrial fauna surveys*. Environmental Protection Authority (2016).
- *Technical Guidance – Sampling methods for Terrestrial vertebrate fauna*. Environmental Protection Authority (2016).
- *Technical Guidance – Sampling of short range endemic invertebrate fauna*. Environmental Protection Authority (2016).
- *Environmental Factor Guideline – Terrestrial Fauna*. Environmental Protection Authority (2016).

Application of the EPBC guidelines in the Plan are outlined in Appendix D.



2 MANAGEMENT PLAN COMPONENTS

2.1 Environmental management objective

A series of management objectives have been developed to mitigate environmental impacts on conservation significant fauna that could potentially be caused by Fortescue's activities (exploration, construction, operation and decommissioning). These are:

1. Identify the potential direct and indirect impacts on conservation significant fauna and their critical habitats¹¹ within Fortescue controlled sites.
2. Establish management strategies to minimise the potential impacts on conservation significant fauna and their critical habitat within Fortescue controlled sites.
3. Where species presence and/or critical habitat has been confirmed within Fortescue controlled sites, develop monitoring programs to detect any impacts on conservation significant fauna and their critical habitats.

For each objective, management actions have been developed to ensure the impacts from Fortescue's operations are managed, and that appropriate monitoring, reporting and corrective action functions are implemented to support the successful implementation of the management actions.

The key elements of the environmental management process associated with each objective are described in Table 3.

Table 3: Key elements of environmental management process to achieve identified objectives

Element	Definition/ description
Objective	What is intended to be achieved?
Management Action	Tasks undertaken to enable the objective to be met
Performance indicators	Metrics for evaluating the outcomes achieved by Management Action.
Reporting / Evidence	Demonstrates that the Management Action has been applied and the outcome evaluated.
Timing	Period during which the Management Action should be undertaken.
Responsibility	Accountability for ensuring management action is completed. The responsible role is dependent on project timing. Refer to Appendix J.

¹¹ Critical habitat are areas with a high biodiversity value (IUCN, 2017). For the purposes of this plan are, critical habitat for conservation significant fauna species has been determined as being denning habitat areas for Northern Quolls, roosting areas for Pilbara Leaf-nosed and Ghost Bats, burrowing areas for Greater Bilbys, shelter areas for Pilbara Olive Pythons, nesting areas for conservation significant bird species.



2.2 Environmental risk

2.2.1 Risk reviews

Fortescue actively manages risk by undertaking annual Environmental Risk Reviews during construction and operations phases where all environmental risks are considered with a focus on high risk impacts. The review considers the effectiveness of management actions that are currently in place for these impacts. The review also considers any relevant incidents that have occurred, if the actions from incident investigations have translated into new management actions, and generally considers the need for any new management actions to ensure lower risk targets can be achieved.

2.2.2 Compliance

Fortescue ensures compliance with its legal obligations through first party quality assurance by site and corporate environment teams with a focus on effective environmental management through the implementation of the Fortescue wide Environmental Management System.

Fortescue has adopted a risk-based approach to monitor compliance with its legal obligations. Site environment teams will monitor their compliance with this Plan.

Where non-conformances occur the incident will be reported in accordance with the *Incident Event Management Procedure* (45-PR-SA-0080) and implement contingency actions defined in Table 7 and any reporting requirements defined in Section 5.

Non-conformance issues and/or opportunities for improvement identified will be documented and tracked via Fortescue's business management system.



Table 4: Key management actions for conservation significant fauna management in Fortescue controlled sites

Ref	Site Location					Management Action	Performance Indicators	Reporting / Evidence	Timing	Responsibility
	Rail	Christmas Creek	Cloudbreak	Solomon	Eliwana					
Objective 1: Identify the potential direct and indirect impacts on conservation significant fauna and their critical habitats within Fortescue Controlled Sites										
1.1	X	X	X	X	X	Undertake targeted fauna surveys in accordance with applicable EPA and DCCEEW guidance (outlined in Section 1.4.1 of this Plan) to determine presence or absence of conservation significant fauna.	<ul style="list-style-type: none"> Fauna surveys undertaken in accordance with applicable EPA and DCCEEW guidance. GIS and PIMS updated 	<ul style="list-style-type: none"> Survey Reports Approval documentation GIS dataset PIMS records 	Prior to relevant approval submission	Manager, Environmental Approvals
1.2	X	X	X	X	X	Where conservation significant fauna presence has been recorded undertake mapping surveys, where data is not available, to determine relevant species critical habitat and if future monitoring is required.	<ul style="list-style-type: none"> Mapping survey completed of species critical habitat GIS and PIMS updated Future monitoring defined 	<ul style="list-style-type: none"> Survey Reports GIS dataset PIMS record Monitoring planned 	Prior to relevant approval submission	Group Manager, Environment
1.3	X	X	X	X	X	Conduct a risk assessment to identify high risk areas where conservation significant fauna species and critical habitat have been identified and potential impacts are likely.	<ul style="list-style-type: none"> Risk assessment conducted to identify high risk areas where conservation significant fauna species and critical habitat have been identified and potential impacts are likely. High risk areas identified See management target in Table 1 	<ul style="list-style-type: none"> Risk assessment outcomes / report 	Prior to relevant approval submission	Manager Environmental Approvals/ Project Manager
Objective 2: Establish management strategies to minimise the potential impacts on conservation significant fauna and their critical habitats within Fortescue Controlled Sites										
2.1	X	X	X	X	X	Ensure staff and contractors are provided with appropriate training to ensure conservation significant fauna and associated critical habitat are protected.	<ul style="list-style-type: none"> Inductions completed Pre-start meetings informed Role dependent training completed 	<ul style="list-style-type: none"> Induction materials and register of attendees Record of Pre-start meetings Training materials/ registers 	Prior to new employee commencement Annually during operations	Manager Project Compliance/ Manager Environment Operations
2.2	X	X	X	X	X	Prior to conducting ground disturbance activities, ensure known locations of conservation significant fauna and their associated critical habitat and buffers are identified and management measures are implemented.	<ul style="list-style-type: none"> LUC obtained Management measures implemented Groundwater and Surface water management measures implemented where required Weed management measures implemented where required Noise management measures implemented where required See management targets in Table 1 	<ul style="list-style-type: none"> Completed LUC Annual Compliance Reporting 	Prior to LUC approval	Manager Project Compliance/ Manager Environment Operations
2.3	X	X	X	X	X	Ensure drainage infrastructure location and design aligns with the risk assessment outcomes to minimise interference and disruption of natural surface water flows that support conservation significant fauna habitat.	<ul style="list-style-type: none"> Location and design of drainage infrastructure aligns with risk assessment outcomes where possible See Action 3.4 of this table. 	<ul style="list-style-type: none"> Risk assessment Monitoring reports 	Prior to relevant approval submission	Manager Project Compliance/ Manager Environmental Approvals/ Manager Environment Operations
2.4	X	X	X	X	X	When conservation significant fauna species have been recorded in proposed impact areas within associated habitat, and the records have been verified through survey activities undertaken in the last five years, ground-truth the area and similar habitats within the area. Where individual animals are present implement mitigation measures, including the relocation of fauna, prior to disturbance.	<ul style="list-style-type: none"> Impact areas where fauna has been recorded within associated habitat are assessed prior to ground disturbance BMS/GIS updated PaWS consulted and mitigation measures implemented 	<ul style="list-style-type: none"> BMS record GIS Table Annual Compliance Reporting Consultation records 	Prior to LUC approval	Manager Project Compliance/ Manager Environment Operations



Ref	Site Location					Management Action	Performance Indicators	Reporting / Evidence	Timing	Responsibility
	Rail	Christmas Creek	Cloudbreak	Solomon	Eliwana					
						See <i>Fauna Handling, Relocation and Rehabilitation Procedure</i> (Appendix R).	<ul style="list-style-type: none"> Number of fauna successfully relocated See management targets in Table 1 			
2.5			X	X	X	Direct lighting onto active construction and operational areas to minimise the potential for light overspill resulting in fauna disturbance, injuries or deaths.	<ul style="list-style-type: none"> Light overspill mitigation measures incorporated where required No evidence of fauna disturbance, injury or death from light overspill Pre-start meetings informed. 	<ul style="list-style-type: none"> Incident reports in BMS Toolbox meeting minutes Record of Pre-start meetings 	During night activities	Project Manager/ Manager Mining
2.6	X	X	X	X	X	<p>Prior to conducting ground disturbance activities, ensure known locations of priority weed populations are identified and management measures to minimise the potential for weed spread are included in the LUC. Management measures may include:</p> <ul style="list-style-type: none"> Identification of weed risk areas in the LUC approval Implementation of weed hygiene requirements for plant and equipment in weed risk areas and/or in areas where weed populations have been identified and high-risk activities are proposed Cleared material with identified weeds to be cleared separately and buried to ensure no re-emergence of weed species occur. 	<ul style="list-style-type: none"> Degradation of fauna habitat minimised Weed populations and management measures are identified in the LUC 	<ul style="list-style-type: none"> Completed LUC 	Prior to relevant approval submission	Manager Project Compliance/ Manager, Environment Operations
2.7		X	X	X	X	<p>Fauna management measures, including exclusion or exit/egress structures, to minimise potential impacts to conservation significant fauna, are in place:</p> <ul style="list-style-type: none"> For mining infrastructure that poses a fauna entrapment and drowning risk (including storage ponds, operational mine void water and tailings storage areas). When conducting excavation or trenching activities. 	<ul style="list-style-type: none"> See management targets in Table 1 No mortality of conservation significant fauna: <ul style="list-style-type: none"> Due to entrapment and drowning in mining infrastructure As a result of excavation or trenching activities 	<ul style="list-style-type: none"> BMS record Annual Compliance Reporting 	<p>Prior to relevant approval submission</p> <p>Prior to LUC approval</p>	Manager Project Compliance/ Manager Mine Services or Manager Technical Services/ Manager Environment Operations
2.8		X	X	X	X	<p>Develop and implement a Feral Animal Control Program to effectively manage and control feral animals within Fortescue controlled sites to minimise impacts on conservation significant fauna.</p> <p>See the Feral Cat Trapping Procedure (Appendix S).</p>	<ul style="list-style-type: none"> No significant increase in feral animal records from sightings and road transect counts Awareness material included in site induction programs All opportunistic feral animal sightings are registered in BMS 	<ul style="list-style-type: none"> Annual Compliance Reporting 	Annually during operations	Manager Project Compliance/ Manager Environment Operations
2.9		X	X	X	X	To minimise the potential for dust deposition on vegetation on conservation significant fauna habitat, implement relevant dust suppression measures within identified high risk areas.	<ul style="list-style-type: none"> Dust suppression measures implemented Vegetation Health Monitoring Program includes dust 	<ul style="list-style-type: none"> Annual Compliance Reporting Monitoring report 	During LUC approval implementation	Manager Project Compliance/ Manager Mining/ Manager Environment Operations
2.10	X	X	X	X	X	<p>When constructing a fire break or carrying out a prescribed burn where conservation significant fauna and habitat have been identified, adhere to the requirements outlined in the:</p> <ul style="list-style-type: none"> LUC Local shire's Firebreak Notice issued under the <i>Bush Fire Act 1954</i> Permit to Burn issued by the local Bushfire Control Officer and the Burn Prescription that is developed. 	<ul style="list-style-type: none"> Fire breaks undertaken to the requirements of the Firebreak Notice Prescribed burns undertaken to the requirements of Permit to Burn and the Burn Prescription Fire breaks and prescribed burns are undertaken in accordance with the requirements of the LUC 	<ul style="list-style-type: none"> Relevant permits Notice from the local authority Correspondence with relevant Pastoral Lessee Completed LUC 	Prior to LUC approval	Project Manager/ Site HSES Manager
2.11		X	X	X	X	To minimise the potential for fauna injuries or deaths, implement appropriate traffic mitigation measures such as installation of fauna	<ul style="list-style-type: none"> Appropriate signage in areas identified as high-risk areas 	<ul style="list-style-type: none"> Incident reports in BMS Staff induction materials 	Prior to LUC approval	Project Manager/ Site HSES Manager



Ref	Site Location					Management Action	Performance Indicators	Reporting / Evidence	Timing	Responsibility
	Rail	Christmas Creek	Cloudbreak	Solomon	Eliwana					
						related signage, speed limit restrictions and the prohibition of off-road driving.	<ul style="list-style-type: none"> Awareness programs delivered 	<ul style="list-style-type: none"> Site notices 		
2.12	X	X	X	X	X	All surface holes drilled for the purpose of resource definition are to be plugged immediately after drilling and sampling to prevent fauna entering the hole.	<ul style="list-style-type: none"> See management targets in Table 1 Drill holes plugged immediately after drilling and sampling. 	<ul style="list-style-type: none"> Inspection reports 	After drilling and sampling, in accordance with the relevant Tenement Condition(s)	Manager Mining
2.13	X	X	X	X	X	Where a conservation significant fauna injury or death has occurred as a result of Fortescue Operations, internally report, investigate the incident and notify the Regulator where required. Update management actions, where required, to inform an adaptive management approach.	<ul style="list-style-type: none"> Incident reported in BMS Incident investigated Significant Native Species Register includes details of the record 	<ul style="list-style-type: none"> BMS incident record Annual Compliance Reporting Significant Native Species Register (6-monthly) 	Internal Reporting Within 24 hours of the Incident occurring External Reporting In accordance with any conditioned timeframe (see Section 5 of the Plan)	Manager Project Compliance/ Manager Environment Operations
2.14		X	X	X	X	Conduct progressive rehabilitation of disturbed areas no longer required for operations prioritising areas with known conservation significant fauna and associated habitat. Rehabilitation is managed under site specific plans approved under the <i>Environmental Protection Act 1986</i> and/or the <i>Mining Act 1978</i> .	<ul style="list-style-type: none"> Disturbed areas no longer required for operations and with known conservation significant fauna and associated habitat progressively rehabilitated. Monitoring program implemented in rehabilitation areas where conservation significant fauna habitat has been restored. 	<ul style="list-style-type: none"> Annual Compliance Reporting GIS table and BMS record Monitoring Program 	In accordance with the Mine Closure Plan	Manager Exploration/ Manager Mining
Objective 3: Where species presence and/or critical habitat has been confirmed within Fortescue controlled sites, develop monitoring programs to detect any impacts on conservation significant fauna and their critical habitats										
3.1	X	X	X	X	X	Undertake a baseline conservation significant fauna survey prior to the first monitoring event where possible to: <ul style="list-style-type: none"> Document conservation significant fauna populations within impact and reference sites Identify the baseline for existing conservation significant fauna populations at impact and reference sites Compare conservation significant fauna populations between potential impact and reference sites (and/or regional PaWS monitoring sites where available). 	<ul style="list-style-type: none"> Baseline survey undertaken for all monitoring sites Baseline survey undertaken prior to the first monitoring event where possible Baseline survey undertaken in accordance with the Technical Guide (EPA, 2016) 	<ul style="list-style-type: none"> Baseline monitoring reports 	Prior to the first monitoring event	Construction: Manager Project Compliance Operations: Manager Nature and Science
3.2	X	X	X	X	X	Where populations of conservation significant fauna listed under the <i>Biodiversity Conservation Act 2016</i> or the <i>Environment Protection and Biodiversity Conservation Act 1999</i> have been recorded in Fortescue controlled sites and critical habitat has been identified, implement a Conservation Significant Fauna Monitoring Program.	<ul style="list-style-type: none"> Conservation significant fauna and critical habitat identified Monitoring Program developed and implemented Where monitoring identifies the absence of conservation significant fauna, an independent review (see Section 3.4.1 of the monitoring results is undertaken. See management targets in Table 1 	<ul style="list-style-type: none"> Monitoring Reports Annual Compliance Reporting 	Annually during operations	Manager Nature and Science



Ref	Site Location					Management Action	Performance Indicators	Reporting / Evidence	Timing	Responsibility
	Rail	Christmas Creek	Cloudbreak	Solomon	Eliwana					
3.3	X	X	X	X	X	<p>When monitoring indicates a potential impact on conservation significant fauna, implement contingency actions defined in Table 7 and any reporting requirements defined in Section 5.</p> <p>Update this Plan where required, to inform an adaptive management approach to fauna management across the business using the approach detailed in Section 6.</p>	<ul style="list-style-type: none"> Corrective actions implemented Reporting requirements met Plan updated where required See management targets in Table 1 	<ul style="list-style-type: none"> Monitoring reports Reporting records Updated Plan 	When required in response to monitoring outcomes, within 21 days of receiving the consultant's report	<p>Corrective Actions: Manager Project Compliance/ Manager Environment Operations</p> <p>Reporting and Plan Update: Environment Governance Manager</p>
3.4	X	X	X	X	X	Implement the vegetation health monitoring program as defined in the Vegetation Health Monitoring and Management Plan to detect any impacts on conservation values of conservation significant fauna critical habitat.	<ul style="list-style-type: none"> See Vegetation Health Monitoring and Management Plan (includes groundwater and surface water monitoring requirements) 	<ul style="list-style-type: none"> Vegetation Health Monitoring reports 	See Vegetation Health Monitoring and Management Plan	Manager Nature and Science



3 MONITORING GUIDELINES

A conservation significant fauna monitoring program is required to measure the effectiveness of the broad management actions outlined in this Plan. The outcomes of the monitoring program for each site will contribute to ongoing improvements in management actions to ensure an adaptive management approach is adopted.

3.1 Objectives

The overall objective of Fortescue's fauna monitoring program is to monitor and measure the success of management actions to minimise impacts on conservation significant fauna species and ensure compliance with applicable State and Federal approval conditions.

The guiding objectives of the conservation significant fauna monitoring program include:

1. Undertake baseline surveys to determine presence of conservation significant fauna and their critical habitat.
2. Where baseline surveys have recorded conservation significant fauna and/or their critical habitat:
 - (a) Measure impacts of Fortescue's activities on conservation significant fauna within Fortescue controlled sites,
 - (b) Monitor and measure spatial and temporal changes in the abundance and distribution of conservation significant fauna within Fortescue controlled sites, and
 - (c) Monitor and measure the success of management measures to inform an adaptive management approach.
 - (d) Conduct an independent expert review of monitoring data every three years to inform monitoring frequency and ongoing monitoring requirements.

Operational monitoring will be informed by the findings of the monitoring itself as they become available. These findings may similarly lead to ongoing refinements to this Plan and its management strategies to ensure an adaptive management approach is undertaken during Fortescue activities.

3.2 Baseline sampling

Where possible, initial baseline survey(s) will be undertaken during the pre-construction phase to obtain accurate baseline data on the presence of habitat and species and population and distribution in accordance with the relevant EPBC Act Referral Guidelines (DWA 2010a, 2010b, 2010c) and DoE (2011a, 2011b, 2011c), Level 2 terrestrial vertebrate fauna surveys (EPA, 2016a & b), Fortescue 2011) and SRE short range endemic sampling (EPA, 2016c).



Results of existing baseline fauna surveys are available in the following Appendices:

- Appendix L Cloudbreak Mine Baseline Monitoring Report
- Appendix M Christmas Creek Mine Baseline Monitoring Report
- Appendix N Solomon Mine Baseline Monitoring Report
- Appendix O Hamersley Rail Baseline Monitoring Report
- Appendix P Mainline Rail Baseline Report
- Appendix Q Eliwana Mine and Rail Baseline Monitoring Report

3.3 Monitoring site selection

Where populations of conservation significant fauna listed under the *Biodiversity Conservation Act 2016* or the *Environment Protection and Biodiversity Conservation Act 1999* have been recorded in Fortescue controlled sites and critical habitat has been identified monitoring sites will be established. Monitoring sites may include:

- Locations where species have been previously recorded (through direct or indirect methods),
- In suitable habitat and denning/shelter zones outside of direct impact areas (control sites)
- In suitable locations within impact areas (impact sites) to allow for replication of results.
- Critical habitat types for the conservation significant species will be represented in the monitoring program, with a least one monitoring site per representative habitat type where possible.

The number and approach to the selection of monitoring sites varies dependent upon the species being monitored.

3.3.1 Night Parrot

Night Parrot monitoring sites have been located in area of long unburnt areas of Spinifex on the fringe of the Fortescue Marsh.

Night parrot monitoring sites and methods have been selected based on recommendations arising upon conclusion of an intensive three year monitoring program implemented by Fortescue and Adaptive NRM (subject matter experts) (100-RP-EN-9766, Leseberg *et al.* 2021).

The three year monitoring program comprised a desktop assessment to select high priority Night Parrot Habitat at Christmas Creek and an Cloudbreak mine sites, followed by an



intensive monitoring program using acoustic recording units over three years. The program identified twenty potential Night parrot calls, of which 9 were classed as possible, 6 probable and 5 very likely. Most detections, occurred in mature, long unburnt *Triodia* along the fringes of the marsh (Leseberg *et al.* 2021).

3.3.2 Northern Quoll

Northern Quoll monitoring sites (Figure 2) are located in Northern Quoll critical habitat (i.e. breeding and denning habitat) within Fortescue operational sites where the species has been confirmed. This includes 3 sites at Main Line Rail (Figure 3), 3 sites at Hamersley Rail (Figure 4) and 3 sites at Solomon Mine (Figure 6).

Monitoring sites have also been identified for Eliwana Railway (Figure 33) and Mine (Figure 7). Control data will be utilised from the Solomon Mine and from the PaWS regional Northern Quoll monitoring program (i.e. PaWS sites at Indee Station, Dales Gorge and Millstream), to which the methods are aligned.

At Christmas Creek mine site 3 sites (Figure 5) have been established using non-invasive techniques, due to the absence of confirmed records of the species. Control data is utilised from PaWS regional Northern Quoll monitoring program (i.e. PaWS sites at Indee, Hoopoley and Mt Florance), to which the methods are aligned.

Culvert locations on the Hamersley Line are also monitored within Northern Quoll habitat to determine their usage (Figure 32).

3.3.3 Conservation significant bats (Ghost Bat and Pilbara Leaf-nosed Bat)

Conservation significant bat monitoring sites (Figure 8) are located in known bat foraging (no critical habitat (i.e. roosting habitat) are believed to occur) within Fortescue controlled sites and offsite for reference sites. Twelve impact and twelve reference sites are established at Christmas Creek (Figure 9) mine sites, Main Line Rail (Figure 10) and Solomon Mine (Figure 11).

Monitoring sites have also been identified for Eliwana Railway (Figure 33) and Mine (Figure 12). Control sites will also include sites from Solomon Mine.

Monitoring sites will be relocated if monitoring results indicate that recording units need to be more targeted (i.e. detection of a roost case for abundance monitoring).

3.3.4 Greater Bilby

Great Bilby monitoring methods are aligned to the PaWS regional Bilby monitoring program, and comprise abundance monitoring and occupancy monitoring sites (Figure 13).

Abundance monitoring sites have been established at two known populations, one reference site and one potential impact site at Main Line Rail (Figure 14). Due to the nomadic nature of



Greater Bilby populations, these two sites will not be static and will follow the population if they move (as far as practical).

Occupancy monitoring sites are located in potential critical habitat (i.e. burrowing habitat) at Main Line Rail (approx. 40 sites) (Figure 15, Figure 16, Figure 17, and Figure 18) and Christmas Creek mine site (approx. 30 sites) (Figure 19). These occupancy search sites are not fixed locations but located throughout the habitat mapping shown these figures.

3.3.5 Pilbara Olive Python

Pilbara Olive Python monitoring sites (Figure 20) are positioned in Pilbara Olive Python foraging and critical habitat (i.e. shelter habitat) within Fortescue operational sites and offsite for reference sites. Three impact and three reference sites are established at the Christmas Creek Mine (Figure 21) and Solomon Mine (Figure 22).

Monitoring sites have also been identified for Eliwana Railway (Figure 33) and Mine (Figure 23).

3.3.6 Conservation significant birds (excluding Night Parrot)

Conservation significant bird (excl. Night Parrot) monitoring sites (Figure 24) are positioned in suitable habitat within Fortescue operational sites and offsite for reference sites. Three impact and three reference sites are established at Cloudbreak and Christmas Creek mine sites (Figure 25), Main Line (Figure 26 and Figure 27), Main Line/ Hamersley Rail Line (Figure 28) and Solomon Mine (Figure 29). To note, Cloudbreak and Christmas Creek share reference sites.

Monitoring sites have also been identified for Eliwana Railway (Figure 33) and Mine (Figure 30).

3.4 Monitoring methods

An effective long-term conservation significant fauna monitoring program may be adaptive. Innovations in monitoring techniques and methods will be considered and where appropriate incorporated into the program design over time. This would, however, be dependent on, and driven by, the quality and quantity of data collected from each site, coupled with a periodic review of monitoring methods. Further, program design is based on replicable sampling at impact and reference sites.

A set of monitoring parameters and methods have been selected to provide broad coverage of potential changes in spatial distribution and relative abundance of conservation significant fauna that can be expected under a range of different mining related impacts. The number of parameters will vary depending on the site-specific conditions and the target conservation significant fauna.



The intention of the program is the repeat sampling at the same impact sites throughout the monitoring program. However, if access is prevented due to developments of the mine, changes to land access agreements or similar, sites will be relocated to the nearest suitable location. Any changes will be documented in annual monitoring reports.

The Conservation Significant Fauna Monitoring Program adopts recommended techniques and methodologies as described in the technical guidance referenced in Section 1.4.1 of this Plan. A summary of the key monitoring parameters and methods have been provided in Table 5.

Table 6 provides a summary of the conservation significant monitoring parameters and monitoring effort for conservation significant fauna monitored under this Plan. The timing of monitoring programs for each species is variable and based on the period of highest activity for each species whilst avoiding the reproductive season and undue stress to breeding individuals. A conservation significant fauna monitoring program will be undertaken annually. The program will be led by appropriately skilled, Pilbara experienced, ecologists who will conduct in-field monitoring, analyse monitoring results and write monitoring reports.

Table 5: Conservation significant fauna monitoring parameters and methods

Monitoring parameter	Method
Individual data/ biometric data	Direct results from trapping and observation monitoring methods
Population	Cumulative results from single season monitoring programs, as well as over annual programs
Habitat characteristics	Observation, habitat mapping, photographs etc.
Meteorological data	Data from Weather Stations installed near monitoring site locations
Environmental threats	Observation, mapping, photographs etc.



Table 6: Summary of conservation significant fauna monitoring

Fauna species	EPBC Act	BC Act	Method	Monitoring parameters	Monitoring effort	Timing / Frequency	Location
Night Parrot (<i>Pezoporus occidentalis</i>)	CR	CR	Non-invasive: Acoustic recording units	Presence Habitat characteristics Meteorological data Environmental threats	<u>Minimum Effort (or suitable equivalent)</u> ¹² Approx. 10-15 <ul style="list-style-type: none"> Acoustic Recording Units (ARUs) deployed in critical habitat (i.e. fringe of marsh – long unburnt Spinifex) over the wet season Spacing of units should be 700-1000 m Data analysis using the Night Parrot signal recognition software. 	Timing Post wet season Frequency Annual	Cloudbreak (EPBC 2005/2205) Christmas Creek ¹³ (EPBC 2013/7055, MS1033)
Northern Quoll (<i>Dasyurus hallucatus</i>)	EN	EN	Non-invasive: Active searches and searches for scats and other signs, motion cameras Invasive: Cage traps and Elliott traps. Replicated control and impact sites.	Abundance Individual data/ biometric data <ul style="list-style-type: none"> Sex Body measurements Health Breeding status/ Reproductive condition Behaviour Area of occupancy Habitat characteristics Meteorological data Environmental threats Culvert usage	<u>Minimum Effort (or suitable equivalent)</u> Medium to High population density: Elliott and Cage Traps: in alignment with "Pilbara northern Quoll Project, Surveyed and Monitoring <i>Dasyurus hallucatus</i> in the Pilbara, Western Australia" - (PaWS 2014). OR Low population density: Motion cameras: 5 cameras per sampling site. 4 nights <u>Alternative Effort (or suitable equivalent)</u> Active searches and searches for scats and other signs: ten hours per sampling site. Motion cameras: 5 cameras per sampling site. 4 nights Where possible, monitoring will align with DPaW regional monitoring programs.	Timing May to August Frequency Annual	Hammersley Rail Corridor Mainline Corridor Cloudbreak Christmas Creek (EPBC 2013/7055, MS1033) Solomon (MS 1062; EPBC 2014/7275) Eliwana Mine (MS 1109) Eliwana Rail (MS 1108)
Pilbara Leaf-nosed Bat (<i>Rhinonictis aurantia</i>)	VU	VU	SM2Bat recorders	Presence Habitat characteristics Meteorological data Environmental threats	SM2Bat recorders: 1 recorder per sampling site. 12 impacts, 12 control sites. 28 detector nights per sampling site. 7 nights ¹⁴ . Where possible, monitoring will align with PaWS regional monitoring programs.	Timing November to May Frequency Annual	Mainline Corridor (EPBC 2010/5513) Hammersley Rail Corridor (EPBC 2010/5567) Solomon (MS 1062; EPBC 2014/7275) Eliwana Mine (MS 1109) Eliwana Rail (MS 1108)
Greater Bilby (<i>Macrotis lagotis</i>)	VU	VU	Non-invasive: Diurnal monitoring and diurnal searches for tracks and other signs, motion cameras on burrows, spotlighting, hair funnels	Abundance Area of occupancy Habitat characteristics Meteorological data Environmental threats Culvert Usage	<u>Abundance (where known population) sites:</u> <ul style="list-style-type: none"> Diurnal monitoring and diurnal searches for tracks and other signs (2 ha sites) Scat collection and genetic analysis to determine population size (2 ha sites) Food plots (3 per site) Remote cameras <u>Occupancy sites:</u> <ul style="list-style-type: none"> Diurnal monitoring and diurnal searches for tracks and other signs (2 ha sites) Two phase sampling (subset of sites) Where possible, monitoring will align with PaWS regional monitoring program.	Timing No specified time. Frequency Annual	Mainline Corridor (EPBC 2010/5513) Christmas Creek (EPBC 2013/7055, MS1033)

¹² Minimum effort and monitoring methods are in accordance with the recommendations outlined in Leseberg *et al.* (2021) and discussions with Adaptive NRM.

¹³ This species has not been recorded at this site but a condition of a Ministerial Statement or Controlled Action specifies monitoring for this species.

¹⁴ Bat monitoring methods were amended in 2017 following discussion with DBCA. This included decreasing the number of recording units at each site (from 4 to 1) but increasing the number of monitoring sites to improve spatial coverage of the monitoring. Net monitoring effort remains unchanged.



Fauna species	EPBC Act	BC Act	Method	Monitoring parameters	Monitoring effort	Timing / Frequency	Location
Ghost Bat (<i>Macroderma Gigas</i>)	VU	VU	SM2Bat recorders	Presence Habitat characteristics Meteorological data Environmental threats	As a minimum, SM2Bat recorders: 1 recorder per sampling site. 12 impacts, 12 control sites. 28 detector nights per sampling site. 7 nights, until such time that a new method suitable for Ghost Bat monitoring is developed (i.e. scat analysis) Where possible, monitoring will align with PaWS regional monitoring programs.	Timing November to May Frequency Annual	Christmas Creek Mainline Corridor (EPBC 2010/5513) Solomon (MS 1062; EPBC 2014/7275) Eliwana Mine (MS1109) Eliwana Rail (MS1108)
Pilbara Olive Python (<i>Liasis olivaceus barroni</i>)	VU	VU	Searches for signs, spotlighting	Individual data/biometric data <ul style="list-style-type: none"> Weight Length General body condition Area of occupancy Habitat characteristics Meteorological data Environmental threats	Searches for signs: 2 hour search time for each hectare sampling site. 7 nights. Spotlighting: monitor two 200m transects per 5 hectare site, replicate across habitat types in areas > 5 hectares. Repeat same transects for a minimum of two separate nights. 7 nights. Where possible, monitoring will align with PaWS regional monitoring programs.	Timing December to February Frequency Annual	Christmas Creek (EPBC 2013/7055, MS1033) Solomon (MS 1062; EPBC 2014/7275) Eliwana Mine (MS1109) Eliwana Rail (MS 1108)
Grey Falcon (<i>Falco hypoleucos</i>)		VU	Area searches, transect point monitoring	Area of occupancy Habitat characteristics Meteorological data Environmental threats	Area searches: 20 minute search time for every 2 hectare sampling site.	Timing December to February Frequency Annual	Cloudbreak Mainline Hamersley Rail
Wood Sandpiper (<i>Tringa glareola</i>)	M	IA	Area searches, targeted resource and habitat searches, bird calls	Number of birds Habitat characteristics Meteorological data Environmental threats	Area searches: 20 minute search time for every 2 hectare sampling site	Timing December to February Frequency Annual	Christmas Creek (EPBC 2013/7055, MS1033) Mainline Corridor
Common Greenshank (<i>Tringa nebularia</i>)	M	IA	Area searches, targeted resource and habitat searches, bird calls	Number of birds Habitat characteristics Meteorological data Environmental threats	Area searches: 20 minute search time for every 2 hectare sampling site	Timing December to February Frequency Annual	Christmas Creek (EPBC 2013/7055, MS1033) Mainline Corridor
Common Sandpiper	M	IA	Area searches, targeted resource and habitat searches, bird calls	Number of birds Habitat characteristics Meteorological data Environmental threats	Area searches: 20 minute search time for every 2 hectare sampling site	Timing December to February Frequency Annual	Mainline Corridor
Fork-tailed Swift (<i>Apus pacificus</i>)	M	IA	Area searches, targeted resource and habitat searches, bird calls	Number of birds Habitat characteristics Meteorological data Environmental threats	Area searches: 20 minute search time for every 2 hectare sampling site	Timing December to February Frequency Annual	Solomon (MS 1062; EPBC 2014/7275) Eliwana Mine (MS 1109) Eliwana Rail (MS 1108)



3.4.1 Monitoring program review

The monitoring program will be technically assessed and reviewed upon acceptance of this plan¹⁵ and then every three years thereafter. The main objective of the assessment and review will be to ensure that the methods, parameters and frequency used are considerate and appropriate to the findings of the monitoring program. If no triggers are exceeded (detailed in Table 7) after three years, the frequency of monitoring will be reduced to a frequency supported by the review. Where no conservation significant fauna has been recorded over the three-year period the review will determine whether monitoring may cease.

Monitoring sites may need to be adapted over time in response to project impacts.

The assessment and review will be undertaken by an independent Pilbara ecology expert with a relevant tertiary qualification and a minimum 10 years terrestrial Pilbara ecology experience.

Contingency action (Table 7) and reporting requirements (Section 5) will be implemented where required.

3.4.2 Data handling and statistical analysis

Data will be handled in accordance with the data handling protocol established as part of the annual monitoring tender. The protocol will include the requirements as to data storage and protection, data extraction, quality control, analysis, interpretation, reporting and presentation. The protocol will also directly reference and align with the requirements detailed in *Document Control, Information Management (100-ST-DC-001)* and *Geographic Information Systems and Raw Data Guidelines (100-GU-EN-0009)*.

Statistical analysis of data will be undertaken where data permits. Where data capture allows, analysis will include univariate or multivariate analysis, as deemed appropriate, to determine whether there are any statistical variation in monitoring data. Robust statistical analysis shall be completed for all programs, and shall comprise of the following (or similar):

- parametric and Non-Parametric univariate statistical analysis (*i.e.* Students T-tests, Mann-Whitney U test)
- parametric and Non-Parametric multivariate statistical analysis (*i.e.* ANOVA, Kruskal-Wallis ANOVA)
- parametric and Non-Parametric correlation and association tests (*i.e.* Spearman Rank and Pearson Correlation Coefficient, Linear Regression, Generalised Linear Models)
- distribution models and total distribution area, compared across monitoring periods

¹⁵ This is primarily due to the fact that a number conservation significant fauna species monitoring programs have been ongoing for over 5 years.



- multivariate analysis (*i.e.* Principal Component Analysis)

Error analysis shall also be completed to understand the accuracy of the monitoring results.

Monitoring reports will also be provided to the State and Commonwealth Governments as dictated by annual reporting requirements. In addition, the monitoring raw data will be made available to the Western Australian State Government and the Commonwealth Government upon request or where conditioned to provide.



4 CONTINGENCY ACTIONS

Contingency actions will be initiated during construction, operational and decommissioning activities when an exceedance of a target is identified and monitoring indicates that implemented management measures are not successfully mitigating impacts on conservation significant fauna and their supporting habitats and/or the management objectives are not being achieved.

Contingency actions for conservation significant fauna monitoring triggers have been developed to meet requirements under the environmental approvals listed in Table 7 of this Plan.



Table 7: Target criteria and contingency measures

Approval	Target	Contingency measures
MS 690 EPBC 2010/5513	<ul style="list-style-type: none"> Statistically significant decline in the relative abundance of conservation significant species across impact sites compared to reference sites. No continued presence of conservation significant species recorded within the impact areas. 	<ul style="list-style-type: none"> Initiate implementation of contingency measures within 24 hours of the exceedance being identified. Determine whether the changes observed in the impact sites are comparable to the observations in the reference sites.
MS 899	<ul style="list-style-type: none"> Statistically significant decline in the relative abundance of conservation significant species across impact sites compared to reference sites. No continued presence of conservation significant species recorded within the impact areas. 	<ul style="list-style-type: none"> Re-examine applied monitoring parameters to validate they are operating within management levels and where necessary implement changes to the management system to address exceedance. Ground truth the results to validate if findings of the assessment are correct. Where the cause is identified during ground truthing and can be rectified, undertake immediate action. For actions which require alternative resources, schedule works to be undertaken as soon as possible.
MS 1033 EPBC 2013/7055	<ul style="list-style-type: none"> Statistically significant decline in the relative abundance of conservation significant species across impact sites compared to reference sites. No continued presence of conservation significant species recorded within the impact areas. 	<ul style="list-style-type: none"> Cross reference conservation significant fauna results with the most recent environmental monitoring data (i.e. surface water/ groundwater/ vegetation/ weeds/ feral animals/ meteorological etc.) as well as regional bushfire data to determine whether the cause can be identified.
MS 1062 EPBC 2010/5567 EPBC 2014/7275	<ul style="list-style-type: none"> Statistically significant decline in the relative abundance of conservation significant species across impact sites compared to reference sites. No continued presence of conservation significant species recorded within the impact areas. 	<ul style="list-style-type: none"> Verify any fauna management measures are operating as per design. Where issues are identified seek immediate rectification to ensure the management response can be met. For actions which require alternate resources, schedule works to be undertaken as soon as possible. Where the exceedance was not caused by construction, operation or decommissioning activities, continue the management and monitoring program in accordance with the Plan.
EPBC 2005/2205	<ul style="list-style-type: none"> No direct mortality to Night Parrot within its recorded habitats within the project area as a result of ground disturbance activities. No direct loss to Night Parrot habitat within the project area that is not approved³ for disturbance. 	<ul style="list-style-type: none"> Where the exceedance was caused by construction, operation or decommissioning activities: <ul style="list-style-type: none"> Review management measures with an adaptive management response. Undertake further communication and training to raise awareness with staff of the impact and the management measures (including new management measures identified) to reduce the potential impact on the species.
MS 1108 Condition 10-1 EPBC 2017/8025	<ul style="list-style-type: none"> Statistically significant decline in the relative abundance of conservation significant species across impact sites compared to reference sites. No continued presence of conservation significant species recorded within the impact areas. 	<ul style="list-style-type: none"> Where cause is determined to be vehicle interaction, measures may include: <ul style="list-style-type: none"> Reduce speed limits in areas with target fauna records and suitable habitat Erect road signage to identify species and habitat areas.



<p>MS 1109 Condition 10-1 EPBC 2017/8024</p>	<ul style="list-style-type: none"> • Statistically significant decline in the relative abundance of conservation significant species across impact sites compared to reference sites. • No continued presence of conservation significant species recorded within the impact areas. 	<ul style="list-style-type: none"> • Where the cause is determined to be habitat clearing or fragmentation of habitat: <ul style="list-style-type: none"> • Review the LUC process and implement any further measures including changes to the process to reduce the potential for clearing outside approved areas • Where the cause is determined to be light or noise: <ul style="list-style-type: none"> • Verify lighting is directed onto active construction and operational work areas. Amend lighting location(s) where required. • Verify equipment is operating within Australian standard noise limits. Undertake maintenance on equipment that is in exceedance. • Where the cause is determined to be feral animals: <ul style="list-style-type: none"> • Where a rise in feral animal numbers is linked to camp activities, undertake further training to raise awareness with staff on the management measures to reduce the potential impact on conservation significant species. • Verify rubbish bins have lids and are covered, remedy where necessary. • Implement feral animal control in areas where feral animals have been sighted, see Appendix S. • Once management actions have been completed, undertake a subsequent monitoring event to verify parameters are within acceptable limits • Continue to implement actions to remediate the exceedance until approval to cease has been given by the DWER.
<p>MS 1109 Condition 10-2</p>	<p>No direct mortality to known locations of the short range endemic species <i>Antichiropus</i> 1021DNA02 or the associated within the project area as described in the Eliwana Iron Ore Mine Project: Environmental Review Document (FMG, October 2018).</p>	<ul style="list-style-type: none"> • Initiate implementation of contingency measures within 24 hours of the exceedance being identified. • Ground truth the results of the exceedance to validate findings of the assessment. • Where the exceedance was not caused by construction, operation or decommissioning activities, no further action is required. • Where the exceedance was caused by construction, operation or decommissioning activities: <ul style="list-style-type: none"> • Review management measures with an adaptive management response • Review the LUC process and implement any further measures including changes to the process to reduce the potential for clearing outside approved areas • Continue to implement actions to remediate the exceedance until approval to cease has been given by the OEPA.



5 REPORTING

5.1 Annual compliance reporting

5.1.1 State government reporting

Fortescue is required to report against its compliance with this Plan in the Compliance Assessment Report prepared in accordance with the OEPA's Post Assessment Guideline for Preparing a Compliance Assessment Report, Post assessment Guideline No. 3.

Annual Compliance Assessment Reports (CAR) are required to be submitted in accordance with the following Ministerial Statements with conservation significant fauna related conditions:

- Condition 5-1 of MS690
- Condition 4-6 of MS899
- Condition 3-6 of MS1033
- Condition 3-6 of MS 1062
- Condition 4-6 and 4-7 of MS 1108
- Condition 4-6 of MS 1109.

The reporting requirements against management targets and conditioned environmental objectives are provided in Table 1. In the event that trigger criteria were exceeded during the reporting period, the CAR will include a description of the effectiveness of the contingency actions that have been implemented to manage the impact and any adaptive management measures applied as a result of the exceedance.

5.1.2 Federal government reporting

Fortescue is required to report against its compliance with this Plan in the annual compliance report prepared in accordance with the DCCEEWs Annual Compliance Report Guidelines, 2014.

Annual Compliance Reports are required to be submitted in accordance with the following EPBC Act Decisions with conservation significant fauna related conditions:

- Condition 8 of EPBC 2005/2205
- Condition 15 of EPBC 2010/5513
- Condition 4 of EPBC 2013/7055
- Condition 16 of EPBC 2014/7275



- Condition 13 of EPBC 2017/8024
- Condition 13 of EPBC 2017/8025.

5.2 Reporting of potential non-compliances

5.2.1 State government reporting

Fortescue is required to report against exceedances of management targets for management based environmental conditions within conditioned timeframes. This requirement is specific to MS1033, MS 1062, MS 1108 and MS 1109 for Eliwana Railway and Mine.

In the event that monitoring, tests, surveys or investigations indicate an exceedance of a management target in Table 1 has occurred within the reporting period, Fortescue will:

- Where the exceedance is attributable to construction, operation or decommissioning activities, report the exceedance in writing to the EPA Services of the DWER within 21 days of the exceedance being identified in accordance with Condition 6-4 (1) of MS1033, Condition 7-4(1) of MS1062, Condition 6-5(1) of MS 1109.
- Where the exceedance is attributable to construction, operation or decommissioning activities, report the exceedance in writing to the EPA Services of the DWER within 7 days of the exceedance being identified in accordance with Condition 6-5(1) of MS 1108.
- Investigate to determine the cause of the management targets being exceeded in accordance with Condition 6-4(2) of MS1033, Condition 7-4(2) of MS1062 and Condition 6-5(2) of MS 1108 and MS 1109.
- Provide a report to the EPA Services of the DWER within 90 days of the exceedance being reported as required by Condition 6-4(1) in accordance with the requirements of condition 6-4(3) of MS1033, Condition 7-4(3) of MS1062 and Condition 6-5(3) of MS 1108 and MS 1109.

In the event that monitoring of compliance, tests, surveys or investigations indicate that one or more management actions have not been implemented within the reporting period, Fortescue will:

- Report the failure to implement management action(s) in writing to the EPA Services of the DWER within 7 days of identification in accordance with Condition 6-5 (1) of MS1033 and Condition 7-5(1) of MS1062.
- Investigate to determine the cause of the management action(s) not being implemented in accordance with Condition 5-5(2) of MS1033, Condition 7-5(2) of MS1062 and Condition 6-6(1) of MS 1108 and MS1109.



- Investigate to provide information for the EPA Services of the DWER to determine potential environmental harm or alteration of the environment that occurred due to the failure to implement management actions in accordance with Condition 6-5(3) of MS1033 and Condition 7-5(3) of MS1062.
- Provide a report to the EPA Services of the DWER within 21 days of the reporting required by condition 6-5(1) in accordance with the requirements of condition 6-5(4) of MS1033 and Condition 7-5(4) of MS1062.
- Provide a report to the EPA Services of the DWER within 28 days of the non-compliance being identified in accordance with Condition 6-6(3) of MS 1109.
- Provide a report to the EPA Services of the DWER within 7 days of the non-compliance being identified in accordance with Condition 6-6(3) of MS 1108.

5.2.2 Federal government reporting

Fortescue is required to report non-compliances with conditions of its approvals within timeframes prescribed within the relevant approval. Non-compliance reporting is required in addition to Annual Compliance Reporting in accordance with the following Approval conditions:

- EPBC 2010/5567 Condition 15 – As soon as practicable and within no later than two business days of the detection of the non-compliance
- EPBC 2013/7055 Condition 3 – Within 48 hours of becoming aware of the potential or suspected non-compliance
- EPBC 2014/7275 Condition 18 - As soon as practicable and no later than 7 business days after becoming aware of the non-compliance.
- EPBC 2017/8024 and EPBC 2017/8025 Condition 14 – No later than two business days after becoming aware of the incident or non-compliance.

In accordance with condition 19 of EPBC 2014/7275 where a non-compliance has been recorded and reporting is required Fortescue will specify:

- The Condition which is in breach
- The nature of the non-compliance
- The effect the non-compliance will have on the action and the impacts of the action
- The time by when the non-compliance will be rectified.

In accordance with condition 15 of EPBC 2017/8024 and EPBC 2017/8025 where an incident or non-compliance has been recorded and reporting is required Fortescue will specify:



- Any corrective actions or investigation which the approval holder has already taken or intends to take in the immediate future
- The potential impacts of the incident or non-compliance
- The method and timing of any remedial action that will be undertaken.



6 ADAPTIVE MANAGEMENT AND REVIEW

Fortescue will implement adaptive management practices to learn from the implementation of mitigation measures, monitoring and evaluation against management targets, to more effectively meet the conditioned environmental objective. Adaptive management practices that will be assessed for the conservation significant fauna management and monitoring program as part of this approach will include:

- Evaluation of the monitoring program, data and comparison to baseline data and reference sites on an annual basis to verify whether responses to project activities are the same or similar to predictions,
- Evaluation of assumptions and uncertainties of the conservation significant fauna management and monitoring program,
- Re-evaluation of the risk assessment and revision of risk-based priorities as a result of monitoring outcomes,
- Review of data and information gathered over the review period that has increased understanding of site environment in the context of the regional ecosystem,
- Review of management actions as the project matures and new management measures and technologies become available that may be more effective for conservation significant fauna management, and
- Assessment of changes which are outside the control of the project and the management measures identified (i.e. a new project within the area or region; regional change affecting conservation significant fauna management).

Review of this Plan will be undertaken in response to:

- Amendments to the environmental risk assessment in response to a new Mining Proposal submitted under the *Mining Act 1978*
- Monitoring program review, inclusive of baseline data capture
- Adaptive management response
- Investigation outcomes from the non-achievement of management targets (as specified in the investigation report required under Condition 6-5(3) of MS 1108 and MS 1109.

Revisions of this Plan will be submitted to the relevant State and Commonwealth Government Agencies for approval, in accordance with the relevant approval conditions. Fortescue will continue to implement the latest approved version of the Plan in accordance with State and Commonwealth approval conditions.



7 STAKEHOLDER CONSULTATION

Fortescue has undertaken an extensive stakeholder consultation program whereby landowners, regulators and other relevant parties have been consulted with regard to investigation and design of the mine sites and port and rail infrastructure through the environmental approvals process.

The then Department of Environment Regulation (DER), the then Office of the Environmental Protection Authority (OEPA) and the then Department of the Environment (DoE) were consulted and, where required, approved the content of the original plans for which this Plan will replace.

Revision 2 of this Plan was submitted to the then OEPA to satisfy the requirements of Condition 10 of MS899 and was approved in November 2013 (CB-EN-0137.01). The Plan was also submitted to the then OEPA to satisfy the requirements of Condition 7-1 of MS 690 and MS707 and Condition 12-1 of MS862 and was approved in October 2014 (100-EN-0441.03).

Revision 2 was also submitted to the then Department of Environment (DoE) to satisfy condition 9 of EPBC 2005/2205, Condition 9 of EPBC 2010/5513 and Condition 10 of EPBC 2010/5567 in April 2014 (100-EN-0492). The DoE approved the revision 2 of The Plan in April 2015 (PUI-000008).

Revision 3 was submitted to the EPA Services of the DWER to satisfy condition 8 of MS 1033 in August 2017 (CC-EN-0313) and was approved in March 2018 (CC-EN-0313.06).

Revision 4 of was submitted to the EPA Services of the DWER for their review, comment and approval, and PaWS for their review and comment, in accordance with condition 12 of MS 1062. Approval was granted in August 2018 (SO-EN-0283.01).

Revision 5 was submitted to the DCCEEW to satisfy conditions under EPBC 2005/2205, EPBC 2010/5513, EPBC 2010/5567, EPBC 2013/7055 and EPBC 2014/7055 (100-EN-0802.01) and approved in July 2019 (100-EN-0802.07).

Table 8 will be updated following receipt of stakeholder comment as a result of the review and approvals process.

Table 8: Stakeholder consultation, comments and responses

Stakeholder	Correspondence	Comment	Changes
EPA Services of the DWER	MS 1033- Pilbara Iron Ore and Infrastructure Project (Christmas Creek Mine, East-West railway and Mindy Mindy Mine)	<u>MS 1033</u> CC-EN-0313.01 CC-EN-0313.04	<u>MS 1033</u> CC-EN-0313.03 CC-EN-0313.05
	<ul style="list-style-type: none"> Fortescue: Plan issued for review (CC-EN-0313) 	<u>MS 1062</u> No comments received <u>MS 1108 and MS 1109</u>	<u>MS 1108 and MS 1109</u> UID99808 UID99809



	<ul style="list-style-type: none"> • DWER: Comments provided on Plan (DWERA-000284) (Fortescue reference (CC-EN-0313.01)) • Fortescue: Rev 3a of Plan provided for approval (CC-EN-0313.03) • DWER: Comments provided on Rev 3a (CC-EN-0313.04) • Fortescue: Rev 3b of Plan provided for approval (CC-EN-0313.05) • DWER: Approval granted (CC-EN-0313.06) • Fortescue: Plan updated to reflect approval by EPA Services of DWER, Rev4 IFU <p>MS 1062 – Solomon Iron Ore Project – Sustaining Production</p> <ul style="list-style-type: none"> • Fortescue: Rev 4a of the Plan issued for review (SO-EN-0283) • DWER: Approval granted (SO-EN-0283.01) • Fortescue: Plan updated to reflect approval by EPA Services of DWER, Rev5 IFU <p>MS 1108 and MS 1109- Eliwana Railway and Mine</p> <ul style="list-style-type: none"> • Fortescue: Rev 6a of the Plan issued for review • DWER: Comments provided on Rev 6a • Fortescue: Response to comments and Rev 6b issued for review • DWER: Comments on Rev 6b • Fortescue: Response to comments and Rev 6c issued for review • DWER: Request for NQ reference for Eliwana Mine • Fortescue: Submission of Rev 6d • Fortescue: Submission of Rev 6e <p>DWER: Approval granted (UID 108293)</p>	<p>UID 99807 PUI 0000186 UID 107804</p>	<p>UID 106941 UID 106626 UID 107812</p>
<p>DAWE</p>	<p>EPBC 2005/2205 – Cloudbreak Open Pit Iron Ore Mine</p> <ul style="list-style-type: none"> • Fortescue: Plan issued for review (CC-EN-0312) 	<p><u>EPBC 2005/2205</u> 100-EN-0802.01 100-EN-0802.03 100-EN-0802.05</p>	<p><u>EPBC 2005/2205</u> 100-EN-0802.02 100-EN-0802.04 100-EN-0802.06</p>



	<ul style="list-style-type: none"> • Fortescue: Rev 5 of the Plan issued for review (100-EN-0802) • DAWE: Comments provided on Rev 5 (100-EN-0802.01) • Fortescue: Rev 5a of the Plan issued for review (100-EN-0802.02) • DAWE: Comments provided on Rev 5a (100-EN-0802.03) • Fortescue: Rev 5b of the Plan issued for review (100-EN-0802.04) • DAWE: Comments provided on Rev 5b (100-EN-0802.05) • Fortescue: Rev 5c of the Plan issued for approval (100-EN-0802.06) • DAWE: Rev 5c of the Plan approved (100-EN-0802.07) • Fortescue: Plan updated to reflect approval by the DWER, Rev 6 IFU <p>EPBC 2010/5513 – Additionally Rail Infrastructure</p> <ul style="list-style-type: none"> • Fortescue: Rev 5 of the Plan issued for review (100-EN-0802) • DAWE: Comments provided on Rev 5 (100-EN-0802.01) • Fortescue: Rev 5a of the Plan issued for review (100-EN-0802.02) • DAWE: Comments provided on Rev 5a (100-EN-0802.03) • Fortescue: Rev 5b of the Plan issued for review (100-EN-0802.04) • DAWE: Comments provided on Rev 5b (100-EN-0802.05) • Fortescue: Rev 5c of the Plan issued for approval (100-EN-0802.06) • DAWE: Rev 5c of the Plan approved (100-EN-0802.07) • Fortescue: Plan updated to reflect approval by the DWER, Rev 6 IFU <p>EPBC 2010/5567 – Solomon Iron Ore Project</p> <ul style="list-style-type: none"> • Fortescue: Rev 4a of the Plan issued for review (SO-EN-0285) • DAWE: Comments provided on Rev 5 (100-EN-0802.01) 	<p><u>EPBC 2010/5513</u> 100-EN-0802.01 100-EN-0802.03 100-EN-0802.05</p> <p><u>EPBC 2010/5567</u> 100-EN-0802.01 100-EN-0802.03 100-EN-0802.05</p>	<p><u>EPBC 2010/5513</u> 100-EN-0802.02 100-EN-0802.04 100-EN-0802.06</p> <p><u>EPBC 2010/5567</u> 100-EN-0802.02 100-EN-0802.04 100-EN-0802.06</p>
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	<ul style="list-style-type: none"> • Fortescue: Rev 5a of the Plan issued for review (100-EN-0802.02) • DAWE: Comments provided on Rev 5a (100-EN-0802.03) • Fortescue: Rev 5b of the Plan issued for review (100-EN-0802.04) • DAWE: Comments provided on Rev 5b (100-EN-0802.05) • Fortescue: Rev 5c of the Plan issued for approval (100-EN-0802.06) • DAWE: Rev 5c of the Plan approved (100-EN-0802.07) • Fortescue: Plan updated to reflect approval by the DWER, Rev 6 IFU <p>EPBC 2013/7055- Pilbara Iron Ore and Infrastructure Project (Christmas Creek Mine, East-West Railway and Mindy Mindy Mine)</p> <ul style="list-style-type: none"> • Fortescue: Plan issued to meet Condition 3A (CC-EN-0312) <p>EPBC 2014/7275 – Solomon Iron Ore Project Expansion</p> <p>Fortescue: Plan issued to meet condition 3A (UID 81605)</p>		
PaWS	<p>MS 1033- Pilbara Iron Ore and Infrastructure Project (Christmas Creek Mine, East-West railway and Mindy Mindy Mine)</p> <ul style="list-style-type: none"> • Fortescue: Plan issued for review: CC-EN-0315 <p>MS 1062 – Solomon Iron Ore Project – Sustaining Production</p> <ul style="list-style-type: none"> • Fortescue: Plan issued for review: SO-EN-0284 	<p><u>MS 1033</u> No comments received</p> <p><u>MS 1062</u> No comments received</p>	



8 REFERENCES

This Plan and all internal supporting documents will be managed as per Fortescue Document Governance Standards. These may be read in conjunction with this report.

- [1] Adaptive NRM (2018). "Fortescue Night Parrot Monitoring Procedure and Program (2018-2021)", 21 August 2018, 100-PP-EN-0041.
- [2] Conservation Advice, *Pezoporus occidentalis*, Threatened Species Scientific Committee (2016).
- [3] Conservation Advice, *Rhinonictis aurantia* (Pilbara form), Threatened Species Scientific Committee (2016).
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- [5] Conservation Advice, *Liaia olivacea barroni*, Threatened Species Scientific Committee (2008).
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- [14] EPBC Act Survey Guidelines for Australia’s Threatened Fish, Guidelines for Detecting Fish Listed as Threatened Under the EPBC Act 1999. Australian Government, Department of Sustainability, Environment, Water, Population and Communities (2011).
- [15] EPBC Act Survey Guidelines for Australia’s Threatened Mammals, Guidelines for Detecting Mammals Listed as Threatened Under the EPBC Act 1999. Australian Government, Department of Sustainability, Environment, Water, Population and Communities (2011).
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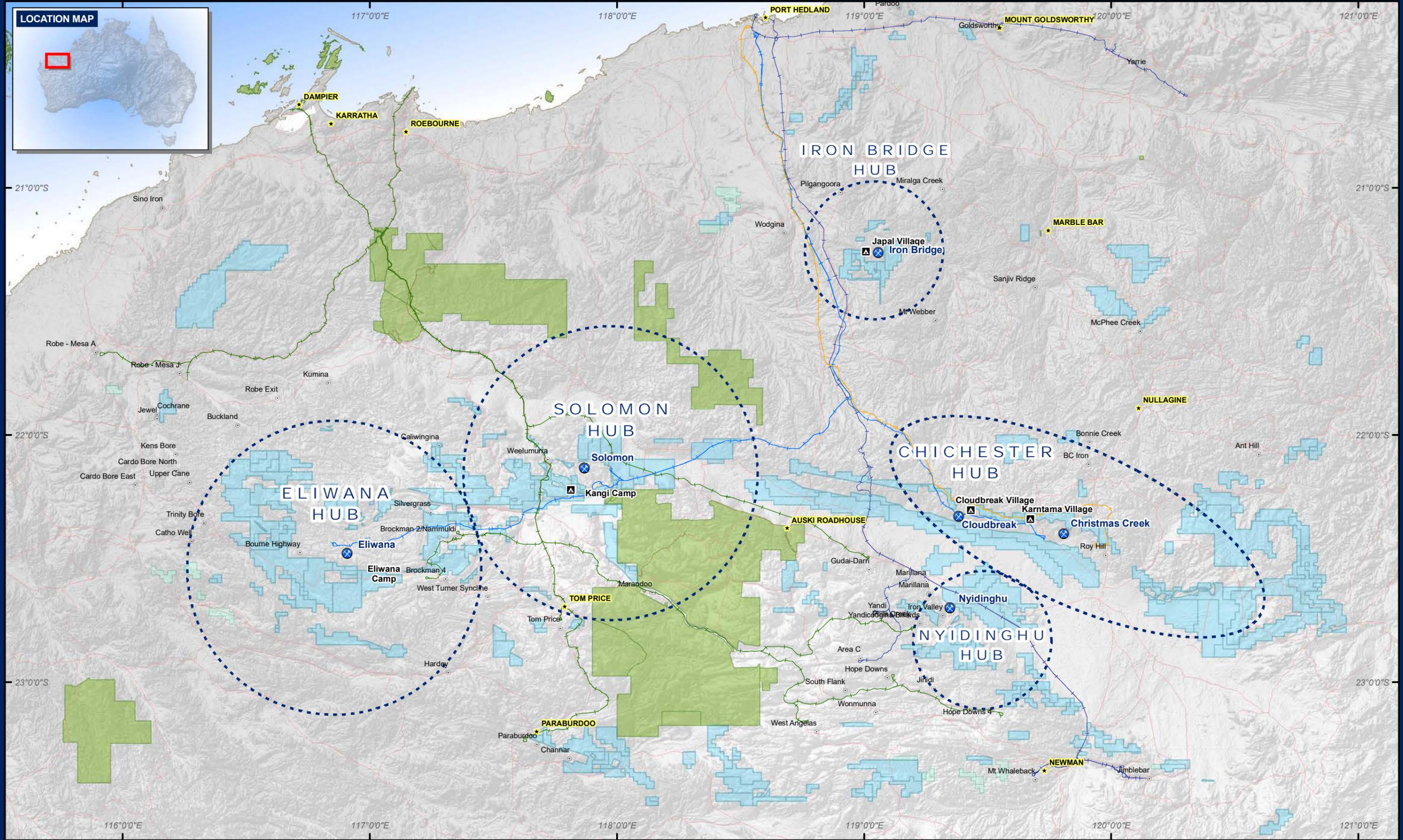


DOCUMENT CONTROL

Conservation Significant Fauna Management Plan		
Status	IFU - Issued for Use	1-Nov-24
Summary of Changes	Monitoring effort for Night Parrot and Section 3.3.1 on Night Parrot monitoring has been updated to reflect current monitoring results and efforts. Plan updated to current template Plan supersedes <i>Conservation Significant Fauna Management Plan</i> (100-PL-EN-0022).	
Author	Jane Humphrey	_____ Signature
Checked or Squad Review# (if applicable)		_____ Signature
Approved	Scott Poole	_____ Signature
Next Review Date (if applicable)	1-Nov-29	



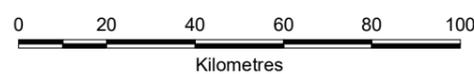
FIGURE 1 FORTESCUE TENEMENTS AND PROJECT AREAS



LEGEND

- ★ Towns
- ⊗ Project Area
- ▲ FMG Camp
- Other Mines & Prospects
- Roads
- FMG Rail Alignments
- BHP
- Rio Tinto
- Roy Hill
- FMG Non-managed Exploration Tenements
- FMG Managed Exploration Tenements
- Reserves

Data Sources:
 Tenements, sourced from DMIRS, 2024.
 Roads, Towns, Reserves, Landgate.
 3rd Rail, RTIO, BHPB, RHIO.
 DEM, GA.



Requested By: J. Humphrey
 Drawn By: S. Costello
 Revised By: scostello
 Approved By: N/A
 Scale: 1:1,600,000
 Coordinate System: GCS GDA 1994
 Document Name: 100_MP_OP_0058.010_r7

Date: 16/08/2024
 Size: A3L
 Revision: 7
 Confidentiality: 0

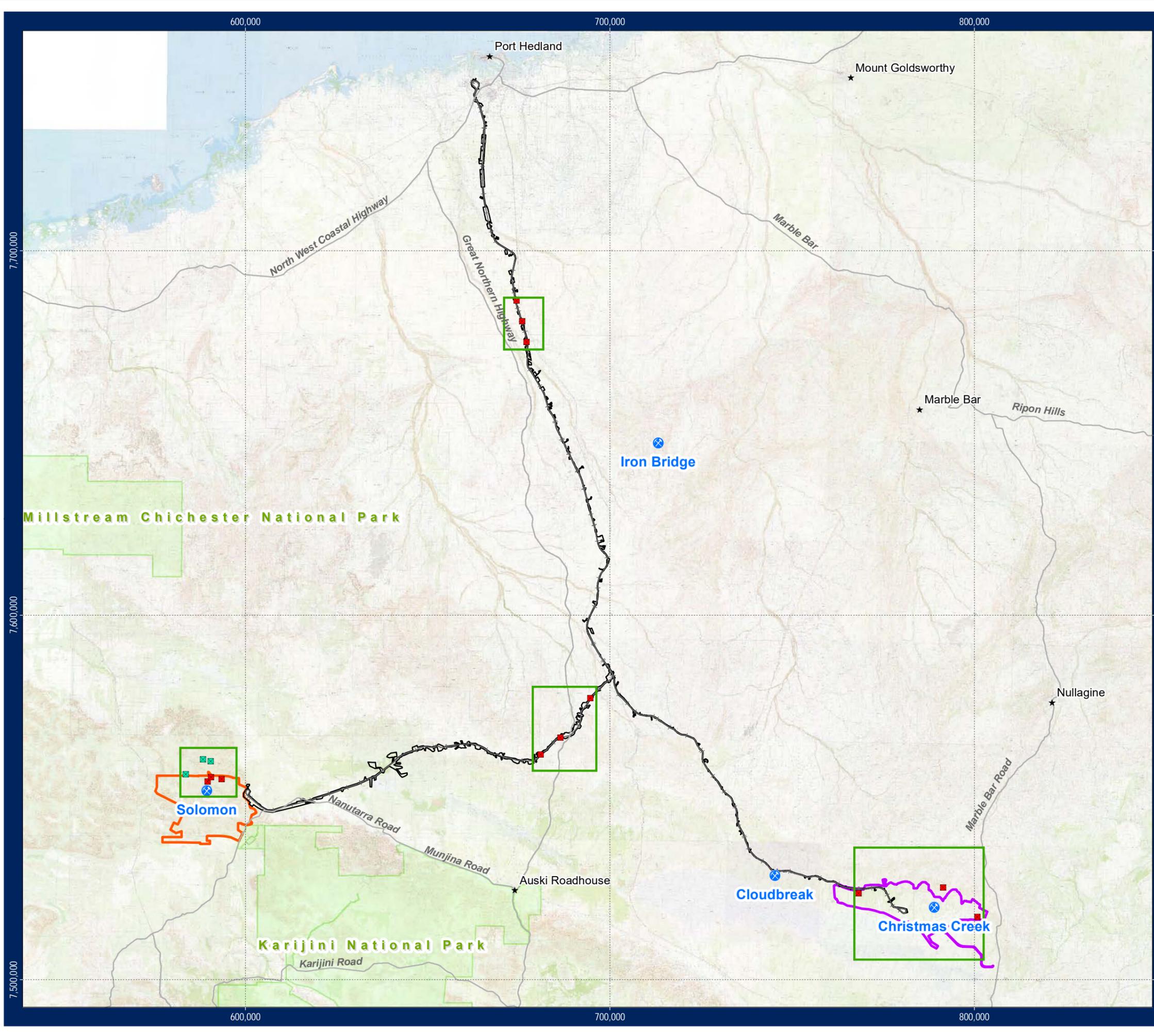
FMG Exploration Tenements and Project Areas
 August 2024



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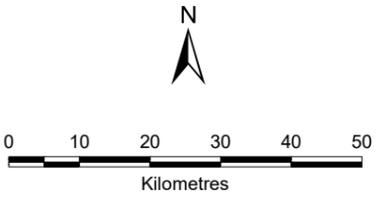


FIGURE 2 NORTHERN QUOLL MONITORING SITES – REGIONAL OVERVIEW



- LEGEND**
- Northern Quoll Monitoring Sites - Impact
 - Northern Quoll Monitoring Sites - Reference
 - ★ Towns
 - ⊗ FMG Mine
 - Roads
 - FMG Rail Alignments
 - ▭ FMG Rail Corridors
 - ▭ Christmas Creek Mine
 - ▭ Solomon Mine
 - ▭ National Park
 - ▭ Map Index

Data Sources:
 Roads, Landgate, 2012
 Topography, Geoscience Australia
 All other data, FMG, 2018



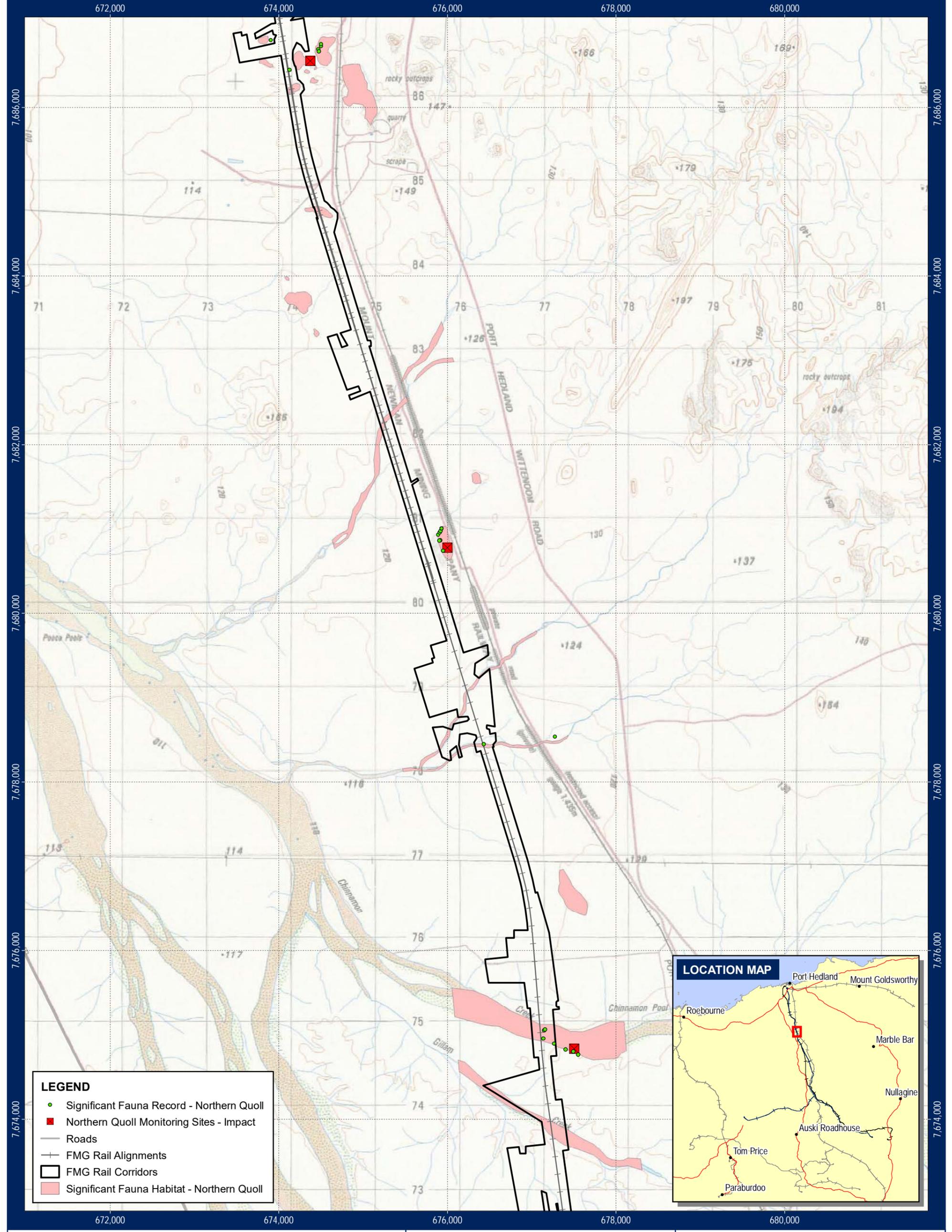
**Fauna Monitoring
Northern Quoll**

Requested By: Todd Edwards	Date: 11-Oct-18
Drawn By: H. Wallace	Size: A3L
Revised By: scostello	Revision: 1
Approved By: P.M.	Confidentiality: 1
Scale: 1:1,000,000	
Coordinate System: GDA 1994 MGA Zone 50	
Document Name: 045_MP_EN_0090.022_r2_Overview_NQ	

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**FIGURE 3 NORTHERN QUOLL MONITORING SITES – MAIN
LINE RAIL**

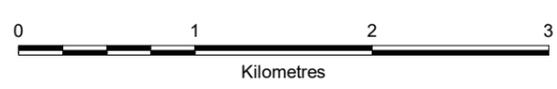


LEGEND

- Significant Fauna Record - Northern Quoll
- Northern Quoll Monitoring Sites - Impact
- Roads
- FMG Rail Alignments
- ▭ FMG Rail Corridors
- Significant Fauna Habitat - Northern Quoll



Data Source(s):
 Roads, Landgate, 2012
 Topography, Geoscience Australia
 All other data, FMG, 2018



Requested By: Olivia Hertsted
 Drawn By: H. Wallace
 Revised By: hwallace
 Approved By: P.M.
 Scale: 1:40,000
 Coordinate System: GDA 1994 MGA Zone 50
 Document Name: 045_MP_EN_0090.001_r0

Date: 08-Feb-18
 Size: A3P
 Revision: 0
 Confidentiality: 1

Fauna Monitoring: Northern Quoll
 Mainline Rail (Including duplication)

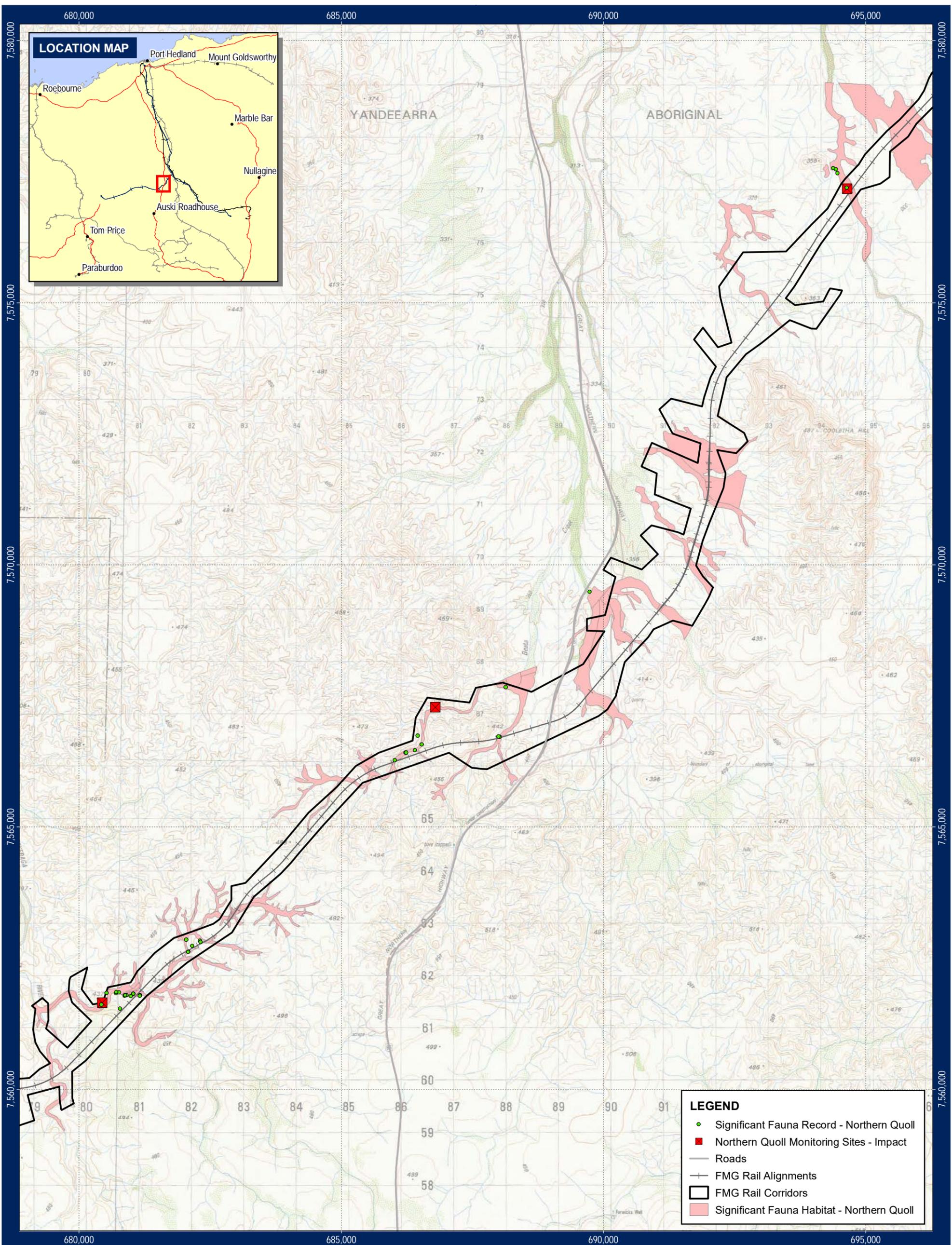


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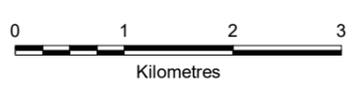
**FIGURE 4 NORTHERN QUOLL MONITORING SITES –
HAMERSLEY RAIL**



LEGEND

- Significant Fauna Record - Northern Quoll
- Northern Quoll Monitoring Sites - Impact
- Roads
- FMG Rail Alignments
- ▭ FMG Rail Corridors
- ▭ Significant Fauna Habitat - Northern Quoll

Data Source(s):
 Roads, Landgate, 2012
 Topography, Geoscience Australia
 All other data, FMG, 2018



Requested By: Olivia Hertsted
 Drawn By: H. Wallace
 Revised By: hwallace
 Approved By: P.M.
 Scale: 1:65,000
 Coordinate System: GDA 1994 MGA Zone 50
 Document Name: 045_MP_EN_0090.002_r1

Date: 16-Feb-18
 Size: A3P
 Revision: 1
 Confidentiality: 1

Fauna Monitoring: Northern Quoll
 Hamersley Rail Line

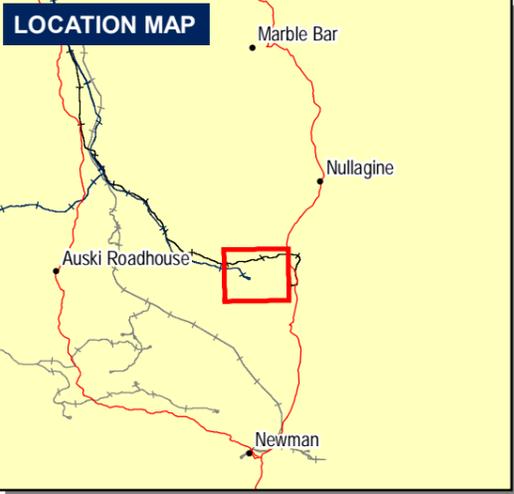
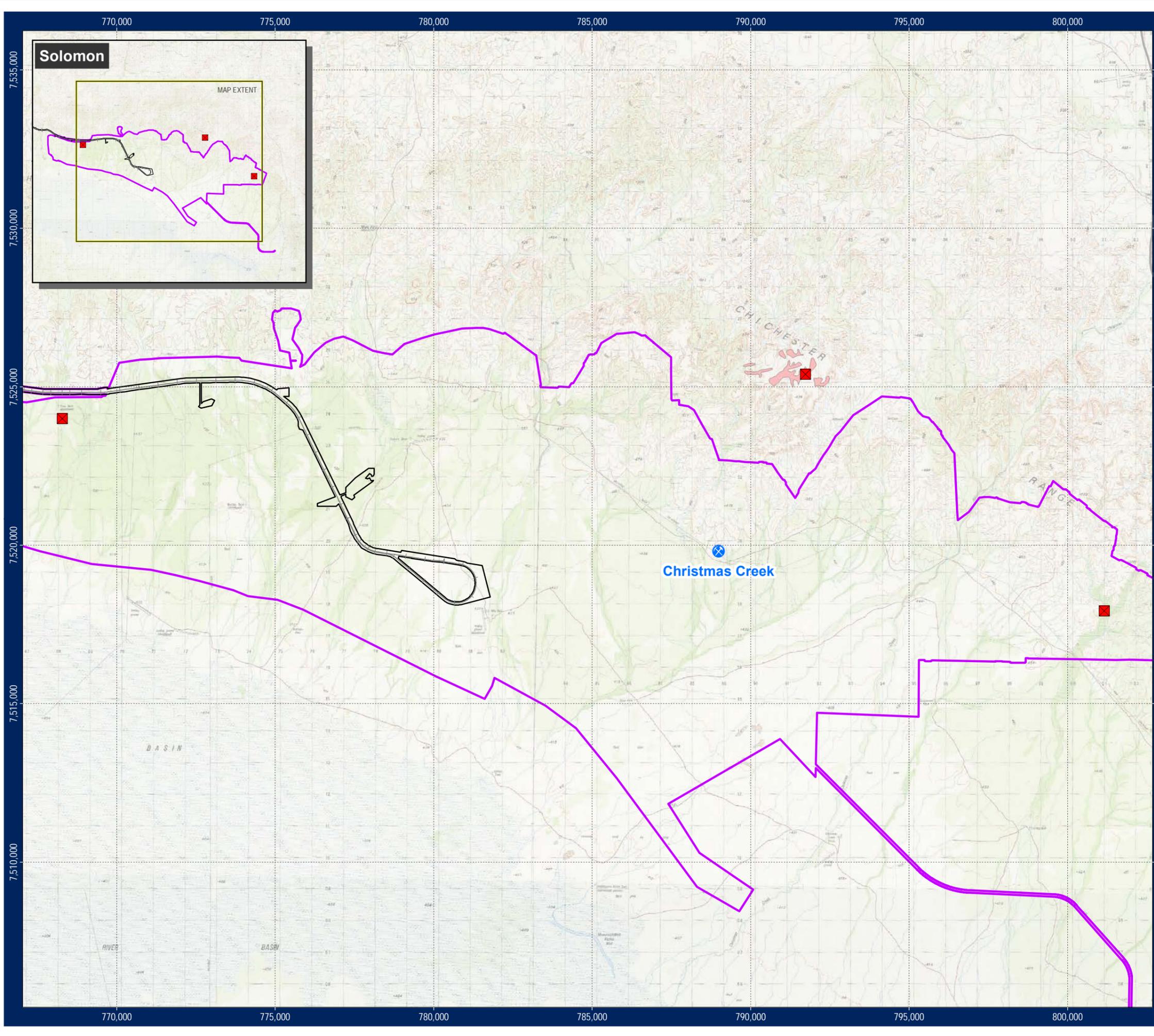


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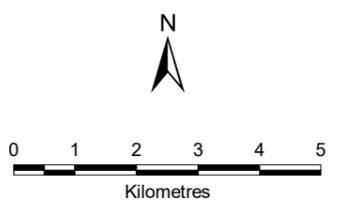


**FIGURE 5 NORTHERN QUOLL MONITORING SITES –
CHRISTMAS CREEK MINE**



- LEGEND**
- Significant Fauna Record - Northern Quoll
 - Northern Quoll Monitoring Sites - Impact
 - ⊗ FMG Mine
 - Roads
 - FMG Rail Alignments
 - ▭ FMG Rail Corridors
 - ▭ Christmas Creek Mine
 - Significant Fauna Habitat - Northern Quoll

Data Source(s):
 Roads, Landgate, 2012
 Topography, Geoscience Australia
 All other data, FMG, 2018



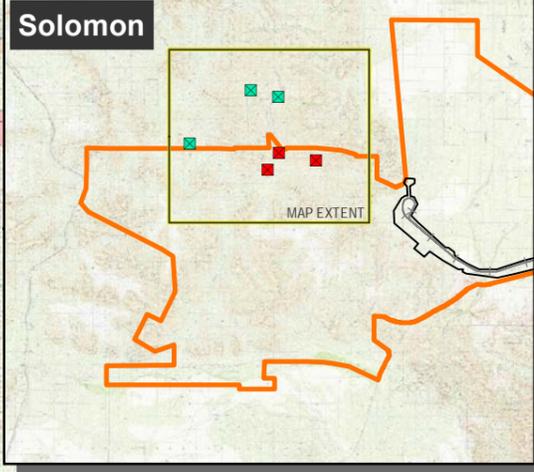
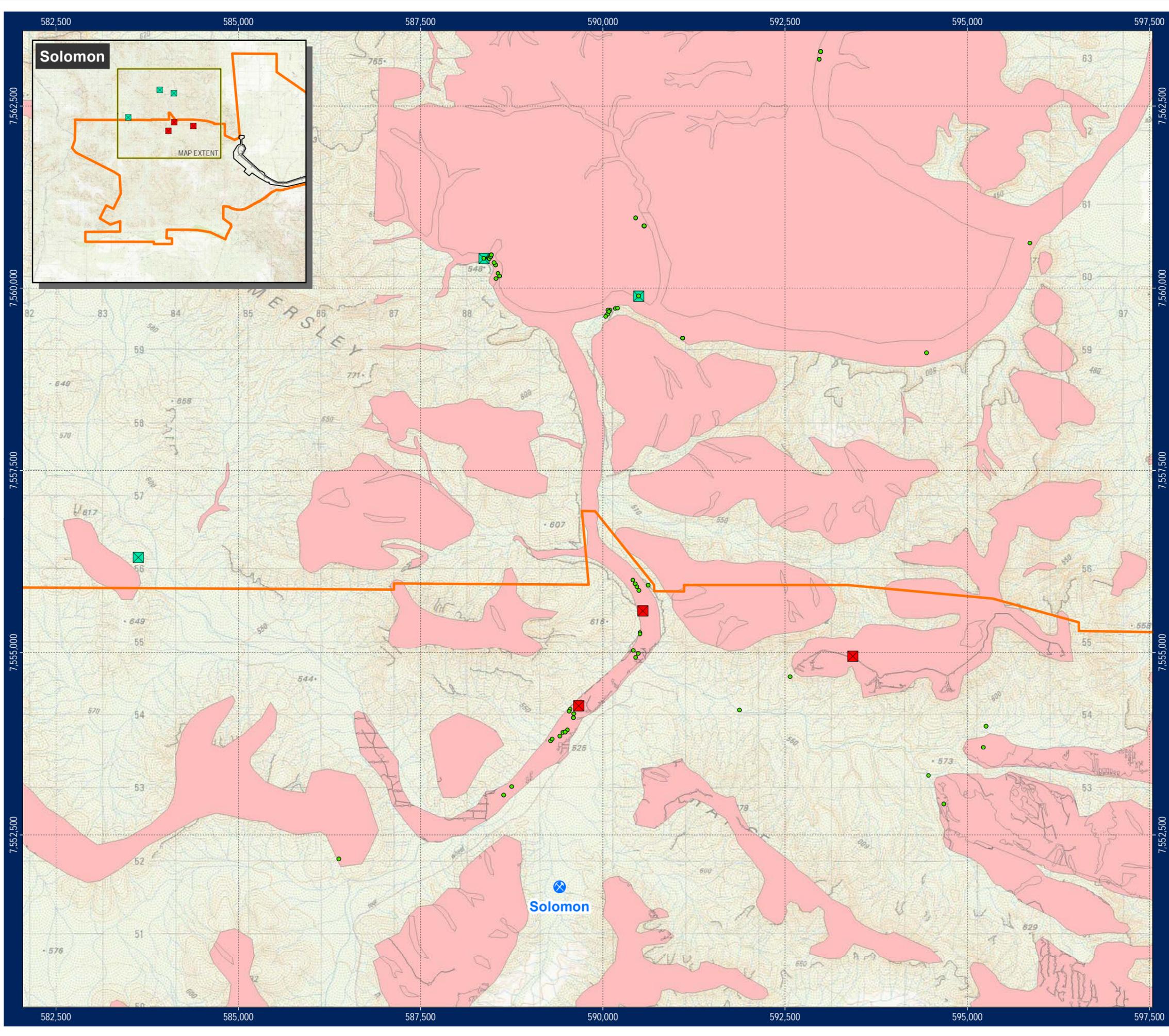
Fauna Monitoring: Northern Quoll
 Christmas Creek Mine

Requested By: Olivia Hertsted	Date: 09-Feb-18
Drawn By: H. Wallace	Size: A3L
Revised By: hwallace	Revision: 1
Approved By: P.M.	Confidentiality: 1
Scale: 1:115,000	
Coordinate System: GDA 1994 MGA Zone 50	
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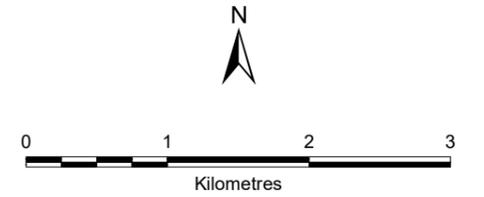


**FIGURE 6 NORTHERN QUOLL MONITORING SITES –
SOLOMON MINE**



- LEGEND**
- Significant Fauna Record - Northern Quoll
 - Northern Quoll Monitoring Sites - Impact
 - Northern Quoll Monitoring Sites - Reference
 - ⊗ FMG Mine
 - ▭ Solomon Mine
 - Significant Fauna Habitat - Northern Quoll

Data Source(s):
 Roads, Landgate, 2012
 Topography, Geoscience Australia
 All other data, FMG, 2018



**Fauna Monitoring: Northern Quoll
 Solomon Mine**

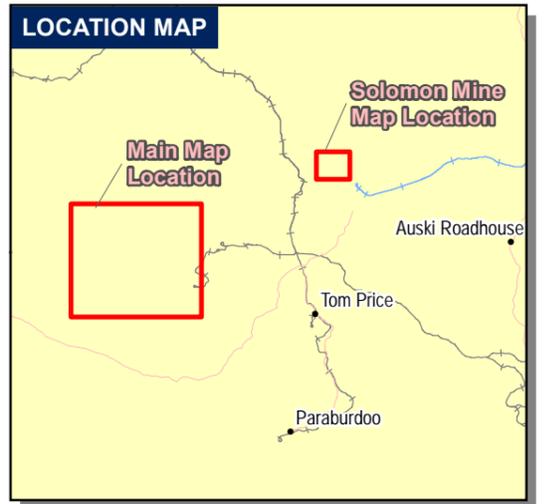
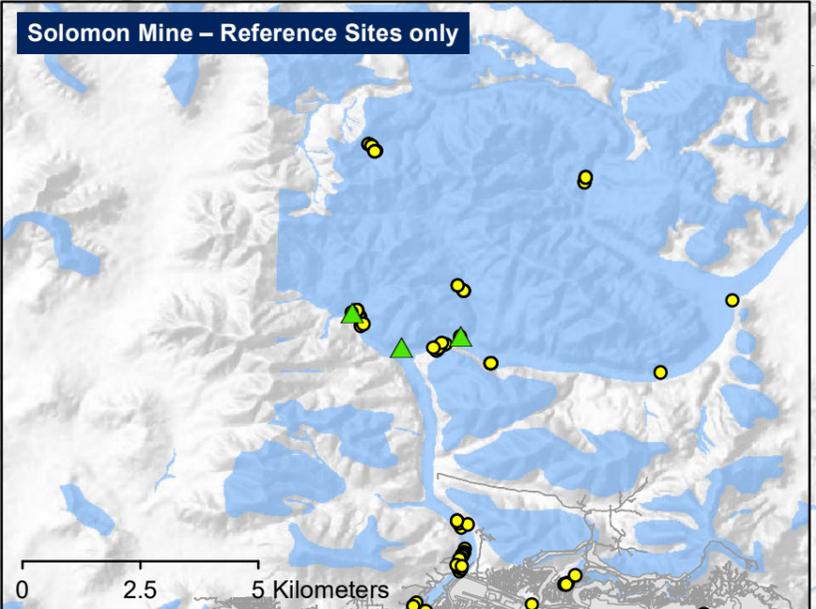
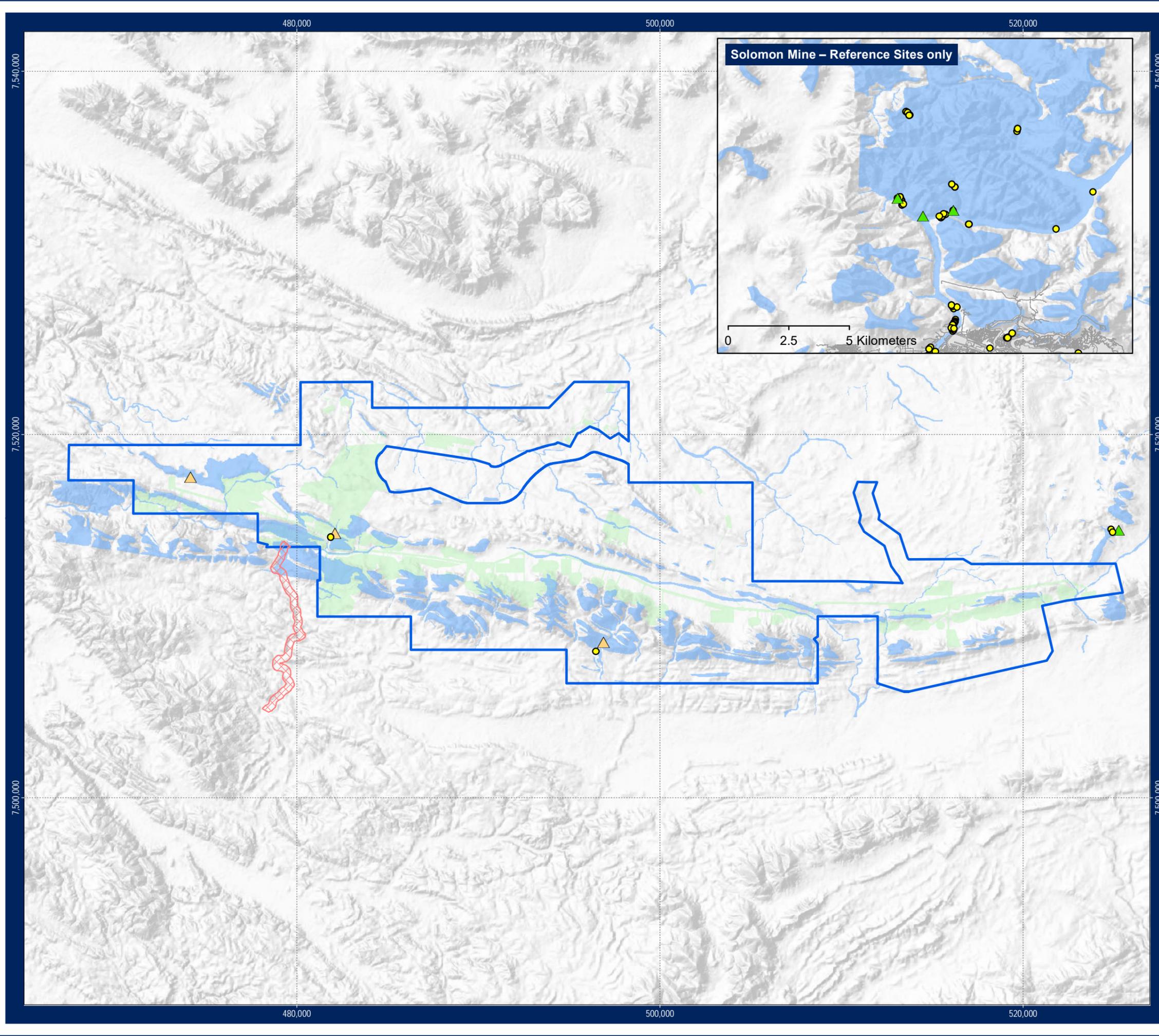
Requested By: Olivia Hersted	Date: 27-Apr-18
Drawn By: H. Wallace	Size: A3L
Revised By: hwallace	Revision: 2
Approved By: P.M.	Confidentiality: 1
Scale: 1:50,000	
Coordinate System: GDA 1994 MGA Zone 50	
Document Name: 045_MP_EN_0090.003_r2	

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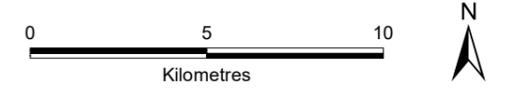


**FIGURE 7 NORTHERN QUOLL MONITORING SITES –
ELIWANA MINE**



- LEGEND**
- Mine Development Envelope
 - Excess Water Discharge Extent
 - Significant Fauna Monitoring Sites
 - ▲ Northern Quoll; Impact
 - ▲ Northern Quoll; Reference
 - Significant Fauna Records
 - Northern Quoll
 - Significant Fauna Habitat
 - Eliwana Indicative Mine Footprint
 - Solomon Cleared Area

Data Sources:
 SRTM, GA
 All other data; FMG, 2020



**Conservation Significant Fauna
 Monitoring Sites - Northern Quoll
 Eliwana Mine**

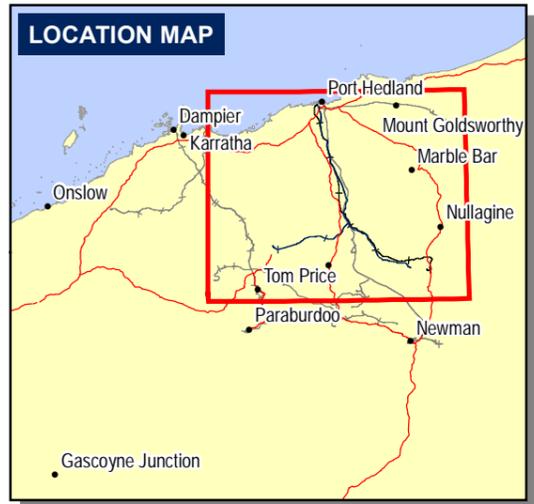
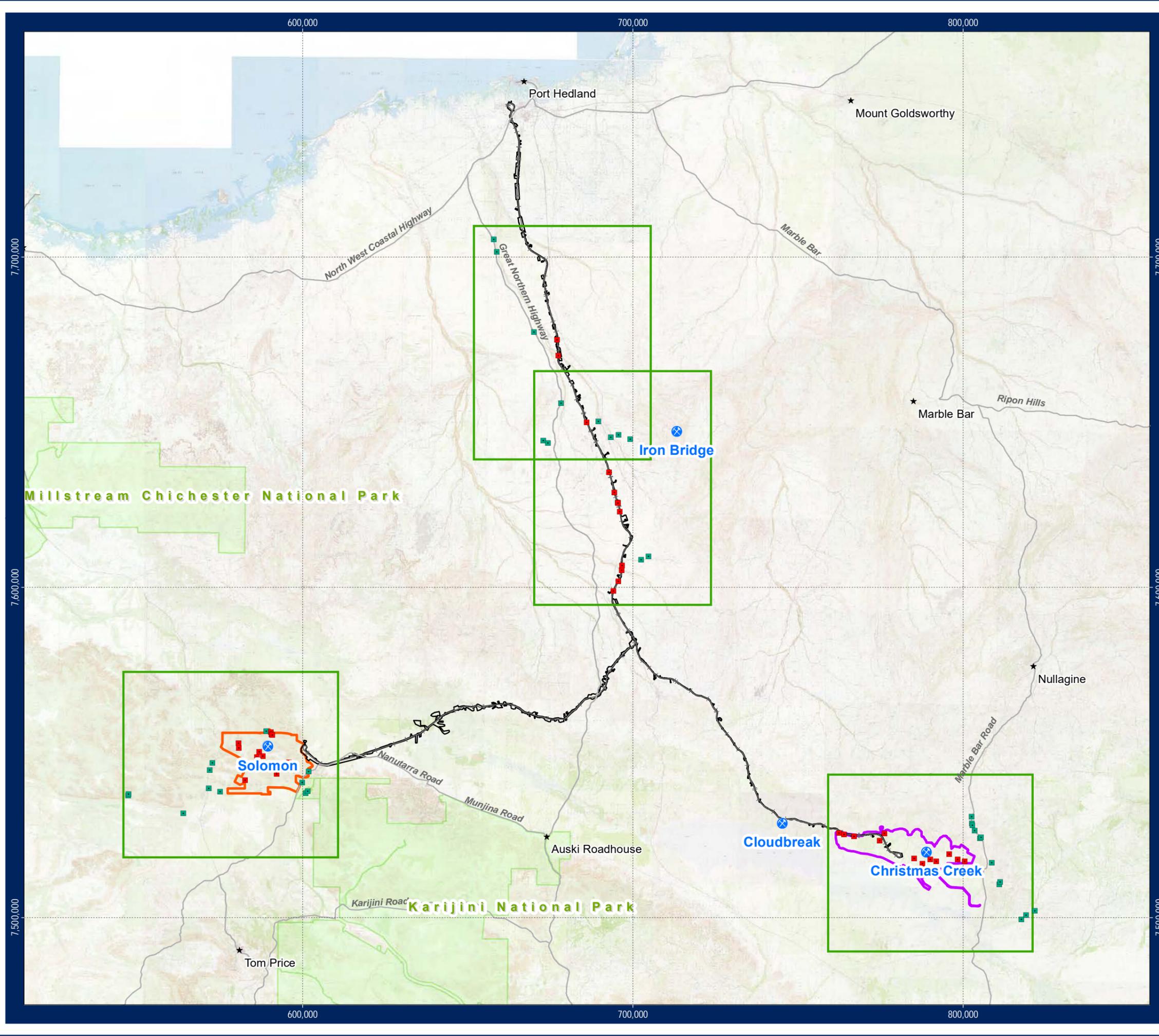
Requested By: O. Hertsted	Date: 26/05/2020
Drawn By: N. Rappa	Size: A3L
Revised By: sanli	Revision: 2
Approved By: P. Mastalir	Confidentiality: 1
Scale: 1:200,000	
Coordinate System: GDA 1994 MGA Zone 50	
Document Name: 751EW_MP_EN_0031.002_r1_quoll	

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**FIGURE 8 CONSERVATION SIGNIFICANT BATS
MONITORING SITES – REGIONAL OVERVIEW**



- LEGEND**
- Bat Monitoring Site - Impact
 - Bat Monitoring Site - Reference
 - ★ Towns
 - ⊗ FMG Mine
 - Roads
 - FMG Rail Alignments
 - ▭ FMG Rail Corridors
 - ▭ Christmas Creek Mine
 - ▭ Solomon Mine
 - ▭ National Park
 - ▭ Map Index

Data Sources:
 Roads, Landgate, 2012
 Topography, Geoscience Australia
 All other data, FMG, 2018

N

0 10 20 30 40 50
Kilometres

**Fauna Monitoring
Bats**

Requested By: Todd Edwards	Date: 11-Oct-18
Drawn By: H. Wallace	Size: A3L
Revised By: scostello	Revision: 0
Approved By: P.M.	Confidentiality: 1
Scale: 1:1,100,000	
Coordinate System: GDA 1994 MGA Zone 50	
Document Name: 045_MP_EN_0090.023_r1_Overview_Bats	

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