Report

Supporting Document – Section 38 and EPBC Referral

Wyloo North Iron Ore Mine

4 February 2026

300-0000-AE-EN-0004

Rev: 1

EXECUTIVE SUMMARY

Fortescue Ltd (Fortescue) (the Proponent), proposes to develop the Wyloo North Iron Ore Mine (the Proposal).

A general description of the Proposal is provided in ES Table 1.

ES Table 1: General Description of the Proposal

Proposal Title	Wyloo North Iron Ore Mine
Proponent Name	Fortescue Ltd
Short Description	The Proposal is to construct and operate an iron ore mine approximately 110 km west of Tom Price in the Pilbara Region of Western Australia (Figure 1). Ore will be transported by road train to Fortescue's adjacent Eliwana Mine for processing. The Proposal includes: • The development of above and below water table open cut pits. • Crushing and screening plant, including several mobile crushing and screening plants, and supporting infrastructure. • Infrastructure corridor including but not limited to power generation, transmission and distribution infrastructure, haul roads, water management infrastructure, borrow pits, laydowns and workshops. • Groundwater abstraction for water supply and dewatering to facilitate mining below the water table. • Water management infrastructure for the purposes of abstraction, conveyance, reinjection, water treatment and storage, including but not limited to, pumps, pipelines, bores, ponds, turkey nests, levees, diversions, culverts, drains, floodways, sediment control and other water quality management structures. • Surplus water management, including but not limited to aquifer reinjection, infiltration or evaporation using in-pit disposal or ponds, or use by third party receivers or other mining operations. • Mine waste management including, but not limited to, waste rock landforms, in-pit storage and low-grade ore stockpiles. • Ore, topsoil and subsoil stockpiles. • Linear and ancillary infrastructure to support mining, including but not limited to an accommodation camp, offices, workshops, roads, powerlines, water pipelines, borrow pits and laydown areas. The Proposal requires up to 4,954.5 hectare (ha) of disturbance and is located within a 21,910.1 ha Mine Development Envelope.

This supporting document has been developed to support a referral under Section 38 of the of the *Environmental Protection Act 1986* (WA) (EP Act) and provides an initial assessment of the potential impacts of the Proposal on identified preliminary environmental factors relevant to the Proposal.

This document has also been prepared to support a referral under Section 68(1) of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and provides a

preliminary review of matters of national environmental significance (MNES) likely relevant to the Proposal and the significance of potential impacts arising from the Proposal's implementation.

Section 38 Referral

A preliminary review has identified the following key environmental factors as relevant to the Proposal:

- Flora and Vegetation
- Terrestrial Fauna
- Subterranean Fauna
- Inland Waters
- Social Surroundings.

Other environmental factors identified as relevant to the Proposal include:

- Landforms
- Terrestrial Environmental Quality
- Air Quality
- Greenhouse Gas Emissions

A preliminary assessment of potential impacts to the above environmental factors is detailed in Sections 7 to 12. Implementation of the Proposal is expected to result in the loss of native vegetation and fauna habitat within the Mine Development Envelope (MDE). An assessment of the potential impacts of the Proposal on the various identified environmental factors, their significance, application of the mitigation hierarchy and expected outcomes, will be presented in Environmental Review Document (ERD).

EPBC Act Referral

The Proposal will potentially impact a number of MNES Threatened and Migratory Species. A preliminary assessment of potential impacts to MNES is detailed in Section 13.

The mitigation hierarchy will be applied to the Proposal's activities as ongoing studies and investigations provide a sound understanding of the receiving environment and cultural values and facilitate identification of potential impacts.

Implementation of the Proposal is expected to result in the loss of native vegetation and fauna habitat within the Mine Development Envelope (MDE). An assessment of the potential impacts of the Proposal on the MNES species, their significance, application of the mitigation hierarchy and expected outcomes, will be presented in the Environmental Review Document (ERD).

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF SCHEMATIC MAPS

1 INTRODUCTION

Fortescue Ltd (Fortescue) (the Proponent), proposes to develop the Wyloo North Iron Ore Mine (the Proposal) in the Pilbara region of Western Australia (WA). The Proposal is located approximately 110 km west of Tom Price (Figure 1-1) in the Hamersley Range. Ore will be transported by road train via a transport corridor to Fortescue's existing Eliwana Mine for processing. The Proposal will facilitate a 12 million tonne per annum (mtpa) operation over an approximate 13-year Life of Mine (LoM).

1.1 Purpose and Scope

The purpose of this document is to:

- Support the referral of the Proposal to the Environmental Protection Authority (EPA) in accordance with Section 38 of the *Environmental Protection Act 1986* (WA) (EP Act) by providing a preliminary assessment of the potential impacts of the Proposal on the identified environmental factors related to the Proposal's implementation. The purpose of this preliminary assessment is to facilitate EPA's decision as to whether the Proposal requires assessment under section 38G of the EP Act.

- Support the referral of the Proposal under Section 68(1) of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) by undertaking a preliminary review and verification process to determine the Matters of National Environmental Significance (MNES) that are likely relevant to the Proposal and indicate if the impact of the Proposal on each MNES is likely to be a significant impact. The Proposal will be referred to as the Proposed Action in the EPBC Act component of this document presented in Section 13.

The s38 Referral Form and Proposal Content Document (PCD) is provided in Appendix A and Appendix B, respectively. All information contained within the both the s38 Referral Form and the PCD can also be found within this document.

The scope of this document is to:

- Describe the operational elements of the Proposal, and their extent, that have the potential to have a significant impact on the environment, including MNES.
- Describe the local and regional context within which the Proposal will be implemented, applying specific biological and technical studies that have been completed.
- Identify and describe the potential impacts resulting from the implementation of the Proposal.
- Outline overarching mitigation strategies Fortescue is proposing to avoid, minimise and manage potential adverse environmental impacts.

Furthermore, the document will summarise and describe environmental studies and investigations undertaken to support Environmental Impact Assessment (EIA) for the Proposal, including those in progress or planned.

1.2 Proponent Details

The Proponent for this Proposal is Fortescue Ltd (Fortescue). The proponent details and key contact for this Proposal is provided in Table 1-1.

Table 1-1 Proponent Details

Proponent	**Fortescue Ltd**
Australian Business Number (ABN)	57 002 594 872
Registered Address	256 St Georges Terrace, Perth WA 6000
Proponent Contact:	
Name	Matthew Dowling
Position	Manager Environment, Primary Approvals
Email	primaryenvironmentapprovals@fortescue.com
Proponent Representative:	
Name	Jarrod Pittson
Position	Group Manager, Environment and Closure
Email	primaryenvironmentapprovals@fortescue.com

Legend

- Wyloo North Iron Ore Mine
- Towns
- Major Rivers
- Major Roads
- Fortescue Rail
- Other Rail
- Fortescue Marsh

Data Sources:
Topography, Landgate
Watercourses, Marsh, DWER.
All other data, Fortescue, 2024

N

0 20 40 60 80 100
Kilometres

Figure 1-1
Wyloo North Iron Ore Mine Location

Requested By: A. Imbergamo	Date: 30/07/2025
Drawn By: S. Costello	Size: A4L
Revised By: scostello	Revision: 0
Approved By:	Confidentiality: 0
Scale: 1:2,000,000	
Coordinate System: GDA2020 MGA Zone 50	
Project Name: WH_MP_EN_0003	
Document Name: WH_MP_EN_0003_001_r0_Location	

Fortescue

2 PROPOSAL DESCRIPTION

2.1 Proposal Content

The key characteristics of the Proposal are detailed in Table 2-1 below and presented in Figure 2-1.

Table 2-1 Proposal Summary

Proposal element	Location / description	Maximum extent, capacity or range
Physical elements		
Mine, processing and associated infrastructure elements, including but not limited to: • Open cut pits, above and below water table. • Crushing and screening plant (including several mobile crushing and screening plants) and supporting infrastructure. • Groundwater management borefields for the purposes of water supply, dewatering and reinjection. • Water management infrastructure for the purposes of abstraction, conveyance, reinjection, water treatment and storage, including but not limited to, pumps, pipelines, bores, ponds and turkey nests. • Surface water management infrastructure including but not limited to levees, diversions, culverts, drains, floodways, sediment control and other water quality management structures. • Access and haul roads that may include culverts, drains, floodways and bridge infrastructure, including land bridges. • Pipelines and pipeline corridors. • Waste rock landforms and low-grade stockpiles. • Topsoil and subsoil stockpiles. • Ore stockpiles. • Borrow pits and laydowns. • Ancillary buildings and supporting infrastructure including, but not limited to offices, workshops, hydrocarbon/chemical storage, laydown areas, and explosive storage / handling facilities. • Accommodation camp and ancillary infrastructure. • Power generation and distribution infrastructure, including battery storage. • Landfill and waste management facilities. Infrastructure corridor and associated elements, including but not limited to: • Power generation, transmission and distribution infrastructure. • Haul roads and access roads.	Figure 2-1	Up to 4,954.5 ha of disturbance within a 21,910.1 ha Mine Development Envelope.

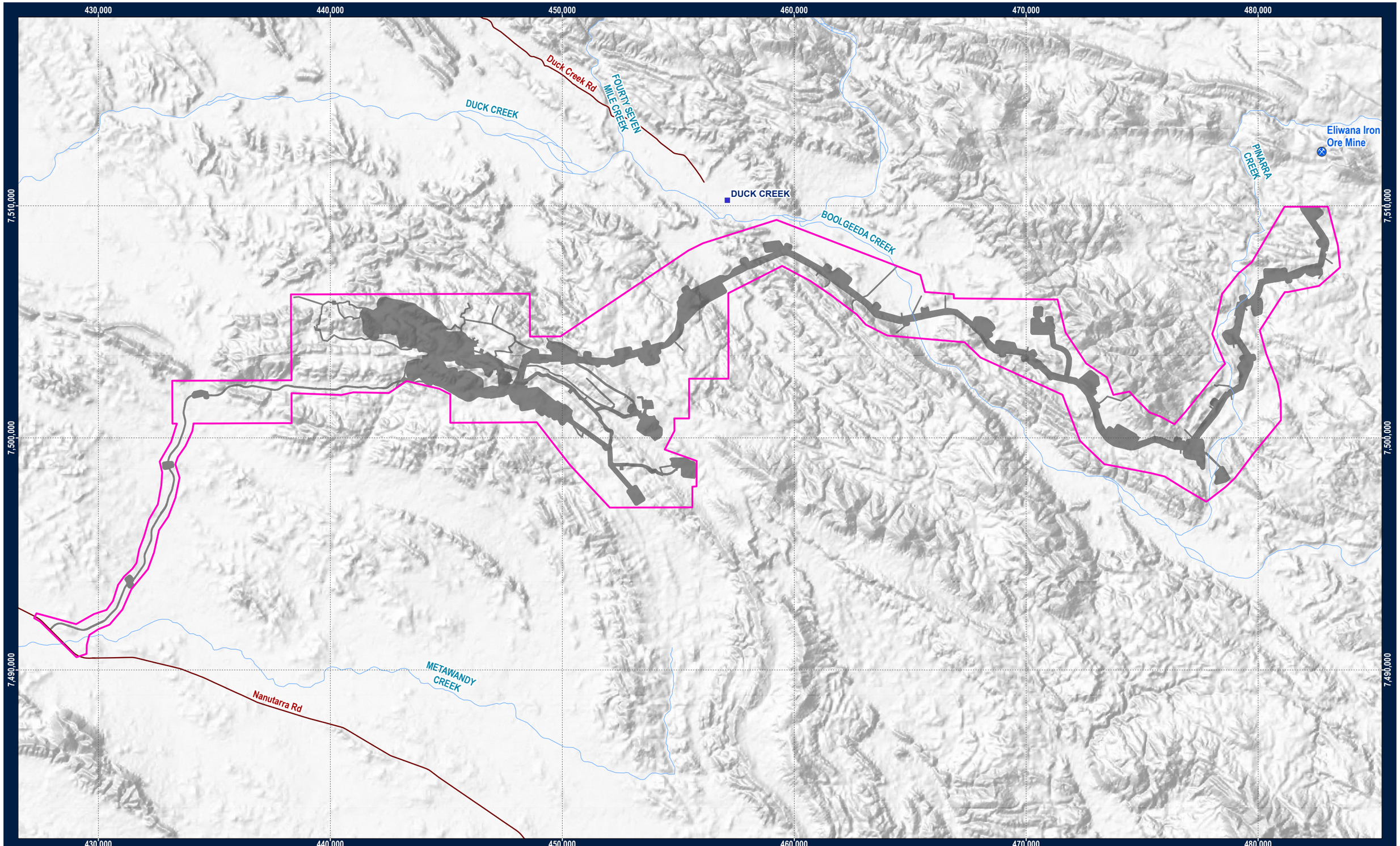
Proposal element	Location / description	Maximum extent, capacity or range
• Water management infrastructure for the purposes of abstraction, conveyance, reinjection, water treatment and storage, including but not limited to, pumps, pipelines, bores, ponds and turkey nests. • Borrow pits. • Topsoil and subsoil stockpiles. • Laydowns and workshops.		
Construction elements		
Key construction elements will include, but not be limited to, the following physical and operational elements: • Construction camp. • Water supply borefield and water management infrastructure for the purposes of abstraction, conveyance, reinjection, water treatment and storage, including but not limited to, pumps, pipelines, bores, ponds and turkey nests. • Surface water management infrastructure including but not limited to flood protection and sediment controls. • Temporary offices/ablutions. • Access roads and bridges. • Borrow pits and laydowns. • Pipelines and pipeline corridors. • Movement of topsoil, and bulk earthworks. • Power generation (diesel or renewable energy), transmission and distribution infrastructure. • Landfill and waste management facilities.	Figure 2-1	Disturbance required for the construction elements is included within the indicative disturbance footprint.
Operational elements		
Mining production capacity	Figure 2-1	Up to 12 million tonnes per annum (mtpa) of mined ore.
Groundwater abstraction	Figure 2-1	Abstraction of up to 6 GL per annum (GL/a) for dewatering and water supply.
Surplus water management	Figure 2-1	Up to 5 GL/a surplus water, exceeding the operational requirement, will be managed through a variety of methods, including but not limited to: - Aquifer reinjection via reinjection borefield(s).

Proposal element	Location / description	Maximum extent, capacity or range
		- Infiltration or evaporation using ponds or in-pit disposal. - Supply of water to third party receiver and other Fortescue mining operations. - No discharge of groundwater to creeks under standard operating conditions.
Power supply	Figure 2-1	Post-construction, power will predominantly be supplied by a solar and renewable mix and batteries via an overhead power line connecting to Fortescue's Pilbara Transmission Network. Emergency diesel powered generators and power storage would remain on site in case of power supply disruptions.
Greenhouse gas emissions		
Peak annual emissions		
Construction	Scope 1 estimated of 98,823 t CO2-e	
Mining and Operations	Scope 1 estimated of 52,311 t CO2-e	
	Scope 2 estimated of 44,112 t CO2-e	
	Scope 3 estimated of 20,000,000 t CO2-e	
Rehabilitation		
Progressive rehabilitation will be undertaken over the life of the mine where practicable. At the cessation of mining, the site will be rehabilitated in accordance with the Wyloo North Iron Ore Mine Closure Plan. The Mine Closure Plan will ensure that any landforms that remain in-situ (such as waste rock landforms) will be designed to be safe, stable, non-polluting, whilst meeting overarching objectives for closure in consultation with key stakeholders.		
Commissioning		
Commissioning will be undertaken in accordance with the limits outlined above and in accordance with the licensing requirements under the *Environmental Protection Act 1986*.		
Decommissioning		

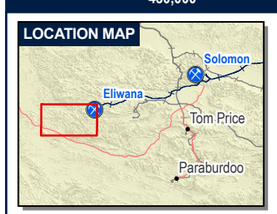
Proposal element	Location / description	Maximum extent, capacity or range
The Mine Closure Plan will provide a plan for decommissioning of the mine and the post-closure land use.		
Other elements which affect extent of effects on the environment		
Proposal time*	Maximum project life	Approximately 20 years
	Construction phase	Approximately 2 years
	Operations phase	Approximately 13 years
	Decommissioning phase	Approximately 5 years

An Indicative Disturbance Footprint (IDF) of 4,954.5 ha is proposed within a 21,910.1 ha Mine Development Envelope (MDE) as shown in Figure 2-1. The IDF may change within the MDE as options are selected, and optimisation occurs on the basis of ongoing studies and consultation. The defined MDE provides for some flexibility in placement of mine infrastructure, in part to facilitate the mitigation hierarchy, as well as providing access to monitoring sites.

The power supply strategy includes a transmission line connecting the Proposal to Fortescue's Transmission Network that includes large scale renewable energy generation. The Proposal is not part of a staged development and will not be conducted in progressive stages.



LOCATION MAP



Legend

- Homesteads
- Fortescue Mines
- Road
- Watercourses
- Wyloo North Iron Ore Mine Development Envelope
- Wyloo North Iron Ore Mine Indicative Disturbance Footprint

Data Sources:
Watercourses, SRTM, Geoscience Aus.
Roads, Homesteads, Landgate.

N

0 2 4 6 8 10
Kilometres

Requested By: A. Imbergamo
Drawn By: S. Costello
Revised By: rykerr
Approved By:
Scale: 1:150,000
Coordinate System: GDA2020 MGA Zone 50
Project Name: WH_MP_EN_0003
Document Name: WH_MP_EN_0003_002_r2_DE_IDF

Date: 12/30/2025
Size: A3L
Revision: 2
Confidentiality: No

Figure 2-1: Wyloo North Iron Ore Mine Development Envelope and Indicative Disturbance Footprint

Fortescue

2.2 Exclusions

The scope of the Proposal excludes low impact activities to support the investigations and early development phase, including but not limited to drilling and associated activities, geotechnical assessment and hydrogeological investigations required to inform assessment of the Proposal. These activities will be carried out under Programme of Works under the *Mining Act 1978* (WA).

2.3 Alternative Options Considered

Several factors were considered when reviewing alternative options for the Wyloo North Iron Ore Mine:

- Sensitive environmental receptors, e.g. Priority Ecological Communities (PECs)
- Difficulty of terrain
- Major waterways and flooding in relation to the ore transport route
- Tenure (other mining companies)
- Aboriginal Cultural Heritage[1]
- Finance.

The IDF remains conceptual but is currently considered the optimum outcome (pending future studies and option assessments) in terms of mitigating impacts to the receiving environment (Figure 2-1). The IDF has been shaped via a multi-disciplinary approach which considered multiple factors including baseline ecological data and cultural/heritage values and input from key stakeholders. For example, PECs and Aboriginal cultural heritage have been avoided as much as practicable in the current IDF. As further surveys and investigations are conducted, the IDF is expected to be adjusted to avoid, where feasible, and further reduce potential impacts on significant environmental and cultural values.

During the iterative design process of the Proposal, several alternative strategies were considered but ultimately excluded. Table 2-2 provides a summary of these alternatives along with the reasons for their selection. Figure 2-2 shows an overview of the transport route options that were considered (Fortescue 2025c).

[1] The terms Aboriginal Cultural Heritage and Cultural Values are interchangeable. Cultural Values is an overarching term used by Traditional Owners to encompass all social, cultural, and heritage values, and their connection to Country. Fortescue's Cultural Values Framework categorises these values into five key themes: Heritage Places, Access to Country, Aesthetics & Amenity, Plants & Animals, and Water. These five themes align with aspects outlined under the EPA's technical guidance for Social Surroundings: Aboriginal Cultural Heritage (EPA 2023c).

Table 2-2 Proposal Alternatives

Project Component	Options Considered	Options Selected	Reason for Options Selected
Processing Location	• Eliwana Mine • Boolgeeda (a nearby deposit approx. 30 km east of Wyloo North)	Eliwana	Existing infrastructure at Fortescue's Eliwana Mine. Ore from Wyloo North will maintain the current production at Eliwana Mine.
Ore transport method	• Road train • Overland conveyor	Road train	The conveyor design is preferably a straight line with limited curvature permitted, making it less flexible compared to the road train if the route alignment needs adjustment due to new requirements identified during a later stage of the Project. Road train has the flexibility to compromise by slowing down for a sharper turn, or having a separate LV route through challenging areas, or having narrower sections if required to minimise impacts. The overland conveyor has been estimated to be less financially favourable than road trains when both capital and operating costs are considered.
Ore transport route for road train	Four (4) alternative transport corridors: 1 corridor option crossing Duck Creek (Route 1) 3 corridor options crossing Boolgeeda Creek (Routes 2, 3 or 4)	Route 2 crossing Boolgeeda Creek	Routes 1, 3, 4 were removed due to environmental/heritage sensitivities and constructability reasons: • Route 1 - crossing heritage and environmentally sensitive Duck Creek. • Route 3 - impact to Heritage Restricted Zone (HRZ), and the earthworks and construction of the tunnel poses high risk to the HRZ. • Route 4 - extreme earthworks volumes, deep cut and fills, drill and blast requirements and the associated risks and complexity. Route 2 is preferred due to having best terrain, lowest earthworks, and lowest risk profile despite it having the longest distance. Although Route 2 has the cultural heritage sensitivity of crossing Boolgeeda Creek, it is also the preferred route of the Puutu Kunti Kurrama (PKK / Kurrama) Traditional Owners.
Mining rate (production capacity)	• 7.5 mtpa • 10 mtpa • 12 mtpa • 20 mtpa	12 mtpa	Economic evaluations revealed that a 7.5 mtpa mining rate would not generate a positive NPV (net present value). As a result, the analysis was focused on 10 mtpa, 12 mtpa and 20 mtpa production rates. The 10 and 12 mtpa options were assessed alongside road train transport, while the 20 mtpa option was evaluated with conveyor transport. The most viable solution was determined to be 12 mtpa.

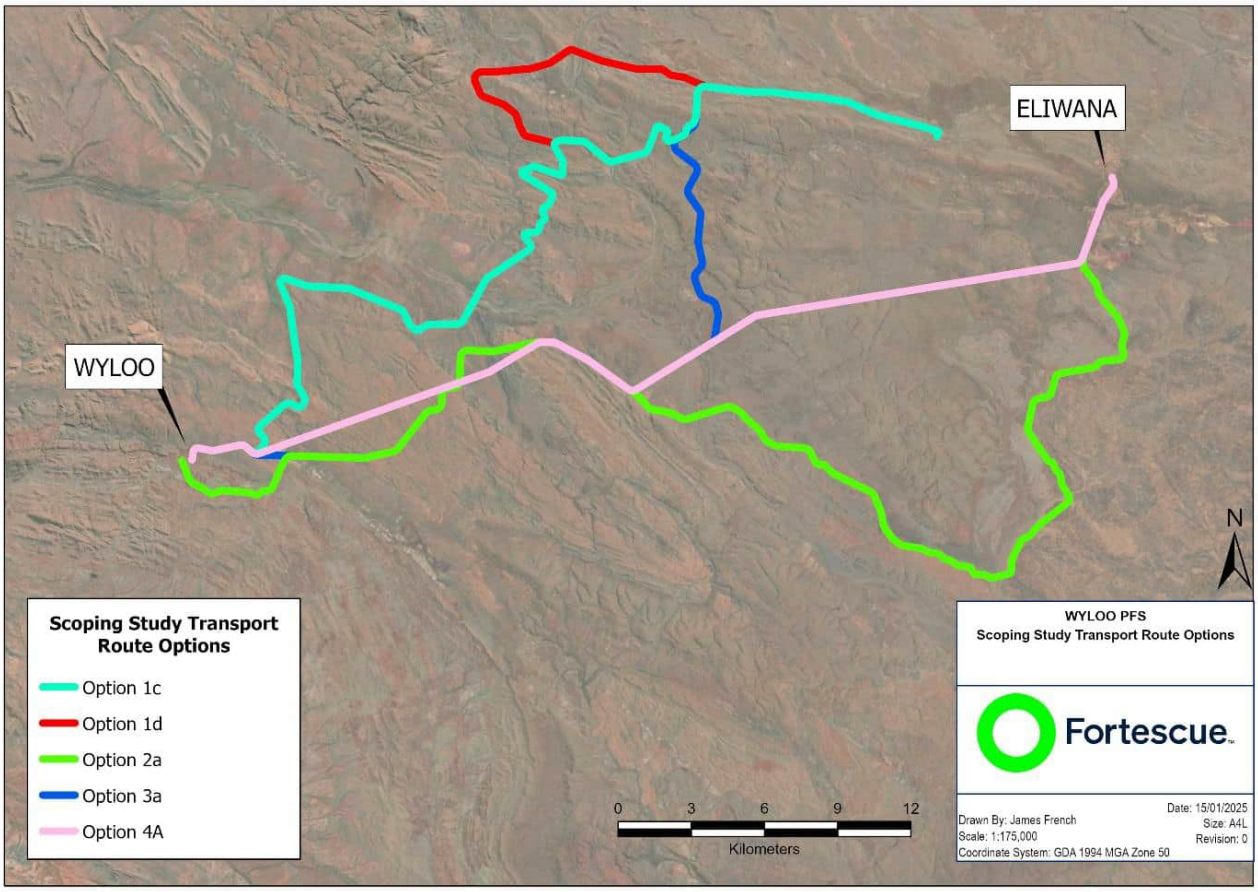


Figure 2-2 Wyloo North Transport Route Alternative Options Considered

2.4 Proposal Justification

The Proposal is required to provide sustaining tonnes for Fortescue's Eliwana Mine. To maintain processing of 30 million tonnes per annum (mtpa) from the Eliwana Ore Processing Facility, ore feed is required from Wyloo North. The grade of the ore from Wyloo North is suitable to be blended into Fortescue's product suite and will help meet the resource demands of Fortescue's customers. The Proposal will also provide an opportunity for Fortescue realise its Biodiversity Strategy – Net Positive for Biodiversity by 2030, by delivering improved environmental outcomes for the region.

The Proposal will result in economic benefits for Australia and Western Australia through:

- Contributing to the value of mineral exports.
- Providing royalties and taxation payments.
- Developing and sustaining capital investment.
- Sustaining direct and indirect employment opportunities in the Pilbara and other regions of WA.
- Supporting First Nations through employment and business opportunities.
- Sustaining demand for goods and services supporting the local, state and national economy.
- The Proposal will utilise as much as possible Fortescue's existing infrastructure, including ports, railway, power, communications, and road networks, reducing thereby the requirement for new infrastructure.

2.5 Local and Regional Context

The Proposal is located within the Shire of Ashburton in WA. The closest towns are Tom Price and Paraburdoo, approximately 110 km west and 120 km southwest of the Proposal respectively.

The Wyloo and the Mt Stuart Pastoral Leases extend over a large portion of the Wyloo North MDE with cattle grazing currently being undertaken (Figure 2-3).

The Proposal is located within the Puutu Kunti Kurrama and Pinikura #1 and #2 Native Title Determination (WCD2015/003) and is the traditional lands of the Puutu Kunti Kurrama (Kurrama) and Pinikura people (Figure 2-3). The Puutu Kunti Kurrama and Pinikura Aboriginal Corporation (PKKP AC) is the Prescribed Body Corporate (PBC) representing the Kurrama and Pinikura people.

The entire Wyloo North MDE is within the Hamersley subregion of the Pilbara bioregion as described by the Interim Biogeographic Regionalisation for Australia. The Hamersley subregion is characterised by a mountainous area of Proterozoic sedimentary ranges and plateaux, dissected by gorges (basalt, shale and dolerite) with mulga low woodland over bunch grasses on fine textured soils in valley floors, and *Eucalyptus leucophloia* over *Triodia brizoides* on skeletal soils of the ranges (Kendrick 2002).

The climate is semi-desert tropical with an average of 300 mm rainfall, usually in summer cyclonic or thunderstorm events (Kendrick 2002). The Pilbara experiences two distinct seasons: a hot summer from October to April and a mild winter from May to September. Temperatures are generally high with summer temperatures frequently exceeding 40°C. Light frosts occasionally occur inland during the winter months of July and August (*ecologia* 2025b).

Land systems of the Western Australian rangelands have been mapped and described by the Department of Primary Industries and Regional Development (DPIRD), outlining the distributions and providing comprehensive descriptions of biophysical resources, including soil and vegetation conditions (DPIRD 2022). The Wyloo North MDE intersects six (6) land systems and the Newman land system comprises the majority of the MDE. The land systems are described as follows:

- **Boolgeeda**: Stony lower slopes and plains below hill systems supporting hard and soft spinifex grasslands or mulga shrublands
- **Capricorn**: Rugged sandstone hills, ridges, stony footslopes and interfluves supporting low acacia shrublands or hard spinifex grasslands with scattered shrubs
- **Newman**: Rugged jaspilite plateaux, ridges and mountains supporting hard spinifex grasslands
- **River**: Narrow, seasonally active floodplains and major river channels supporting moderately close, tall shrublands or woodlands of acacias and fringing communities of eucalypts sometimes with tussock grasses or spinifex
- **Robe**: Low plateaux, mesas and buttes of limonite supporting soft spinifex and occasionally hard spinifex grasslands
- **Rocklea**: Basalt hills, plateaux, lower slopes and minor stony plains supporting hard spinifex and occasionally soft spinifex grasslands with scattered shrubs.

There are several important, named creeks which flow through or adjacent to the MDE. Duck Creek and Boolgeeda Creek are both Registered Aboriginal Sites. Pinarra Creek and Metawandy Creek have cultural significance for the Kurrama and Pinikura people, respectively.

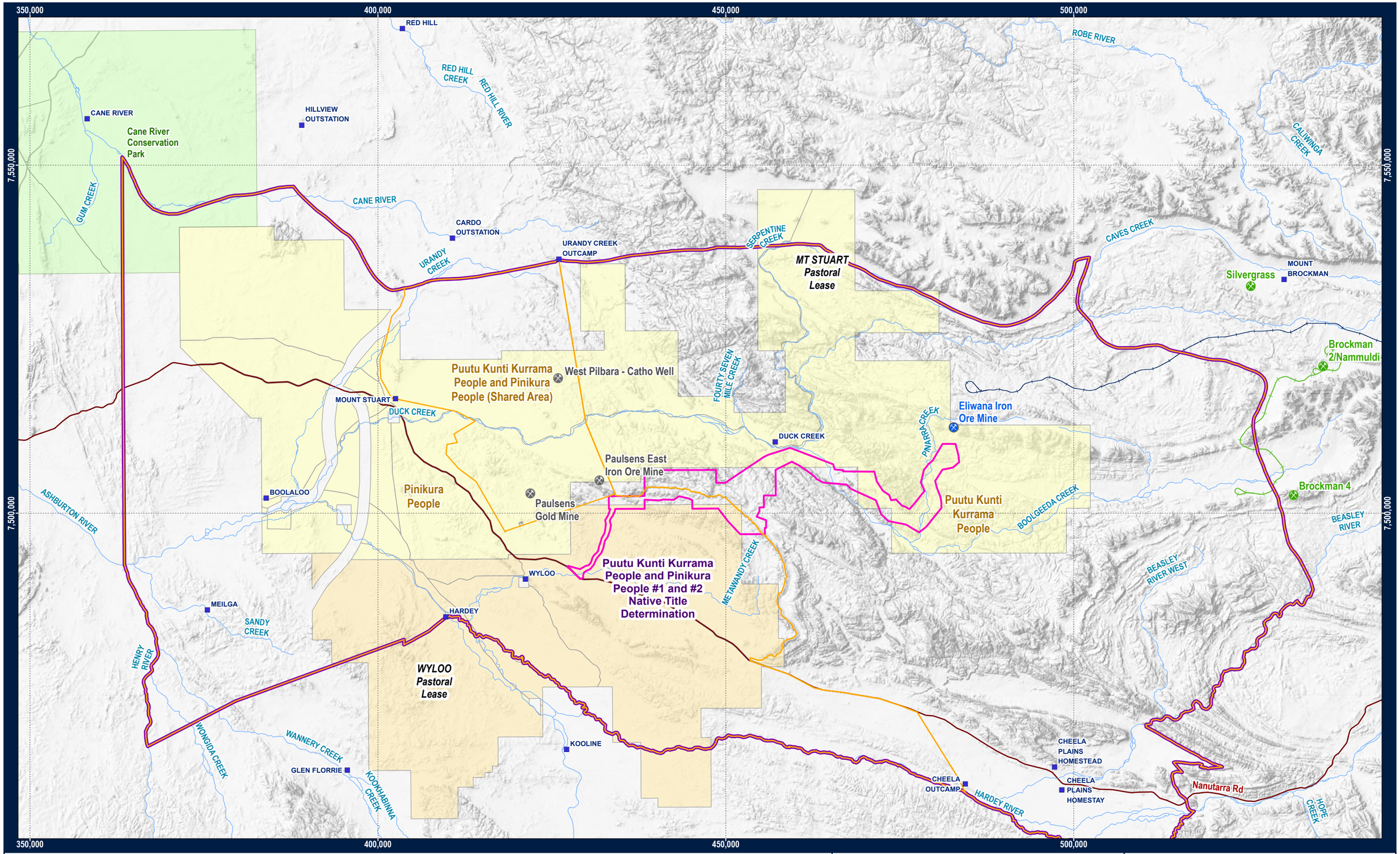
The MDE does not intersect with any Environmentally Sensitive Area (ESA) declared under Section 51B of the EP Act and described in the *Environmental Protection (Environmentally Sensitive Areas) Notice 2005*.

The *Conservation and Land Management Act 1984* (CALM Act) provides for the use, protection, and management of identified Crown and public land parcels for conservation. The MDE does not intersect with any lands or waters vested under the CALM Act managed by the Department of Biodiversity, Conservation and Attractions (DBCA). The closest lands to the Proposal vested under the CALM Act are shown in Figure 2-3.

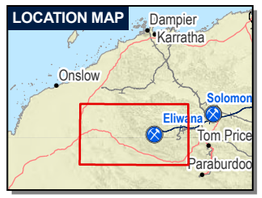
There are no reserves or conservation areas within or adjacent to the MDE. The closest conservation areas are the Cane River Conservation Park and the ex Nanutarra former leasehold both located 48 km to the northwest of the MDE. The Barlee Range Nature Reserve is located 58 km to the southwest of the MDE. The nearest Nationally Important Wetland is Kookhabinna Gorge (WA031) located approximately 45 km southwest of the MDE.

Other major mining projects located in the surrounding area (Figure 2-3) include the following in order of closest proximity to the Proposal:

- Eliwana Iron Ore Mine (operated by Fortescue) located approximately 3 km northeast of the MDE.
- Paulsens East Iron Ore Mine (operated by Miracle Iron Holdings Pty Ltd and currently in Care and Maintenance) located approximately 3 km west of the MDE.
- Paulsens Gold Mine (operated by Black Cat Syndicate) located approximately 12 km west of the MDE.
- West Pilbara Iron Ore Mine (operated by API Management Pty Ltd and its JV partners), closest mining areas located approximately 20 km northwest of the MDE extending further northwest.
- The Brockman Hub, consisting of Brockman 2, Brockman 4 and Nammuldi-Silvergrass iron ore mines (operated by Hamersley Iron Pty Ltd, subsidiary of Rio Tinto), located approximately 50 to 60 km to the east of the MDE.



LOCATION MAP



Legend

- Homesteads
- Fortescue Mines
- Rio Tinto Mine
- Other Mine or Project
- Road
- Fortescue Rail
- Rio Tinto Rail
- Watercourses
- Wyloo North Iron Ore Mine Development Envelope
- Native Title Determination
- Native Title Area Sub Divisions
- Mt Stuart Station
- Wyloo Station
- Conservation Park

Data Sources:
Conservation Park, DWER.
Native Title, NNTT.
Watercourses, SRTM, Geoscience Aus.
Roads, Homesteads, Stations, Landgate.

N

0 5 10 15 20 25
Kilometres

Requested By: A. Imbergamo
Drawn By: S. Costello
Revised By: rykerr
Approved By:
Scale: 1:500,000
Coordinate System: GDA2020 MGA Zone 50
Project Name: WH_MP_EN_0003
Document Name: WH_MP_EN_0003_003_r1_Land_Use

Date: 10/17/2025
Size: A3L
Revision: 1
Confidentiality: No

Figure 2-3
Wyloo North Iron Ore Mine
Regional Location and Land Uses

Fortescue

3 LEGISLATIVE FRAMEWORK

The Proposal will be subject to assessment under both the EP Act and the Commonwealth EPBC Act.

The EP Act is the principal environmental legislation in WA. The EP Act established the Environmental Protection Authority (EPA), which is charged with development of environmental protection policies under Part III of the EP Act, and environmental impact assessment of proposals and schemes under Part IV. The EP Act is WA's primary environmental legislation governing environmental protection and impact assessment. Part IV, Division 1 of the EP Act, provides for the referral and assessment of proposals that may significantly impact the environment. The EPA Services Division within the Department of Water and Environmental Regulation (DWER) administers the impact assessment process.

The EPBC Act is the primary Commonwealth environmental legislation protecting Matters of National Environmental Significance (MNES) and is administered by the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW). Fortescue is seeking an accredited assessment under the EPBC Act. The Proposal will potentially impact the MNES of threatened species and ecological communities. Further information on the MNES is provided in Section 13 of this document.

3.1 Other Approvals and Regulation

3.1.1 Native Title

The Proposal is located within the Puutu Kunti Kurrama and Pinikura (PKKP) #1 and #2 Native Title Determination (WCD2015/003) and is the traditional lands of the Puutu Kunti Kurrama people (Kurrama) and the Pinikura people (Pinikura). Kurrama and Pinikura are two separate but related language groups that speak for their own Country and have a shared area within the PKKP native title determination area. The Puutu Kunti Kurrama and Pinikura Aboriginal Corporation (PKKP AC) is the Prescribed Body Corporate (PBC) representing both Kurrama and Pinikura. The Native Title Determination boundary and the sub-division boundaries of Kurrama and Pinikura are presented on Figure 2-3.

Fortescue has a Land Access Agreement with PKKP AC since 28 May 2010, which includes comprehensive provisions around cultural heritage protection, how Fortescue and PKKP will deal with heritage matters, and how Fortescue and PKKP engage regarding Fortescue projects and activities. Fortescue signed a Memorandum of Understanding (MoU) with the PKKP AC on 26 February 2023. This MoU is intended to guide the development of a co-management model which will apply to the company's existing and future projects on Kurrama and Pinikura lands.

3.1.2 Tenure

The Proposal is currently located predominantly over mining leases and exploration licences, granted pursuant to the *Mining Act 1978* (WA) (the Mining Act). Fortescue has applied for miscellaneous licences for the infrastructure corridor and is in the process of applying for additional miscellaneous licences for construction access. Additional mining tenure will be sought for remaining areas of the MDE as required. Table 3-1 describes the current tenements relevant to the Proposal.

Table 3-1 Tenement Details

Tenement ID	Status	Holder	Overlap area within MDE (ha)
E47/1693	Live	API Management Pty Ltd	255.3
E47/4427	Live	Baracus Pty Ltd	27.1
E47/4428	Pending	Baracus Pty Ltd	2,023.2
E47/1553	Live	Black Cat (Paulsens) Pty Ltd	261.1
E47/3305	Live	Black Cat (Paulsens) Pty Ltd	120.7
E47/3396	Live	Black Cat (Paulsens) Pty Ltd	69.7
E47/1725	Live	Brockman Exploration Pty Ltd	795.7
E47/4970	Pending	CV Extractives Pty Ltd	323.1
E47/1154	Live	FMG Pilbara Pty Ltd	947.3
E47/1299	Live	FMG Pilbara Pty Ltd	3,309.6
E47/1300	Live	FMG Pilbara Pty Ltd	4,874.2
E47/2292	Live	FMG Pilbara Pty Ltd	607.2
E47/3506	Live	FMG Pilbara Pty Ltd	316.1
E47/3689	Live	FMG Pilbara Pty Ltd	369.2
L47/232	Live	FMG Pilbara Pty Ltd	1,290.2
L47/790	Live	FMG Pilbara Pty Ltd	4.0
L47/1242	Live	FMG Pilbara Pty Ltd	2,024.9
L47/1243	Pending	FMG Pilbara Pty Ltd	255.3
L47/1244	Pending	FMG Pilbara Pty Ltd	1,204.8
L47/1245	Pending	FMG Pilbara Pty Ltd	795.7
L47/1246	Pending	FMG Pilbara Pty Ltd	7,342.4
M47/1567	Live	FMG Pilbara Pty Ltd	6,428.9
M47/1590	Pending	FMG Pilbara Pty Ltd	1,047.3
P47/1278	Live	FMG Pilbara Pty Ltd	100.1
P47/2127	Pending	FMG Pilbara Pty Ltd	24.7
E 47/662	Live	Hamersley Exploration Limited	382.3
E47/1773	Live	Northern Star Resources	54.6
L47/934	Live	Paulsens East Iron Ore Pty Ltd	18.6
L47/1237	Live	Pilbara Energy Company Pty Ltd	2,024.9
L47/1238	Pending	Pilbara Energy Company Pty Ltd	255.3
L47/1239	Pending	Pilbara Energy Company Pty Ltd	1,204.8
L47/1240	Pending	Pilbara Energy Company Pty Ltd	795.7
L47/1241	Pending	Pilbara Energy Company Pty Ltd	6,873.3
E08/3835	Pending	Widerange Corporation Pty Ltd	337.0

3.1.3 Decision-making authorities and other approvals

In addition to the EPA assessment of the Proposal under Part IV of the EP Act, numerous other environment-related assessments and authorisations will be required before the Proposal can be implemented. The authorities are listed in Table 3-2 and have been identified as decision-making authorities (DMAs) for this Proposal.

Table 3-2 Decision Making Authorities (DMAs) and Other Approvals

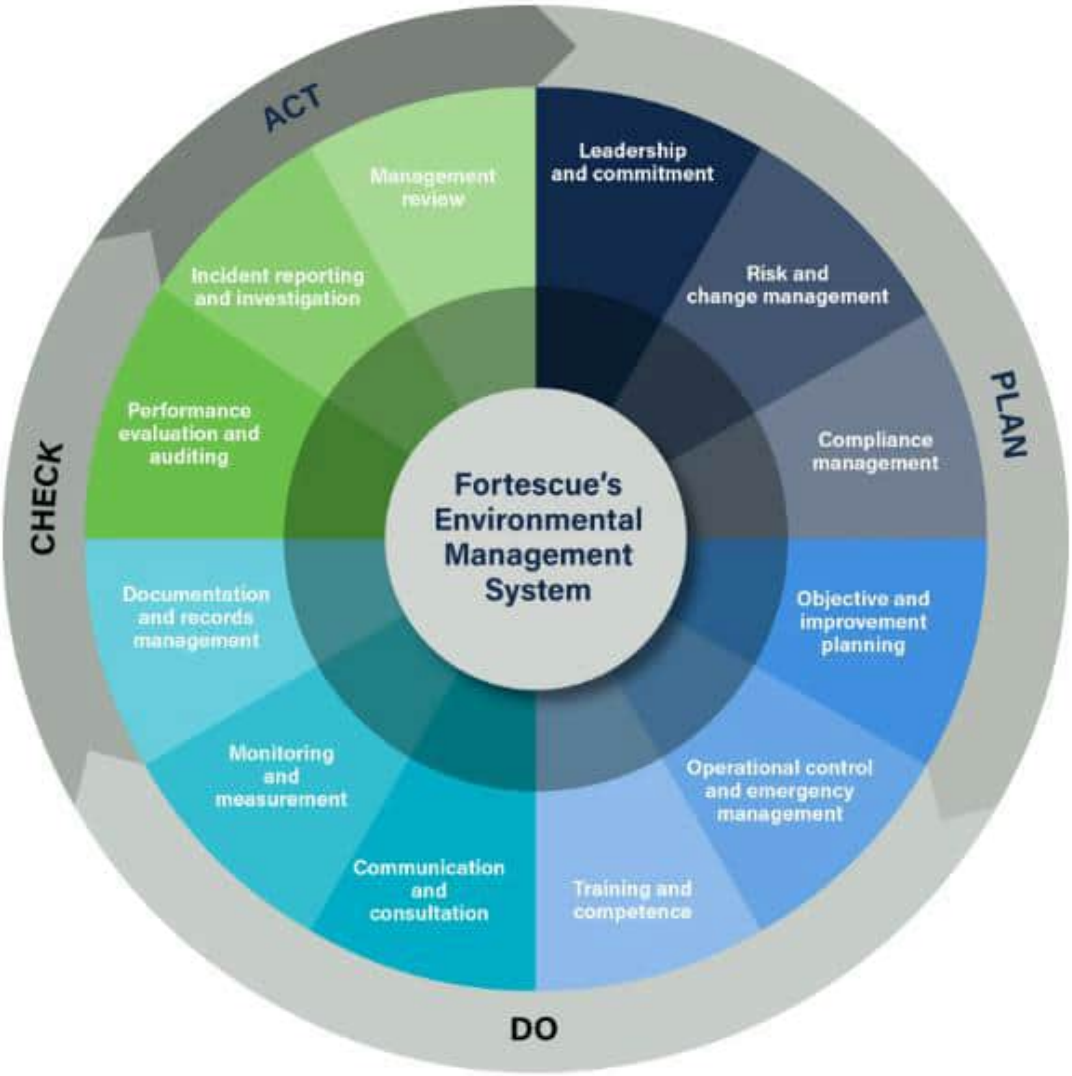
DMA	Legislation	Approval Required	Statutory Requirement
Department of Water and Environmental Regulation (DWER)	*Environmental Protection Act 1986* (EP Act) Part V Environmental Protection (Clearing of Native Vegetation) Regulations 2004	Works Approval and Licence Native Vegetation Clearing Permit	Works Approvals and Licences regulate the emissions and discharges from prescribed premises. The Proposal will require licensing for a number of activities that meet the threshold for prescribed premises including discharge of mine dewatering, ore processing (including tailings storage), landfill, concrete manufacturing and wastewater treatment. The conditions of works approvals and licenses control the nature and volume of emissions and discharges and require regular monitoring of these emissions to ensure they remain within threshold limits. Native Vegetation Clearing Permits regulate the clearing of native vegetation, with conditions relating to management of habitat, surface water, weeds and rehabilitation.
	Rights in Water and Irrigation Act 1914 (RIWI Act)	Water Licensing (26D licence to construct dewatering/water supply bores and 5C licence(s) to abstract/reinject groundwater) Bed and Banks Permit (S17)	Groundwater Abstraction Licenses under Section 5C of the RIWI Act require a Groundwater Operating Strategy (GOS) for large volumes of groundwater. The GOS will outline how groundwater will be abstracted, which users are impacted, including environmental values, and how these impacts are managed. DWER endorse the GOS as a condition of the 5C license. A Bed and Banks permit is required if work is being undertaken that obstruct, interfere, divert or destroy the bed or banks of a waterway or wetland.
Department of Climate Change, Energy, the Environment and Water (Clth) (DCCEEW)	*Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)	Ministerial Approval – Controlled Action	This statutory approval manages impacts to MNES. Conditions are placed on Commonwealth Ministerial Statements to mitigate the impacts to MNES. However, in practice, these conditions often refer to State Ministerial Conditions to manage these impacts. It is open to DCCEEW to impose additional conditions if MNES are not adequately managed through State Ministerial Conditions.
Department of Biodiversity, Conservation	*Biodiversity Conservation Act 2020* (BC Act)	Licence to take Flora Licence to take Fauna	Licences are required to take flora and fauna for scientific purposes.

DMA	Legislation	Approval Required	Statutory Requirement
and Attractions (DBCA)		Section 40 Authorisation from the Minister to take and/or disturb threatened flora and/or fauna species	The Section 40 Authorisation is a statutory instrument that provides authorisation to take and/or disturb threatened flora and/or fauna species.
Department of Planning, Lands and Heritage (DPLH)	*Aboriginal Heritage Act 1972* (AH Act)	Section 16 (s16) Authorisation Section 18 (s18) Consent from the Minister	A s16 Authorisation is required to enter, excavate, examine or remove anything on a Registered Aboriginal Site. Where the Proposal cannot avoid impacts to Registered Aboriginal Sites or Heritage Places, applications will be made under s18 of the AH Act, in consultation with PKKP. This process will ensure PKKP are consulted prior to the disturbance of any Aboriginal sites, and that impacts are mitigated as far as practicable.
Department of Mines, Petroleum and Exploration (DMPE)	*Mining Act 1978* (Mining Act)	Mining Development and Closure Proposal (MDCP) Mine Closure Plan (MCP)	A MDCP is required to seek approval for mining activities under the Mining Act. A MDCP's primary purpose is to demonstrate to DMPE that proposed mining activities can be conducted in accordance with the department's Environmental Objectives Policy for Mining. A MDCP includes details on mine closure in order to ensure closure has been appropriately considered at the mining approval stage. Following assessment of a MDCP, should the proposed activities be approved, an Approvals Statement will be issued to the tenement holder. The Approvals Statement defines the scope and limits of the mining activities approved, any relevant conditions (environmental outcomes), closure outcomes and date for submission of the MCP. It is a requirement of the Mining Act that standalone MCPs are submitted to DMPE to demonstrate planning and progress of the mining operation towards successful closure and achievement of the closure outcomes recorded on the Approvals Statement.
	Dangerous Goods Safety Act 2004 (DG Act)	Dangerous Goods Licence	This statutory instrument provides authorisation for the storage and handling of dangerous goods.

4 ENVIRONMENTAL POLICY AND PLANNING FRAMEWORK

Fortescue has a well-established environmental policy and planning framework. Fortescue has an Environmental Management System (EMS) that is aligned with the principles of ISO14001 International Standard for Environmental Management Systems and is applied across all Fortescue operations. The EMS framework requires a risk-based approach to planning, developing and implementing the Proposal so that potential environmental impacts are minimised (Schematic 4-1).

A copy of Fortescue's Environmental Policy is attached as Appendix C.



Schematic 4-1 Environmental Management System

5 STAKEHOLDER ENGAGEMENT

5.1 Stakeholders

Fortescue has identified the following key stakeholders for the Proposal which will continue to be engaged throughout the assessment process and life of mine (Table 5-1).

Table 5-1 Key Stakeholders identified in relation to the Proposal

Stakeholder Sector	Organisation	Key Interest/s
Government Departments and Regulators	Environmental Protection Authority (EPA)	• Administers EP Act • Part IV (EP Act) EIAs
	Department of Water and Environmental Regulation (DWER)	• Administers RIWI Act • Provision of licences to abstract/reinject water • Groundwater quality and quantity • Administers Part V (EP Act), Industry regulation and licensing, and • *Contaminated Sites Act* (WA) 2003 • Supports administration of the Environmental Protection Authority and Part IV of the EP Act and *Environmental Protection Amendments Act* (WA) 2020
	Department of Biodiversity, Conservation and Attractions (DBCA)	• Administers BC Act • Flora, fauna and habitat conservation • Interest in projects that are located on DBCA managed land • Baseline surveys and licences to take flora and fauna
	Department of Mines, Petroleum and Exploration (DMPE)	• Administers of Mining Act and Regulations • Tenement conditions • Mining proposals and programs of work • Mine closure • Mining rehabilitation fund • Rehabilitation standards • Safety in resource sector
	Department of Planning, Lands and Heritage (DPLH)	• Consent to impact Aboriginal sites • Protection of Aboriginal sites and objects
	Department of Climate Change, Environment, Energy and Water (DCCEEW)	• Administers the EPBC Act • Matters of National Environmental Significance
	Civil Aviation Safety Authority (CASA)	Impacts of any infrastructure (e.g. powerlines, towers, pits etc) to the airspace and risk to aircraft.
	Main Roads WA	• Traffic interactions, changing road conditions • Interruptions to other facilities and services – power, gas, water, sewers, mobile signal etc.
Traditional Owner Groups	Puutu Kunti Kurrama (PKK / Kurrama) Traditional Owners PKK Co-Management Committee (CMC) PKK Land Committee (LC)	• Access to and use of PKKP land • Social, cultural, and heritage values • Native Title rights

Stakeholder Sector	Organisation	Key Interest/s
	Pinikura Traditional Owners Pinikura LC Puutu Kunti Kurrama and Pinikura Aboriginal Corporation (PKKP AC)	• Potential socio-economic opportunities resulting from the Proposal for individuals and/or businesses • Direct and indirect impacts to cultural, heritage and social values of significance • Cultural heritage protection • Water management – surface and subsurface, quantity and quality • Flora and Fauna (traditional resources) cultural assets • Operational interactions (including but not limited to traffic, road condition, noise, dust, vibrations and other amenity and aesthetic issues) • Closure and post mining land use
Local Government Authorities and Communities	Shire of Ashburton	• Rates • Local economy • Benefits to local economy and community • Safety of locals • Use of public roads and infrastructure • Compliance with building, health, sewage and other • Local government regulation
Pastoralists	Mt Stuart Station Wyloo Station	• Access to and use of pastoral land • Business and other economic impacts and /or opportunities associated with the Proposal • Operational interactions (e.g. traffic, potential for cattle strikes, road condition, noise and other amenity issues)
Tenure Holders	Third party tenure holders within and in the vicinity of the Proposal	• Access to and use of tenure • Operational interactions (e.g. traffic, road condition, noise and other amenity issues)
Non-Government Organisations	Australian Conservation Foundation Australian Wildlife Conservancy The Beeliar Group Birdlife WA Care for Hedland Conservation Council of WA Greening Australia Pilbara Mesquite Management Committee Wildflower Society World Wildlife Fund (WWF)	Protection of the environment, water, flora and fauna

Stakeholder Sector	Organisation	Key Interest/s
	Rangelands NRM Wildflower Society Wilderness Society	
	Kimberley and Pilbara Cattlemen's Association	Advocate for pastoralists and members of the beef supply chain across the Kimberley, Pilbara and Gascoyne region of WA.

5.2 Stakeholder engagement process

Fortescue has developed a Stakeholder Engagement Plan for the Wyloo North Iron Ore Mine project to undertake effective consultation (Fortescue 2025e). The overarching objectives of the consultation program include the following:

- Ensure stakeholders understand the nature of the Proposal, including likely impacts, possible and practicable mitigation options, as well as future opportunities and benefits that may be derived from the Proposal.
- Provide information about the Proposal through open and transparent communication of the Proposal's development process, likely direct and indirect impacts and risk management.
- Enable stakeholders with interest in the Proposal to have access to up-to-date relevant information.
- Establish opportunities for a two-way feedback to engage stakeholders and maximise the Proposal's outcomes by obtaining local knowledge and expertise.
- Provide a means through which stakeholders can raise concerns about the Proposal and opportunities for Fortescue to respond to these.
- Assess stakeholder concerns so that proposed impacts can be minimised to as low as reasonably practicable and in-line with stakeholder expectations.

Fortescue maintains a Stakeholder Consultation Register, which tracks and maintains all consultation with identified key stakeholders. The outcomes of consultation undertaken to date is summarised in Table 5-2. Consultation will continue throughout the environmental impact assessment process and for the life of the mine.

Table 5-2 Summary of Stakeholder Consultation

Stakeholder	Engagement Forum	Date	Topics Raised / Discussed	Response / Outcome
PKK Co-Management Committee (CMC) PKKP AC	Meeting	23 July 2024	Western Hub Studies as proposed infrastructure options. Optionality regarding transport/power corridors, including a possibility to avoid crossing Duck Creek. In the finalisation of Scoping phase, which is the first phase in the Studies process. Fortescue has started conducting baseline surveys for the Area of Interest (AOI), with Exploration drilling ongoing and Geotechnical drilling about to commence. Importance of Cultural Constraints and Duck Creek crossings for accessing ore to the West of Duck Creek. First cultural constraints trip for Wyloo North is scheduled to take place in September.	PKK CMC noted that Fortescue was always wanting more and that PKK were historically advised that Westend was supposed to last 50 years. Fortescue to confirm Cultural Constraints scopes internally. Remain a standing agenda item for the CMC to ensure that it remains a touchpoint for this long-term process.
	Meeting	22 October 2024	Provided updates around the project scope and key milestones. Project pathway, production profile, study update. Importance of Wyloo North in sustaining Eliwana's production, FY31 50% of Eliwana's production will depend on ore from Wyloo North.	Updates will continue to be provided to committee to work towards deadlines.
	Meeting	6-7 February 2025	Update provided on the project pathway, key approvals, and drilling Program of Works (PoW) Scopes. Moved from scoping to pre-feasibility. Draft PoW sent to PKKP AC. Pools study, heritage site survey requirements and monitoring methods. Archaeological survey is priority for early 2025 due to project approval requirements and the limited time to align with the wet seasons (2025 and 2026) to collect data from this pool PKK CMC advised that any heritage surveys undertaken prior to the Native Title Agreement need to be reviewed. PKKP AC noted that a review of surveys will need to be undertaken to determine those with combined language groups (PKK and Pinikura) and which of these will need to be redone. PKKP AC advised that they will confirm the dates these were completed and provide guidance if the review of ethnographic surveys is required. Additional surveys to redo those identified can be arranged.	PKKP AC to provide a list of heritage surveys that are of concern (prior to the NT determination (2015)). Fortescue to liaise with PKKP AC to cross reference surveys and determine which ones require re-survey. PKK CMC noted that a water monitoring location would not require heritage survey. A Kurrama monitor will assist with monitoring scopes in this location.
	Meeting	2-3 April 2025	Fortescue provided an update on the Wyloo North project and outcomes of the Social Surroundings trip, including locations visited and key recommendations. Fortescue also provided an update on changes made to the project design based on feedback from the cultural constraints trip in August 2024. These changes included the selecting Kurrama's preferred transport route option, realigning the transport route to avoid key places as requested, and relocating proposed waste dump options. Fortescue also noted that further assessments are being undertaken to understand the closure strategy. Fortescue provided an update on key milestones for the Wyloo North project including access to ground date and referral submission.	No specific feedback was provided by PKK CMC or PKKP AC. Fortescue to continue consultation regarding the Wyloo North project.
	Meeting	1 October 2025	Fortescue provided a high-level overview of the content contained within the Wyloo North s38 & EPBC referral document, including the ways in which identified Cultural Values will be managed. Fortescue advised that they are aiming to provide the Wyloo North referral documentation to PKKP AC for formal review at the end of October 2025. Information was provided on the activities and efforts undertaken by Fortescue to date in relation to the pools study and asked the PKK CMC to please advise Fortescue if there are any culturally significant pools that Fortescue are not currently aware of for inclusion in the pools study. A general overview was also provided on overall progress made on the Wyloo North project and approval timeframes.	The PKK CMC emphasised that water preservation is important to the Kurrama people. The PKK CMC requested information regarding ongoing Wyloo North borefield and groundwater investigations. PKKP AC requested more information regarding the methodology on how the Wyloo North pools being studied and monitored to date have been selected. Fortescue noted the inclusion of additional pools into the monitoring program during a recent pools monitoring trip which involved on-ground field work with Traditional Custodians.

Stakeholder	Engagement Forum	Date	Topics Raised / Discussed	Response / Outcome
PKK Land Committee (LC) PKKP AC	Meeting	7 November 2023	Fortescue introduced the Wyloo North Project, outlining the project's location in relation to Eliwana and emphasizing the need for Western Hub resource input to maintain Eliwana OPF Feed rates from 2030 onwards. Fortescue provided a general overview of the key details of the Wyloo North Project, including quantity of resource and current transport corridor options to Eliwana. Fortescue emphasised the intent to co-design a suitable transport corridor with PKKP AC and Kurrama people and requested collaboration with the Kurrama people as soon as possible to allow planning that avoided culturally significant areas and produce the best outcomes possible.	PKKP AC and Fortescue agreed to collaborate to consolidate mine sequencing with heritage survey work.
PKK representatives	On-site consult	21-25 August 2024	Cultural Constraints trip undertaken with Kurrama representatives and their chosen consultant. The purpose of this trip was to seek feedback from Kurrama on four proposed transport routes for the Wyloo North Project and any other concerns regarding the area.	Kurrama representatives provided feedback on their preferred transport option (being Transport Option 2A – crossing Boolgeeda). It was noted that while this was their preferred option, it did not constitute consent and further consultation, and heritage surveys were required along the preferred transport route to fully understand potential impacts to cultural heritage.
	On-site consult	15-19 March 2025	First on-country Social Surroundings consult with Kurrama representatives for the Wyloo North project. Consult included the Social Surroundings Factor and Fortescue's Cultural Values Management Framework, project details, approvals timeline, and studies completed to date. The consult also provided opportunity for Fortescue to show where the project design had been updated to address Kurrama's concerns and preferred transport routes. Field visits included the proposed mine pits and waste dump locations, and key points along the proposed transport route, including the Boolgeeda Creek Crossing.	Kurrama supported the transport option selected aligned with their recommendations and preferred route. It was acknowledged that this was the first trip and consultation was ongoing. No significant objections were raised by Kurrama for development of the Wyloo Mine project in the general area. Kurrama did note that any crossing of Boolgeeda Creek is of significant concern and that further consultation between Fortescue and Kurrama on what this crossing will look like is required. Key principles for managing water and impacts to country were provided to Fortescue for consideration in the project design.
Pinikura LC PKKP AC	Meeting	6 November 2023	Fortescue introduced the Wyloo North Project, outlining the project's location in relation to Eliwana and Fortescue's other major operations. Fortescue provided a general overview of the key details of the Wyloo North Project, including quantity of resource and current transport corridor options to Eliwana and outlined the need to engage Pinikura Traditional Custodians to undertake heritage work to facilitate an alternative immediate access route into the project area via a 'jump-up' ramp with Strike Resources. Fortescue emphasized the need to engage Pinikura to understand any cultural constrains and 'no-go' areas early in the design process and outlined possible opportunities of involvement in future environmental surveys and engagement in the design of future developments.	Fortescue will continue to provide updates on the Wyloo North project for Pinikura through the LC forum.
	Meeting	14 August 2024	Fortescue provided an update on Wyloo North approvals. Pinikura LC requested an update on the proposed jump-up ramp with Strike Resources. LC queried whether Cultural Awareness Training was provided for the camp at Wyloo North and when this would occur.	Fortescue advised that Strike discussion has been put on hold. Fortescue to follow up internally on Pinikura Cultural Awareness Training at Wyloo North. Pinikura LC would like further information on what infrastructure is proposed on Pinikura Country (in particular Waste Dumps and Power).
	Meeting	5 November 2024	Provided update on Wyloo North Study progress and current focus points (including proposed Social Surroundings consultation strategy).	Pinikura LC queried contractors hired for works at Wyloo North and noted the expectation to have Pinikura businesses prioritised for works on Pinikura country. Fortescue to follow up internally regarding contractors working at Wyloo North and where they undertake works (on Kurrama or Pinikura country) and to advise PKKP AC and the Pinikura LC.
	Meeting	18 February 2025	Update provided on Wyloo North Project progress (including approvals).	Pinikura LC raised concerns around lack of engagement of Pinikura business on Pinikura land and the use of a PKK business instead. The Pinikura LHC considers it a Pinikura business decision on whether to decline work scopes if they are too small.

Stakeholder	Engagement Forum	Date	Topics Raised / Discussed	Response / Outcome
	Meeting	12 August 2025	Fortescue provided an update on the Wyloo project including approval timelines and outcomes of the Social Surroundings trip. Fortescue provided information on the pools study being undertaken for Wyloo North and asked Pinikura to confirm if there are any other pools that should be considered in the study.	Pinikura LC to provide additional pools for inclusion in the pools study.
Pinikura representatives	On-site consult	28-31 March 2025	First on-country Social Surroundings consult with Pinikura representatives for the Wyloo North project. Consult included into to Social Surroundings Factor and Fortescue's Cultural Values Management Framework, project details, approvals timeline, and studies completed to date. Field visits included the proposed Run of Mine (ROM) and infrastructure locations, and the proposed Metawandy crossing.	It was acknowledged that this was the first trip and consultation was ongoing. No significant objections were raised by Pinikura for development of the Wyloo North project in the general area. Key principles for managing water and considerations for closure were provided by Pinikura.
Shire of Ashburton	Project Consultation	24 July 2025	The Wyloo North Fortescue Project Manager presented an overview of the Wyloo North project to the Shire of Ashburton Executive Leadership Team, including the non-processing infrastructure (NPI) components, construction and light vehicle (LV) access to Nanutarra Road and anticipated timeframes, noting those are subject to change.	The Shire raised no concerns with the Wyloo North project and requested to be kept updated as project milestones are reached.
Mt Stuart Pastoral Station	Project Consultation	2 September 2025	The purpose of the meeting was for the Wyloo North Fortescue Project Manager and the Pastoral Access Team to provide an overview of the Wyloo North project to the Mt Stuart Station owners/directors and to understand any of their concerns. The other purpose of the meeting was to ask the pastoralists if they have any requests for specific dust, noise or visual impact monitoring locations for Fortescue to include in ongoing environmental assessment studies. Key topics discussed were about potential impacts from the project to pastoral water bores, mustering, cattle stocking and crossings, as well as pastoral access.	A key outcome of the meeting was that further work needs to be undertaken by Fortescue to develop an Access Agreement with Mt Stuart Station, which will cover items such as access, cattle destocking of certain areas and establishment of water bores for pastoral use. The pastoralists also identified three locations where they camp that they would like Fortescue to include in the Wyloo North noise assessment study.
Wyloo Pastoral Station	Project Consultation	9 December 2025	A meeting was organised for the Wyloo North Fortescue Project Manager and the Pastoral Access Team to provide an overview of the Wyloo North project to the Wyloo Station owners/directors and to understand any of their concerns, in particular in relation to the mine access track which follows the existing pastoral track. The other purpose of the meeting was to ask the pastoralists if they have any requests for specific dust, noise or visual impact monitoring locations for Fortescue to include in ongoing environmental assessment studies.	A key focus of the meeting was discussion around the Pastoralist's concerns regarding the Wyloo North project's use of the existing pastoral track as a mine access road and proposed tenure application over the area. Pastoralist is not in favour of a Fortescue tenure application over the proposed access road. The Pastoralist also raised concerns about impacts of dewatering on pastoral bores. Fortescue explained that based on geology in the area, an impact on the pastoral bores is not expected but Fortescue is happy to install monitoring in the existing pastoral bores. The Pastoralist was shown the current noise/dust/visual monitoring locations on a map and the Pastoralist suggested a single additional dust point towards top of access road/SW corner of tenure. Fortescue will consider if this additional dust monitor is necessary or is already adequately covered by existing monitoring locations.
EPA Services (EPAS)	Pre-referral meeting	10 December 2025	The pre-referral meeting presented an overview of the Proposal. It discussed Proposal content, identified preliminary key and other factors, key environmental values, assessment timeframes and submission dates.	EPAS personnel asked several questions about the status of the surveys/studies related to the Proposal, such as: • Flora/vegetation survey status/coverage • Baseline water monitoring and water studies – timing and frequency. • Bat cave investigations • Subterranean fauna habitat characterisation • Greenhouse gas emissions calculations EPA personnel also noted that the new EIA Practice Guide is now available and that supporting material for Proponents relating to referrals and Environmental Scoping Documents (ESDs) will be published soon.

Stakeholder	Engagement Forum	Date	Topics Raised / Discussed	Response / Outcome
DCCEEW	Pre-referral meeting	27 January 2026	Pre-referral meeting to present an overview of the Proposed Action. To discuss Proposed Action content, key environmental factors related to the EPBC referral, and assessment timeframes and submission dates.	DCCEEW queried whether the current gaps in the flora and fauna survey information will be filled in the referral about to submitted. Fortescue explained that surveys are ongoing to collect this information, so it won't be presented in the upcoming EPBC referral. However, it would be presented in the next step of the EPBC environmental impact assessment process with DCCEEW. Fortescue discussed recent changes in regard to levels of assessment applied to Proposals by WA EPA Services. Fortescue expects an Environmental Scoping Document to be issued for this Proposal. DCCEEW noted that although *Seringia exastia* has been delisted in WA, it is still Threatened under EPBC Act, so Proponents are required to provide evidence that records found are not the same species as the Threatened *Seringia exastia* found near Broome WA. DCCEEW thanked Fortescue for providing information regarding how Fortescue assessed Alternative Options for the Proposed Action.
DBCA	Proposal Consultation	Planned to be undertaken – TBD early 2026	A meeting to present an overview of the Proposal. To discuss Proposal content, key environmental values, assessment timeframes and submission dates.	TBD

6 ENVIRONMENTAL PRINCIPLES AND FACTORS

6.1 Environmental Principles

Section 4A of the EP Act outlines the EP Act's object to protect the environment of the State, guided by a specific set of principles. The EPA considers these principles as the primary basis for exercising its authority when evaluating and reporting on proposals under the Act. Table 6-1 outlines the EP Act principles, Fortescue's consideration of them during the Proposal's development, and their relevance to the Proposal.

Table 6-1 *Environmental Protection Act 1986* - Principles

Principle	Proponent Consideration
The Precautionary Principle Where there are threats of serious or irreversible damage, a lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In application of the precautionary principle, decisions should be guided by: • Careful evaluation to avoid, where practicable, serious or irreversible damage to the environment. • An assessment of the risk-weighted consequences of various options.	Fortescue is carrying out numerous studies to assess the social and environmental values within the Mine Development Envelope and to identify potential risks posed by the Proposal. These studies have informed and will continue to inform the design of the Proposal, with modifications made to avoid and minimise impacts where feasible. All studies have been and will continue to be, conducted in alignment with the EPA's Environmental Factors Guidelines, technical guidance documents, and best practice standards to ensure accurate data collection for predicting the proposal's impact on environmental and social values. Fortescue has followed the mitigation hierarchy, 'avoid, minimise, and mitigate', to reduce environmental, social, and cultural heritage impacts to as low as reasonably practicable.
The Principle of Intergenerational Equity The present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.	The Proposal has been designed to meet the EPA's objectives for the identified environmental factors, incorporating mitigation measures to minimise residual environmental impacts, and proposing offsets to address any significant residual effects. Particular emphasis has been placed on preserving biodiversity, conserving natural resources and reducing greenhouse gas emissions. As further surveys and investigations are conducted, the Proposal design is expected to be adjusted to avoid, where feasible, and further reduce potential impacts. Fortescue has recently released Climate Transition Plan – The Road to Real Zero (the Plan) (Fortescue, 2025a) provides a peer reviewed, detailed timeline and action plan to achieving its ambitions of real zero

Principle	Proponent Consideration
	carbon emissions across its Australian iron ore mining operations by 2030 (Real Zero by 2030). As a leader in the mining industry's decarbonisation efforts, Fortescue aims to achieve carbon neutrality by 2030, and the Proposal is aligned with this goal. With the Proposal commencing prior to 2030, the Proposal is being developed with carbon neutrality as a key focus. Fortescue has worked and will continue to work, closely with PKKP to safeguard Indigenous social and cultural heritage values and ensure the future use and enjoyment of the land.
The Principle of Conservation of Biological Diversity and Ecological Integrity Conservation of biological diversity and ecological integrity should be a fundamental consideration.	Fortescue has evaluated the relevant environmental factors and adjusted the mine and infrastructure design, where feasible, to avoid or minimise impacts on significant environmental values. As further surveys and investigations are conducted, the Proposal design is expected to be adjusted to avoid, where feasible, and further reduce potential impacts. Fortescue's Biodiversity Strategy commits Fortescue to working towards net positive impact on biodiversity by 2030 and the Strategy will inform the planning and delivery of the Proposal. The Strategy comprises four pillars prioritising key actions required to meet this commitment, supported by Fortescue's governance framework: • **Biodiversity in design and decision making**: Embedding biodiversity throughout the full lifecycle of our operations and other activities to inform important planning, risk management and strategic decision making. • **Protect, maintain and enhance ecosystems**: Driving innovative techniques, First Nations knowledge, methods and plans to ensure species/habitat conservation, ecosystem functionality and ecosystem services. • **Biodiversity knowledge generation**: Building our biodiversity knowledge to address knowledge gaps, improving our understanding of biodiversity and forming partnerships with key biodiversity partners. • **Rehabilitation and restoration excellence**: Demonstrating Fortescue's commitment to land-use stewardship, reducing closure liabilities, and

Principle	Proponent Consideration
	taking opportunities to develop First Nations business and capabilities.
Principles Relating to Improved Valuation, Pricing and Incentive Mechanisms • Environmental Factors should be included in the valuation of assets and services. • The polluter pays principles — those who generate pollution and waste should bear the cost of containment, avoidance or abatement. • The users of goods and services should pay prices based on the full life cycle costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any wastes. • Environmental goals, having been established, should be pursued in the most cost-effective way by establishing incentive structures, including market mechanisms, which enable those best placed to maximise benefits and/or minimise costs to develop their own solutions and responses to environmental problems.	Fortescue recognises the importance of improving valuation, pricing, and incentive mechanisms and will strive to apply these principles when practical. Fortescue will cover all costs related to monitoring, mitigation measures, offsets, and closure.
The Principle of Waste Minimisation All reasonable and practicable measures should be taken to minimise the generation of waste and its discharge into the environment.	Fortescue considers this Principle when implementing waste management strategies across its operations. Waste reduction efforts during construction, operation, and closure will follow the waste control hierarchy: avoid, minimise, reuse, recycle and safely dispose.

6.2 Identification of Environmental Factors

The EPA identifies 14 environmental factors, organised into five themes: Sea, Land, Water, Air and People which are used as an organising principle for EIA (EPA 2023d). Each environmental factor has a specified environmental objective, against which the significance and acceptability of the Proposal's impacts are assessed.

A preliminary review has been completed against the environmental factors to identify those relevant to the Proposal. Consideration has been given to all available information at the time of preparing this document, including baseline surveys, preliminary mine planning, and regional environmental and social context. The identification of key environmental factors is presented in Table 6-2.

Further details about each environmental factor identified as relevant to the Proposal are provided in subsequent sections. Factors which are not considered relevant to the Proposal have not been discussed further.

Table 6-2 Identification of Key Environmental Factors

Factor	Objective	Relevance to Proposal	Key Factor
Sea			
Benthic Communities and Habitat	To protect benthic communities and habitats so that biological diversity and ecological integrity are maintained.	There are no benthic, marine, or coastal receptors. Not relevant to proposal.	Not relevant
Coastal Processes	To maintain the geophysical processes that shape coastal morphology so that the environmental values of the coast are protected.	There are no benthic, marine, or coastal receptors. Not relevant to proposal.	Not relevant
Marine Environmental Quality	To maintain the quality of water, sediment and biota so that environmental values are protected.	There are no benthic, marine, or coastal receptors. Not relevant to proposal.	Not relevant
Marine Fauna	To protect marine fauna so that biological diversity and ecological integrity are maintained.	There are no benthic, marine, or coastal receptors. Not relevant to proposal.	Not relevant
Land			
Flora and Vegetation	To protect flora and vegetation so that biological diversity and ecological integrity are maintained.	Removal and loss of vegetation. Conservation significant flora and vegetation known to occur within the MDE.	Key Factor
Terrestrial Fauna	To protect terrestrial fauna so that biological diversity and ecological integrity are maintained.	Removal and loss of fauna habitat including short-range endemic (SRE) fauna habitat. Conservation significant fauna known to occur within the MDE.	Key Factor
Subterranean Fauna	To protect subterranean fauna so that biological diversity and ecological integrity are maintained	Permanent loss or temporary alteration of habitat from mining and dewatering activities.	Key Factor
Landforms	To maintain the variety and integrity of significant physical landforms so that environmental values are protected.	The Proposal is not likely to substantially alter any significant landforms as described by the Environmental Factor Guideline – Landforms.	Other Factor
Terrestrial Environmental Quality	To maintain the quality of land and soils so that environmental values are protected.	The Proposal will construct and operate waste rock landforms. Waste rock material may contain potentially acid forming materials; however, the risk is low for Wyloo North. Fortescue has a proven track record of effectively managing these components to meet the EPA's objectives.	Other Factor
Water			

Factor	Objective	Relevance to Proposal	Key Factor
Inland Waters	To maintain the hydrological regimes and quality of groundwater and surface water so that environmental values are protected.	The Proposal includes mining activities, placement of infrastructure, and surface water management infrastructure that will likely alter catchment runoff and surface water regime. The Proposal includes groundwater abstraction for dewatering and water supply, and aquifer reinjection.	Key Factor
Air			
Air Quality	To maintain air quality and minimise emissions so that environmental values are protected.	The Proposal will not substantially alter the local air-shed.	Other Factor
Greenhouse Gas Emissions	To reduce net greenhouse gas emissions in order to minimise the risk of environmental harm associated with climate change.	The Proposal has the potential to contribute some Greenhouse Gas Emissions during construction but will use green mining fleet and connect into Fortescue's Pilbara Transmission Network during operation which will supply power from predominantly renewable energy sources. The Proposal will be implemented in accordance with the Commonwealth Safeguard Mechanism and Fortescue's Decarbonisation Program which aims to achieve real zero emissions by 2030 (Real Zero by 2030). The Decarbonisation Program will ensure that Scope 1, 2 and ultimately Scope 3 emissions are as low as can be achieved with current technology.	Other Factor
People			
Social Surroundings	To protect social surroundings from significant harm.	The Proposal is within the PKKP Native Title determination area. It also overlaps the Mt Stuart and Wyloo North pastoral stations, as well as third party tenure. The Proposal has the potential to impact on cultural, aesthetic, economic and social surroundings values.	Key Factor
Human Health	To protect human health from significant harm.	The Proposal will not generate emissions that may impact on human health. Not relevant to the proposal.	Not relevant

7 FLORA AND VEGETATION

7.1 EPA Objective, Policy and Guidance

The EPA Objective for Flora and Vegetation is "*to protect flora and vegetation so that biological diversity and ecological integrity are maintained*" (EPA 2016a). The policy and guidelines regarding flora and vegetation, along with their consideration for the Proposal, are outlined in Table 7-1 below.

Table 7-1 Relevant Policy, Guidelines and Guidance for Flora and Vegetation

Policy or guideline	
Environmental Protection Authority	
Statement of environmental principles, factors, objectives and aims of EIA (EPA 2023d).	This assessment has been conducted based on the EPA's objective for flora and vegetation. The referral considers the EIA goals, evaluates the significance of impacts, and application of the required mitigation hierarchy.
Environmental Factor Guideline – Flora and Vegetation (EPA 2016a)	The flora and vegetation surveys are designed based on these documents.
Technical Guidance – Flora and Vegetation surveys for Environmental Impact Assessment (EPA 2016e)	
Environmental Factor Guideline – Social Surroundings (EPA 2023b)	This guideline has informed the studies and investigations required to support impact assessment.
Technical Guidance: Environmental impact assessment of Social Surroundings – Aboriginal Cultural Heritage (EPA 2023c)	Provides technical guidance on undertaking an environmental impact assessment on Aboriginal Cultural Heritage under the Social Surroundings factor where these values may not be protected under the *Aboriginal Heritage Act 1972 (WA)*. Guideline has been used to develop the consultation framework for engaging with Native Title stakeholders and assessing potential impacts to, and management of, Aboriginal Cultural Heritage within and surrounding the Proposal relating to flora and vegetation.
Instructions on how to prepare an Environmental Review Document (EPA 2025)	The headings and content of this referral are prepared in line with the ERD, for future EIA preparation.
Environmental Impact Assessment (Part IV Divisions 1 And 2) Administrative Procedures (EPA 2021a)	These procedures are considered in preparation for this referral and impact assessment.
Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual (EPA 2024a)	
Instructions on how to prepare *Environmental Protection Act 1986* Part IV Environmental Management Plans (EPA 2024b)	A Flora and Vegetation EMP will be prepared in accordance with these instructions.
Instructions on how to prepare *Environmental Protection Act 1986* Part IV Impact Reconciliation Procedures and Impact Reconciliation Reports (EPA 2024c)	The flora and vegetation impact assessment and offset approach (if required) will be developed based on this advice.

Policy or guideline	
Template for *Environmental Protection Act 1986* Part IV Reconciliation Procedures (EPA 2021c)	
Cumulative environmental impacts of development in the Pilbara region – Advice of the Environmental Protection Authority to the Minister for Environment under Section 16(e) of the *Environmental Protection Act 1986* (EPA 2014)	
Other State or Commonwealth	
Guideline for preparing Mine Closure Plans (DMIRS 2025)	These guidelines will be used in the preparation of the Mine Closure Plan (MCP), and matters related to rehabilitation will be addressed within it.
WA Environmental Offsets Policy (GoWA 2011)	This policy and these guidelines will be considered in the determination of significant residual impacts and the development of an offset strategy for flora and vegetation.
WA Environmental Offsets Guidelines (GoWA 2014)	

7.2 Receiving Environment

7.2.1 Studies and Surveys

Fortescue has conducted multiple recent flora and vegetation surveys to support the Proposal. Survey effort is detailed in Table 7-2.

Table 7-2 Flora and Vegetation Surveys Completed

Report Name	Type of Survey	Survey Area	Survey Dates	Reference
Western Hub 2: Wyloo Deposit Detailed Flora and Vegetation Survey (Rev 0) - November 2021	Detailed and Targeted	14,574 ha covering the Wyloo North deposit area	28 June - 5 July 2021 (Phase 1)	*ecologia* 2021
Western Hub 2: Wyloo Deposit Detailed Flora and Vegetation Survey (Rev 2) - August 2023	Detailed and Targeted	847.8 ha area within the Wyloo North deposit area encompassing the potential mine pits and waste dump locations	9 - 16 May 2022 (Phase 2)	*ecologia* 2023b
Elevation-Hendrix/Boolgeeda Detailed Flora and Vegetation Assessment (Rev 1) - July 2025	Detailed	26,592.01 ha covering the Elevation-Hendrix/Boolgeeda area	23 - 27 June 2021 25 - 29 August 2021 27 April - 3 May 2022 8-12 August 2022	Focused Vision 2025
Wyloo North Mine and Transport Options – Detailed Flora and Vegetation Assessment (Rev 3) - July 2025)	Detailed and Targeted	52,267.8 ha of the Wyloo North deposit area, all transport corridor options considered prior to referral, and previous *ecologia* (2021; 2023b) and Elevation-Hendrix/Boolgeeda	22 - 29 April 2024 12 - 19 August 2024	*ecologia* 2025a

Report Name	Type of Survey	Survey Area	Survey Dates	Reference
		surveys (Focused Vision 2025)		

7.2.2 Future Studies and Surveys

The details of ongoing or planned investigations for flora and vegetation that will also inform EIA for the Proposal are outlined in Table 7-3. Most studies are in progress or to be commenced shortly and will be ongoing to inform the ERD and subsequent management plans.

Table 7-3 Studies Planned or in Progress – Flora and Vegetation

Study	Description
Flora and vegetation survey - additional areas outside current survey area, and access road	A flora and vegetation survey of additional areas in the MDE and the proposed mine access road from Nanutarra Road were not included in the previous Wyloo North flora and vegetation survey (*ecologia* 2025a). Findings will be incorporated into the broader Wyloo North consolidated flora and vegetation report and presented in the ERD.
Targeted flora and vegetation survey	Targeted searching for conservation significant flora in areas of proposed disturbance and targeted survey of Priority 3 PEC '*Triodia pisoliticola* (previously Triodia sp. Robe River) assemblages of mesas of the West Pilbara' to confirm boundaries.
Baseline vegetation health monitoring	Establishment of a 3-year baseline vegetation health monitoring program (2025-2027) to monitor and measure the success of management actions to minimise impacts on conservation significant flora, vegetation and ecological communities.

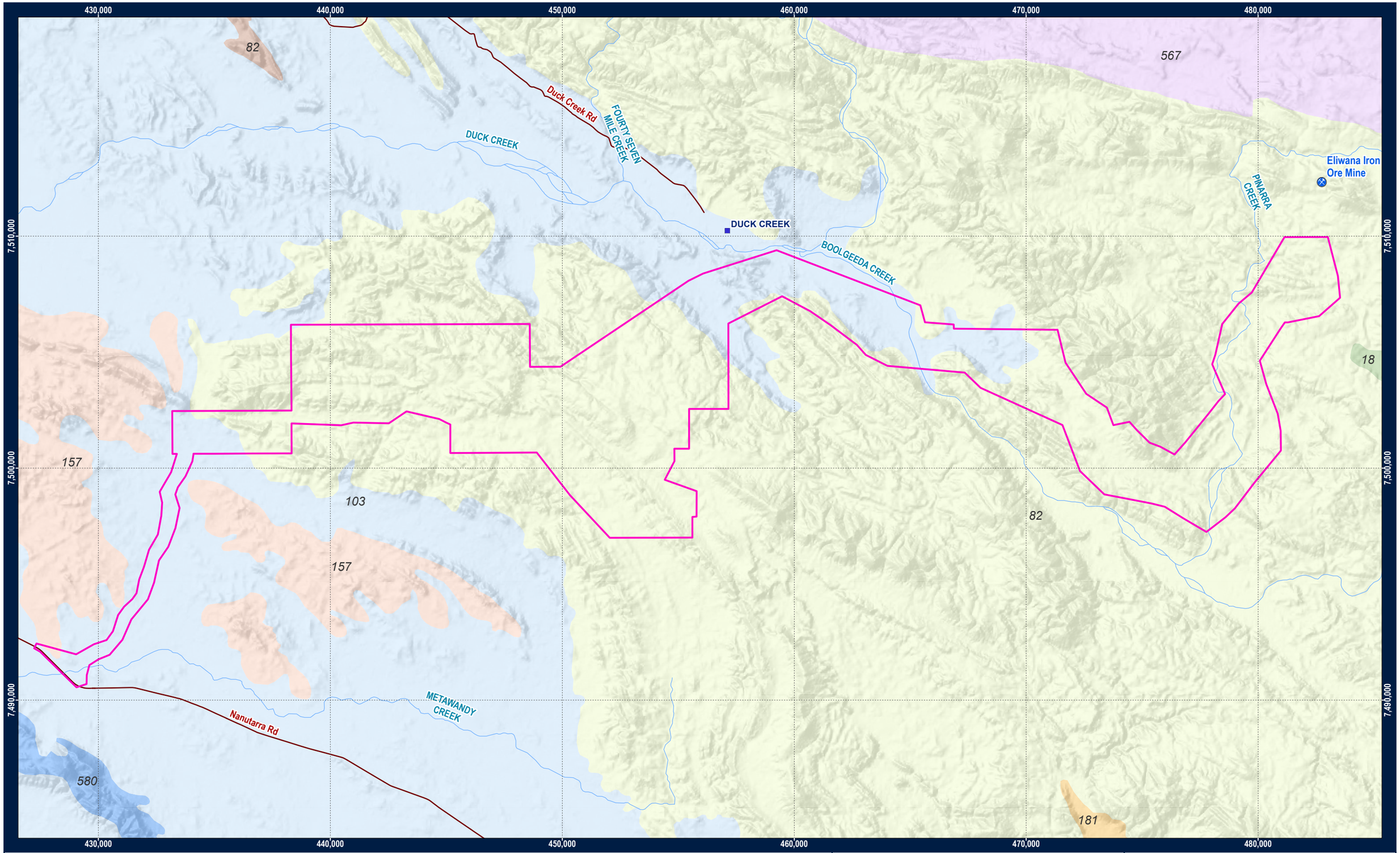
7.2.3 Regional Vegetation

Regional scale vegetation has been mapped and described by Beard (1975) and refined by Shepherd et al. (2002). Beard's pre-European vegetation mapping aimed to represent the native vegetation of Western Australia as it was presumed to exist at the time of European settlement. Vegetation associations are broad scale and aligned with landform, soils and topography.

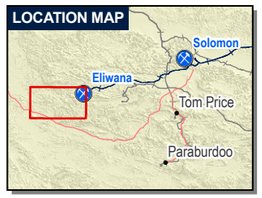
Three (3) Vegetation Associations intersect the MDE (Figure 7-1). The majority (80.5%) of the MDE intersects Vegetation Association 82. These vegetation associations, their current and pre-European extent, and their extent within the MDE are summarised in Table 7-4.

Table 7-4 Vegetation Associations within the Development Envelope (GoWA 2019)

Vegetation Association	Description	Original Extent in the Pilbara (ha)	Current Extent Remaining in Pilbara (ha / %)	Within MDE (ha) (% of Current Extent Remaining)	Within MDE (%)
82	Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana*	2,563,583.23	2,550,888.14 / 99.50	17,637.35 (0.69%)	80.5%
103	Hummock grasslands, shrub steppe; snakewood over soft spinifex & *Triodia wiseana*	614,056.46	613,923.76 / 99.98	4,250.59 (0.69%)	19.4%
157	Hummock grasslands, grass steppe; hard spinifex, *Triodia wiseana*	199,832.17	198,409.23 / 99.29	22.33 (0.01%)	0.10%



LOCATION MAP



Legend

- Homesteads
- Fortescue Mines
- Road
- Watercourses
- Wyloo North Iron Ore Mine Development Envelope

Pre-European Vegetation Associations

- 181 - ASHBUIRTON VALLEY
- 18 - HAMMERSLEY
- 82 - HAMMERSLEY
- 567 - HAMMERSLEY
- 82 - STUART HILLS
- 103 - STUART HILLS
- 157 - STUART HILLS
- 580 - STUART HILLS

Data Source(s):
Pre-European Veg, DPIRD.
Watercourses, SRTM, Geoscience Aus.
Roads, Homesteads, Landgate.

N

0 2 4 6 8 10
Kilometres

Requested By: A. Imbergamo
Drawn By: S. Costello
Revised By: rykerr
Approved By:
Scale: 1:150,000
Coordinate System: GDA2020 MGA Zone 50
Project Name: WH_MP_EN_0003
Document Name: WH_MP_EN_0003_004_r2_PreEuro

Date: 12/30/2025
Size: A3L
Revision: 2
Confidentiality: No

Figure 7-1: Wyloo North Iron Ore Mine Pre-European Vegetation Associations in the Mine Development Envelope

Fortescue

7.2.4 Local Vegetation

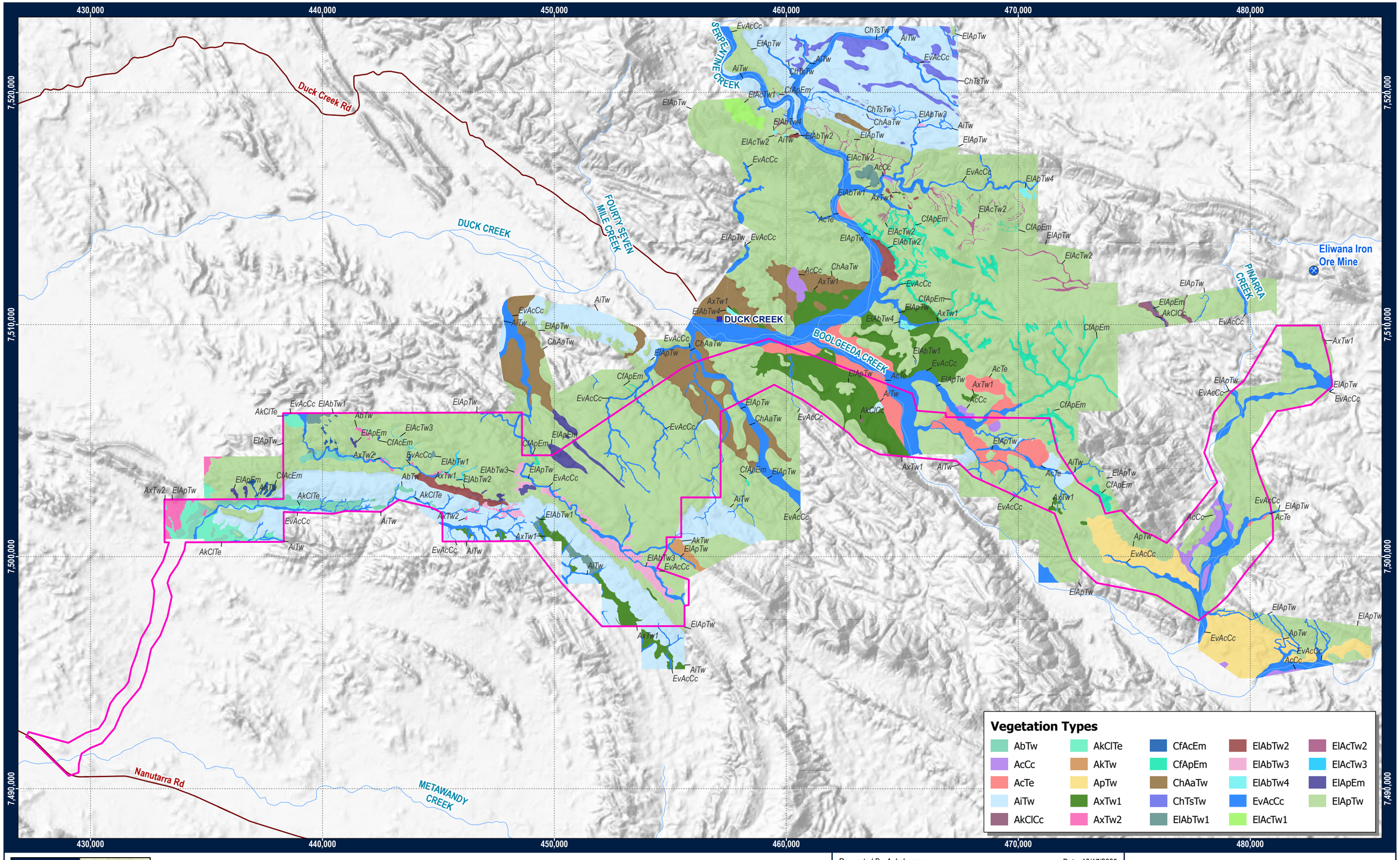
Vegetation mapping has been completed across most of the MDE with the exception of the access road into the Wyloo North MDE and some peripheral areas. The access road and additional areas are currently being surveyed and consolidated vegetation mapping will be presented in the ERD.

ecologia (2025a) recorded 24 vegetation types within the survey area, 19 of these occur within the MDE. Mapped vegetation types, their respective extents, and the landforms/soils they are associated with are summarised in Table 7-5 and presented in Figure 7-2. The majority (52.9%, 11,583.7 ha) of the MDE is mapped as ElApTw - *Eucalyptus leucophloia* subsp. l*eucophloia* low open woodland; *Acacia pruinocarpa*, *Acacia* arida mid open shrubland; *Triodia wiseana*, ±*Triodia pisoliticola* low tussock grassland. ElApTw also comprises the majority of the IDF (54.9%, 2,722.1 ha).

Table 7-5 Vegetation Types in the Development Envelope (*ecologia* 2025a)

Typical landforms and soils	Vegetation Type	Description	Environmental Significance	Area in the MDE		Area in the IDF	
				(ha)	(%)	(ha)	(%)
Plans, low undulating plains, low hills. Reddish brown clay loam	**AbTw**	*Acacia bivenosa, Acacia synchronicia, Senna glutinosa* subsp. *pruinosa* mid sparse shrubland; *Triodia wiseana*, ±*Triodia angusta* low open hummock grassland	Locally restricted	422.7	1.9%	72.4	1.5%
Plains and floodplains. Reddish brown sandy clay loam	**AcCc**	*Acacia citrinoviridis*, *Acacia synchronicia* tall open shrubland; **Cenchrus ciliaris*, **Cenchrus setiger, Triodia wiseana* low grassland	Locally restricted	191.5	0.9%	81.5	1.6%
Plains and floodplains. Reddish brown sandy clay loam	**AcTe**	±*Acacia citrinoviridis* tall open shrubland; *Triodia epactia*, **Cenchrus ciliaris*, **Cenchrus setiger* low grassland	LGDV (partly)	584.8	2.7%	173.0	3.5%
Low hills and undulating plains. Reddish brown sandy clay loam	**AiTW**	*Acacia inaequilatera* tall sparse shrubland; *Triodia wiseana*, *Dolichocarpa crouchiana*, *Dysphania rhadinostachya* low open hummock grassland/herbland	None	2,702.9	12.3%	569.0	11.5%
Floodplains. Clay to sandy clay-loam	**AkClCc**	*Acacia kempeana* tall shrubland; *Corchorus laniflorus* low open shrubland; **Cenchrus ciliaris*, **Cenchrus setiger*, *Triodia wiseana* low grassland	Locally restricted	1.8	0.01%	0.8	0.02%
Floodplains. Reddish brown sandy clay, clay loam	**AkClTe**	*Acacia kempeana, Acacia synchronicia* tall sparse shrubland*; Corchorus laniflorus, Ptilotus astrolasius, Senna artemisioides* subsp. *oligophylla* low sparse shrubland*; Triodia epactia, *Cenchrus ciliaris* low open hummock grassland/tussock grassland	Locally restricted	276.2	1.3%	25.7	0.5%
Low hills, footslopes, mesas. Loam.	**ApTw**	*Acacia pruinocarpa*, *Acacia synchronicia* tall open shrubland; *Triodia wiseana*, ±*Triodia epactia* low hummock grassland	Representative of the Priority 3 PEC' *Triodia pisoliticola* assemblages of mesas of the West Pilbara' where the vegetation type occurs on mesa landforms	461.7	2.1%	210.8	4.3%
Stony plains and undulating plains. Reddish brown sand, loam, clay loam.	**AxTw1**	*Acacia xiphophylla*, *Acacia synchronicia*, *Acacia tetragonophylla* tall open shrubland; *Eremophila cuneifolia* low sparse shrubland; *Triodia wiseana* low sparse hummock grassland	None	1,040.4	4.7%	345.3	7.0%
Stony plains and undulating plains. Reddish brown loam, clay loam.	**AxTw2**	*Acacia xiphophylla*, *Acacia synchronicia*, *Acacia tetragonophylla* tall open shrubland; *Triodia wiseana*, *Cynodon prostratus*, *Sporobolus austra*lasicus low open hummock/tussock grassland	Locally restricted	143.4	0.7%	36.6	0.7%
Gorges. Reddish brown loam, sandy loam, clay loam	**CfAcEm**	*Corymbia ferriticola* low open woodland; *Acacia citrinoviridis*, *Acacia pruinocarpa*, *Flueggea virosa* tall sparse shrubland; *Eriachne mucronata*, *Triodia pisoliticola* (P3), *Triodia wiseana* low grassland	Locally restricted; potential role as a refuge	21.1	0.1%	6.5	0.1%
Gorges. Reddish brown loam, sandy loam, clay loam	**CfApEm**	*Corymbia ferriticola* low open woodland; *Acacia pruinocarpa* tall open shrubland; *Eriachne mucronata*, *Triodia pisoliticola* (P3), *Triodia wiseana* low grassland	GDV (partly), LGDV (partly); potential role as a refuge	17.9	0.1%	0.1	0.003%
Plains and floodplains. Reddish brown clay loam	**ChAaTw**	±*Corymbia hamersleyana* low isolated trees; *Acacia ancistrocarpa*, *Acacia inaequilatera* tall sparse shrubland; *Triodia wiseana* low open hummock grassland	None	344.1	1.6%	90.7	1.8%
Low hills (some calcrete). Clay loam.	**ElAbTw1**	±*Eucalyptus leucophloia* subsp. *leucophloia* low open woodland; *Acacia bivenosa*, *Acacia synchronicia* tall open shrubland; *Triodia wiseana* low open hummock grassland	Locally restricted	109.5	0.5%	43.2	0.9%
Rocky slopes and ridges. Reddish brown clay loam, sandy loam	**ElAbTw2**	*Eucalyptus leucophloia* subsp. l*eucophloia* low open woodland; *Acacia bivenosa* mid sparse shrubland; *Triodia wiseana* low open hummock grassland	Locally restricted	118.3	0.5%	77.2	1.6%
Low calcrete hills. Brown clay loam	**ElAbTw3**	*Eucalyptus leucophloia* subsp. *leucophloia* low open woodland; *Acacia bivenosa* mid sparse shrubland; *Triodia wiseana*, *Roepera eichleri*, *Stackhousia muricata* subsp. annual (W.R. Barker 2172) low open hummock grassland/herbland	Locally restricted; potential role as a refuge	314.2	1.4%	75.9	1.5%

Typical landforms and soils	Vegetation Type	Description	Environmental Significance	Area in the MDE		Area in the IDF	
				(ha)	(%)	(ha)	(%)
Upland creeks/gullies. Reddish brown sandy clay loam.	**ElAcTw3**	*Eucalyptus leucophloia* subsp. *leucophloia* low open woodland; *Acacia citrinoviridis*, *Acacia bivenosa*, *Gossypium robinsonii* tall open shrubland; *Triodia wiseana* low hummock grassland	Locally restricted	23.1	0.1%	20.9	0.4%
Rocky ridges and outcrops. Reddish brown clay loam.	**ElApEm**	*Eucalyptus leucophloia* subsp. *leucophloia* low open woodland; *Acacia pruinocarpa* tall open shrubland; *Eriachne mucronata*, *Triodia pisoliticola* (P3), *Triodia wiseana* low grassland	Locally restricted	136.7	0.6%	20.3	0.4%
Hills, ridges, mesas, undulating plains. Reddish brown clay loam	**ElApTw**	*Eucalyptus leucophloia* subsp. *leucophloia* low open woodland; *Acacia pruinocarpa*, *Acacia arida* mid open shrubland; *Triodia wiseana*, ±*Triodia pisoliticola* (P3) low hummock grassland	Representative of the the Priority 3 PEC' *Triodia pisoliticola* assemblages of mesas of the West Pilbara' where the vegetation type occurs on mesa landforms	11,583.7	52.9%	2722.1	54.9%
Major creeks. Reddish brown sandy loam	**EvAcCc**	*Eucalyptus victrix*, ±*Eucalyptus camaldulensis* mid open woodland; *Acacia citrinoviridis*, *Acacia pyrifolia*, *Gossypium robinsonii* tall sparse shrubland; **Cenchrus ciliaris*, **Cenchrus setiger*, *Triodia wiseana* low grassland	GDV, LGDV, or PGDV	1,379.3	6.3%	261.9	5.3%
-	**Unsurveyed**	-	-	2,036.9	9.3%	120.5	2.4%
-	**Total Extent**	-	-	21,910.1	100%	4,954.5	100%



Requested By: A. Imbergamo
Drawn By: S. Costello
Revised By: rykerr
Approved By:
Scale: 1:150,000
Coordinate System: GDA2020 MGA Zone 50
Project Name: WH_MP_EN_0003
Document Name: WH_MP_EN_0003_005_r1_VegMap

Date: 10/17/2025
Size: A3L
Revision: 1
Confidentiality: No

Figure 7-2: Wyloo North Iron Ore Mine Mapped Vegetation Types in the Mine Development Envelope

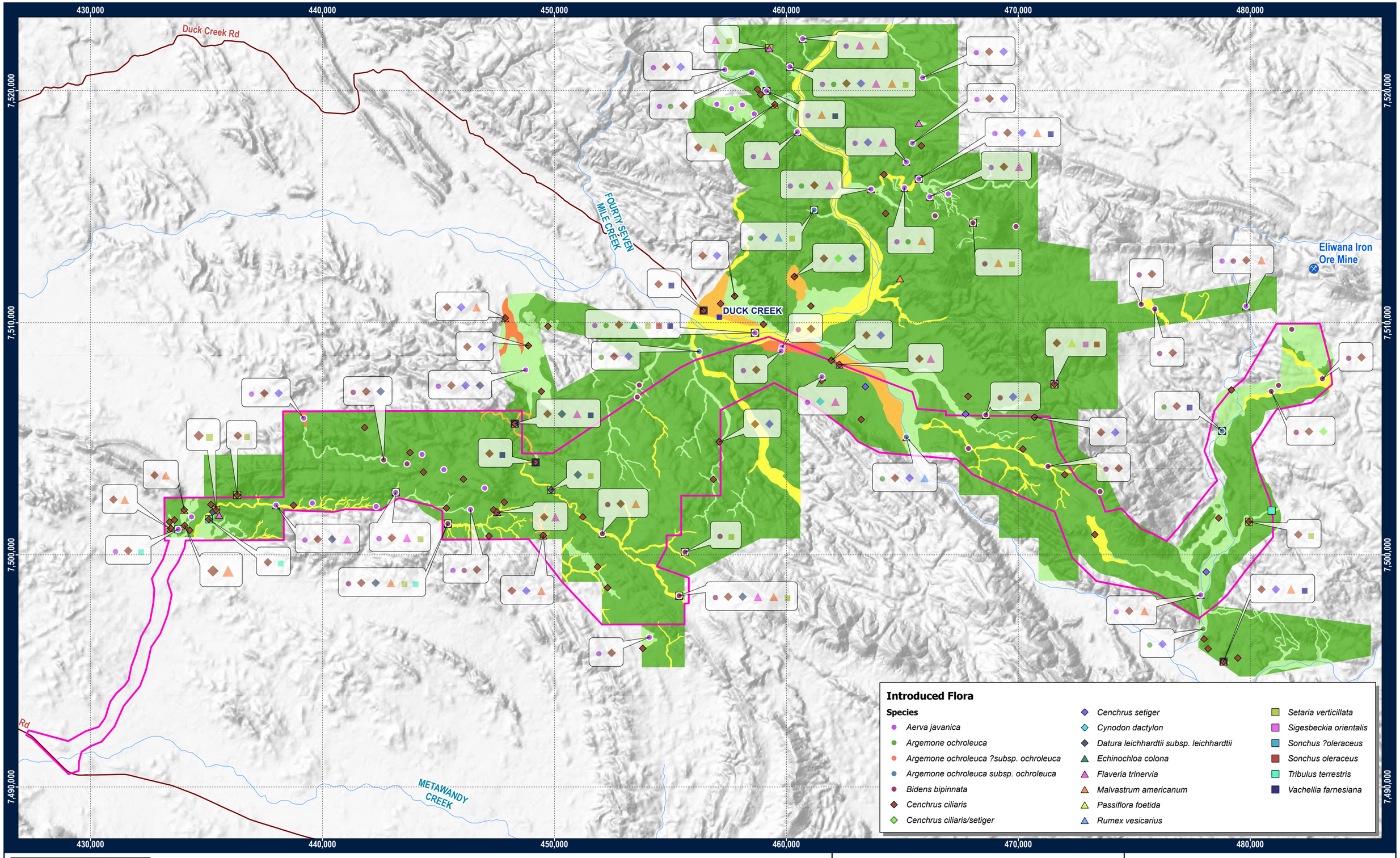
Fortescue

7.2.4.1 Vegetation Condition

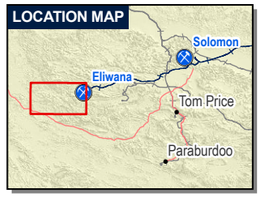
The majority of the MDE is in 'Excellent' condition (17,179.1, 78.4%) primarily comprising undisturbed rocky hills and undulating plains, with no obvious signs of disturbance or only very minor weed presence and grazing (Table 7-6 and Figure 7-3). The more significant creeks and associated floodplains (i.e. Duck Creek and Boolgeeda Creek) are in some cases comparatively degraded owing to weed infestation and heavy grazing in some areas. Smaller rocky creeks and other drainage features are in general less degraded (*ecologia* 2025a).

Table 7-6 Vegetation condition in the Development Envelope

Vegetation Condition	Area in the MDE (ha) (%)	Area in the IDF (ha) (%)
Excellent	17,179.1 (78.4%)	4,247.6 (85.7%)
Very Good	1,731.5 (7.9%)	383.4 (7.7%)
Good	691.0 (3.2%)	180.8 (3.6%)
Poor	195.9 (0.9%)	20.9 (0.4%)
Degraded	75.7 (0.3%)	1.3 (0.03%)
Unsurveyed	2,036.9 (9.3%)	120.5 (2.4%)



LOCATION MAP



Legend

- Homesteads
- Fortescue Mines
- Road
- Watercourses
- Wyloo North Iron Ore Mine Development Envelope

Vegetation Condition

- Excellent
- Very Good
- Good
- Poor
- Degraded

Data Source(s):
Watercourses, SRTM, Geoscience Aus.
Roads, Homesteads, Landgate.

N

0 2 4 6 8 10
Kilometres

Requested By: A. Imbergamo
Drawn By: S. Costello
Revised By: rykerr
Approved By:
Scale: 1:150,000
Coordinate System: GDA2020 MGA Zone 50
Project Name: WH_MP_EN_0003
Document Name: WH_MP_EN_0003_006_r2_VegCon

Date: 12/30/2025
Size: A3L
Revision: 2
Confidentiality: No

Figure 7-3: Wyloo North Iron Ore Mine Mapped Vegetation Condition in the Mine Development Envelope

Fortescue

7.2.4.2 Significant Vegetation

Threatened and Priority Ecological Communities

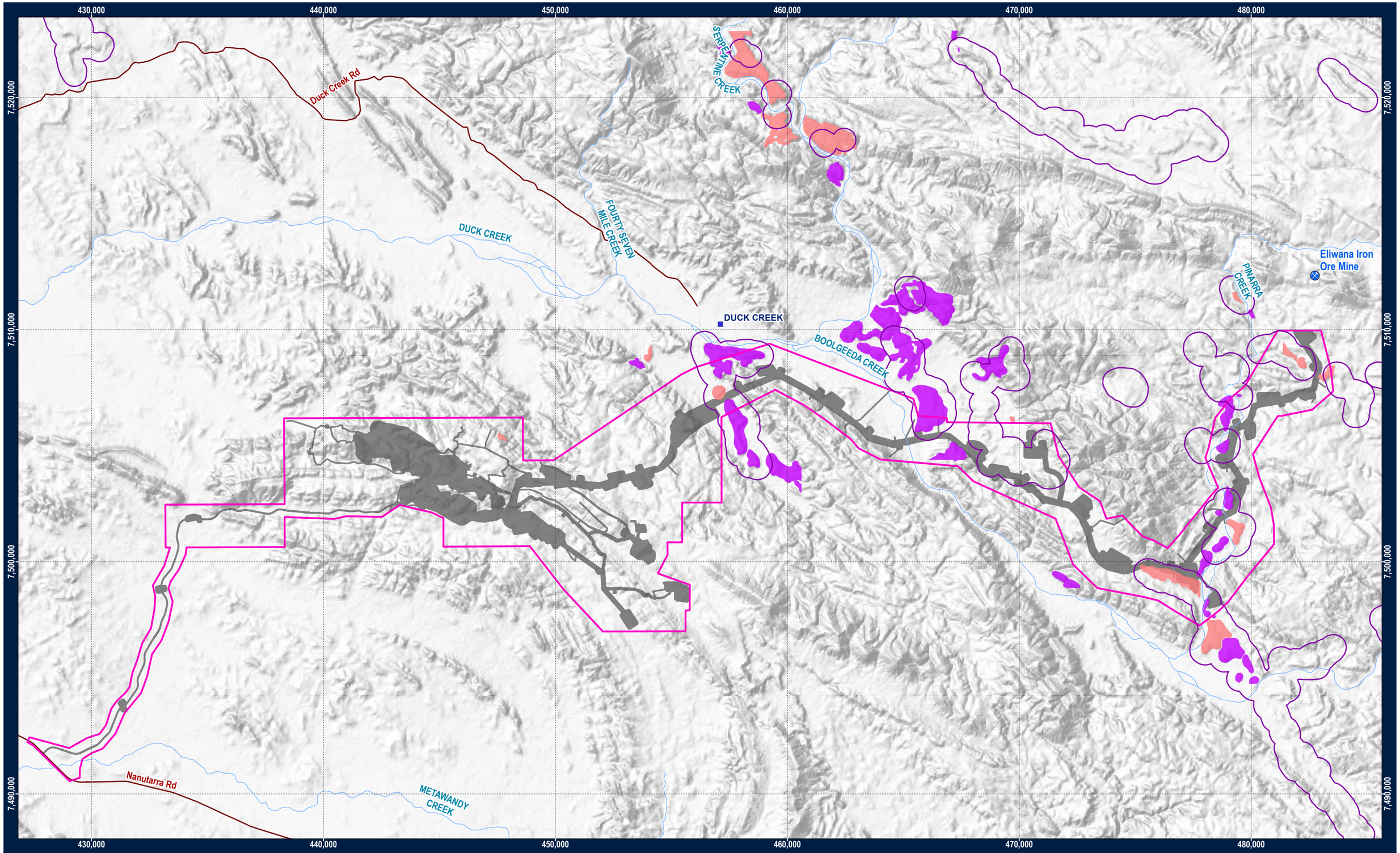
No Commonwealth or State listed threatened ecological communities (TECs) have been recorded within the MDE or the survey area. Database searches by *ecologia* (2025a) identified two priority ecological communities (PECs), presented in Table 7-5, within 40 km of the survey area, however only the *Triodia pisoliticola* (previously *Triodia* sp. Robe River) assemblages of mesas of the West Pilbara (Priority 3) PEC occurs within the MDE.

Table 7-7 Priority Ecological Communities within 40 km of the MDE (*ecologia* 2025a)

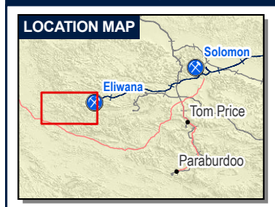
Community	Description	Likelihood of Occurrence
Brockman Iron cracking clay communities of the Hamersley Range (Priority 1)	Rare tussock grassland dominated by *Astrebla lappacea* (not every site has presence of *Astrebla*) in the Hamersley Range, on the Brockman land system. Tussock grassland on cracking clays- derived in valley floors, depositional floors. This is a rare community and the landform is rare. Known from near West Angeles, Newman, Tom Price and boundary of Hamersley and Brockman Stations.	Unlikely
Triodia pisoliticola (previously *Triodia* sp. Robe River) assemblages of mesas of the West Pilbara (Priority 3)	This community is typically restricted to mesas and cordillo landforms where the plant assemblages are dominated by or contain *Triodia pisoliticola* and are indicative of inverted landscapes; that is, where *Triodia pisoliticola* occurs in combination with species that are considered 'out-of-context' from their normal habitat. The community is a combination of *Triodia pisoliticola* with *Acacia pruinocarpa*, *A. citrinoviridis* on slopes or peaks of mesas. These two acacias are generally found associated with Pilbara creek lines, and their occurrence is probably indicative of the genesis of the mesa surfaces in wetlands, then erosion of the landscape and 'inversion of the landscape' such that the mesa slopes and peaks that were previously low in the landscape become high points.	Recorded

The Priority 3 listed PEC, '*Triodia pisoliticola* (previously *Triodia* sp. Robe River) assemblages of mesas of the West Pilbara' occurs within survey area, mainly in the eastern part of the MDE in the vicinity of the transport route (Figure 7-4). Two floristically similar vegetation types, ElApTw and ApTw, were consistent with the PEC, but only in areas where they occurred on mesas and the required diagnostic species were present (*ecologia* 2025a). Neither vegetation type was restricted to mesas, however the results of the cluster analysis indicated that the plant communities on mesas were not sufficiently distinct from surrounding vegetation to be described as a separate vegetation type. Unsurveyed mesas where diagnostic species were not confirmed during the previous surveys were identified as potential PEC and are pending confirmation.

A total of 921 ha of confirmed PEC and 1,960 ha of potential PEC were mapped within the *ecologia* (2025a) survey area, together representing 5.5% of the survey area. Within the MDE, there is a total of 229.1 ha of confirmed PEC and 413.1 ha of potential PEC, representing 2.9% of the MDE. Within the IDF, there is a total of 53.5 ha of confirmed PEC and 1.5 ha of potential PEC. Targeted surveys are being undertaken in the areas identified as potential PEC to confirm presence/absence and the results will be presented in the ERD.



LOCATION MAP



Legend

- Homesteads
- Fortescue Mines
- Road
- Watercourses
- Wyloo North Iron Ore Mine Development Envelope
- Wyloo North Iron Ore Mine Indicative Disturbance Footprint
- 'Triodia pisoliticola assemblages of mesas of the West Pilbara' (DBCA 500m Buffer)
- Possible Priority 3 PEC 'Triodia pisoliticola assemblages of mesas of the West Pilbara'
- Priority 3 PEC 'Triodia pisoliticola assemblages of mesas of the West Pilbara'

Data Source(s):
PEC Buffers sourced based on DBCA source.
Watercourses, SRTM, Geoscience Aus.
Roads, Homesteads, Landgate.

N

0 2 4 6 8 10
Kilometres

Requested By: A. Imbergamo
Drawn By: S. Costello
Revised By: rykerr
Approved By:
Scale: 1:150,000
Coordinate System: GDA2020 MGA Zone 50
Project Name: WH_MP_EN_0003
Document Name: WH_MP_EN_0003_007_r2_PEC

Date: 12/30/2025
Size: A3L
Revision: 2
Confidentiality: No

Figure 7- 4: Wyloo North Iron Ore Mine Priority Ecological Communities in the Mine Development Envelope

Fortescue

Groundwater Dependent Vegetation

Three tree species commonly associated with riparian habitats in the Pilbara are considered groundwater dependent, likely groundwater dependent, or potentially groundwater dependent: *Melaleuca argentea* (silver cadjeput), *Eucalyptus camaldulensis* (river red gum), and *Eucalyptus victrix* (coolabah) (*ecologia* 2025a). *Melaleuca argentea* is considered an obligate phreatophyte that is reliant on groundwater for its survival (*ecologia* 2025a). *Eucalyptus camaldulensis* is regarded as a facultative phreatophyte that may be dependent on groundwater for part of its lifecycle and/or in times of drought (Maunsell Australia Pty Ltd 2006). *Eucalyptus victrix* may be regarded as a facultative phreatophyte, but also commonly occurs as a vadophyte (i.e. relying solely on the soil surface profile for its water requirements, independent of groundwater) (Maunsell Australia Pty Ltd 2006).

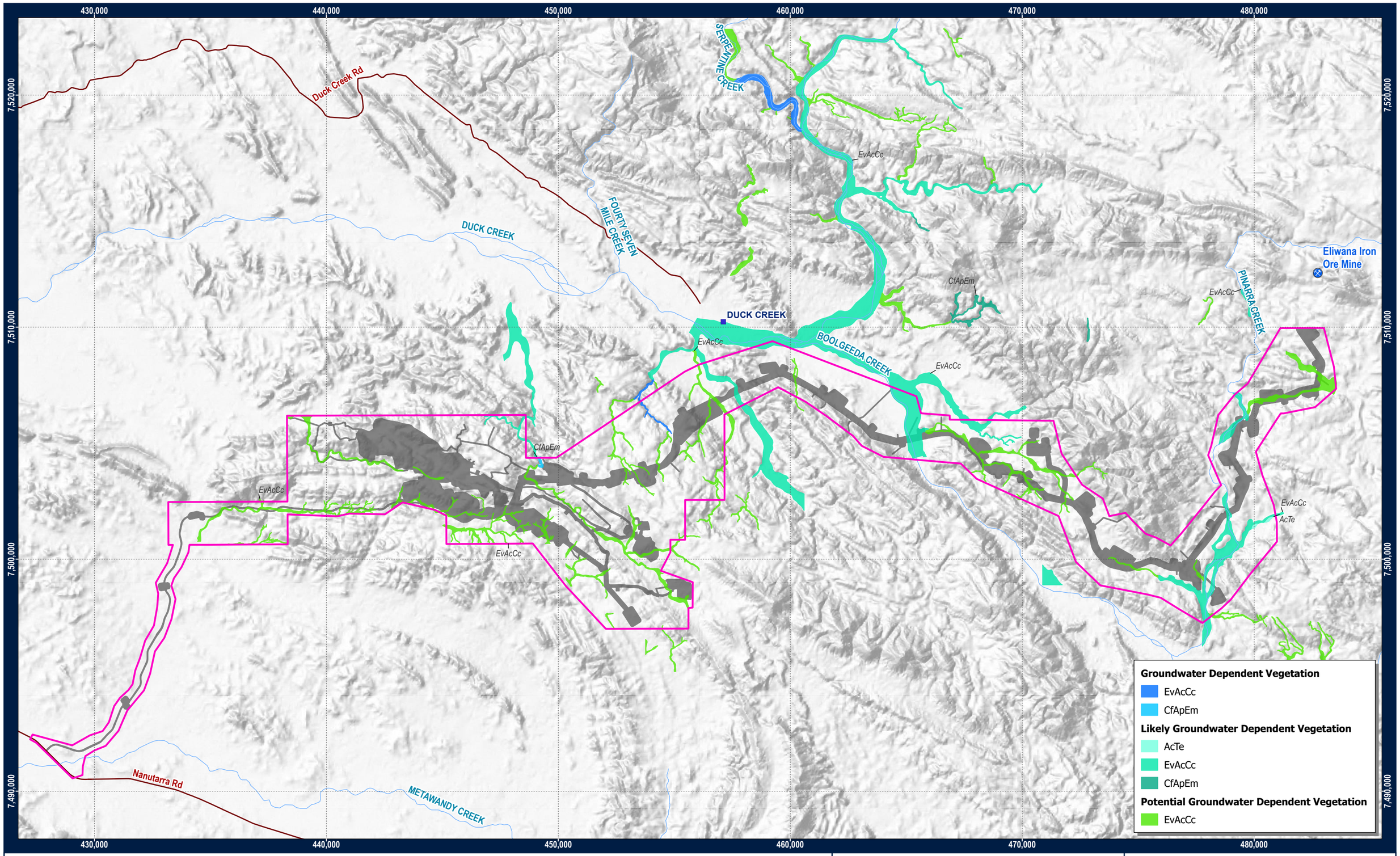
Fortescue classifies groundwater dependent vegetation (GDV) into three categories: GDV, Likely GDV (LGDV) and Potential GDV (PGDV). Vegetation containing *Melaleuca argentea* is treated as GDV, vegetation containing *Eucalyptus camaldulensis* is treated as likely GDV (LGDV), and vegetation containing only *Eucalyptus victrix*, or where the presence of *E. camaldulensis* or *M. argentea* cannot be confirmed, is treated as potentially GDV (PGDV).

The drainage systems (creeks and major drainage channels) within the Wyloo North MDE support all of these species. *ecologia* (2025a) identified vegetation that can be representative of GDV based on the presence of the above species. The presence (or absence) of GDV will be verified through an ecohydrology assessment under the Inland Waters environmental factor (Section 10).

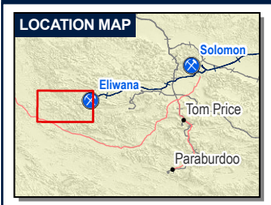
Table 7-8 presents these categories and the representative vegetation types for these categories, which has parts thereof, present in the MDE according to *ecologia* (2025a). Parts of three vegetation types (EvAcCc, CfApEm, and AcTe) found in the MDE represent either GDV, LGDV or PGDV. Of the GDV types, PGDV and LGDV represent the majority types within the MDE. Figure 7-5: shows the presence of the GDV types within the MDE. The access road and additional areas in the MDE are currently being surveyed; therefore, additional vegetation representative of GDV may be presented in the ERD.

Table 7-8 Groundwater Dependent Vegetation Types in the MDE

GDV Type	Description	Representative Vegetation Types in MDE	Area in the MDE		Area in the IDF	
			(ha)	(%)	(ha)	(%)
GDV	*Melaleuca argentea* present	Parts of EvAcCc and CfApEm	13.4	0.1%	0.1	0.003%
Likely GDV (LGDV)	*Eucalyptus camaldulensis* present	Parts of EvAcCc, CfApEm, and AcTe	627.6	2.9%	52.8	1.1%
Potential GDV (PGDV)	Only *Eucalyptus victrix* present, or where presence of *E. camaldulensis* or *M. argentea* cannot be confirmed	Parts of EvAcCc which supported only *E. victrix*, or parts in which the presence of *E. camaldulensis* of *M. argentea* could not be confirmed	750.6	3.4%	209.0	4.2%



LOCATION MAP



Legend

- Homesteads
- Fortescue Mines
- Road
- Watercourses
- Wyloo North Iron Ore Mine Development Envelope
- Wyloo North Iron Ore Mine Indicative Disturbance Footprint

Data Source(s):
Watercourses, SRTM, Geoscience Aus.
Roads, Homesteads, Landgate.

N

0 2 4 6 8 10
Kilometres

Requested By: A. Imbergamo
Drawn By: S. Costello
Revised By: rykerr
Approved By:
Scale: 1:150,000
Coordinate System: GDA2020 MGA Zone 50
Project Name: WH_MP_EN_0003
Document Name: WH_MP_EN_0003_008_r2_GDV

Date: 12/30/2025
Size: A3L
Revision: 2
Confidentiality: No

Figure 7-5: Wyloo North Iron Ore Mine Groundwater Dependent Vegetation in the Mine Development Envelope

Fortescue

Potential Refugia

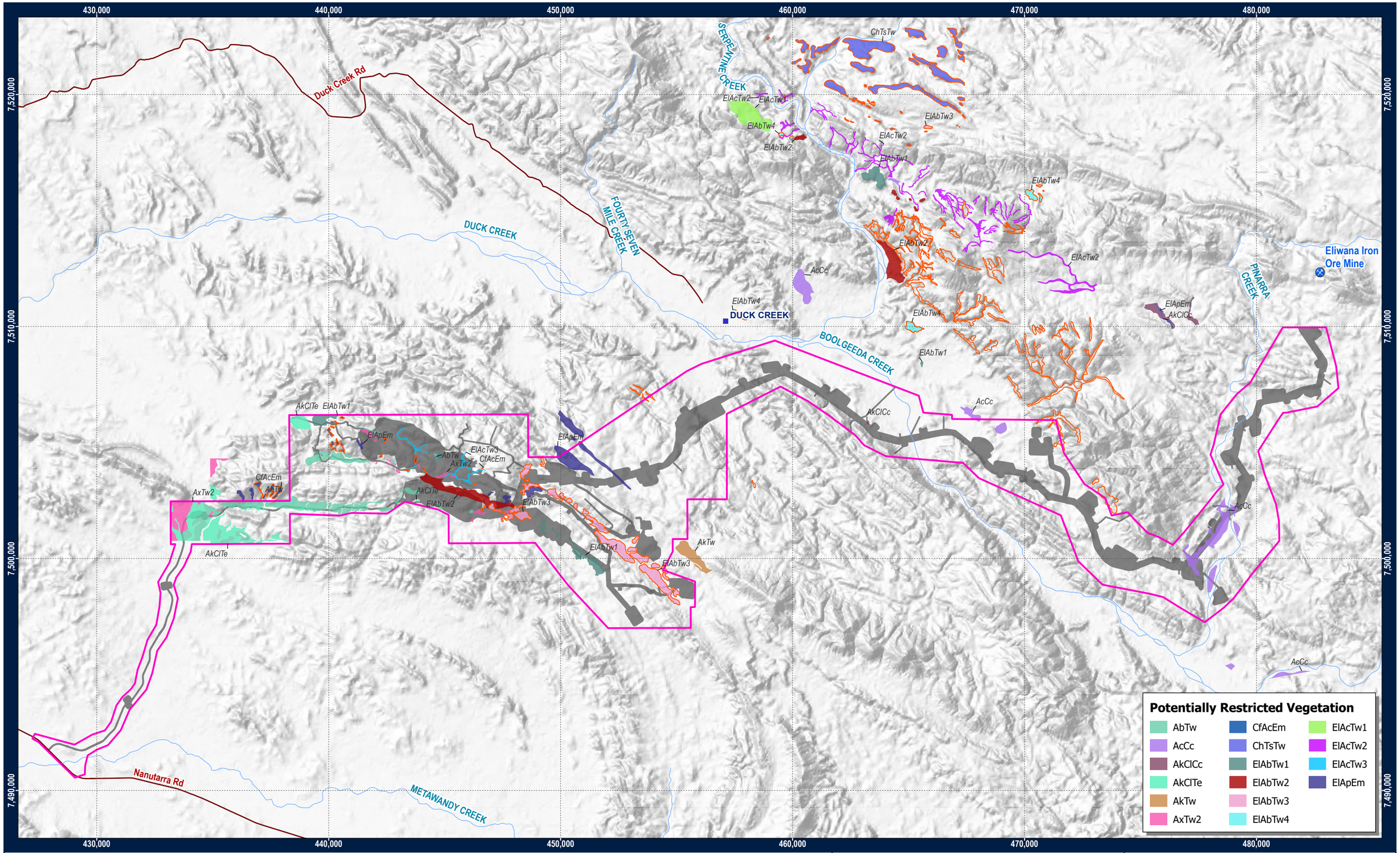
ecologia (2025a) identified three restricted landforms which support five distinct vegetation types as potential refugia: sheltered gorges (CfApEm and CfAcEm), basalt outcrops (ChTsTw), and calcrete hills (ElAbTw3 and ElAbTw4) (Figure 7-6:). These vegetation types are potentially restricted habitats in a regional context which support flora species (including some Priority flora) that survey, are mostly or entirely restricted to these habitats. These vegetation types account for 1,457 ha (2.8%) of the survey area. However, only three (3) of these vegetation types (CfAcEm, CfApEm and ElAbTw3) occur within the MDE. Vegetation types CfAcEm, CfApEm and ElAbTw3 account for 353.2 ha and 1.6% of the MDE. Potential refugia also comprise 82.6 ha of the IDF.

Potential Locally Restricted Vegetation

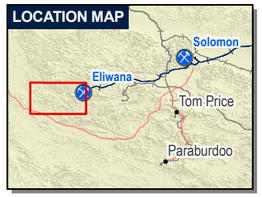
ecologia (2025a) identified sixteen (16) vegetation types that each accounted for less than 1% of the total survey area and were therefore considered to be restricted within the survey area (Figure 7-6:). Four (4) of these vegetation types were strongly associated with landforms that were also restricted within the survey area: deep, steep-sided gorges (CfAcEm), basalt outcrops (ChTsTw), and calcrete hills (ElAbTw2, ElAbTw4). It is noted however that vegetation types ChTsTw and ElAbTw4 are not present within the MDE. The remaining potentially restricted types occurred on more widespread landforms (e.g., floodplains, plains, and low hills). These vegetation types account for 5.9% (3,132 ha) of the survey area. Eleven (11) of these locally restricted vegetation types are present within the MDE and account for 1,758.5 ha and 8% of the MDE. Potentially locally restricted vegetation also comprises 461 ha of the IDF.

Regionally Restricted Vegetation

Regional data analysis by *ecologia* (2025a) indicated most vegetation types are represented outside the Wyloo North survey area. Three (3) vegetation types (AkClTe, ChTsTw and ElAcTw1) were not floristically like quadrats in the regional dataset. However, all three vegetation types occur at or near the edge of the survey area and inspection of aerial imagery strongly suggests that these types extend beyond the survey area. These three vegetation types are not considered significant, unless for other reasons as discussed previously, such as ChTsTw. It is noted however that vegetation types ChTsTw, and ElAcTw1 are not present within the MDE.



LOCATION MAP



Legend

- Homesteads
- Fortescue Mines
- Road
- Watercourses
- Potential Refugia
- Wyloo North Iron Ore Mine Development Envelope
- Wyloo North Iron Ore Mine Indicative Disturbance Footprint

Data Source(s):
Watercourses, SRTM, Geoscience Aus.
Roads, Homesteads, Landgate.

N

0 2 4 6 8 10
Kilometres

Requested By: A. Imbergamo
Drawn By: S. Costello
Revised By: rykerr
Approved By:
Scale: 1:150,000
Coordinate System: GDA2020 MGA Zone 50
Project Name: WH_MP_EN_0003
Document Name: WH_MP_EN_0003_009_r2_Refugia

Date: 12/30/2025
Size: A3L
Revision: 2
Confidentiality: No

Figure 7-6: Wyloo North Iron Ore Mine Potentially Restricted Vegetation and Refugia in the Mine Development Envelope

Fortescue

7.2.5 Flora

A total of 482 vascular plant taxa from 60 families and 184 genera were recorded within the *ecologia* (2025a) survey area from quadrats, relevés, vegetation description sites, and opportunistic observations. Of these, 14 taxa (2.5%) could not be identified to species level due to a lack of reproductive material.

7.2.5.1 Introduced species

Seventeen (17) introduced species were recorded by *ecologia* (2025a) in the survey area, none of which were Declared Pests or Weeds of National Significance (WONS). Fourteen (14) of these introduced species were recorded as occurring within the MDE. All of these species are widely naturalised across the Pilbara region and their presence within the MDE is not considered unusual. Introduced species are presented on Figure 7-3.

7.2.5.2 Threatened and Priority species

No EPBC Act or BC Act listed Threatened species were recorded by *ecologia* (2025a) except for *Seringia exastia* (EPBC Act, Critically Endangered). Binks et al. (2020) completed a revision of genomic and morphological characters in several *Seringia* taxa concluding that *Seringia elliptica*, a common species that is widespread throughout the Pilbara region, western desert and adjacent Kimberley region, also extending into South Australia and Northern Territory, was a synonym of *S. exastia*. This species has been delisted in WA and is expected that it will be delisted by the Commonwealth[2]. The species has been recorded in three locations within the MDE and in two locations outside the MDE as presented in Figure 7-7. None of the records are located within the IDF.

Of the 482 plant taxa have been recorded in the survey area, 15 DBCA listed Priority species were recorded, including one Priority 1 species, three Priority 2 species, eight Priority 3 species and three Priority 4 species. This includes *Dicladanthera glabra* (P2) which was previously recorded within the survey area in 2017 but was not recorded by either *ecologia* (2025a) or Focused Vision (2025). The likelihood of occurrence for this species was reassessed and was determined that it is unlikely to occur by *ecologia* (2025a). It is noted the previous record of this species was located outside the MDE.

Eleven (11) DBCA listed Priority species were recorded in the MDE as listed below in Table 7-9: and presented in Figure 7-7:.

Table 7-9: Significant Flora Recorded within the MDE

Conservation Status	Flora Species
Threatened - EPBC Act, De-listed in WA	*Seringia exastia* (synonym of *Seringia elliptica*)
Priority 1	*Solanum* sp. W Hamersley Range (S. Colwill & B. Duncan LCR99-01)
Priority 2	*Pentalepis trichodesmoides* subsp. *hispida*
	Solanum ?*pycnotrichum*

[2] *Seringia exastia* (Fringed firebush) has been added to the "Deletions and other changes list" as of 17 September 2025 for assessment by the Minister for potential deletion or other changes under the EPBC Act with an expected assessment completion time of 30 October 2026 (DCCEEW 2025a).

Conservation Status	Flora Species
Priority 3	*Cyanthillium gracile*
	Fimbristylis sieberiana
	Indigofera rivularis
	Ipomoea racemigera
	Sida sp. *Hamersley Range* (K. Newbey 10692)
	Solanum sp. Red Hill (S. van Leeuwen et al. PBS 5415)
	Triodia pisoliticola
Priority 4	*Rhynchosia bungarensis*

7.2.5.3 Recently Recognised Taxa

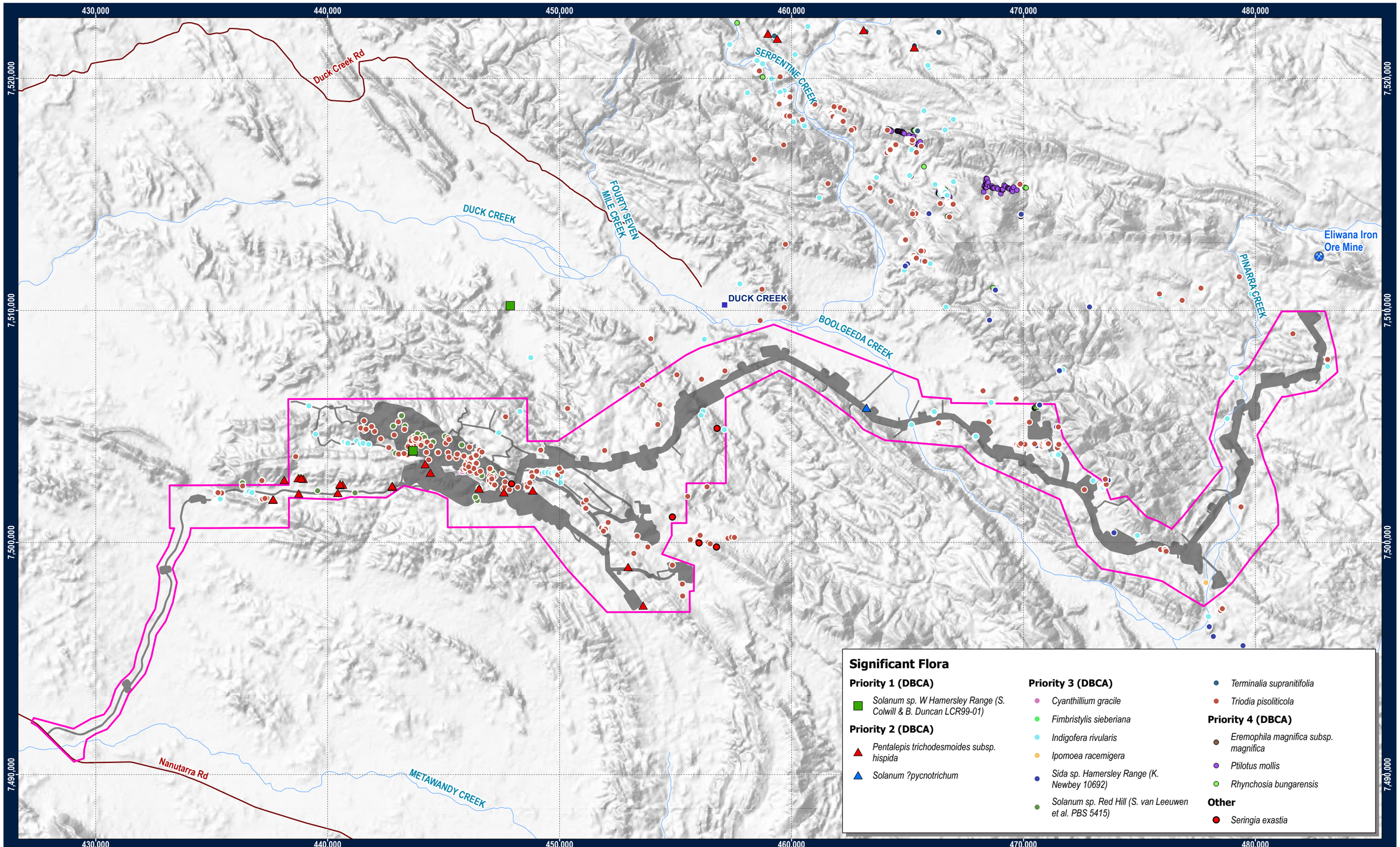
It is noted that Priority 1 species *Solanum* sp. W Hamersley Range (S. Colwill & B. Duncan LCR99-01) was recorded by *ecologia* in July 2021 in the survey area and was subsequently determined by the WA Herbarium to likely represent a new species. The same species was recorded by 360 Environmental from the nearby Loras and Cobra deposits area (approx. 26 km to the northeast) also in 2021, along with an older previously unidentified record from 2012 near Mount Farquhar (approx. 43 km to the northeast) (*ecologia* 2025a).

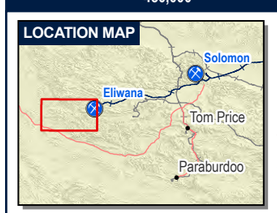
7.2.5.4 Range Extensions

Ten (10) species recorded within the survey area by *ecologia* (2025a) occurred more than 100 km from the nearest confirmed locations. Of those species, seven (7) are considered significant range extensions.

One (1) record represented an isolated outlier: *Acacia catenulata* subsp. *occidentalis*, which is located in the MDE. Six (6) records represent species at the extreme edge of their range: *Acacia balsamea*, *Acacia glaucocaesia*, *Enneapogon pallidus*, *Euploca skeleton*, *Ipomoea calobra*, and *Ipomoea racemigera*. Of these six species, two (2) species (*Euploca skeleton* and *Ipomoea racemigera*) were recorded in the MDE.

The remaining three (3) range extension species (*Amyema benthamii*, *Teucrium ?teucriiflorum* and *Triodia schinzii*) are generally common and widespread in the Pilbara and surrounding regions. The records from the survey area occurred broadly within their known distributions and were therefore not significant. Of these species, only *Amyema benthamii* was recorded in the MDE.





Legend

- Homesteads
- Fortescue Mines
- Road
- Watercourses
- Wyloo North Iron Ore Mine Development Envelope
- Wyloo North Iron Ore Mine Indicative Disturbance Footprint

Data Source(s):
Watercourses, SRTM, Geoscience Aus.
Roads, Homesteads, Landgate.

N

0 2 4 6 8 10
Kilometres

Requested By: A. Imbergamo
Drawn By: S. Costello
Revised By: rykerr
Approved By:
Scale: 1:150,000
Coordinate System: GDA2020 MGA Zone 50
Project Name: WH_MP_EN_0003
Document Name: WH_MP_EN_0003_010_r3_SigVeg

Date: 1/27/2026
Size: A3L
Revision: 3
Confidentiality: No

Figure 7-7: Wyloo North Iron Ore Mine Significant Flora in the Mine Development Envelope

Fortescue

7.3 Potential Impacts, Management and Likely Environmental Outcome

Potential environmental impacts and application of the mitigation hierarchy to address identified impacts on flora and vegetation are summarised in Table 7-10.

Table 7-10 Flora and Vegetation - Potential Environmental Impacts and Mitigation

Potential Environmental Impacts	Application of the Mitigation Hierarchy
Direct Impacts: • Land clearing may lead to the loss or disturbance of individuals or populations of Priority flora species and significant vegetation (e.g. PEC, GDV, potential refugia, locally restricted). **Indirect Impacts:** • Infrastructure development may fragment large tracts of vegetation, reducing connectivity and ecosystem resilience. • Dust from mining and processing activities may cover plants and affect the overall health of vegetation. • The spread of invasive species may degrade native vegetation communities. • Mining operations may lead to changes in the fire risk or intensity, potentially damaging local vegetation. • Loss or degradation of GDV due to altered hydrological regimes and reduced water quality as a result of groundwater abstraction. • Loss or degradation of riparian vegetation due to altered surface hydrological regimes and reduced water quality. **Cumulative Impacts:** • The combined impact of multiple mining projects may lead to significant cumulative losses of vegetation across the region, including Priority flora species.	**Avoid:** • Mine design will avoid populations of Priority flora species and significant vegetation, where possible. • At present the Wyloo North IDF has been optimised as much as practicable to avoid direct impacts to the Priority 3 PEC '*Triodia pisoliticola assemblages* of mesas of the West Pilbara'. Further refinement of the mine design as the project progresses will avoid direct disturbance of the Priority 3 PEC where practicable. **Minimise:** • The extent of vegetation clearance will be limited to necessary operational areas, with strict clearing limits in sensitive zones. In addition, internal permitting procedure will be in place prior to clearing. • Dust suppression techniques, such as water carts and speed limits on unsealed roads, will be applied to minimise dust impacts. • A comprehensive weed management strategy, including vehicle hygiene procedure will be implemented to control the introduction and spread of invasive species. • To reduce the risk of uncontrolled fire-related vegetation impacts, proactive fire prevention strategies will be employed, including: a. Regular monitoring. b. Managing and monitoring hot works, vehicle movement and disposal of fire-starting waste. c. Ensuring firefighting equipment is readily available on-site. d. Providing training on fire prevention and management on-site and ensuring that all site personnel are trained. e. Collaborative prescribed burns with Traditional Owners may be conducted to safeguard both infrastructure and people. • Design diversions to minimise alteration of natural surface hydrology as much as practicable, around mining areas.

Potential Environmental Impacts	Application of the Mitigation Hierarchy
	• Limit groundwater abstraction to that required for safe access for mining and monitor groundwater abstraction impacts on GDV (if potential impacts are identified). • Vegetation health monitoring is in progress to monitor and measure the success of management actions to minimise impacts on conservation significant flora, vegetation and ecological communities. • A Flora and Vegetation EMP will be developed and implemented for the Proposal. **Rehabilitate:** • A Mine Closure Plan (MCP) will be developed and implemented in accordance with the *Guideline for preparing Mine Closure Plans* (DMIRS 2025). • Progressive rehabilitation will be undertaken over the life of the mine as opportunities arise. **Offset:** • Offsets will be developed by Fortescue to compensate for significant residual impacts, such as the loss of vegetation in areas of Good to Excellent condition, in consultation with DWER – EPA Services and DCCEEW.

7.3.1 Assessment and Significance of Residual Impacts

Implementation of the Proposal is expected to result in the loss of native vegetation within the MDE.

A range of mitigation measures, including those listed above, will be implemented to minimise native vegetation loss, particularly in sensitive areas containing conservation significant vegetation and flora species. The project design will aim to avoid areas of known conservation significant flora, and any unavoidable impacts will be carefully managed using the mine's environmental management system.

An assessment of the potential impacts of the Proposal on flora and vegetation and their significance will be presented in the Environmental Review Document (ERD).

7.3.2 Likely Environmental Outcome

The ERD will outline the environmental outcomes and how Fortescue will achieve the EPA's factor objective during implementation of the Proposal.

8 TERRESTRIAL FAUNA

8.1.1 EPA Objective, Policy and Guidance

The EPA Objective for Terrestrial Fauna is "*To protect terrestrial fauna so that biological diversity and ecological integrity are maintained*" (EPA 2016b).

Policy and guidelines relevant to Terrestrial Fauna, along with their consideration for the Proposal, are outlined in Table 8-1 below.

Table 8-1 Relevant Policy, Guidelines and Guidance for Terrestrial Fauna

Policy or Guideline	Document consideration
Environmental Protection Authority	
Statement of environmental principles, factors, objectives and aims of EIA (EPA 2023d).	This assessment has been conducted based on the EPA objective for terrestrial fauna. The referral considers the EIA goals, evaluates the significance of impacts, and the application of the mitigation hierarchy.
Environmental Factor Guideline – Terrestrial Fauna (EPA 2016b).	The surveys are designed based on these documents.
Technical Guidance – Terrestrial Fauna surveys for Environmental Impact Assessment (EPA 2020b)	
Technical Guidance: Sampling of Short-Range Endemic Invertebrate Fauna (EPA 2016f)	
Environmental Factor Guideline – Social Surroundings (EPA 2023b)	This guideline has informed the studies and investigations required to support impact assessment.
Technical Guidance: Environmental impact assessment of Social Surroundings – Aboriginal Cultural Heritage (EPA 2023c)	Provides technical guidance on undertaking an environmental impact assessment on Aboriginal Cultural Heritage under the Social Surroundings factor where these values may not be protected under the *Aboriginal Heritage Act 1972 (WA)*. Guideline has been used to develop the consultation framework for engaging with Native Title stakeholders and assessing potential impacts to, and management of, Aboriginal Cultural Heritage within and surrounding the Proposal relating to terrestrial fauna.
Instructions on how to prepare an Environmental Review Document (EPA 2025)	The headings and content of this referral have been prepared in line with the Environmental Review Document (ERD), for a future EIA preparation.
Environmental Impact Assessment (Part IV Divisions 1 And 2) Administrative Procedures (EPA 2021a)	These procedures are considered in the preparation for this referral and impact assessment.
Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual (EPA 2024a)	
Instructions on how to prepare *Environmental Protection Act 1986* Part IV Environmental Management Plans (EPA 2024b)	The Terrestrial Fauna EMP will be prepared in accordance with these instructions.
Instructions on how to prepare *Environmental Protection Act 1986* Part IV Impact Reconciliation Procedures and Impact Reconciliation Reports (EPA 2024c)	The Terrestrial Fauna impact assessment and offset approach (if required) will be developed based on these guidelines.

Policy or Guideline	Document consideration
Template for *Environmental Protection Act 1986* Part IV Reconciliation Procedures (EPA 2021c)	
Other State or Commonwealth	
Guideline for preparing Mine Closure Plans (DMIRS 2025)	A MCP that considers impacts to subterranean fauna values, will be prepared in accordance with the relevant guideline.
WA Environmental Offsets Policy (GoWA 2011)	The Terrestrial Fauna impact assessment and offset approach (if required) will be developed based on this advice.
WA Environmental Offsets Guidelines (GoWA 2014)	
Department of Biodiversity Conservation and Attractions, Summary of knowledge for six faunal species that are Matters of National Environmental Significance in the Pilbara (Northover et al. 2023)	The potential management actions identified for the six Pilbara fauna species classified as MNES in this guideline will be considered during the assessment for this referral.
Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)	Considered in the design (methods and approach) of the fauna surveys.
Referral Guideline for the Endangered Northern Quoll *Dasyurus hallucatus*; EPBC Act Policy Statement (DoE 2016)	
Survey Guidelines for Australia's Threatened Bats (DEWHA 2010a)	
Survey Guidelines for Australia's Threatened Birds (DEWHA 2010b)	
Survey Guidelines for Australia's Threatened Mammals (DSEWPaC 2011a)	
Survey Guidelines for Australia's Threatened Reptiles (DSEWPaC 2011b)	
A Review of Ghost Bat Ecology, Threats and Survey Requirements (Bat Call WA 2021a)	
A Review of Pilbara Leaf-nosed Bat Ecology, Threats and Survey Requirements (Bat Call WA 2021b)	
Approved Conservation Advice for *Liasis olivaceus barroni* (Olive Python - Pilbara Subspecies) (DEWHA 2008)	
Conservation Advice Macroderma giga Ghost Bat (TSSC 2016a)	
Conservation Advice Rhinonicteris aurantia (Pilbara form) Pilbara Leaf-nosed Bat (TSSC 2016b)	
Conservation Advice Falco hypoleucos Grey Falcon (TSSC 2020)	
Matters of National Environmental Significance (MNES) Significant Impact Guidelines 1.1 EPBC Act (DoE 2013)	MNES fauna impact assessment developed based on this document.

8.2 Receiving Environment

8.2.1 Studies and Surveys

The Fortescue has conducted multiple recent terrestrial fauna surveys to support the Proposal. Survey effort is detailed in Table 8-2.

Table 8-2 Terrestrial Fauna Surveys Completed

Report Name	Type of Survey	Survey Area	Survey Dates	Reference
Terrestrial Fauna				
Wyloo Terrestrial Vertebrate Fauna Assessment (Rev 0) - February 2022	Two Phase Detailed and Targeted	14,574 ha of the Wyloo North deposit area	28 April - 12 May 2021 2 - 11 August 2021 9 - 21 November 2021	*ecologia* 2022b
Wyloo Terrestrial Vertebrate Fauna Assessment (Rev 0) - January 2023	Targeted	847.8 ha area within the Wyloo North deposit encompassing the potential mine pits and waste dump locations	29 June - 8 July 2022	*ecologia* 2023d
Wyloo North Mine and Transport Options –Terrestrial Vertebrate Fauna Assessment	Two Phase Detailed and Targeted	43,943 ha of the Wyloo North deposit area and all transport corridor options considered prior to referral	15 - 26 April 2024 12 - 23 August 2024 20 - 29 May 2024	*ecologia* 2025b
Short-range endemic (SRE) fauna				
Wyloo Short Range Endemic Invertebrate Fauna Assessment (Rev 0) - March 2022	Phase 1 Detailed	14,574 ha of the Wyloo North deposit area	28 April - 12 May 2021 17 - 18 June 2021 (collect wet pitfall traps) 2 - 11 August 2021 (foraging sampling)	*ecologia* 2022a
Wyloo Short Range Endemic Invertebrate Fauna Assessment (Rev 0) - January 2023	Phase 2 Detailed	14,574 ha of the Wyloo North deposit area including focus on 847.8 ha area within the Wyloo deposit encompassing the potential mine pits and waste dump locations	5 - 10 April 2022 11 - 16 May 2022 (wet pitfall trap retrieval and additional foraging sampling)	*ecologia* 2023c
Short-range endemic invertebrate fauna survey of Wyloo	Two Phase Detailed	46,624 ha of the Wyloo North deposit area and all transport corridor options considered prior to referral	1 - 10 July 2024 31 October - 8 November 2024	Framenau et al. 2025

8.2.2 Future Studies and Surveys

The details of ongoing or planned investigations for terrestrial fauna that will also inform EIA for the Proposal are outlined in Table 8-3. Most studies are in progress or to be commenced shortly and will be ongoing to inform the ERD and subsequent management plans.

Table 8-3 Studies Planned or in Progress – Terrestrial Fauna

Study	Description
Terrestrial fauna survey – additional areas outside current survey area and access road	A terrestrial fauna survey of the additional areas included in the MDE which were not included in the previous Wyloo North terrestrial fauna survey, including the proposed mine access road from Nanutarra Road. Findings will be incorporated into the broader Wyloo North consolidated terrestrial fauna report.
Targeted bat survey	A targeted bat survey will be undertaken to determine the location, size and number of roosts used by conservation significant bat species within the MDE and in the surrounding region.
Baseline conservation significant fauna monitoring	Establishment of a baseline conservation significant fauna monitoring program (pre-construction) which will lead to ongoing annual monitoring for conservation significant fauna species throughout the life of the project. Baseline conservation significant monitoring will target the conservation significant species identified as occurring within the project area to date.
Aquatic ecology baseline assessment	An assessment of the aquatic ecosystem health condition and Inland Waters values in wet and dry season conditions.
SRE fauna survey – additional areas outside current survey area and access road	A SRE fauna survey of the additional areas included in the MDE which were not included in the previous Wyloo North SRE fauna survey, including the proposed mine access road from Nanutarra Road. Findings will be incorporated into the broader Wyloo North SRE assessment report.
Targeted SRE fauna survey	Targeted searching for SRE fauna in areas of proposed disturbance (IDF).

8.2.3 Fauna Habitats

Fauna habitat mapping has been mapped almost entirely across the MDE with the exception of the access road into the Wyloo North MDE and some additional areas in other parts of the MDE. The access road and these additional areas are in progress of being surveyed and consolidated fauna habitat mapping will be presented in the ERD.

Nine (9) broad fauna habitat types have been defined within both the survey area and the MDE by *ecologia* (2025b):

- Plain (alluvial),
- Hills/Ranges/Plateaux,
- Gorge/Gully,
- Drainage Line/River/Creek (major),
- Drainage Line/River/Creek (minor),
- Lower Slopes/Hillslopes,
- Rocky Escarpments (Ridges/Mesa/Cliffs/Outcrops/Breakaways),
- Hummock Grassland and
- Shrubland (open).

Hills/Ranges/Plateaux is the dominant habitat type in the MDE (6,884.9 ha, 31.4%) encompassing large ironstone and banded iron ranges with supporting hills, ranges and breakaways. Ridgelines, boulders, crevices and caves may provide shelter, denning and foraging and roosting habitat for significant fauna. Hummock Grassland is also a dominant habitat type in the MDE (6,084.4 ha, 27.8%). Significant fauna were recorded in Hummock Grassland; however, it does not provide any critical habitat for any significant fauna.

Mapped fauna habitat descriptions within the MDE are presented in Table 8-4 below and Figure 8-1.

Table 8-4 Terrestrial Fauna Habitats within the Development Envelope (*ecologia* 2025b)

Fauna Habitat	Description / Fauna Suitability	Representative Photo	Area in the MDE		Area in the IDF	
			(ha)	(%)	(ha)	(%)
Hills/Ranges/Plateaux	The landscape consists of large ironstone and banded iron ranges with supporting hills, ranges and breakaways that have reddish brown loamy sand and sandy loam. Boulders and rocky crevices provide shelter for vertebrate fauna. Vegetation was characterised by scattered Eucalypts over sparse shrubland of mixed *Acacia* spp. and *Salvia* sp. over open *Triodia* sp. hummock grassland. The Hills/Ranges/Plateaux habitat type encompasses ridgelines, boulders, crevices and caves which may provide shelter, denning, foraging and roosting habitat for species such as the Northern Quoll, Pilbara leaf-nosed bat, Peregrine Falcon and Ghost Bat. Substrates may be of a suitable size for the Western Pebble-mound Mouse and the Pilbara olive python may utilise this habitat type during foraging and dispersal activities. A total of 46 vertebrate fauna species were recorded in this habitat type during the current survey (*ecologia* 2025b), including 12 reptiles, 22 birds and 12 mammals. Both the Northern Quoll and Pilbara leaf-nosed bat were recorded in this habitat type during the current and previous surveys. The Ghost Bat was also recorded in this habitat type during the current survey. Rocky substrates within this habitat type may be utilised by the western pebble-mound mouse.		6,884.9	31.4%	1,695.2	34.2%
Hummock Grassland	Substrate was reddish brown to brown loamy sand and clay loam with ironstone, basalt or a mixture of both. Landscape varies from stony hills and rises to spinifex plains to stony gibber plains. Habitat was generally good however evidence of cattle trampling and grazing present. This habitat type supports low open Eucalypt woodland over mid sparce mixed shrubland of *Acacia* spp., *Grevillea* spp., and *Hakea* spp. and open hummock grassland (*Triodia* spp.). *Triodia* hummocks were generally small due to fire; however, several isolation long unburnt patches were identified. A total of 86 species were recorded in this habitat including 24 reptile species, 19 mammals and 43 birds in the current survey (*ecologia* 2025b). Four significant fauna taxa were recorded within this habitat type during the current survey, including the lined soil crevice skink, western pebble-mound mouse, Ghost Bat and Pilbara leaf-nosed bat. Although these species were recorded within this habitat type, critical denning and roosting habitat for significant bat taxa does not occur within this habitat type and records are likely to represent foraging and dispersal activities rather than permanent occupancy for these species. No additional significant fauna taxa were recorded in this habitat type during previous surveys.		6,084.4	27.8%	1,818.3	36.7%
Rocky Escarpments (Ridges/Mesa/Cliffs/ Outcrops/Breakaways)	Rocky features from small-scale rock face to large protruding rocks/boulders, usually associated with the tops or bases of ridgelines, stony hills and rises or major drainage lines. Ridgelines, cliff, breakaways, boulders, crevices and caves within this habitat type provide shelter, denning and roosting habitat for species such as the Northern Quoll, Pilbara leaf-nosed bat, Peregrine Falcon, Rothschild's rock wallaby, rock rat, monitor lizard and Woolley's *Pseudantechinus*. Rocky Escarpments within the survey area support denning, foraging, dispersal habitat for the Northern Quoll, Ghost Bat and Pilbara leaf-nosed bat. Rocky substrates within this habitat type may be utilised by the western pebble-mound mouse. A total of 66 vertebrate fauna species were recorded in this habitat type during the current survey (*ecologia* 2025b), comprising 22 reptiles, 30 birds and 14 mammals. The Pilbara leaf-nosed bat and Northern Quoll were recorded within this habitat type during the current and previous surveys. Vegetation in this habitat is characterised by mixed shrubland of *Acacia* sp., *Senna* sp., *Hakea* sp., *Eremophila*, *Ptilotus obovatus*, *Paspalidium clementii* and *Solanum lasiophyllum* over tussock grassland of *Triodia* sp.		1,664.2	7.6%	168.3	3.4%

Fauna Habitat	Description / Fauna Suitability	Representative Photo	Area in the MDE		Area in the IDF	
			(ha)	(%)	(ha)	(%)
Lower Slopes/Hillslopes	Rolling rocky hills and lower slopes with a continuous layer of pebbles, stones and boulders on clay/loam soils supporting scattered *Eucalyptus leucophloia* and *A. bivenosa* over *Triodia* hummock grassland. This habitat type is a transitional area between the higher Hills/Ranges/Plateaux and the lower flatter Plains. Minor drainage lines intersect this habitat with leaf litter, boulders and crevices present in addition to some breakaways and caves. The lower slopes/hillslopes habitat type provide foraging and dispersal habitat for the Pilbara Leaf-nosed Bat, Ghost Bat and Northern Quoll; however, roosting and denning habitat (e.g. caves) is generally absent from this habitat type. Rocky substrates within this habitat type may be utilised by the western pebble-mound mouse. Two significant fauna taxa (Northern Quoll and Pilbara Leaf-nosed Bat) were previously recorded within this habitat type. No significant fauna were recorded in this habitat type during the current survey (*ecologia* 2025b).		2,675.5	12.2%	627.3	12.7%
Shrubland (open)	Open shrubland of Acacia and snakewood over stony, clay-based soils. Areas of denser vegetation with layered leaf litter may provide microhabitats for ground dwelling taxa. Flowering shrubs provide food resources, nesting and perching opportunities for avifauna. Habitat supports low open Eucalypt woodland over mid sparse shrubland of tall mixed *Acacia* shrubs and areas of snakewood (*Acacia xyphophylla*) over soft grasses and spinifex hummocks. A total of 57 species were recorded in this habitat during the current survey (*ecologia* 2025b), including 17 reptile species, 11 mammals and 29 birds. The Pilbara leaf-nosed bat and lined soil-crevice skink were recorded in this habitat type during the current survey.		802.6	3.7%	254.3	5.1%
Drainage Line/River/Creek (major)	Generally encompassing major drainage lines and associated tributaries, this habitat type feature deeply incised drainage channels and a higher density of vegetation than surrounding areas. Banks of major drainage lines generally support large, hollow bearing eucalypts which provide roosting and nesting opportunities for avifauna and arboreal mammals. Substrates of gravelly, sand or rocks on clay/loam soils provide quality burrowing substrates. Habitat is characterised by open woodland of *Eucalyptus camaldulensis* over *Melaleuca argentea* and *Acacia coriacea* subsp. *pendens* over grassland of *Poaceae* sp. This habitat type may be utilised as dispersal and foraging habitat by the Northern Quoll, Grey Falcon, Pilbara Leaf-nosed Bat, Ghost Bat and Pilbara Olive Python.		585.8	2.7%	57.8	1.2%

Fauna Habitat	Description / Fauna Suitability	Representative Photo	Area in the MDE		Area in the IDF	
			(ha)	(%)	(ha)	(%)
Gorge/Gully	Gorges and gullies are generally found in the Hills/Ranges/Plateaux habitat but also feature where drainage lines have cut through Lower Slopes/Hillslopes. Gorges and Gullies are characterised by steep sided rocky habitats with breakaways, caves, crevices, and cracks with a number of semi-permanent and permanent water sources present at the time of survey. Moist areas, woody debris along with dense shrubbery and leaf litter provide shelter and habitat for ground dwelling species. Generally, these areas are of high conservation value providing denning and roosting habitat for species such as the Northern Quoll, Pilbara Olive Python, Ghost Bat and Pilbara Leaf-nosed Bat. This habitat type encompasses permanent and semi-permanent water bodies that provide important habitat for numerous significant fauna species, including the Northern Quoll, Pilbara Olive Python, Pilbara Leaf-nosed Bat and Ghost Bat. Vegetation in this habitat type is characterised by Eucalyptus over a sparse shrubland with hummock grasses and spinifex. A total of 32 vertebrate fauna species were recorded in this habitat type during the current survey (*ecologia* 2025b), comprising of seven reptiles, 12 birds, 11 mammals and two amphibian species. The Northern Quoll and Pilbara Leaf-nosed Bat were recorded in this habitat type during the current and previous surveys. The Gane's Blind Snake was also recorded within this habitat type during the current survey. Although not recorded during the current survey, the Ghost Bat, Peregrine Falcon and Pilbara Olive Python were previously recorded within this habitat type.		217.6	1.0%	15.9	0.3%
Plain (alluvial)	This habitat is comprised of tall mixed *Acacia* shrubs over soft grasses and spinifex hummocks on soft to firm alluvial soils sometimes with stones and pebbles. Mixed acacia shrublands also include a variety of flowering shrubs and herbs, and therefore a good food source for bird species, particularly after rainfall. Alluvial soils provide burrowing substrates for small mammals while leaf litter and woody debris is regularly found around the base of shrubs and trees creating niches for fauna to occupy. This habitat type is associated with the margins of Duck Creek and Boolgeeda Creek and was not systematically surveyed during the current or previous surveys due to heritage restrictions and/or poor habitat condition (e.g. heavy cattle grazing/trampling and extensive weed infestations) within accessible portions. This habitat type is unlikely to provide critical habitat for significant fauna; however, may provide foraging and dispersal habitat for these species.		472.4	2.2%	52.3	1.1%
Drainage Line/River/Creek (minor)	This habitat type features shallow incised drainage channels with a slightly higher density of vegetation than surrounding areas. Typically lacks the large eucalypts associated with major drainage lines. Substrates of gravelly, sand or rocks on clay/loam soils support scattered trees and shrubs. A total of 39 vertebrate fauna species were recorded from this habitat type during the current survey (*ecologia* 2025b), including 11 reptiles, seven mammals and 21 species of bird. No significant fauna taxa were recorded in this habitat type during the current survey. The Pilbara leaf-nosed bat was recorded in this habitat type during previous surveys. Habitat type is characterised by scattered Eucalypts over shrublands of mixed *Acacia* with *Hakea lorea*, *Cymbopogon ambiguus* over grassland of *Poaceae* sp. on heavy loam/clay/rocky soils.		405.6	1.9%	144.7	2.9%
-	Unsurveyed	-	2,117.4	9.7%	120.5	2.4%
-	Total Extent	-	21,910.1	100%	4,954.5	100%

430,000 440,000 450,000 460,000 470,000 480,000

7,520,000 7,510,000 7,500,000 7,490,000

Duck Creek Rd

DUCK CREEK

FOURTY SEVEN MILE CREEK

SERPENTINE CREEK

DUCK CREEK

BOOLGEEDA CREEK

PINARRA CREEK

Eliwana Iron Ore Mine

Nanutarra Rd

METAWANDY CREEK

Fauna Habitat Types

- Drainage Line/River/Creek (major)
- Drainage Line/River/Creek (minor)
- Gorges/Gullys
- Hills/Ranges/Plateaux
- Hummock Grassland
- Lower slopes/hillslopes
- Plain (alluvial)
- Rocky Escarpments (Ridges/ Mesa/Cliffs/Outcrops/ Breakaways)
- Shrubland (open)

LOCATION MAP

Solomon
Eliwana
Tom Price
Paraburdoo

Legend

- Homesteads
- Fortescue Mines
- Road
- Watercourses
- Wyloo North Iron Ore Mine Development Envelope

Data Source(s):
Watercourses, SRTM, Geoscience Aus.
Roads, Homesteads, Landgate.

N

0 2 4 6 8 10
Kilometres

Requested By: A. Imbergamo
Drawn By: S. Costello
Revised By: rykerr
Approved By:
Scale: 1:150,000
Coordinate System: GDA2020 MGA Zone 50
Project Name: WH_MP_EN_0003
Document Name: WH_MP_EN_0003_011_r1_FaunaMap

Date: 10/17/2025
Size: A3L
Revision: 1
Confidentiality: No

Figure 8-1: Wyloo North Iron Ore Mine Mapped Fauna Habitat Types in the Mine Development Envelope

Fortescue

8.2.4 Fauna Assemblage

Of the 340 vertebrate fauna species identified by database searches as potentially occurring within the survey area, 157 (46.2%) were recorded by *ecologia* (2025b) including 26 mammals (14 native non-volant species, three introduced species and nine bats), 55 reptiles, 74 birds and two amphibians. An additional 26 birds, seven mammals, 20 reptiles, two amphibians and five fish have previously been recorded within the survey area for a combined total of 217 species recorded.

Fourteen (14) conservation significant fauna species were either recorded or had a high or moderate likelihood of occurrence in current or previous terrestrial fauna surveys as shown in Table 8-5 and Figure 8-2. Seven (7) of these species have been previously recorded in the MDE.

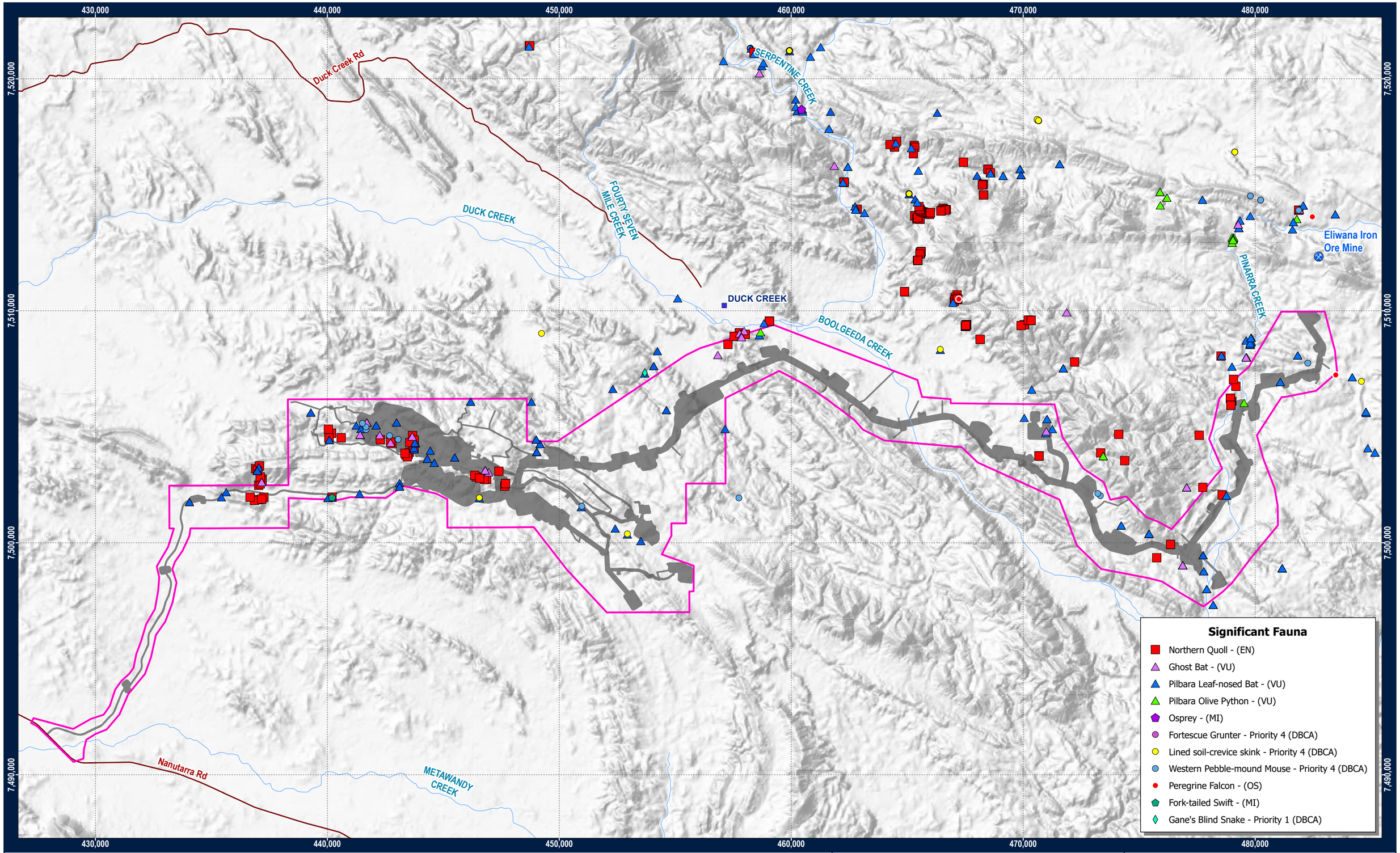
Seven (7) species listed as MNES under the EPBC Act are also detailed further in Section 13.

Table 8-5 Significant Fauna Occurrence in the Mine Development Envelope (*ecologia* 2025b)

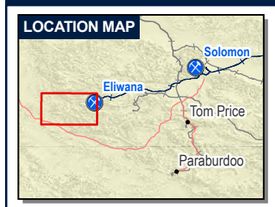
Species	Conservation Status	Habitat and Ecology	Likelihood of Occurrence
Mammals			
Northern Quoll (*Dasyurus hallucatus*)	Endangered (EPBC Act and BC Act)	The preferred denning habitat for the Northern Quoll is rocky escarpments, but the species also utilises riverine habitat for dispersal. Rocky habitats with rock crevices and caves support higher densities of Northern Quoll. Predominantly inhabiting dissected rocky escarpments, a male quoll can have a home range of more than 100 ha while a female occupies territories of up to 35 ha. **Critical habitat:** • Rocky Escarpments - Denning habitat • Gorge/Gully – Denning habitat • Hills/Range/Plateaux (western portion of the Wyloo North project area) – Dispersal and foraging habitat **Supporting habitat (Dispersal and foraging):** • Drainage Line/River/Creek (major) • Lower Slopes/Hillslopes • Hills/Range/Plateaux	**Recorded in the survey area and the MDE.**
Ghost Bat (*Macroderma gigas*)	Vulnerable (EPBC Act and BC Act)	The Ghost Bat is the largest microchiropteran bat in Australia, is strictly carnivorous and captures its prey mainly on the ground before returning to an established feeding site to devour its catch. The Ghost Bat was historically distributed across much of Australia but now has a fragmented although widespread distribution restricted to northern Australia. **Critical habitat:** • Rocky Escarpments – Roosting, dispersal and foraging habitat • Gorge/Gully - Roosting, dispersal and foraging habitat • Drainage Line/River/Creek (major) - Dispersal and foraging habitat • Hills/Range/Plateaux (western portion of the Wyloo North project area) – Dispersal and foraging habitat **Supporting habitat (Dispersal and foraging):** • Hills/Range/Plateaux • Lower Slopes/Hillslopes • Drainage Line/River/Creek (minor) • Hummock Grassland • Plain (alluvial) • Shrubland (open)	**Recorded in the survey area and the MDE.**
Pilbara Leaf-Nosed Bat (*Rhinonicteris aurantia* Pilbara form)	Vulnerable (EPBC Act and BC Act)	The Pilbara Leaf-nosed Bat, a small insectivorous bat occurring throughout the Pilbara and Gascoyne regions of WA, has very restrictive habitat requirements, including caves and disused mines with hot to very hot and humid roost sites with temperatures in the 28° to 32°C range and 96% to 100% relative humidity. During the Pilbara dry, winter months, preceding the heavy summer rains, Pilbara leaf-nosed bat colonies are thought to contract to the deepest mines and caves that maintain microclimates suitable for roosting. During the hotter, wetter and more humid summer months, the species has a greater ability to disperse through the landscape. **Critical habitat:** • Rocky Escarpments – Roosting, dispersal and Priority 3 foraging habitat • Gorge/Gully - Roosting, dispersal and Priority 1/Priority 2 foraging habitat **Supporting habitat (dispersal and foraging):** • Hills/Range/Plateaux – Priority 3 • Lower Slopes/Hillslopes – Priority 3 • Drainage Line/River/Creek (major) – Priority 4 • Drainage Line/River/Creek (minor) – Priority 4 • Hummock Grassland – Priority 5 • Plain (alluvial) – Priority 5 • Shrubland (open) – Priority 5	**Recorded in the survey area and the MDE.**

Species	Conservation Status	Habitat and Ecology	Likelihood of Occurrence
Western Pebble-mound Mouse (*Pseudomys chapmani*)	Priority 4 (DBCA)	The Western Pebble-mound Mouse constructs distinctive mounds of pebbles around their burrows. The species has a fragmented distribution in the Pilbara but is known to prefer hilly and/or rocky landscapes. Pebbles of a suitable size for mound construction are found within the **Rocky Escarpments, Hills/Range/Plateaux and Hummock Grassland** habitat types. This species is considered locally widespread and suitable habitat extends well beyond the MDE.	**Recorded in the survey area and the MDE.**
Long-tailed Dunnart (*Antechinomys longicaudata*)	Priority 4 (DBCA)	The Long-tailed Dunnart is a small, carnivorous marsupial, with a brush-tipped tail that is more than twice its head-body length. Long-tailed Dunnarts are mostly found in rocky country in the western arid zone and occasionally in open country with a gravel/stony mantle. Although the Long-tailed Dunnart has not been recorded in previous surveys, the species is considered moderately likely to occur within rocky habitats **(Rocky Escarpments, Hills/Ranges/Plateaux and Gorge/Gully**) within the MDE due to the proximity and recency of records and highly cryptic nature of the species.	**Moderate. Not recorded in the survey area or MDE.**
Reptiles			
Pilbara Olive Python (*Liasis olivaceus barroni*)	Vulnerable (EPBC Act and BC Act)	The Pilbara subspecies of the olive python only occurs in the ranges of the Pilbara region of WA. It inhabits waterways and areas of permanent water in rocky gorges and gullies. It is an adept swimmer, often hunting in water, feeding on a variety of vertebrates such as rock wallabies, fruit bats, ducks and pigeons. Individuals spend the cooler winter months sheltering in caves and rock crevices. In the warmer months the pythons can move widely, usually in close proximity to water and rock outcrops. **Critical habitat:** • Rocky Escarpments – dispersal and foraging • Gorge/Gully – breeding, dispersal and foraging • Drainage Line/River/Creek (major) – dispersal and foraging **Supporting habitat (dispersal and foraging):** • Hills/Range/Plateaux • Lower Slopes/Hillslopes • Drainage Line/River/Creek (major) • Drainage Line/River/Creek (minor) • Hummock Grassland • Plain (alluvial) • Shrubland (open)	**Recorded in the survey area and the MDE (previous Stantec (2021) survey and DBCA Database).**
Gane's Blind Snake (*Anilios ganei*)	Priority 1 (DBCA)	Very little is known about this elusive blind snake due to its fossorial lifestyle. Blind snakes are exclusively insectivorous and is believed to burrow into social insect colonies to feed on termites and ants, as well as their eggs and pupae. **Hills/Ranges/Plateaux, Hummock Grassland, Gorge/Gully and Drainage Line/River/Creek (major)** habitat types may encompass suitable habitat for the Gane's Blind Snake. Suitable habitat is not restricted within the MDE and the known distribution of the species extends well beyond.	**Recorded in the survey <1 km outside the MDE.**
Lined Soil-crevice Skink (*Notoscincus butleri*)	Priority 4 (DBCA)	Found in habitat typically dominated by spinifex near creeks and river margins this species was once thought to be restricted to near coastal Pilbara in the vicinity of Dampier. Recent records of this species have expanded its distribution from Karratha, south to the MDE. **Hummock Grassland, Hills/Ranges/Breakaways and Drainage Line/River/Creek (minor)** habitat types provide suitable habitat for the lined soil-crevice skink. This species has been recorded throughout the Hamersley Ranges and is not considered to be restricted to the MDE.	**Recorded in the survey area and the MDE.**
Pilbara barking gecko (*Underwoodisaurus seorsus*)	Priority 2 (DBCA)	The Pilbara Barking Gecko has only been recorded on ridge tops and in rocky gorges of the Hamersley Range and is currently known from four locations. Little is known of the Pilbara Barking Gecko's ecology, but it is presumably similar to other *Underwoodisaurus* and *Nephrurus* species, which are nocturnal ground dwellers that feed mostly on insects and smaller geckos. The Pilbara Barking Gecko has not been recorded previously in the MDE or survey area. According to DBCA database searches, it was recorded on a single occasion in 2019, 32 km north of the Wyloo North survey area. If present in the MDE, this species may utilise **Rocky Escarpment, Gorge/Gully and Hills/Range/Plateaux** habitat.	**Moderate. Not recorded in the survey area or MDE.**
Birds			
Grey Falcon (*Falco hypoleucos*)	Vulnerable (EPBC Act and BC Act)	The Grey Falcon is a stocky, elusive species endemic to mainland Australia and is the rarest of the Australian members of the *Falco genus*. DBCA database searches indicate that the Grey Falcon has been recorded on three occasions in the vicinity of the survey area, with the closest record located nearly 15 km north of the survey area. The species was recorded north of the survey area on three occasions during detailed and targeted surveys undertaken by GHD within the Western Hub in 2020 with at least two birds recorded utilising habitat within Serpentine Creek. **Drainage Line/River/Creek (major)** habitat within the MDE represents potential breeding and foraging habitat for this species.	**High. Not recorded in the survey area or MDE.**

Species	Conservation Status	Habitat and Ecology	Likelihood of Occurrence
Fork-tailed Swift (*Apus pacificus*)	Migratory (EPBC Act and BC Act)	The Fork-tailed Swift is a migratory, almost exclusively aerial species that, in its non-breeding area in Australia, is independent of terrestrial habitats. Although not recorded during the current survey (*ecologia* 2025b), this species was recorded overflying the Wyloo North deposit during previous surveys conducted by *ecologia* (2022b; 2023c). According to database searches, the Fork-tailed Swift has previously been recorded on three occasions within 50 km of the survey area; however, has not previously been recorded within the survey area.	**Recorded in survey area and the MDE.**
Osprey (*Pandion cristatus*)	Migratory (EPBC Act and BC Act)	The Osprey is migratory and highly dependent on water and is typically associated with coastal areas. The previous sighting recorded by *ecologia* in 2015 was associated with the northern section of Duck Creek and utilisation of habitat within the survey area is likely to represent vagrant visitation to inland waterbodies, rather than permanent occupancy. **Critical habitat for this species does not occur within the MDE.**	**Recorded in the survey area, approximately 10 km north of the MDE in 2015 survey.**
Peregrine Falcon (*Falco peregrinus*)	Other Specially Protected (BC Act)	The Peregrine Falcon is widespread in Australia but requires specific nesting sites. It does not build a nest but requires cliffs, rocky outcrops, or large tree hollows. **Rocky Escarpment habitat** within the MDE supports large cliffs and overhangs suitable for breeding and roosting activities. The species was previously recorded nesting in this habitat type. Rocky Escarpments within the MDE encompass suitable breeding habitat for the species. The species has the potential to utilise **all habitat types** while foraging or transiting.	**Recorded in survey area <25 m from the edge of the MDE.**
Fish			
Fortescue Grunter (*Leiopotherapon aheneus*)	Priority 4 (DBCA)	**Drainage Line/River/Creek (major)** habitat associated with Duck Creek and Boolgeeda Creek provide suitable habitat for the Fortescue grunter during periods of seasonal inundation.	**Recorded in the survey area by *ecologia* (2015) in the northern section of Duck Creek. Not recorded in the MDE.**



LOCATION MAP



Legend

- Homesteads
- Fortescue Mines
- Road
- Watercourses
- Wyloo North Iron Ore Mine Development Envelope
- Wyloo North Iron Ore Mine Indicative Disturbance Footprint

Data Source(s):
Watercourses, SRTM, Geoscience Aus.
Roads, Homesteads, Landgate.

N

0 2 4 6 8 10
Kilometres

Requested By: A. Imbergamo
Drawn By: S. Costello
Revised By: rykerr
Approved By:
Scale: 1:150,000
Coordinate System: GDA2020 MGA Zone 50
Project Name: WH_MP_EN_0003
Document Name: WH_MP_EN_0003_012_r2_SigFauna

Date: 1/29/2026
Size: A3L
Revision: 2
Confidentiality: No

Figure 8-2: Wyloo North Iron Ore Mine Significant Terrestrial Fauna in the Mine Development Envelope

Fortescue

8.2.5 Aquatic Fauna

Lateral (2024) undertook a strategic desktop review of Inland Waters in the Wyloo North study area, which extended well beyond the current MDE. This included targeted database searches and a review of publicly available studies of Inland Waters, including aquatic ecosystem health condition and aquatic biota values. Lateral (2024) concluded that there was a high likelihood of occurrence of aquatic species and/or ecological communities listed under legislation, as well as endemic species within the Wyloo North study area.

Two species with formal WA State or Commonwealth listings were identified within the Wyloo North study area:

- Fortescue grunter (*Leiopotherapon aheneus*) - Priority 4 under the BC Act.
- *Nedsia* sp. (stygobitic amphipod) - potential threatened species under the BC Act (if identified as *Nedsia* species listed under BC Act).

A further three taxa have been listed by the International Union for Conservation of Nature (IUCN) as Vulnerable; however, it is noted that this is not a formal listing under WA State and Commonwealth environmental legislation:

- *Eodiaptomus lumholtzi (*calanoid copepod)- IUCN listed (Vulnerable).
- *Eurysticta coolawanyah (*damselfly) - IUCN listed (Vulnerable).
- *Hemicordulia koomina (*dragonfly) - IUCN listed (Vulnerable).

Following completion of the Lateral (2024) strategic review, Lateral (2025) undertook a wet season baseline survey of habitat characteristics, water quality (including isotope analysis), sediment quality, aquatic invertebrates (including the exotic and invasive Redclaw crayfish; *Cherax quadricarinatus*), hyporheic invertebrates, and fish within the Wyloo North study area during 2025 as part of an ongoing aquatic ecology assessment. Taxonomic verification of the aquatic invertebrate samples is pending, and results of the final consolidated Wyloo North aquatic ecology assessment will be presented in the ERD. However, some of the key observations made during the wet season survey include the following:

- Seven (7) species of native freshwater fish were identified in the Wyloo North study area with five (5) being endemic to the Pilbara and northern Australia. The majority of sites sampled supported fish populations. However, the majority of gorge pool sites monitored were not found to have fish present. The absence of freshwater fish from these systems or pools is likely due, in part, to location and isolation due to physical barriers which prevent opportunistic colonisation from fish populations downstream in permanent refugia habitat.
- The only conservation significant species recorded in the study area was the Pilbara olive python, which was an opportunistic recording. The Pilbara olive python was not identified in the desktop review undertaken by Lateral (2024); however, has been identified as a terrestrial fauna species that has been recorded previously in both the MDE and previous surveys as discussed in Section 8.2.4, Table 8-5.
- The conservation significant Fortescue grunter, *Leiopotherapon aheneus*, was not recorded in the study area; however, it is previously known from Duck Creek, Palm

Springs and Boolgeeda Creek (Ashburton catchment) (Table 8-5). This species has a restricted distribution within the Pilbara region and is only known from the Fortescue, Robe and Ashburton River systems.

- No invasive Redclaw crayfish were recorded.

8.2.6 Short-range Endemic Fauna

Recent short-range endemic (SRE) fauna assessments have been undertaken since 2022 to support the Proposal and are still in progress.

The 2025 Wyloo North SRE Fauna Assessment undertaken by the Harry Butler Institute (Framenau *et al.* 2025) covered an area encompassing almost entirely across the MDE with the exception of the access road into the MDE and some smaller additional areas in other parts of the MDE. The access road and these additional areas are in progress of being surveyed and consolidated SRE results, and habitat mapping will be presented in the ERD.

As part of the Wyloo North SRE Fauna Assessment, a desktop review was initially undertaken by Framenau et al. (2025) which indicated 53 potential SRE species from the survey area, with 39 species only known from the survey area (endemic). During the survey, Wyloo North was found to be species-rich with respect to terrestrial invertebrates. The number of species and composition of the SRE community at higher taxonomic level is similar to other recent assessments by Harry Butler Institute for Fortescue in the Pilbara (Framenau et al. 2025). The survey recorded a total of 67 species (five described) and 23 higher taxonomic ranks or species-complexes in the SRE target groups in the SRE survey area. These included 43 potential SREs and 24 widespread species. Neither desktop review nor field survey reported any Federally or State-listed Threatened or Priority species from the survey area (Framenau et al. 2025).

Four major habitat types were sampled during the survey as listed below. Most of the SREs were found within the latter three woodland habitat types.

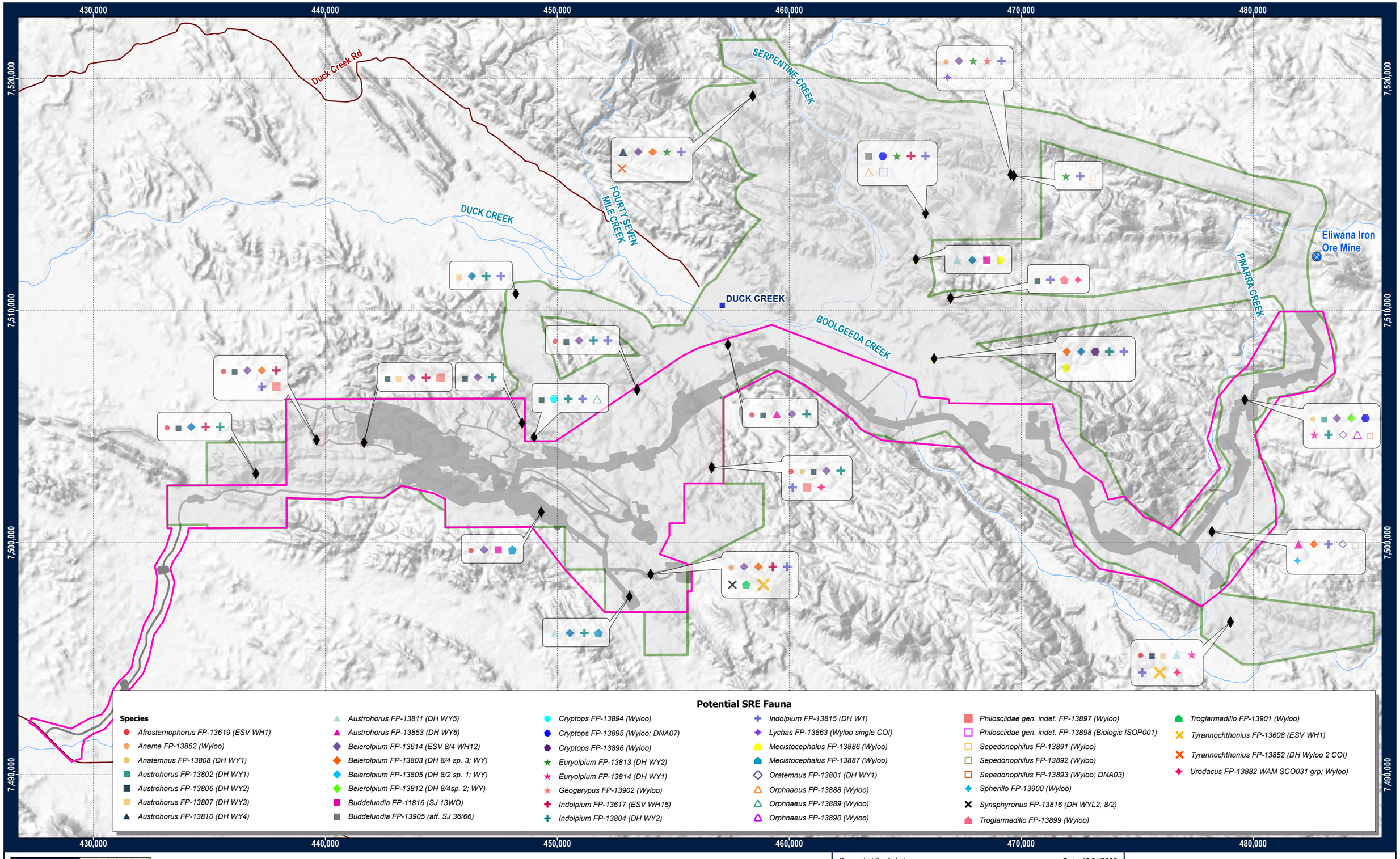
- Grassland on plain/slope
- Woodland on plain/slope
- Woodland in drainage line
- Woodland along rockface/gully.

However, habitat type was not found to be a good predictor of species composition, as the number of SRE target taxa was not significantly different than expected by the number of sites within this habitat type.

Of the 43 potential SRE species recorded in the Wyloo North SRE fauna survey area, 29 species were recorded within the MDE as presented below in Table 8-6. Only four of these species were previously identified in the desktop review. Of the 43 potential SRE species recorded in the Wyloo North SRE fauna survey area, 38 of these are currently known only from the Wyloo North survey area (endemic). Of these 38 endemic species, 26 endemic species were recorded within the MDE, which are presented in Table 8-6 below. Figure 8-3 presents the potential SRE species recorded within the MDE and surrounding SRE fauna survey area.

Table 8-6 Potential SRE Species known recorded in the MDE

Genus and species	Abundance in Survey Area	Records from Desktop Review	Linear Range	Endemic to the Survey Area
ARANEAE (spiders)				
Aname FP-13862	2	No	23 km	Yes
PSEUDOSCORPIONES (pseudoscorpions)				
Anatemnus FP-13808 (DH WY1)	4	No	23 km	Yes
Oratemnus FP-13801 (DH WY1)	30	No	6 km	Yes
Tyrannochthonius FP-13608 (ESV WH1)	7	Yes	45 km	No
Synsphyronus FP-13816 (DH WY28/2)	1	No	Single specimen	Yes
Austrohorus FP-13802 (DH WY1)	3	No	Single locality	Yes
Austrohorus FP-13806 (DH WY2)	60	No	45 km	Yes
Austrohorus FP-13807 (DH WY3)	11	No	38 km	Yes
Austrohorus FP-13811 (DH WY5)	3	No	30 km	Yes
Austrohorus FP-13853 (DH WY6)	3	No	25 km	Yes
Beierolpium FP-13614 (ESV 8/4 WH12)	31	Yes	37 km	Yes
Beierolpium FP-13803 (DH 8/4 sp. 3; WY)	15	No	39 km	Yes
Beierolpium FP-13805 (DH 8/2 sp. 1; WY)	7	No	33 km	Yes
Beierolpium FP-13812 (DH 8/4 sp. 2; WY)	1	No	Single specimen	Yes
Euryolpium FP-13814 (DH WY1)	5	No	10 km	Yes
Indolpium FP-13617 (ESV WH15)	12	Yes	26 km	Yes
Indolpium FP-13804 (DH WY2)	31	No	21 km	Yes
Indolpium FP-13815 (DH WY1)	59	No	40 km	Yes
Afrosternophorus FP-13619 (ESV WH1)	19	No	40 km	Yes
SCORPIONES (scorpions)				
Urodacus FP-13882 (WAM SCO031-grp)	9	No	13 km	Yes
GEOPHILOMORPA (soil centipedes)				
Sepedonophilus FP-13892	1	No	Single specimen	Yes
Sepedonophilus FP-13893 (DNA03)	1	No	15 km	No
Mecistocephalus FP-13887	2	No	5 km	Yes
Orphnaeus FP-13888	2	No	Single locality	Yes
Orphnaeus FP-13890	1	No	Single specimen	Yes
SCOLOPENDROMORPHA				
Cryptops FP-13895 (DNA07)	2	Yes	60 km	No
ISOPODA (slaters)				
Buddelundia FP-11816 (SJ 13WO)	21	No	20 km	Yes
Spherillo FP-13900	1	No	Single specimen	Yes
Troglarmadillo FP-13901	1	No	Single specimen	Yes
Philosciidae gen. indet. FP-13897	4	No	17 km	Yes

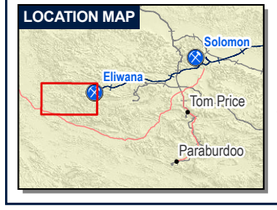


Potential SRE Fauna

Species

- *Afrosternophorus FP-13619 (ESV WH1)*
- *Aname FP-13862 (Wyloo)*
- *Anatemnus FP-13808 (DH WY1)*
- *Austrohorus FP-13802 (DH WY1)*
- *Austrohorus FP-13806 (DH WY2)*
- *Austrohorus FP-13807 (DH WY3)*
- *Austrohorus FP-13810 (DH WY4)*
- *Austrohorus FP-13811 (DH WY5)*
- *Austrohorus FP-13853 (DH WY6)*
- *Beierolpium FP-13614 (ESV 8/4 WH12)*
- *Beierolpium FP-13803 (DH 8/4 sp. 3; WY)*
- *Beierolpium FP-13805 (DH 8/2 sp. 1; WY)*
- *Beierolpium FP-13812 (DH 8/4sp. 2; WY)*
- *Buddelundia FP-11816 (SJ 13WO)*
- *Buddelundia FP-13905 (aff. SJ 36/66)*
- *Cryptops FP-13894 (Wyloo)*
- *Cryptops FP-13895 (Wyloo; DNA07)*
- *Cryptops FP-13896 (Wyloo)*
- *Euryolpium FP-13813 (DH WY2)*
- *Euryolpium FP-13814 (DH WY1)*
- *Geogarypus FP-13902 (Wyloo)*
- *Indolpium FP-13617 (ESV WH15)*
- *Indolpium FP-13804 (DH WY2)*
- *Indolpium FP-13815 (DH W1)*
- *Lychas FP-13863 (Wyloo single COI)*
- *Mecistocephalus FP-13886 (Wyloo)*
- *Mecistocephalus FP-13887 (Wyloo)*
- *Oratemnus FP-13801 (DH WY1)*
- *Orphnaeus FP-13888 (Wyloo)*
- *Orphnaeus FP-13889 (Wyloo)*
- *Orphnaeus FP-13890 (Wyloo)*
- *Philosciidae gen. indet. FP-13897 (Wyloo)*
- *Philosciidae gen. indet. FP-13898 (Biologic ISOP001)*
- *Sepedonophilus FP-13891 (Wyloo)*
- *Sepedonophilus FP-13892 (Wyloo)*
- *Sepedonophilus FP-13893 (Wyloo; DNA03)*
- *Spherillo FP-13900 (Wyloo)*
- *Synsphyronus FP-13816 (DH WYL2, 8/2)*
- *Troglarmadillo FP-13899 (Wyloo)*
- *Troglarmadillo FP-13901 (Wyloo)*
- *Tyrannochthonius FP-13608 (ESV WH1)*
- *Tyrannochthonius FP-13852 (DH Wyloo 2 COI)*
- *Urodacus FP-13882 WAM SCO031 grp; Wyloo)*

LOCATION MAP



Legend

- Homesteads
- Fortescue Mines
- Road
- Watercourses
- Wyloo North Iron Ore Mine Development Envelope
- Wyloo North Iron Ore Mine Indicative Disturbance Footprint
- SRE Fauna Survey Boundary
- Potential SRE Fauna Locations

Data Source(s):
Watercourses, SRTM, Geoscience Aus.
Roads, Homesteads, Landgate.

N

0 2 4 6 8 10
Kilometres

Requested By: A. Imbergamo
Drawn By: R. Kerr
Revised By: rykerr
Approved By:
Scale: 1:150,000
Coordinate System: GDA2020 MGA Zone 50
Project Name: WH_MP_EN_0003_SRE_Fire
Document Name: WH_MP_EN_0003_024_r0_SREFauna

Date: 12/31/2025
Size: A3L
Revision: 0
Confidentiality: No

Figure 8-3: Wyloo North Iron Ore Mine Potential SRE Fauna in the Mine Development Envelope

Fortescue

8.3 Potential Impacts, Management and Likely Environmental Outcome

Potential environmental impacts and application of the mitigation hierarchy to address identified impacts on terrestrial fauna are summarised in Table 8-7.

Fortescue's *Biodiversity Strategy and Biodiversity Standard* (100-ST-EN-0009) will inform the planning and delivery of the Proposal and commits Fortescue to working towards net positive impact on biodiversity by 2030. Table 8-7 provides further detail of the Strategy's four pillars which prioritise key actions required to meet this commitment, underpinned by Fortescue's governance framework.

Table 8-7 Terrestrial Fauna – Potential Environmental Impacts and Mitigation

Potential Environmental Impacts	Application of the Mitigation Hierarchy
Direct Impacts: • Clearing and permanent loss of terrestrial fauna habitat, including aquatic and SRE invertebrate habitat. • Fauna mortality due to vehicle and equipment movement and trenching. • Loss of individual fauna species, including aquatic and SRE invertebrate species, due to habitat loss. **Indirect Impacts:** • Degradation of fauna habitat, including significant fauna habitat, aquatic habitat, and SRE invertebrate habitat resulting from changes to hydrological regimes, leading to altered ecosystem balance. • Fragmentation of fauna habitat, including significant fauna habitat, aquatic habitat, and SRE invertebrate habitat resulting from construction, operation, and closure activities causing dust accumulation, altered fire regimes, and general habitat disturbance. **Cumulative Impacts:** • Combined long-term impacts on the availability and quality of terrestrial fauna habitat as well as aquatic and SRE invertebrate habitats. • Increased mortality or displacement of fauna individuals due to the cumulative effect of all mining-related activities over time.	**Avoid:** • Detailed surveys have been conducted, and ongoing studies (aquatic ecology, baseline and targeted fauna and SRE) will continue to identify high-value habitats within the MDE. Where feasible, the mine, waste facilities and structures will be designed to avoid disturbance of these habitats where feasible. **Minimise:** • During the design phase, consideration will be given to the creation of habitat corridors, to limit impacts of fragmentation on terrestrial fauna and SREs. • Ground disturbance activities will be confined to approved areas, ensuring that only essential land is cleared or excavated. Internal clearing permitting procedures will be implemented to enforce this. • A Conservation Significant Fauna Management Plan will be developed and implemented. • Light, noise, and vibration management strategies will be implemented to protect significant fauna habitats. • Surface water management strategies will be employed to prevent the degradation of natural water catchments and pools, particularly ephemeral ones important for local fauna. • As far as practicable, infrastructure and waste landforms will be placed to avoid disturbance of natural surface water flows. • A comprehensive feral animal control program will be implemented, where required. • Vehicle and equipment hygiene procedures will be established to manage the risk of introducing weeds.

Potential Environmental Impacts	Application of the Mitigation Hierarchy
	Rehabilitate: • A MCP will be developed and implemented in alignment with guidelines (DMIRS 2025) to ensure rehabilitation is integrated throughout the mine lifecycle. • Rehabilitation activities will be undertaken progressively over the life of the mine as opportunities arise. **Offset:** • Offsets will be developed by Fortescue to compensate for significant residual impacts, such as the loss of significant fauna habitat, in consultation with DWER – EPA Services and DCCEEW.

8.3.1 Assessment and Significance of Residual Impacts

Implementation of the Proposal is expected to result in the loss of some terrestrial, aquatic and SRE fauna habitats. Additionally, these habitats at the mine site may become fragmented, reducing habitat connectivity and diminishing its ecological value.

However, a range of mitigation measures, including those listed above, will be taken to minimise habitat loss, particularly in sensitive areas such as riparian zones and habitats supporting fauna species of conservation significance. The project design will aim to avoid habitat areas of conservation significant fauna, and any unavoidable impacts will be carefully managed using the mine's environmental management system.

An assessment of the potential impacts of the Proposal on terrestrial fauna and their significance will be presented in the ERD.

8.3.2 Likely Environmental Outcome

The ERD will outline the environmental outcomes and how Fortescue will achieve the EPA's factor objective during implementation of the Proposal.

9 SUBTERRANEAN FAUNA

9.1 EPA Objective, Policy and Guidance

The EPA Objective for Subterranean Fauna is *"to protect subterranean fauna so that biological diversity and ecological integrity are maintained*" (EPA 2016c). Subterranean fauna are defined as fauna which live their entire lives (obligate) below the surface of the earth. They are divided into two groups: stygofauna – aquatic and living in groundwater and troglofauna – air-breathing and living in caves and voids (EPA 2016c). The policy and guidelines regarding subterranean fauna, along with their consideration for the Proposal, are outlined in Table 9-1.

Table 9-1 Relevant Policy, Guidelines and Guidance for Subterranean Fauna

Policy or guideline	Document consideration
Environmental Protection Authority	
Statement of environmental principles, factors, objectives and aims of EIA (EPA 2023d).	This assessment has been conducted based on EPA objective for subterranean fauna. The referral considers the EIA goals, evaluates the significance of impacts, and the application of the mitigation hierarchy.
Environmental Factor Guideline – Subterranean Fauna (EPA 2016c)	Subterranean fauna surveys have been designed and implemented in accordance with EPA guidance.
Technical Guidance – subterranean fauna surveys for environmental impact assessment (EPA 2021b)	
Instructions on how to prepare an Environmental Review Document (EPA 2025)	The headings and content of this referral have been prepared with consideration given to the future structure of the Environmental Review Document (ERD).
Environmental Impact Assessment (Part IV Divisions 1 And 2) Administrative Procedures (EPA 2021a)	These procedures are considered in the preparation for this referral and impact assessment.
Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual (EPA 2024a)	
Instructions on how to prepare Environmental Protection Act 1986 Part IV Environmental Management Plans (EPA 2024b)	A Subterranean Fauna EMP will be prepared in accordance with these instructions, if required.
Other State or Commonwealth	
Guideline for preparing Mine Closure Plans (DMIRS 2025)	A MCP that considers impacts to subterranean fauna values, will be prepared in accordance with the relevant guideline.

9.2 Receiving Environment

9.2.1 Studies and Surveys

Fortescue has previously commissioned several subterranean fauna surveys of areas intersecting parts of the MDE and the surrounding areas since 2015. Historical survey information suggests that habitat suitable for troglofauna and stygofauna is present in the MDE. A basic level one phase subterranean survey of the Wyloo North deposit was undertaken in 2021 by Bestiolas Consulting (2021) as listed in Table 9-2 below. Currently a detailed level of subterranean fauna assessment is underway. This assessment consists of a desktop review at local and regional scales and three phases surveys across the MDE.

Table 9-2 Subterranean Fauna Surveys Completed

Report Name	Type of Survey	Survey Area	Survey Dates	Reference
Wyloo Subterranean Fauna Phase 1 Results	Basic level - One Phase	14,574 ha of the Wyloo North deposit area	30 November 2021 - 7 December 2021 2 - 8 February 2022	Bestiolas Consulting 2022

9.2.2 Future Studies and Surveys

The details of ongoing or planned investigations for subterranean fauna that will also inform EIA for the Proposal are outlined in Table 9-3.

Table 9-3 Studies Planned or in Progress - Subterranean Fauna

Study	Description
Detailed Subterranean Fauna Assessment	A three-phase detailed subterranean fauna baseline assessment is currently underway and is expected to be completed in 2026.
Subterranean Fauna Impact Assessment	Assessment of the potential impacts to subterranean fauna within the MDE utilising subterranean fauna records from the above baseline assessment, geological data and groundwater modelling for the Proposal.

9.2.3 Subterranean Fauna Species and Habitat

Database searches and a literature review undertaken by Bennelongia (2025) have indicated that there is a relatively rich subterranean fauna in a desktop search area of 10,000 km^2 centred on the Wyloo North Project.

No Threatened or Priority subterranean species, nor any Threatened Ecological Communities (TECs) are known to occur in the desktop search area. One Priority Ecological Community (PEC), the *Stygofaunal community of the Bungaroo Aquifer* (Priority 1), is located approximately 50 km north of the Wyloo North MDE.

9.2.3.1 Stygofauna Species and Habitat

The Wyloo North subterranean fauna desktop assessment completed by Bennelongia (2025) determined that the likelihood for diverse stygofauna communities to occur within the Wyloo North is moderate-high, helped by the occurrence of alluvial and colluvial aquifers, but limited

by the depth to water. Wyloo North's water chemistry values are within the habitable range for stygofauna (Bennelongia 2025). At least 123 species/morphospecies of stygofauna have been recorded in the desktop search area, belonging to 12 higher order groups and being taxonomically diverse. It should be noted, however, that the number of recorded species is likely to underestimate the true number of species in the subregion due to a large number of unresolved higher order taxonomic identifications. Of the 123 stygofauna species that were identified through the desktop search, 17 have previously been recorded from within the Wyloo North study area and six of these are presently known only from within the Wyloo North study area. The Wyloo North study area referenced here is consistent with the survey area boundary utilised for SRE fauna and presented in Figure 8-3.

Stygofauna groups identified within the desktop search area include some basal invertebrate taxa such as roundworms (Nematoda), wheel animals (Rotifera) and flatworms (Platyhelminthes). Snails (Gastropoda) and oligochaete worms (Annelida) have also been recorded but the most diverse group are crustaceans comprising of seed shrimps (Ostracoda), copepods (Calanoida, Cyclopoida, Harpacticoida), syncarids (Syncarida), amphipods (Amphipoda), and aquatic slaters (Isopods). Aquatic beetles (Coleoptera) and water mites (Trombidiformes) have been recorded within the insect and arachnid fauna groups, respectively. These groups cover the majority of stygofauna taxa found in the Pilbara.

No stygofauna specimens were recorded from the 37 samples collected during the one phase survey undertaken by Bestiolas Consulting (2022).

An assessment of the final stygofauna values, potential residual impacts resulting from the Proposal's implementation and their significance will be presented in the ERD.

9.2.3.2 Troglofauna Species and Habitat

The Wyloo North Subterranean Fauna Desktop Assessment completed by Bennelongia (2025) determined that the likelihood for diverse troglofaunal communities in to occur within the Project area is high based on the extensive occurrence of Banded Iron Formation (BIF) geology and the large depth to water providing major suitable habitat. At least 161 confirmed or putative morphospecies of troglofauna have been recorded in the search area, belonging to 17 higher order groups and being taxonomically diverse. It should be noted, however, that the number of recorded species is likely to underestimate the true number of species in the sub-region due to a large number of unresolved higher order taxonomic identifications. Of the 161 troglofauna species, 32 species have previously been collected from within the Wyloo North study area and 13 species are currently known only from within the Wyloo North study area. The Wyloo North study area referenced here is consistent with the survey area boundary utilised for SRE fauna and presented in Figure 8-3.

The groups identified within the search area are primarily arthropods and include harvestman (Opiliones), microwhip-scorpions (Palpigradi), pseudoscorpions (Pseudoscorpiones), short-tailed whip-scorpions (Schizomida), spiders (Araneae), terrestrial slaters (Isopoda), centipedes (Chilopoda), millipedes (Diplopoda), pauropods (Pauropoda), pseudocentipedes (Symphyla), diplurans (Diplura), silverfish (Zygentoma), cockroaches (Blattodea), true bugs (Hemiptera), beetles (Coleoptera) and flies (Diptera). Some earthworms (Oligochaeta) have also been recorded. These groups represent most of the troglofauna found in the Pilbara.

During the 2021 one phase survey completed by Bestiolas Consulting (2022), a total of 171 troglofauna specimens, representing at least 11 species from 10 higher taxonomic groups (Araneae, Pseudoscorpionida, Schizomida, Collembola, Diplura, Blattodea, Coleoptera, Meenoplidae, Zygentoma, and Symphyla), were collected from 28 (48%) of the 58 sites.

An assessment of the final troglofauna values, potential residual impacts resulting from the Proposal's implementation and their significance will be presented in the ERD.

9.3 Potential Impacts, Management and Likely Environmental Outcome

Potential environmental impacts and application of the mitigation hierarchy to address identified impacts on terrestrial fauna are summarised in Table 9-4.

Table 9-4 Subterranean Fauna - Potential Environmental Impacts and Mitigation

Potential Environmental Impacts	Application of the Mitigation Hierarchy
• Direct loss or mortality of individuals. • Loss or degradation of potential subterranean habitat as a result of mining. • Loss or degradation of potential subterranean fauna habitat as a result of groundwater drawdown from dewatering/groundwater abstraction. • Degradation of subterranean fauna habitat as a result of clearing. • Vibration effect on subterranean habitats from blasting activities. • Contamination of soil or groundwater.	**Minimise:** • Manage ground disturbance activities to be confined to approved areas, ensuring that only essential land is cleared or excavated, and avoid unnecessary habitat fragmentation. Any exclusions, if present, are clearly identified on mine plans. • Vegetation clearance limited, where possible, to avoid degradation of subterranean habitat quality due to the reduction of nutrients transported into the habitats. • Implement effective water management practices to minimise impacts on groundwater levels and quality, including managing surface water infiltration and reducing dewatering activities that could alter the subterranean fauna habitats. • Characterise subterranean fauna habitats in the MDE, conduct regular monitoring of subterranean fauna populations and groundwater conditions to track any potential impacts, and adjust operational practices accordingly. • Implement management strategies to prevent contamination of subterranean habitats with chemicals and hydrocarbons, and poor-quality seepage. • Develop and implement a Subterranean Fauna Management Plan, if potential impacts on Subterranean Fauna values are significant and a dedicated Plan is warranted. **Rehabilitate:** • Implement progressive rehabilitation of disturbed areas, as opportunities arise, throughout the life of the mine. • Explore backfilling of the below water table pit to above water table, to eliminate pit lake option and provide potential subterranean fauna habitat. • Develop and implement a MCP, in accordance with the *Guideline for preparing Mine Closure Plans* (DMIRS 2025) for the Proposal.

9.3.1 Assessment and Significance of Residual Impacts

Excavation and groundwater drawdown will likely result in the permanent loss of some subterranean fauna habitat despite mitigation. An assessment of the potential residual impacts resulting from the Proposal's implementation and their significance will be presented in the ERD.

9.3.2 Likely Environmental Outcome

The ERD will outline the environmental outcomes and how Fortescue will achieve the EPA's factor objective during implementation of the Proposal.

10 INLAND WATERS

10.1 EPA Objective, Policy and Guidance

The EPA Objective for Inland Waters is "*to maintain the hydrological regimes and quality of groundwater and surface water so that environmental values are protected*" (EPA 2018a). The policy and guidelines regarding Inland Waters, along with their consideration for the Proposal, are outlined in Table 10-1:.

Table 10-1: Relevant Policy, Guidelines and Guidance for Inland Waters

Relevant policy and guidance	Consideration of EPA policy and guidance
Environmental Protection Authority	
Statement of environmental principles, factors, objectives and aims of EIA (EPA 2023d)	The EPA objective for Inland Waters establishes the basis of this assessment. This assessment considers the objectives of EIA, and application of significance criteria and mitigation hierarchy.
Environmental Factor Guideline: Inland Waters (EPA 2018a)	This guideline has informed the studies and investigations required to support impact assessment.
Environmental Factor Guideline – Subterranean Fauna (EPA 2016c)	This guideline has informed the studies and investigations required to support impact assessment.
Environmental Factor Guideline – Terrestrial Fauna (EPA 2016b)	This guideline has informed the studies and investigations required to support impact assessment.
Environmental Factor Guideline – Flora and vegetation (EPA 2016a)	This guideline has informed the studies and investigations required to support impact assessment.
Environmental Factor Guideline – Social Surroundings (EPA 2023b)	This guideline has informed the studies and investigations required to support impact assessment.
Technical Guidance: Environmental impact assessment of Social Surroundings – Aboriginal Cultural Heritage (EPA 2023c)	Provides technical guidance on undertaking an environmental impact assessment on Aboriginal Cultural Heritage under the Social Surroundings factor where these values may not be protected under the *Aboriginal Heritage Act 1972 (WA)*. Guideline has been used to develop the consultation framework for engaging with Native Title stakeholders and assessing potential impacts to, and management of, Aboriginal Cultural Heritage within and surrounding the Proposal relating to inland waters.
Environmental Impact Assessment (Part IV Divisions 1 And 2) Administrative Procedures (EPA 2021a).	Considered in preparation of the referral and impact assessment.
Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual (EPA 2024a)	
Instructions on how to prepare an Environmental Review Document (EPA 2025)	This document forms the basis of the headings and content to be provided in the ERD.
Instructions on how to prepare EP Act Part IV Environmental Management Plans (EPA 2024b)	Inland Waters related EMP(s) will be prepared in accordance with this guidance.
Other State or Commonwealth	

Relevant policy and guidance	Consideration of EPA policy and guidance
Guideline for preparing Mine Closure Plans (DMIRS 2025)	The MCP will be prepared in accordance with guidance and address matters related to Inland Waters. A water management strategy will be developed with consideration of this guidance.
Policy - Use of Mine Dewatering Surplus (DWER 2020b)	A water management strategy will be developed with consideration of this policy.
Western Australian Water in Mining Guidelines (DoW 2013)	The discharge of surplus water must comply with the DoW Water in Mining guideline and licensing requirements. Conditions may be imposed on any groundwater abstraction licence to minimise and, where feasible, eliminate risks, as well as to mandate monitoring, management, and mitigation measures.
Operational Policy 5.12 – Hydrogeological reporting associated with a groundwater well licence (DoW 2009)	Groundwater abstraction will be licensed, and monitoring undertaken in accordance with operating strategy. This provides confidence that DWER is regulating monitoring and review of aquifer performance.
Use of operating strategies in the water licensing process (DWER 2020a)	
Water Quality Protection Notes (DoW various)	A number of Water Quality Protection Notes (WQPN) published by WA government are relevant to implementing the Proposal and will inform impact assessment and mitigation.
Australian and New Zealand Guidelines for Fresh and Marine Water Quality (Water Quality Australia 2018)	Australia's National Water Quality Management Strategy (WQMS) provides guidance on the management of water quality in Australia and New Zealand. This guidance has been used in consideration of surface water management and setting appropriate water quality targets.
National Water Quality Management Strategy (CoA 2018)	
Information Guidelines Explanatory Note: Assessing groundwater-dependent ecosystems (Doody et al. 2019)	The Explanatory Note aims to help proponents prepare environmental impact assessments with sections specifically devoted to groundwater dependent ecosystems (GDEs). This will be considered during the preparation of the Proposal's inland water studies and the ERD.
Australian groundwater modelling guidelines (Barnett et al. 2012)	The objective of the Australian groundwater modelling guidelines is to promote a consistent and sound approach to the development of groundwater flow and solute transport models in Australia. The guidelines are a point of reference for preparation of the Proposal's inland water studies and ERD.
Australian Rainfall and Runoff: A Guide to Flood Estimation (Ball et al. 2019)	Australian Rainfall and Runoff (ARR) is a national guideline document, data and software suite that can be used for the estimation of design flood characteristics in Australia. The guidelines are a point of reference for preparation of the Proposal's inland water studies and ERD.

10.2 Receiving Environment

10.2.1 Studies and Surveys

A number of studies are either currently being progressed or planned to be undertaken in the future to support detailed characterisation of baseline environmental condition and impact assessment for the Proposal, including, but not limited to:

- Ongoing baseline surface and groundwater levels and water quality monitoring and collation of data to derive appropriate water management criteria.

- Baseline pool water quality and water level monitoring, isotope analysis, and bathymetric surveys (if required).
- Baseline (pre-development) hydrology and geomorphology studies, and hydraulic modelling.
- Aquatic ecology baseline assessments to characterise surface aquatic ecosystems during wet and dry seasons.
- Pool identification, classification and conceptualisation.
- Multi-disciplinary studies to inform detailed, local-scale groundwater conceptualisation describing characteristics of groundwater connectivity with GDVs and groundwater dependent ecosystems (GDEs). Includes use of biological data as multiple lines of evidence.
- Ecohydrological assessment providing a conceptual model for GDVs/GDEs and quantification of receptor water requirements.
- Water well drilling and aquifer testing.
- Groundwater conceptualisation and numerical modelling.
- Groundwater modelling of dewatering, water supply and aquifer supplementation via reinjection scenarios.
- Hydrogeological impact assessment to evaluate the impact of dewatering and groundwater abstraction on the groundwater system.
- Development of a water balance and LoM Water Management Strategy.
- Hydrological impact assessment to evaluate the hydrological changes, including geomorphological and sediment transport regime, as a result of development.
- Develop surface water management strategies and measures including conceptual design of infrastructure.
- Development of Management Plan(s) related to Inland Waters.

10.2.2 Geology

The Hamersley Province covers an area of about 80,000 km^2 and contains late Archaean-Lower Proterozoic age (2800 - 2300 Ma) sediments of the Mount Bruce Supergroup situated between Archaean granitoid basement complexes of the Yilgarn and Pilbara blocks (Kneeshaw 2004).

The Mount Bruce Supergroup is a stratigraphically continuous formation that comprises a sequence of volcanic and sedimentary rocks that rest on greenstone belts and granitoid plutons of the Pilbara Block. The Supergroup is subdivided into three Groups consisting of the older Fortescue Group, Hamersley Group, and overlying Turee Creek Group. Deposited in a deep ocean basin ~2.5 billion years ago, the sediment has since been buried, metamorphosed, folded, uplifted and recently eroded to produce steep hills up to ~1,000 m

above sea level with broad valleys and steep gorge systems incising into the rock (Fortescue 2024b).

The Proposal sits on the northern limb of a major anticline, named the Wyloo Anticline (previously Wyloo Dome) located in southwest of Hamersley basin, that plunges to both the east-southeast and northwest, producing a dome with Archean granitic basement at its core which is overlain by the Fortescue Group and then progresses through the Hamersley Group to the Wyloo Group beyond.

The Wyloo deposit is predominantly a Brockman Iron Formation with additional minor mineralisation in the Marra Mamba Iron Formation and Wittenoom Dolomite as well as the lower part of the Weeli Wolli Formation. Bedded iron deposit (BID) is the dominant mineralisation type found within the Proposal. The majority of mineralisation is hosted within the Joffre Member of the Brockman Iron Formation. The Dales Gorge, Whaleback, and Yandicoogina Shale Members as well as the Weeli Wolli Formation also host BID. The Marra Mamba Iron Formation also hosts mineralised material in all three members. While the dominant mineralisation type that characterises the Proposal is BID, detrital iron deposit (DID) is also present within the Wyloo North East Deposit. This mineralisation is present within a pocket of Tertiary Canga, which is characterised by clasts of bedded martite and goethite within a goethite matrix (Fortescue 2024b). The stratigraphic sequence in the Wyloo North deposit is cross-cut by a series of dykes and NE–SW trending fault systems, resulting in significant vertical and lateral stratigraphic offsets. In addition, two dykes intersect the deposit (Fortescue 2024b).

The topography of the Wyloo deposit is steep with undulations and deeply dissected drainage and hydraulic controls imposed by topographic features. The topography ranges from 300 mAHD to 450 mAHD. Creeklines run adjacent to steep cliff faces along structural trends with elevation changes greater than 20 m (Fortescue 2024b).

10.2.3 Surface Water

The Proposal spans across two sub-catchments of the Ashburton River Catchment, namely the Duck Creek and Metawandy Creek catchments. Figure 10-1 shows an overview of the Duck Creek catchment and Metawandy Creek catchment and major creeklines relative to the Proposal. The Ashburton River catchment covers an area of approximately 77,000 km^2 bounded in the north by the Hamersley and Parry ranges, and in the south by the Godfrey Range and the Yannarie River catchment divide (Fortescue 2025d).

The Duck Creek catchment to the confluence with the Ashburton River is approximately 6,600 km^2 in area, with elevations varying from a maximum of 1,133 mAHD in the south-eastern extent of the Caves Creek catchment, to 148 mAHD at the confluence with the Ashburton River, with a mainstream length of approximately 300 km to its headwaters in the Caves Creek catchment. The major catchments of Duck Creek are heterogeneous, with significantly different topographical character over relatively short distances. Significant catchments contributing flows into Duck Creek include Caves Creek (approx. 1,600 km^2), Serpentine Creek (approx. 750 km^2) and Boolgeeda Creek (approx. 1,600 km^2) (Fortescue 2025d; Fortescue 2024b). Figure 10-1 shows an overview of the Duck Creek catchment divides and major creeklines in Wyloo North.

The Metawandy Creek catchment covers an area of approximately 800 km^2, with a mainstream length of approximately 77 km stretching from its northeastern headwaters to its confluence with the Ashburton River at Hardey Junction in the southwest. Flowing into Metawandy Creek are two creeks, namely Pilaru Creek and Kurltjirli Creek. The confluence of

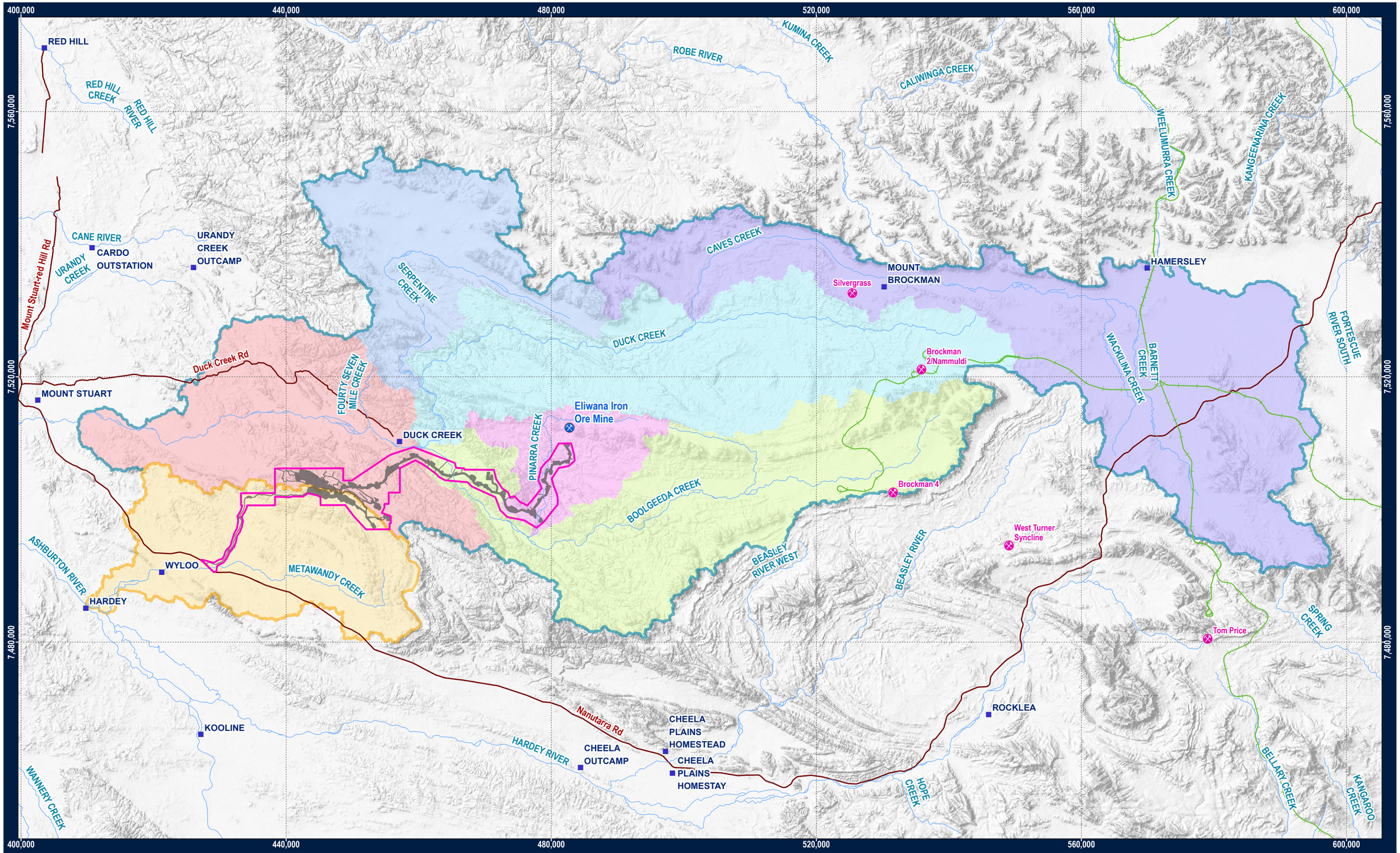
the Pilaru and Metawandy creeks is located approximately 1 km upstream of the Nanutarra Road crossing of Metawandy Creek, while the Kurltjirli Creek confluence is approximately 10 km further downstream, near Mt McGrath (Fortescue 2025b). Figure 10-1 shows an overview of the Metawandy Creek Catchment.

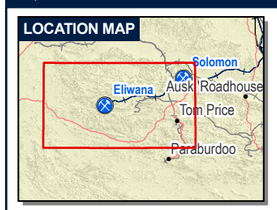
The Wyloo North mine transport corridor crosses Boolgeeda Creek and its tributary Pinarra Creek. Boolgeeda Creek, a major tributary of Duck Creek is a highly ephemeral system that flows westward for approximately 75 km before joining Duck Creek (Lateral 2024). Boolgeeda Creek has relatively broader floodplains and less incision along most of its length, particularly in the upper reaches where flow paths are braided across a relatively wide area. Towards the lower reaches, flow paths generally become more defined, with a sinuous but well-defined primary flow path until approximately 25 km upstream of the confluence with Duck Creek. Near the confluence of Boolgeeda Creek and Pinarra Creek, it becomes braided once more before combining again (Fortescue 2025d; Fortescue 2024b).

The majority of the proposed Wyloo North mine pits are located in the Duck Creek catchment draining to the north through various unnamed tributaries discharging to Duck Creek. The remaining southernmost pits and infrastructure of the Proposal are located along the northern headwaters of Metawandy Creek which drains in a south-west direction and discharges to the Hardey River (Fortescue 2024b).

The western mine access road extends south-west from the central mine area, following Pilaru Creek to its confluence with Metawandy Creek, and traverses comparatively lower-lying terrain in contrast to the predominantly steep and rugged sub-catchment landforms that characterise the proposed mine pit locations.

In the Pilbara streamflow is typically ephemeral owing to high initial infiltration rates in dry catchment conditions. However, significant streamflow usually occurs when moisture content of the soil is high, which is caused by intense rainfall influenced by cyclones and tropical depressions (Fortescue 2024b).





Legend

- Homesteads
- Fortescue Mines
- Rio Tinto Mine
- Road
- Rio Tinto Rail
- Watercourses
- Wyloo North Iron Ore Mine Development Envelope
- Wyloo North Iron Ore Mine Indicative Disturbance Footprint
- Duck Creek Catchment
- Metawandy Creek Catchment

Duck Creek Subcatchments

- Boolgeeda Creek
- Caves Creek
- Duck Creek DS
- Duck Creek US
- Pinarra Creek
- Serpentine Creek

0 2 4 6 8 10
Kilometres

N

Data Sources:
Watercourses, SRTM, Geoscience Aus.
Roads, Homesteads, Landgate.

Requested By: A. Imbergamo
Drawn By: S. Bowyer
Revised By: rykerr
Approved By:
Scale: 1:525,000
Coordinate System: GDA2020 MGA Zone 50
Project Name: WH_MP_EN_0003
Document Name: WH_MP_EN_0003_014_r4_SurfaceWater

Date: 12/30/2025
Size: A3L
Revision: 4
Confidentiality: No

Figure 10-1 Wyloo North Iron Ore Mine Surface Water Catchments

Fortescue

10.2.4 Groundwater

Based on available groundwater level data, it is suggested that a single, unconfined aquifer system exists across the Wyloo North MDE. Aquifers within this system are expected to be found within the Marra Mamba, Wittenoom (weathered) and Brockman Iron Formations, with groundwater flow gradients following topographic gradients, although movement may be influenced by faults and dyke structures which act as pathways and barriers. These aquifers are likely to represent the “main groundwater system”, with the Weeli Wolli Formation and Jeerinah Formation potentially creating the groundwater flow barrier in the north and south of the Wyloo North deposit respectively. Hydrogeological drilling and aquifer testing are in progress which will be able to confirm this interpretation (Fortescue 2024b).

Across the Wyloo North deposit, the groundwater flow is generally toward the northwest (GWC 2025). A major N-NE-trending structure between the western and eastern parts of the MDE appear to compartmentalise these areas, potentially separating the two groundwater systems. A significant vertical offset of approximately 24 m exists between groundwater levels in the western (~316 m AHD) and eastern (~340 m AHD) parts of the Wyloo North deposit.

The primary input to the groundwater system in the Wyloo North deposit is recharge from rainfall infiltration, occurring both along creek lines and as diffuse infiltration across permeable lithologies. Higher rates of groundwater flow are along more permeable aquifers, structural features such as faults and alluvial channels, as well as evapotranspiration and surface discharge within deeply incised gorges. Based on observed groundwater levels and the current base-case mine plan, 17% of the mineralisation is situated below the water table (Fortescue 2025g). Potential dewatering is expected to be limited to three pits, with groundwater not anticipated to be intersected until year 5 of mining.

Based on available electrical conductivity (EC) data, the groundwater in Wyloo North area is considered fresh. Field measurements collected at several locations across the deposits indicate an average EC 750 µs/cm (ranging from 440 to 1,100 µs/cm). Laboratory analysis conducted at multiple sites report EC values from 220 to 1,280 µs/cm (Fortescue 2024b).

10.2.5 Pools

Ephemeral waterways of abovementioned Boolgeeda Creek, Metawandy Creek and Duck Creek and their tributaries are known to support pools of varying permanency. In the Pilbara, permanent pools persist year-round. These waterbodies are characterised by permanent standing water, attributed to pool depth, degree of shading of the pool, and/or connection to groundwater. Permanent pools are known to persist, albeit contracted, during extended drought periods (Lateral 2024).

Semi-permanent pools tend to persist for the majority of a given year. In the Pilbara, semi-permanent pools tend to occur on the outer edge of meanders (areas of waterway where the bed has been cut down into the bedrock), or where the river is confined in a narrow section. Semi-permanent pools are initially filled by transient river flows following periods of high rainfall (widespread and large or sustained rainfalls) and the surface water may persist over a prolonged dry period (i.e. years) (Lateral 2024). However, as opposed to permanent pools, semi-permanent pools can occasionally dry out completely following an extended period of low rainfall or can be known to routinely dry out over the dry season, as a result of reduced recharge and receding groundwater level (Lateral 2024; Hydrobiology 2025). Semi-permanent to permanent pools are commonly situated on bedrock structures that impede and connect to groundwater flow, or against cliffs where high-flow events have scoured deep pools that capture and store transient flows (Lateral 2024).

Temporary/ephemeral pools persist for the minority of a given year. In the Pilbara, ephemeral pools do not intersect with the water table or may only be supported for short periods following heavy rainfall and tend to be recharged seasonally by rainfall or a cyclonic event (Lateral 2024). Ephemeral pools tend to dry out over the wet season, receding after flow events over a period of days to weeks and do not tend to persist into the dry season (Hydrobiology 2025).

The presence, characterisation and classification of pools in Wyloo North is in progress and will be ongoing to support the preparation of the ERD. Fortescue has identified numerous pools based on various data sources, such as aerial imagery from flyovers, LiDAR depression analysis, field visits and information from Kurrama and Pinikura Traditional Owners. Fortescue has been refining the pools identified to date to a set of priority pools for on-going water monitoring. Investigations using multiple lines of evidence are currently being undertaken to better characterise the pools and understand their source of water, e.g. if pools are groundwater dependent. Early indications show that there are both groundwater and surface water dependent pools within the Wyloo North MDE.

10.2.6 Interaction with Other Factors

Inland Waters values are closely associated with several other environmental factors, including Subterranean Fauna (considering the reliance of stygofauna on aquifers for habitat), Terrestrial Fauna and Flora and Vegetation (considering the connection between aquatic and terrestrial habitats and reliance on presence of water in an arid environment), and Social Surroundings (given the significant cultural importance Traditional Owners have with Inland Waters values). An assessment of the connections and interactions between environmental factors or values will be presented in the ERD as part of a holistic assessment of impacts.

10.3 Potential Impacts, Management and Likely Environmental Outcome

Potential environmental impacts, and application of the mitigation hierarchy to address identified impacts on terrestrial fauna are summarised in Table 10-2. Impacts associated with other factors, occurring as a result of impacts on Inland Waters, are captured in relevant sections.

Table 10-2 Inland Waters - Potential Environmental Impacts and Mitigation

Potential Environmental Impacts	Application of the Mitigation Hierarchy
Direct Impacts: • Modification to groundwater levels through abstraction and mining of controlling geological structures. • Disruption to preferential groundwater flow paths. • Changes to water quantity and/or water quality at sensitive receptors. • Reduction in surface water catchment area due to development footprint. • Modifications to creek alignments (via diversions).	**Avoid:** Where practicable, surface water management infrastructure will be designed to maintain the flow continuity and minimise the hydrological impact to downstream water dependent receptors. • No disposal of surplus dewatering water to surface drainage lines/creeks under standard operating conditions. **Minimise:** • As far as practicable, infrastructure will be placed to minimise disturbance of natural surface water flows.

Potential Environmental Impacts	Application of the Mitigation Hierarchy
• Modification of surface water regimes due to catchment reduction and placement of infrastructure. **Indirect Impacts:** • Potential impacts on surface and groundwater quality due to generation of poor-quality seepage from mine waste, chemical and hydrocarbon leaks and spills, as well as increased scouring and deposition of sediment due to hydrological changes. • Loss or change to GDVs/GDEs (pools/wetlands) due to changed surface and groundwater regimes. • Altered erosion and sediment transport due to altered hydrological regimes. • Potential for pit lake at closure. **Cumulative Impacts:** • Potential cumulative impacts on regional groundwater due to interactions with nearby mining operations and pastoral users.	• Chemical and hydrocarbon storage areas will be located within secure, bunded, above ground storage areas to prevent contamination of groundwater and surface water resources. • Baseline water quality monitoring will inform development of appropriately protective water quality criteria and monitoring post-development. • Discharge of stormwater from mine pits and/or other areas to the receiving environment will be undertaken as per standard Fortescue stormwater procedures and will be managed so as to minimise impacts to water quality. • Inland Waters related Management Plan(s) will be developed to guide infrastructure and mining activities to minimise impacts to and maintain hydrological regime, water quality and receiving environment values. • Sediment control measures will be developed to minimise sedimentation and impacts to environmental and culturally significant receptors. • Mineral waste characterisation will be undertaken and material managed in accordance with Fortescue's Mineral Waste Management Plan. • Dewatering and water supply abstraction will be minimised to the extent required to access below water table ore and meet site needs, respectively. • Water generated from groundwater dewatering will be used on-site in the first instance to supply water for operational purposes. The remaining surplus water which exceeds the operational requirements will be managed through a number of surplus water management options currently being investigated. • Aquifers supporting GDVs/GDEs will be adaptively managed to maintain water regimes to environmental and culturally sensitive receptors, including aquifer supplementation via reinjection. • Ongoing hydrogeological monitoring and modelling will refine the understanding of local groundwater environment and inform adaptive water management strategies. **Rehabilitate:** • A MCP will be developed and implemented in alignment with the *Guideline for preparing Mine Closure Plans* (DMIRS 2025). • Progressive rehabilitation will be undertaken over the life of the mine as opportunities arise. • Explore backfilling of pits as an option to eliminate pit lakes.

10.3.1 Assessment and Significance of Residual Impacts

Implementation of the Proposal may result in alterations to water quality, hydrological and hydrogeological regimes in the local environment. An assessment of the potential impacts, their significance and likely outcomes as a result of implementing the Proposal will be presented in the ERD.

10.3.2 Likely Environmental Outcome

The ERD will outline the environmental outcomes and how Fortescue will achieve the EPA's factor objective during implementation of the Proposal.

11 SOCIAL SURROUNDINGS

11.1 EPA Objective, Policy and Guidance

The EPA Objective for Social Surroundings is "*to protect social surroundings from significant harm"* (EPA 2023b).

Under the EP Act, Social Surroundings forms part of the environment and in the case of humans, is defined as: *"aesthetic, cultural, economic, and social surroundings to the extent that those surroundings directly affect or are affected by his physical or biological surroundings*".

Policy and guidelines relevant to Social Surroundings, along with their consideration for the Proposal, are outlined in Table 11-1, below.

Table 11-1 Relevant Policy, Guidelines and Guidance for Social Surroundings

Policy, guideline, legislation	Document consideration
Environmental Protection Authority	
Statement of environmental principles, factors, objectives and aims of EIA (EPA 2023d).	This statement has been used to develop frameworks for identifying Social Surroundings values that may be impacted by the Proposal.
Environmental Factor Guideline – Social Surroundings (EPA 2023b)	Studies and investigations (surveys) are designed based on this guideline.
Technical Guidance: Environmental impact assessment of Social Surroundings – Aboriginal Cultural Heritage (EPA 2023c)	Provides technical guidance on undertaking an environmental impact assessment on Aboriginal Cultural Heritage under the Social Surroundings factor where these values may not be protected under the *Aboriginal Heritage Act 1972 (WA)*. Guideline has been used to develop the consultation framework for engaging with Native Title stakeholders and assessing potential impacts to, and management of, Aboriginal Cultural Heritage within and surrounding the Proposal.
Environmental Impact Assessment (Part IV Divisions 1 And 2) Administrative Procedures (EPA 2021a)	Considered in preparation of the referral and impact assessment.
Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual (EPA 2024a)	
Instructions on how to prepare an Environmental Review Document (EPA 2025)	The headings and content of this referral have been aligned with the future ERD.
Other State or Commonwealth	
Guideline for preparing Mine Closure Plans (DMIRS 2025)	An MCP will be prepared in accordance with Statutory guidelines and consider matters relating to Social Surroundings.
Interim Engaging with First Nations People and Communities on Assessments and Approvals under the *Environment Protection and Biodiversity Conservation Act 1999* (DCCEEW 2023a)	Outlines the statutory obligations that apply to, and the department's expectations of, proponents engaging with First Nations people and communities under the EPBC Act, as it relates to the environmental approvals process under Chapter 4 of the EPBC Act.

Policy, guideline, legislation	Document consideration
ICOMOS Burra Charter 2013	Provides guidance for the conservation and management of places of cultural significance within Australia. This charter has been used to develop frameworks for identifying and understanding impacts to, and management of, places of cultural significance to Native Title stakeholders.
Aboriginal Heritage Act 1972 (WA)	This Act provisions for the preservation of places and objects customarily used by, or traditional to, the original inhabitants of Australia or their descendants. Defines disturbance to Heritage Places and outlines processes for seeking approval to disturb Heritage Places, should disturbance be unavoidable.
Mining Act 1978 (WA) and *Mine Safety and Inspection Act 1994* (WA)	An Act outlining the responsibility of Registered Managers and will impose reasonable limits on access to areas within development mining activity or activity on mining tenure. This Act assists in defining parameters in which access can be granted to areas within active mine development areas safely.
Native Title Act 1993 (Cth)	An Act for the advancement and protection of Aboriginal peoples and Torres Strait Islanders and is intended to further advance the process of reconciliation among all Australians. This Act has been used to define native rights of Native Title stakeholders, including to access and use country for traditional purposes.
Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cth)	An Act to preserve and protect places, areas, and objects of particular significance to Aboriginal peoples and Torres Strait Islanders in accordance with Aboriginal tradition.

11.2 Receiving Environment

The Proposal is located within the Puutu Kunti Kurrama and Pinikura #1 and #2 Native Title Determination (WCD2015/003) and is the traditional lands of the Puutu Kunti Kurrama people (Kurrama) and the Pinikura people (Pinikura). Kurrama and Pinikura are two separate but related language groups that speak for their own Country within the shared PKKP native Title determination area. The Puutu Kunti Kurrama and Pinikura Aboriginal Corporation (PKKP AC) is the Prescribed Body Corporate (PBC) representing both Kurrama and Pinikura. The native title determination boundary and the sub-division boundaries of Kurrama and Pinikura are presented on Figure 2-3.

Additional stakeholders within the broader receiving environment include Wyloo and Mt Stuart Pastoral Stations, the Shire of Ashburton and tenure holders.

11.2.1 Studies and Surveys

In addition to the Social Surroundings consultation undertaken with Kurrama and Pinikura as detailed previously in Table 5-2, heritage surveys (archaeological and ethnographic) have been undertaken since 2009 and are ongoing to identify heritage places, including broad

cultural values associated with plant and animal species within and surrounding the Proposal. To date 145 archaeological and 28 ethnographic surveys have been completed.

While heritage surveys and consultation are in progress, Fortescue is aware of some heritage places and cultural values of importance to Kurrama and Pinikura. A summary of these heritage places and cultural values is provided in Section 11.2.3. Detailed outcomes of the Social Surroundings consultation, heritage surveys, and Traditional Ecological Knowledge (TEK) assessments will be provided in the ERD[3].

11.2.2 Future Studies and Surveys

The details of ongoing or planned investigations for Social Surroundings studies and related surveys that will also inform EIA for the Proposal are outlined in Table 11-2. Most studies are in progress, with outcomes to be presented in the ERD.

Table 11-2 Studies planned or in progress - Social Surroundings

Study	Description
Air Quality and Dust Impact Assessment	Assessment of air quality and dust during LoM.
Noise and Vibration Assessment	Assessment of noise and vibration during LoM.
Visual Impact Assessment	Assessment of impacts to visual amenity during LoM.
Traditional Ecological Knowledge (TEK) Desktop Assessment	Desktop assessment to confirm potential presence of cultural flora and fauna species to Kurrama and Pinikura within the Wyloo North MDE.
TEK Surveys	Field surveys to ground-truth cultural flora and fauna species within the Wyloo MDE. Requirement for TEK surveys will be determined based on the TEK Desktop Assessment.

11.2.3 Aboriginal Cultural Heritage Values

Fortescue considers cultural values to include all aspects of country (tangible and intangible elements) that hold social, spiritual, historical, scientific, or aesthetic value to Native Title holders. This includes heritage places, important landforms and features, and broader contemporary values such as maintaining access to country.

While Social Surroundings consultation and surveys are ongoing, the following heritage places and social, cultural and heritage values have already been identified and are discussed in the below sections.

11.2.3.1 Heritage Places

A search of DPLH's Aboriginal Cultural Heritage Inquiry System (ACHIS) was undertaken on 18 August 2025 to identify any Registered Sites, Lodged Places, and Historic Places (previously Stored Data/Not A Site) within the Wyloo North MDE. A search of ACHIS assists in identifying heritage places that have been identified outside of heritage surveys conducted

[3] It is noted that Social Surroundings consultation, heritage survey and TEK survey reports referenced in this referral supporting document and in the future ERD will not be provided without permission from PKKP AC.

for Fortescue (e.g. heritage surveys conducted by third party proponents or information submitted by knowledge holders not engaged by Fortescue), allowing a full understanding of the potential heritage values present in the area.

The ACHIS search identified 4 Registered Sites, 42 Lodged Place, and 2 Historic Places within the Wyloo North MDE (see Table 11-3 below for numbers per native title group). There are no gender restrictions noted in ACHIS for these places. All but five (5) of the DPLH places have been recorded during Fortescue surveys.

Table 11-3 DPLH heritage places recorded within the Wyloo North MDE

Native Title Group	Registered Sites	Lodged Places	Historic Sites	Total Count
Kurrama	3	29	0	**32**
Pinikura	1	13	2	**16**

A search of Fortescue's internal heritage database system was also undertaken. Based on surveys undertaken within Wyloo North to date, an additional 146 heritage places have been recorded and not yet submitted to the DPLH: 120 within Kurrama country and 26 within Pinikura country (see Table 11-4 below). The most common site types within Kurrama and Pinikura country are artefact scatters and rock shelters.

Table 11-4 Fortescue database heritage places recorded within the Wyloo North MDE

Native Title Group	Archaeological	Ethnographic	Total Count
Kurruma	118	2	**120**
Pinikura	25	1	**26**

At the time of the desktop search, 77 heritage places (including DPLH places) intersect with the proposed Wyloo North IDF: 70 within Kurrama country and 7 within Pinikura country.

Where possible, Fortescue works towards avoidance of heritage places. However, if heritage places cannot be avoided, Fortescue will consult with the relevant native title group to seek relevant approvals under the *Aboriginal Heritage Act 1972* (WA).

Heritage places as per DPLH and Fortescue's database located within the Wyloo North MDE are illustrated in Figure 11-1 and Figure 11-2 respectively.

11.2.3.2 Heritage Restriction Zones

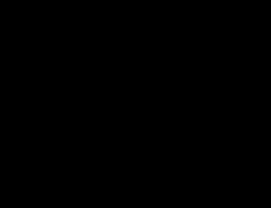
Heritage Restrictions Zones (HRZs) are a defined area containing social, cultural, or heritage values whereby restrictions (or preceding actions) may apply prior to the commencement of any works or access to the area within the HRZ boundary. Restrictions applied to HRZs may include (but are not limited to):

- Further consultation or recording of cultural values contained within
- Limitations or restrictions on access requirements
- Limitations on the types of works that may be undertaken within the HRZ boundary.

HRZs are an internal management measure implemented by Fortescue to provide an additional layer of protection for places of cultural significance.

To date, 39 HRZs have been recorded within the Wyloo North MDE: 22 within Kurrama country and 17 within Pinikura country. Of these only seven (7) intersect with the IDF. These HRZs were identified during heritage surveys and Social Surroundings consultations.

HRZs located within the Wyloo North MDE are illustrated in Figure 11-2.



Legend

- Homesteads
- Fortescue Mines
- Road
- Watercourses
- DPLH Places - Registered
- DPLH Places - Lodged
- DPLH Places - Historic
- Native Title Area Sub Divisions
- Native Title Determination
- Wyloo North Iron Ore Mine Development Envelope

Data Source(s):
Native Title, NNTT.
DLPH Places, DLPH.
Watercourses, SRTM, Geoscience Aus.
Roads, Homesteads, Landgate.

N

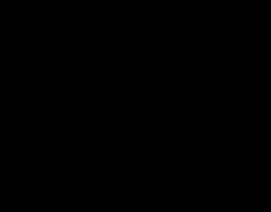
0 2 4 6 8 10
Kilometres

Requested By: A. Imbergamo
Drawn By: S. Costello
Revised By: rykerr
Approved By:
Scale: 1:150,000
Coordinate System: GDA2020 MGA Zone 50
Project Name: WH_MP_EN_0003_Caves
Document Name: WH_MP_EN_0003_017_r3_HeritagePlaces_MDE

Date: 10/17/2025
Size: A3L
Revision: 3
Confidentiality: No

Figure 11-1: Wyloo North Iron Ore Mine DPLH Aboriginal Cultural Heritage Places in the Mine Development Envelope

Fortescue



Legend

- Homesteads
- Fortescue Mines
- Road
- Watercourses
- Heritage Restricted Zone
- Ethnographic Heritage Places
- Archaeological Heritage Places
- Native Title Area Sub Divisions
- Native Title Determination
- Wyloo North Iron Ore Mine Development Envelope

Data Source(s):
Native Title, NNTT.
DLPH Places, DLPH.
Watercourses, SRTM, Geoscience Aus.
Roads, Homesteads, Landgate.

N

0 2 4 6 8 10
Kilometres

Requested By: A. Imbergamo
Drawn By: S. Costello
Revised By: rykerr
Approved By:
Scale: 1:150,000
Coordinate System: GDA2020 MGA Zone 50
Project Name: WH_MP_EN_0003_Caves
Document Name: WH_MP_EN_0003_013_r3_FortescueDatabaseHeritage

Date: 10/17/2025
Size: A3L
Revision: 3
Confidentiality: No

Figure 11-2: Wyloo North Iron Ore Mine Aboriginal Cultural Heritage Places from the Fortescue Database in the Mine Development Envelope.

Fortescue

11.2.3.3 Cultural Values of Water

For both Kurrama and Pinikura all water is considered of high cultural significance. The continued presence of water sources (such as pools) and unimpeded flow of water is essential to maintaining cultural and environmental values, and as such the health of country. Specific cultural values for each group associated with water and water sources within and surrounding the Wyloo North MDE are discussed below.

Kurrama values on water

During the March 2025 Social Surroundings trip, Kurrama representatives noted that all waterways are important and considered culturally significant (Mitchell 2024, Mitchell 2025a). Discussions on the value and importance of protecting water, led to Kurrama establishing some preliminary principles to manage waterways on their country, including:

- All surface and underground water sources are of extremely high significance to Kurrama people
- Maintain natural water flow of waterways
- Maintain spiritual and cultural integrity of culturally important waterways such as Duck Creek, Boolgeeda Creek, and Serpentine Creek
- No bores to be drilled within creeks.

It is also noted that permanent and semi-permanent pools (or yintas) are culturally important as common birth places and for their associations with the Warlu (water serpent) (Mitchell 2025a). The presence of pools is an indication of the health of Country and therefore the overall wellbeing of the Kurrama people and culture. While all pools are important to Kurrama, specific pools of importance within or surrounding the Wyloo North MDE have been recorded as heritage places or HRZs. Specific water sources identified as cultural receptors are outlined in Section 11.2.3.7, Table 11-5.

As discussed previously in Section 10.2.5, Fortescue has been investigating pools within the Wyloo North MDE, including those identified by Kurrama and Pinikura Traditional Owners, in order to refine these to a set of priority pools to be further investigated.

Pinikura values on water

Water is a core value within Pinikura culture and is vital to the health of Pinikura country (Mitchell 2025b). While the proposed Wyloo North IDF is relatively small on Pinikura country, concerns regarding potential impacts from mining activities on Kurrama country were at the forefront of discussions during the March 2025 consultation. As such, Pinikura also developed some preliminary principles for managing water on their country, including:

- Maintain the natural flow of water throughout all levels of the catchment
- Ensure that mine dewatering does not impact natural springs within Pinikura Country
- Maintain water quality (surface and sub-surface water)
- All creeks are returned to their current state at mine closure.

Metawandy Creek is a culturally important waterway to Pinikura and feeds into other important waterways such as the Hardey and Ashburton Rivers (Mitchell 2025b). During the March 2025 Social Surroundings consult, Pinikura reiterated the importance of maintaining water flow to and from Metawandy Creek, and its tributaries. Pinikura also noted the importance of maintaining the water quality of the Metawandy Creek tributaries in proximity to the proposed Run of Mine (ROM), ensuring water quality downstream was not impacted. Metawanday Creek tributaries have been identified as a cultural receptor and is discussed under Section 11.2.3.7, Table 11-6.

11.2.3.4 Culturally Significant Plants and Animals

Traditional ecological values are another aspect of social surroundings that plays an important role in Kurrama and Pinikura culture and traditional practices. This includes culturally significant plants and animals used for bush tucker or medicine, areas used for traditional activities such as camping and hunting, as well as important ecological features with cultural associations.

TEK surveys with Kurrama and Pinikura are planned to be undertaken. However, preliminary values regarding plants and animals have been provided through the Social Surroundings consultation conducted to date and summarised below.

Culturally Significant Flora

To date discussions with Kurrama regarding culturally significant flora has been general, noting the need to undertake further consultation to identify any specific species of value. During the March 2025 Social Surroundings consult, Kurrama noted that preserving bush medicine and bush food species was important, including the preservation of Honey Trees. Honey Trees are trees that have native bees living in them or evidence of honey having been harvested in the past (e.g. cut marks into a hollow cavity in the trunk). In addition to Honey Trees, the Sturt Pea (*Swainsona formosa*) was also identified as a culturally significant species to Kurrama (Mitchell 2025a).

Pinikura has not yet provided any general or specific information regarding flora of cultural significance within or surrounding the Wyloo North MDE.

Fortescue is committed to undertaking TEK surveys in collaboration with Kurrama and Pinikura within the MDE to confirm flora species with cultural value, as required. Consultation and survey findings and related impact assessment will be presented in the ERD.

Culturally Significant Fauna

No general or specific information regarding fauna species of cultural significance to Kurrama or Pinikura has been documented to date from Social Surroundings consultation. However, Kurrama did raise concerns about food species such as goannas, kangaroos, bush turkeys, and emus, leaving the area once mining starts. It has not yet been confirmed if Kurrama hunt these species within the proposed Wyloo North MDE.

Fortescue is committed to undertaking TEK surveys, in collaboration with Kurrama and Pinikura within the MDE to confirm fauna species with cultural value, where required. Consultation and survey findings and related impact assessment will be presented in the ERD.

11.2.3.5 Access to Country

Access to Country is important to Traditional Owners to maintain connection to country and exercise their native title rights and interests. Establishing places or areas that may require access to undertake traditional activities (such as hunting, camping, or cultural and ceremonial customs) early in the consultation process is essential to ensure impacts to access is minimised and can be considered in the project design.

To date, Kurrama has requested that Fortescue and PKKP AC work closely to develop a suitable access protocol to ensure that Kurrama people can access key places within the Wyloo North MDE. Kurruma have specifically requested access to [redacted] and [redacted] is maintained (Mitchell 2025a). However, both of these places are located outside the MDE with [redacted] located just north adjacent to the MDE and [redacted] is located approximately 20 km north of the MDE. Despite their location outside of the MDE, these places have been identified as cultural receptors (see Section 11.2.3.7, Table 11-6).

No specific areas for hunting or camping in the Wyloo North MDE were identified during the Social Surroundings consultation to date. Further consultation with Kurrama may identify additional places or areas requiring access to undertake traditional activities.

During the March 2025 Social Surroundings consult, Pinikura representatives expressed that they are not overly concerned about the issues of visual amenity or noise because they are likely to avoid the area during the active mining phase anyway (Mitchell 2025b). However, Pinikura did request use of the access track (commonly referred to as the Paulsen's access track because it leads to Paulsen's East Iron Ore Mine) through [redacted] (heritage place located at the far western end of the MDE) and continued use of the access track from Nanutarra Road into Wyloo North camp, which is part of the proposed MDE as it is being considered as an alternative mine access track into Wyloo North. This Paulsen's access track has been identified as a cultural receptor for Pinikura (see Section 11.2.3.7, Table 11-6).

11.2.3.6 Aesthetics and Amenity

During the March 2025 Social Surroundings consultation, considerations for potential impacts from changes to the visual aesthetics of the area and amenity (use of Country) due to noise or dust generated by Fortescue's activities were discussed with Kurrama and Pinikura. Augmented reality was used to support consultation on potential aesthetics and amenity impacts, allowing Kurrama and Pinikura to visualise what the project may look like in the landscape, while standing at the location. Outcomes of those discussions and the values identified by Kurrama and Pinikura are presented below.

Kurrama

No specific concerns were raised by Kurrama about seeing the Proposal from a particular place or location and the impact this would have on their ability to use or visit that place. Instead, concerns about impacts to aesthetics and amenity were more general and focused on minimising disturbance to country. For Kurrama, keeping as much country intact as possible is important to minimise the cumulative impacts from development and maintain the cultural and spiritual integrity to country (Mitchell 2025a). As such, no receptors or locations have been identified for inclusion in the visual impact assessment (VIA), which is in progress. However, Kurrama did identify some principles for minimising impacts to visual amenity for consideration, including:

- Preference for previously disturbed areas to be used for other purposes (e.g. backfill pits rather than create new disturbance for waste dumps)

- Keep power generation facilities close to operational areas to minimise the need to powerline corridors
- Preference for powerlines to be underground rather than overhead and to follow other disturbance corridors (e.g. transport routes, roads).

Kurrama representatives confirmed their preference for the proposed powerline option that follows the transport route over Boolgeeda Creek and north towards Eliwana mine. This option was one of four options considered by Fortescue and ultimately selected as the preferred option (Mitchell 2024).

Concerns regarding dust were also raised by Kurrama however were primarily in relation to potential contamination of water and its effect on aesthetics. Specific pools were identified as receptors for dust modelling and water quality assessments (Table 11-5). No receptors were identified as potential camping or hunting areas, or places where excessive dust levels may prevent Kurrama from using or visiting.

Kurruma expressed general concerns for noise impacts to heritage sites however, no specific places or receptors were provided (Mitchell 2025a). As such, no receptors have been identified for inclusion in the noise assessment.

Pinikura

Pinikura had no major concerns regarding impacts to aesthetics and amenity or from excessive noise as Pinikura confirmed they are likely to avoid the area during the mining phase (Mitchell 2025b). No concerns were raised about seeing the project from locations surrounding the project area or hearing the project from specific locations. As such, no receptors or locations were identified for inclusion in the VIA or noise assessment.

A key matter for consideration by Pinikura was how dust impacts will be managed. Concerns regarding dust were specific to potential impacts on waterways, in particular potential contamination of the Metawandy Creek tributaries in proximity to the proposed ROM and the use of HaulPac (product used on unsealed roads to reduce dust) (Mitchell 2025b). The Metawandy Creek tributaries near the ROM have been identified as a receptor for inclusion in the dust assessment (see Section 11.2.3.7, Table 11-6).

Other concerns and values related to aesthetics and amenity raised by Pinikura to date have been more in relation to reinstating the area close to natural conditions after mining operations cease and finding opportunities to utilise infrastructure for other purposes. Consultation with Pinikura regarding potential impacts to aesthetics and amenity will continue throughout the approvals process and refinement of the Wyloo North project.

11.2.3.7 Cultural Receptors

Cultural receptors are areas or places containing social, cultural, and / or heritage values that are of particular sensitivity to the Traditional Owners and may be susceptible to impact (direct or indirect) by Fortescue activity. These may include places of high cultural significance; places containing visual, noise, dust, or vibration sensitive features; areas to undertake traditional activity; areas containing culturally significant flora or fauna; or culturally significant water sources.

The cultural receptors that have been identified by Kurrama and Pinikura Traditional Owners through consultation with Fortescue to date are presented below in Table 11-5 and Table 11-6 respectively. Concerns raised by the Traditional Owners related to the cultural receptors are

also listed, which will be addressed through the completion of the Social Surroundings studies discussed in Table 11-2 and the ERD.

Table 11-5 Kurrama Cultural Receptors

Receptor (Fortescue/DPLH ID)	Value	Concern
Duck Creek [redacted]	Culturally significant water source of high importance.	Potential contamination of water from excessive dust. Impacts to aesthetics.
Boolgeeda Creek [redacted]	Culturally significant water source of high importance.	Potential contamination of water from excessive dust. Impacts to aesthetics.
Serpentine Creek (no DPLH ID or Place ID)	Culturally significant water source of high importance.	Potential contamination of water from excessive dust. Impacts to aesthetics.
[redacted]	Important cultural place that is visited by Kurrama.	Potential contamination of water from excessive dust. Impacts to aesthetics. Restricted or loss of access.
[redacted]	Culturally significant water source	Potential contamination of water from excessive dust. Impacts to aesthetics.
[redacted]	Culturally significant water source	Potential contamination of water from excessive dust. Impacts to aesthetics.
[redacted]	Culturally significant water source	Potential contamination of water from excessive dust. Impacts to aesthetics.
[redacted]	Culturally significant water source	Potential contamination of water from excessive dust. Impacts to aesthetics.
[redacted]	Culturally significant water source	Potential contamination of water from excessive dust. Impacts to aesthetics.
[redacted]	Culturally significant water source	Potential contamination of water from excessive dust. Impacts to aesthetics.
[redacted]	Culturally significant water source	Potential contamination of water from excessive dust. Impacts to aesthetics.

Receptor (Fortescue/DPLH ID)	Value	Concern
[redacted]	Culturally significant water source	Potential contamination of water from excessive dust. Impacts to aesthetics.
[redacted]	Important cultural place. Culturally significant water source Access to be maintained	Potential contamination of water from excessive dust. Impacts to aesthetics. Restricted or loss of access.
[redacted]	Heritage Place - rock shelter.	Impacts to aesthetics and accumulation of dust on surfaces.
[redacted]	Heritage Place - engravings.	Impacts to aesthetics and accumulation of dust on surfaces.
[redacted]	Heritage Place - engravings.	Impacts to aesthetics and accumulation of dust on surfaces.

Table 11-6 Pinikura Cultural Receptors

Receptor (Fortescue/DPLH ID)	Value	Concern
Tributaries of Metawandy Creek	Water source.	Potential contamination of water from excessive dust / sedimentation.
Paulsen's access track	Use of track to access Country.	Restricted or loss of access.

11.2.4 European Heritage

There are no European Heritage sites located within the Wyloo North MDE. The Duck Creek Homestead, which is abandoned, is located approximately 1.5 km north of the MDE. However, this site is not on any heritage lists or local heritage surveys.

The Municipal Inventory heritage place (Shire of Ashburton), Wyloo Homestead (Place No 15396), is located approximately 7 km southwest of the MDE. It is noted for its aesthetic, historic and representative cultural heritage being a fine example of one of the early stations that reflects the evolution of grazing and pastoralism in the Ashburton district from the 1880s (Heritage Council of WA 2017).

There are no heritage places listed under the Heritage Council State Register within or in the vicinity of the MDE. There are no heritage places listed on the National Heritage List within or within the vicinity of the MDE. The Duck Creek Gorge Area (Place ID 18764), located approximately 11 km northwest of the Wyloo North MDE, is identified as an “indicative place” on the Register of the National Estate and described as displaying exceptional exposures of

Pre-Cambrian Duck Creek Dolomite. A formal nomination has not been made for assessment. (DCCEEW n.d.)

11.3 Potential Impacts, Management and Likely Environmental Outcome

Potential environmental impacts and application of the mitigation hierarchy to address identified impacts on terrestrial fauna are summarised in Table 11-7.

Table 11-7 Social Surroundings - Potential Environmental Impacts and Mitigation

Potential Environmental Impacts	Application of the Mitigation Hierarchy
Direct Impacts: • Unauthorised disturbance and/or loss of heritage places. • Loss of culturally significant flora and fauna species. • Loss and/or restricted access to culturally important locations. • Loss and/or restriction of access to hunting grounds. • Changes to natural characteristics of culturally significant waterways and pools Impacts to cultural and spiritual integrity of significant places • Potential unauthorised access to heritage places by project/operational staff. • Impacts to Wyloo or Mt Stuart Stations due to footprint reducing area available for grazing. **Indirect Impacts:** • Alteration of culturally significant water sources due to groundwater abstraction, changed surface water regimes and sedimentation. • Alteration of vegetation due to changed water regimes. • Reduced water quality. • Reduced aesthetic values and visual amenity due to temporary and permanent mine infrastructure. • Increased levels of dust due to construction and operational activities affecting amenity at cultural and/or recreation places or health of culturally significant vegetation and water sources. • Vibration or fly rock from blasting activities impacting heritage places.	**Avoid:** • The Proposal footprint will be designed avoid impact to heritage places and culturally significant locations (where possible). • The Proposal design will be informed by an understanding of cultural and Social Surroundings values gained via surveys, studies and consultation with key stakeholders, with a view to avoiding impacts to cultural features and values, such as culturally significant water sources, plants and animals, and other stakeholder values. • All Heritage Places and Heritage Restriction Zones (HRZs) are identified in Fortescue's GIS system. • All personnel mobilised to site to undertake general and site-specific inductions regarding Fortescue's heritage management procedures • The maintenance or re-establishment of access to culturally significant places will ensure that traditional and contemporary uses at these places will continue (where identified). • Impacts to Wyloo and Mt Stuart Station bores will be avoided where possible. **Minimise:** • Continue to undertake appropriate surveys/studies and social surrounds consultation with Kurrama and Pinikura Traditional Owners to understand cultural values relevant to the Proposal and inform impact assessment. • Fencing (and signage where required) of Heritage Places in proximity to ground disturbance works.

Potential Environmental Impacts	Application of the Mitigation Hierarchy
• Increased noise and vibration from blasting, machinery or heavy vehicles could reduce amenity for Wyloo or Mt Stuart Station pastoralists. • Impacts or loss of Wyloo and Mt Stuart Station bores due to groundwater abstraction. **Cumulative Impacts:** • There are several current and planned mining operations on PKKP native title by Fortescue and other proponents which will be considered as part of the cumulative impact assessment for this Proposal. • The significance of cumulative impacts from current and planned mining operations by Fortescue and other proponents in relation to the existing Mt Stuart and Wyloo Station grazing enterprises will be assessed via consultation with relevant stakeholders and considered in the ERD.	• Relevant Heritage conditions applied to Land Use Certificates (LUCs) prior to undertaking works in the Wyloo North MDE. • Undertake blasting activities in accordance with Fortescue's Blasting Near Heritage Place Procedure (100-PR-HE-0003). • All personnel mobilised to site to undertake general and site-specific inductions regarding Fortescue's heritage management procedures. • Where heritage places cannot be avoided, Fortescue will consult with Kurrama and Pinikura Traditional Owners to seek relevant approvals under the AH Act. • Project does not restrict or cut off access to [redacted] or [redacted]. • Maintain access to existing tracks including Paulsen's access track (where safe to do so). • Develop access protocols for culturally significant places (where required). • Undertake dust modelling to determine impacts from dust on cultural receptors identified as dust sensitive. • Continue consultation with Kurrama and Pinikura Traditional Owners to identify strategies to maintain access to areas to undertake traditional activities (where identified). • Inland Waters, Flora and Vegetation, Terrestrial Fauna and Subterranean Fauna Management Plans will ensure the integrity of ecological values with cultural associated areas maintained (where applicable). • Where required, Cultural Management Plan(s) will be developed for the Proposal in consultation with Kurrama and Pinikura Traditional Owners. • Fortescue aims to maintain existing pastoral bores. Where impacts to bores cannot be avoided, replacements will be provided. • Consult with Kurrama and Pinikura Traditional Owners on the Proposal's closure design and strategies, prior to submission of the ERD. **Rehabilitate:** • A MCP, informed by the outcomes of Social Surroundings consultation, will be prepared

Potential Environmental Impacts	Application of the Mitigation Hierarchy
	in accordance with the *Guideline for preparing Mine Closure Plans* (DMIRS 2025).

11.3.1 Assessment and Significance of Residual Impacts

Implementation of the Proposal may impact the Social Surroundings values of the Kurrama and the Pinikura people, as well as the pastoralists operating within the MDE. An assessment of the potential impacts, their significance and likely outcomes as a result of implementing the Proposal will be presented in the ERD.

11.3.2 Likely Environmental Outcome

The ERD will outline the environmental outcomes and how the Fortescue will achieve the EPA's factor objective during implementation of the Proposal.

12 OTHER ENVIRONMENTAL FACTORS

An additional four (4) factors have been identified as Other Environmental Factors that potentially require consideration in relation to the Proposal. Other Environmental Factors were identified as requiring a less detailed assessment than the preliminary key environmental factors as they are either subject to controls under other legislation, are effectively managed through routine/business as usual environmental management procedures or the Proposal poses a very low risk of impact to these factors. Table 12-1 outlines the factors' significance to the Proposal.

Table 12-1 Other Environmental Factors

Other Factor	Receiving Environment	Significance to Proposal
Landforms	The EPA Objective for Landforms is "*to maintain the variety and integrity of significant physical landforms so that environmental values are protected*" (EPA 2018b). **Receiving Environment** A soils and landforms desktop assessment has been undertaken by Landloch (2025) and seven (7) landform units were identified. From a variety perspective, no landform unit is unique to the project area. However two landform units (plateaux, mesas, ridges, mountains and upper slopes; drainage floors and channels) present in the project area contain landforms that may be considered potentially significant under the criteria set out by the EPA guidelines. **Plateaux, mesas, ridges, mountains and upper slopes** • **Variety:** The erosional landforms are typically well represented locally and regionally. Within the Newman land system alone, this landform unit covers 1,020,600 ha. Individual landforms such as caves and buttes have potential to be regionally unique or rare. • **Integrity:** This landform is intact and in good condition at the local level. • **Ecological importance:** Caves have potential for Ghost Bats and Pilbara Leaf-nosed Bat habitats. Habitat for various significant species. Presence of PEC Priority 3 *Triodia pisoliticola* associated with the mesas. • **Scientific importance**: As an erosional landform, may provide insight into past geological processes. • **Rarity:** Present across multiple land systems within the Pilbara. Individual landforms such as caves and buttes have potential to be unique or rare. In the Landloch (2025) desktop assessment, a solitary butte and associated upper slopes was identified. However, this butte is located outside of both the MDE and the IDF. • **Social importance:** Potential cultural values associated with this landform. Potential value for tourism. **Drainage floors and channels** • **Variety:** Varieties of drainage floors and channels occur throughout the Pilbara. Within the Landloch (2025) desktop assessment, two large channels occur (Duck Creek and Boolgeeda Creek) and many small floors and channels. However, it is noted that the major Duck Creek channel is located outside of both the MDE and IDF.	**Potential impacts not considered significant, therefore deemed 'Other Factor'.** Potential impacts will be adequately addressed within the Flora and Vegetation, Terrestrial Fauna, Inland Waters and Social Surroundings Factor Chapters and the Holistic impact assessment in the ERD.

Other Factor	Receiving Environment	Significance to Proposal
	• **Integrity:** This landform is intact and in good condition at the local level. • **Ecological importance**: Major channels likely to be significant waterways for the region. Habitat for various significant species. • **Scientific importance**: Depositional landform, as such there is little evidence of past ecological processes. • **Rarity:** Common landform that occurs extensively within the Pilbara. Major channels less common. • **Social importance:** Major drainage lines are considered culturally sensitive. Duck Creek and Boolgeeda Creek are Registered Aboriginal Sites and place of high cultural and spiritual value. Potential value for tourism. **Potential Impacts** • Permanent changes to landform through the construction of WRLs and mining pits • Reversible changes to landform for the construction of infrastructure and access tracks • Altered flow regimes and geomorphology, including sediment deposition due to mining activities and the installation of water management infrastructure (diversions) to facilitate mining and changed flow regimes. • Reduced water quality within the drainage lines due to increased erosion and sedimentation from land clearing, placement of infrastructure and mining activities • Loss or degradation of Priority 3 PEC *Triodia pisoliticola* vegetation associated with the mesas • Loss or degradation of habitat for conservation significant fauna species present in the two potentially significant landform units (plateaux, mesas, ridges, mountains and upper slopes, drainage floors and channels) • Impact on cultural values due to reduced aesthetics and integrity of the landform. **Management Measures** At present, the Wyloo North IDF has been optimised as much as practicable to avoid direct impacts to the Priority 3 PEC *Triodia pisoliticola* vegetation associated with the mesa landforms. As further surveys and investigations are conducted, the IDF is expected to be adjusted to avoid, where feasible, to further reduce potential impacts on landforms. A soil and landform assessment is currently underway which will further identify and characterise	

Other Factor	Receiving Environment	Significance to Proposal
	any potentially significant landforms as well as soil resources across the MDE. It will also provide a soils inventory and recommendations for management and rehabilitation. An assessment of baseline geomorphology will inform the design of surface water infrastructure and sediment control methods and structures. Potential impacts to any potentially significant landform units will be assessed under the following environmental factors: Flora and Vegetation, Terrestrial Fauna, Inland Waters and Social Surroundings, and application of the mitigation hierarchy to protect environmental and cultural values will be documented in relevant Management Plans, e.g. Inland Waters Management Plan, Flora and Vegetation Management Plan and Conservation Fauna Management Plan.	
Terrestrial Environmental Quality	The EPA Objective for Terrestrial Environmental Quality is "*to maintain the quality of land and soils so that environmental values are protected*" (EPA 2016d). **Receiving Environment** The risk of acidic drainage at Wyloo North is low, with overall low sulfur concentrations across all geological units, except for unoxidised "fresh" Mount McRae Shale (Fortescue 2025f). Unoxidised "fresh" Mount McRae Shale has been found to be potentially acid forming when present below the water table. Sulfate, aluminium, iron, manganese, and selenium leach from the fresh Mount McRae Shale at higher concentrations than any other unit, which is due to the oxidation of pyrite and low pH conditions. The current resource model, geological logging, and drill hole data along with the indicative pit shells suggest that potentially acid forming "fresh" Mount McRae Shale will not be intercepted or excavated in Wyloo North as it is present below the base of the ore and the 350m RL (Fortescue 2025f). Where fresh Mount McRae Shale is encountered, Fortescue will implement targeted strategies to manage and mitigate impacts in an adaptive manner in accordance with a Proposal-specific mineral waste management strategy. As discussed in Section 10.2.4, the majority of the mineral resource is present above the water table and limited dewatering is expected to be undertaken. **Potential Impacts** • Permanent loss of soil quality and structure due to clearing and excavation, disposal of mineral waste in waste rock landforms (WRLs), construction of infrastructure and compaction, stockpiling topsoil and growth media for rehabilitation and closure. • Loss of soil and land degradation due to erosion of cleared land and in particular linear infrastructure corridors. • Alteration of landforms, leading to potential geotechnical and erosional instability.	**Potential impacts not considered significant**, therefore deemed 'Other Factor'. Potential impacts will be adequately managed via existing Management Plans and Standards.

Other Factor	Receiving Environment	Significance to Proposal

	• Modification of natural drainage alignments leading to geomorphological instability, increased erosion and land degradation.
	• Land contamination may result from:
	  ○ Poor quality seepage from stored mineral wastes (WRLs).
	  ○ Use and storage of hydrocarbons and chemicals.
	  ○ Generation of sediment from constructed landforms, stockpiled material and disturbed land.
	Management Measures
	Fortescue has significant experience managing mineralised mine waste in similar geologies within the Pilbara and has mature management strategies and documented standards to mitigate harm and ensure that disturbance and disposal of mined waste does not adversely impact health, safety, and environmental values. An over-arching *Mineral Waste Management Plan (100-PL-EN-1034)* and *Waste Management Standard (100-ST-EN-0014)* outline mandatory minimum requirements and expectations for mineral waste management. These requirements, in turn, will guide development of a Proposal-specific, detailed waste management strategy that ensures risks associated with all disturbed materials are appropriately managed.
	A geochemical assessment is ongoing to characterise the waste rock and waste streams to identify problematic materials and inform management. Geomorphology studies will inform design of surface water management structures, including sediment control, to prevent land degradation. A soil and landform assessment is in progress which will identify and characterise soil resources across the MDE and provide a soils inventory and recommendations for management and rehabilitation. Fortescue 's standards and procedures will ensure that chemicals and hydrocarbons are managed so as to minimise potential harm to the environment.	

Air Quality	The EPA's objective for Air Quality is "*to maintain air quality and minimise emissions so that environmental values are protected"* (EPA 2020a). **Receiving environment** The Pilbara region is a naturally dusty environment with elevated ambient dust concentrations due to wind-blown dust generated in the semi-arid landscape. Nearby sensitive receptors are limited to cultural and environmental receptors such as pools and creeks, and the proposed Wyloo North Accommodation Camp. The nearest townships are Tom Price and Paraburdoo, approximately 110 km west and 120 southwest of the Proposal respectively. Several established mines operate in the vicinity of Wyloo North, such as Paulsens Gold Mine, Paulsens East Iron Ore Mine, the Eliwana Iron Ore Mine, West Pilbara Iron Ore Mine and Brockman Iron Ore	**Potential impacts not considered significant**, therefore deemed 'Other Factor'. Potential impacts from dust will be adequately addressed in relevant Factor chapters of the ERD (e.g. Flora and Vegetation, Inland Waters, Social Surroundings). Potential cumulative impacts from dust

Other Factor	Receiving Environment	Significance to Proposal
	Mines. These mine operations may contribute dust to the broader airshed surrounding Wyloo North, however given the distances of these mines from the Proposal, it is unlikely. **Management Measures** Fortescue has significant experience developing and operating similar mining operations in the Pilbara region and has mature mitigation strategies and procedures for minimising impacts on Air Quality and related environmental factors. Fortescue will implement mitigation measures that include, but are not limited to: • Undertake baseline air quality and dust impact assessment (including modelling) to inform required mitigation measures. • Include appropriate dust mitigation in design of plant and equipment. • Adopt suitable operational protocols, including enforcing speed limits on unsealed roads. • Consider dust management in relation to stockpiled material and design of landforms during LoM, including post-closure. • Minimise vegetation clearing via an internal permitting (LUC) process. • Social Surroundings consultation with stakeholders will also inform measures required to manage Air Quality within the Proposal's airshed. The Proposal is not expected to have the potential to significantly alter local air quality. A Wyloo North baseline air quality and dust impact assessment is in progress, results of which will be presented in the ERD. Mitigation measures will still be required to minimise impacts to air quality and the potential impacts and mitigation strategies will be addressed in the relevant key factor chapters in the ERD (e.g. Flora and Vegetation, Inland Waters and Social Surroundings). Potential cumulative impacts from dust emissions in the broader airshed will also be assessed in the ERD.	emissions in the broader airshed will also be assessed in the ERD.
Greenhouse Gas Emissions	The EPA Objective for Greenhouse Gas Emissions is "*to minimise the risk of environmental harm associated with climate change by reducing greenhouse gas emissions as far as practicable*" (EPA 2023a). **Receiving Environment** Australia currently contributes around 1.3 per cent of global greenhouse gas (GHG) emissions. Western Australia (WA) plays a significant role in these emissions, contributing 81.7 million tonnes of CO2-e in 2020, which accounts for 16% of Australia's total emissions. WA's emissions have increased by 4% since 2005, driven largely by the expansion of mining and fossil fuel exports (EPA 2023a).	**Potential impacts not considered significant**, therefore deemed 'Other Factor'. The Proposal has the potential to contribute some Greenhouse Gas Emissions during construction but will use green mining fleet and

Other Factor	Receiving Environment	Significance to Proposal
	The Proposal is proposed to be a “Born Green” mine which will significantly reduce Fortescue’s GHG emissions throughout the life of the mine. The Proposal is currently forecast to be well below 100,000 t CO2-e per annum (Scope 1 emissions) throughout the life of the mine. The two-year construction phase will be predominantly diesel powered (heavy machinery). Currently, battery-electric road trains are not practical or cost effective as available technology cannot yet provide the power, range, and durability required for heavy-haul operations in remote areas. Charging infrastructure is also limited, and the weight and size of the power units needed for such demanding loads would reduce payload capacity and overall efficiency. A diesel road train has been allowed for in the emissions estimate for the life of mine through operations, however Fortescue will continue to investigate reaching a green road train solution. The preliminary peak annual emissions estimates are therefore: <u>Construction:</u> • Estimated Scope 1 emissions of 98,823 t CO2-e <u>Mining and Operations:</u> • Estimated Scope 1 emissions of 52,311 t CO2-e • Estimated Scope 2 emissions of 44,112 t CO2-e • Estimated Scope 3 emissions of 20,000,000 t CO2-e. Peak scope 1 emissions are currently forecast to be 98,823 t CO2-e in FY30 when the majority of project construction is planned to occur. Annual Scope 1 emissions will remain well below 100,000 t CO2-e for the remainder of the project life as the transition is made to green fleet and electricity generation is assumed to come from renewable energy sources. Annual Scope 2 emissions remain below 100,000 t CO2-e for the life of the project due to the import of electricity from Fortescue’s Pilbara Transmission Network, which is assumed to come from predominantly renewable energy sources. Please see explanations below in regard to how the GHG emissions were calculated. Scope 1 emissions calculation method: A conservative view of Scope 1 emission sources was taken across construction and operations periods, based on onsite diesel usage, explosives and vegetation clearing. Scope 1 emissions from diesel (transport and stationary energy consumption) are calculated using the methodology defined in the *National Greenhouse and energy Reporting (Measurement) Determination 2008*. Scope 1 emissions from explosives are calculated using industry standard emission factors. Scope 1 emissions from vegetation clearing are calculated using an emission factor derived from the Full Carbon Accounting Method (FullCAM), published by DCCEEW.	connect into Fortescue’s Pilbara Transmission Network during operation which will supply power from predominantly renewable energy sources. The Proposal will be implemented in accordance with the Commonwealth Safeguard Mechanism and Fortescue’s Decarbonisation Program which aims to achieve real zero emissions by 2030 (Real Zero by 2030). The Decarbonisation Program will ensure that Scope 1, 2 and ultimately Scope 3 emissions are as low as can be achieved with current technology.

Other Factor	Receiving Environment	Significance to Proposal
	Scope 2 emissions calculation method: A conservative view of Scope 2 electricity consumption and emissions was taken across the construction and operations periods, based on the quantity of electricity expected to be consumed for relevant mine fleet, processing, camp and ancillary activities. All electricity used by the project is expected to be generated by the Pilbara Energy Connect network, comprising base-load gas turbine generation as well as renewable electricity sources. A conservative Scope 2 emission factor was calculated for the Pilbara Energy Connect network based on a 50% reduction from the calculated PEC emission factor as at the end of FY25. Scope 3 emissions calculation method: A conservative view of Scope 3 emissions was taken based on the quantity of ore anticipated to be shipped and processed into steel. Industry standard Scope 3 emission factors for shipping and the processing of sold products were used to estimate the emissions. **Management Measures** As a leader in the mining industry's decarbonisation efforts, Fortescue aims to achieve carbon neutrality by 2030, and the Proposal is aligned with this goal. With the LOM commencing immediately prior to 2030, the Proposal is being developed with carbon neutrality as a key focus. Fortescue 's recently released Climate Transition Plan – The Road to Real Zero (the Plan) (Fortescue 2025a) provides a peer reviewed, detailed timeline and action plan to achieving its ambitions of real zero carbon emissions across its Australian iron ore mining operations by 2030 (Real Zero by 2030). The Plan identifies the following over-arching decarbonisation objectives: • Reduce emissions rapidly, without offsets. • Identify and respond to climate risk and opportunities. • Develop solutions to drive economy-wide decarbonisation. The Plan's key emissions reduction objectives include: • Real Zero Scope 1 and 2 emissions across our Australian terrestrial iron ore operations by 2030. • By 2030, enable a reduction in Scope 3 emissions intensity from steelmaking by Fortescue's customers of 7.5 per cent from FY21 levels. • By 2030, enable a reduction in Scope 3 emissions intensity levels from the shipping of our iron ore by 50 per cent, from FY21 levels.	

Other Factor	Receiving Environment	Significance to Proposal
	• Net Zero Scope 3 emissions by 2040. • By 2050, maintain a long-term goal of Real Zero operational greenhouse gas emissions. Fortescue will manage the Proposal under the Commonwealth's Safeguard Mechanism as established under the *National Greenhouse and Energy Reporting Act 2007* and the National Greenhouse and Energy Reporting (Safeguard Mechanism) Rule 2015 (the Safeguard Rules). An assessment of the Proposal's GHG emissions, and their significance will be included in the ERD, along with details of the relevant policy and frameworks for managing GHG emissions that were considered.	

13 MATTERS OF NATIONAL ENVIRONMENTAL SIGNIFICANCE

The Proposal will be referred under the EPBC Act for assessment of potential impacts to MNES. For the purpose of the EPBC Act referral, the Proposed Action is the Proposal as described in Section 2.

13.1 Policy and Guidance

The EPBC Act is administered by the DCCEEW and provides a legal framework for the protection and management of nationally and internationally important flora, fauna, ecological communities, and heritage places, which are referred to as MNES. The EPBC Act protects nine MNES listed in Table 13-1 below. Pursuant to the EPBC Act, any proposed action that has, or is likely to have, a significant impact on a MNES requires approval from the Commonwealth Minister for the Environment.

Fortescue has considered relevant policy and guidance in the design of the Project and assessment of environmental impacts. Key policies and guidance relevant to the Proposal include:

- Matters of National Environmental Significance, Significant Impact Guidelines 1.1, *Environment Protection and Biodiversity Conservation Act 1999* – Department of the Environment – 2013
- Guidelines for EPBC Act listed species, and associated Species Profile and Threats (SPRAT).

13.2 Identification of MNES

Fortescue has undertaken a preliminary assessment and verification process to determine MNES that are likely relevant to the Proposal. The review was based on desktop review of various sources including the DCCEEW Protected Matter Search Tool (PMST) (Appendix D), flora and fauna surveys and Fortescue internal records. The MNES applicable to the Proposal are Threatened Species and Migratory bird species (Table 13-1).

Table 13-1 Summary of MNES Relevance to the Proposal

MNES	Relevance to the Proposal
World heritage properties	Not relevant. No World Heritage properties in vicinity of Proposal.
National heritage places	Not relevant. No National Heritage places in vicinity of Proposal.
Wetlands of international importance (often called 'Ramsar' wetlands after the international treaty under which such wetlands are listed)	Not relevant. The nearest Nationally Important Wetland is Kookhabinna Gorge (WA031) located approximately 45 km southwest of the Proposal.
Nationally threatened species and ecological communities	**Relevant.** There are no TECs known or likely to occur within the MDE. There are no threatened flora species known or likely to occur within the MDE, other than *Seringia exastia*.

MNES	Relevance to the Proposal
	Five (5) threatened terrestrial fauna have been recorded or have the potential to occur within the MDE. See Sections 8.2.4 and 13.4.
Migratory species	**Relevant.** Two (2) migratory species have the potential to be present within the Proposal MDE. See Sections 8.2.4 and 13.4.6.
Commonwealth marine areas	Not relevant. Proposal is not located offshore.
The Great Barrier Reef Marine Park	Not relevant. Proposal is on the west coast of Australia.
Nuclear actions (including uranium mining)	Not relevant. Proposal is not a nuclear action.
A water resource, in relation to coal seam gas development and large coal mining development	Not relevant. Proposal does not involve coal seam gas or coal mine development.

The MNES Threatened and Migratory species identified in the PMST and in the post-survey likelihood of occurrence by *ecologia* (2025b) are listed in Table 13-2 below. A species is considered herein, if at a minimum, suitable habitat was present in the MDE, the species has been recorded in the surrounds, and the likelihood of the species occurring in the MDE is 'Possible'.

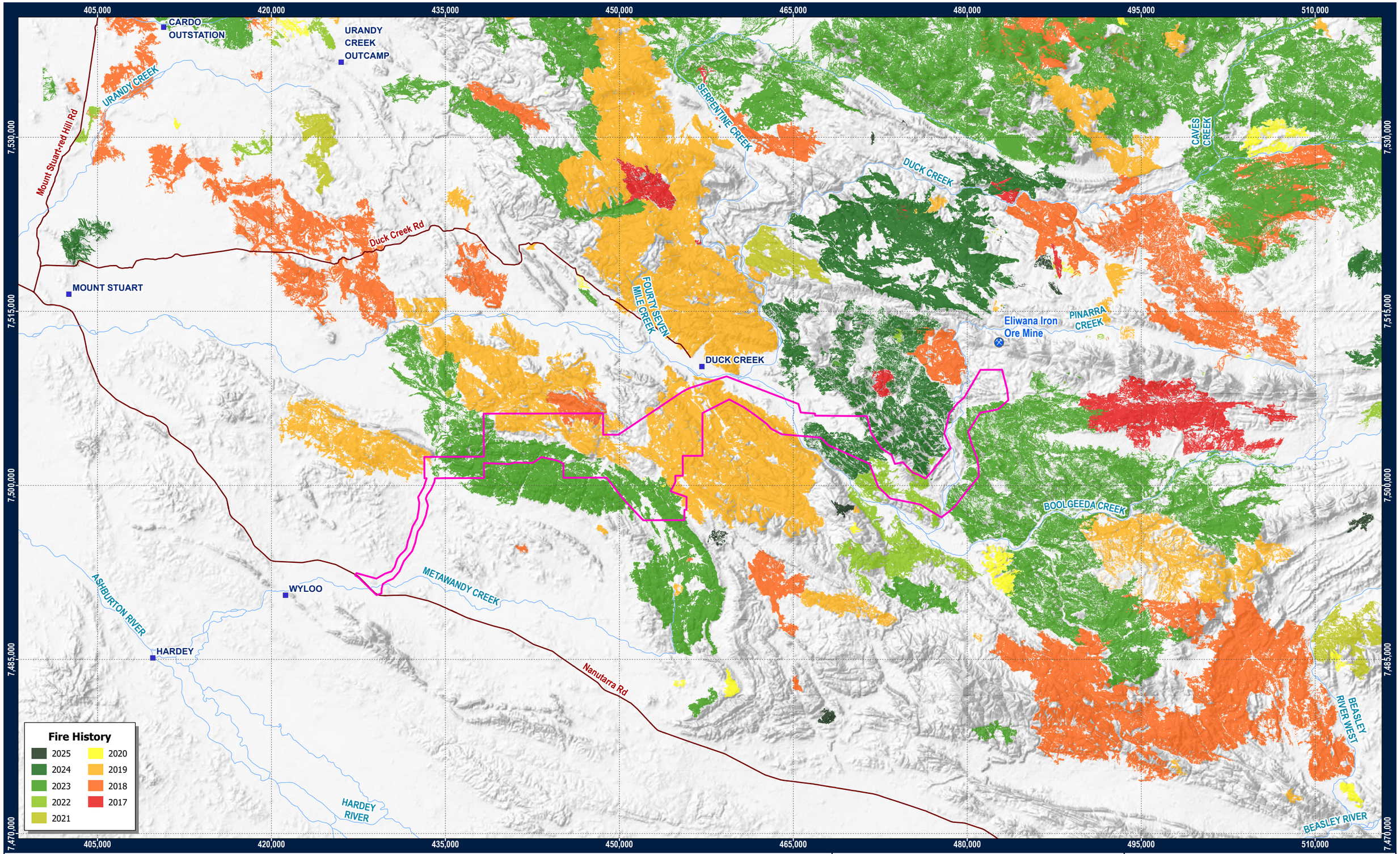
Threatened and migratory fauna species records and potential habitat are shown in Figure 8-1 and Figure 8-2. Threatened and migratory species identified as relevant to the Proposal are discussed in more detail in Section 13.4.

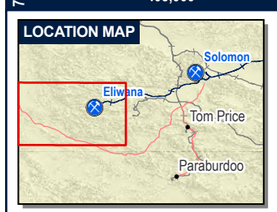
Figure 13-1 below also presents fire history mapping within the MDE and the broader region over the last 8 years showing that the majority of the MDE has been recently burned for the purposes of discussion of the Night Parrot in Table 13-2.

Table 13-2 Summary of Threatened and Migratory Species in the PMST and Relevance to the Proposal (*ecologia* 2025b)

Species	Status	Relevance to the Proposal
Threatened Flora		
Thryptomene wittweri (Mountain Thryptomene)	Vulnerable	Not relevant. There are no records of this species within 40 km of the survey area, and it is unlikely to occur.
Threatened Fauna		
Birds		
Southern Whiteface (*Aphelocephala leucopsis*)	Vulnerable	Not relevant. No known records of species within 50 km of survey area. Survey area occurs at the north-western boundary of species distribution; however, species has not been recorded despite extensive survey effort.
Sharp-tailed Sandpiper (*Calidris acuminata)*	Vulnerable, Migratory	Not relevant. No known records of species within 50 km of survey area. If present, this species may occasionally utilise habitat associated with Duck Creek; however, presence restricted to transient/occasional visitation rather than permanent occupancy. Permanent habitat does not occur within survey area.
Curlew Sandpiper (*Calidris ferruginea*)	Critically Endangered, Migratory	Not relevant. No known records of species within 50 km of survey area. If present, this species may occasionally utilise habitat associated with Duck Creek; however, presence restricted to transient/occasional visitation rather than permanent occupancy. Permanent habitat does not occur within survey area.
Red Goshawk (*Erythrotriorchis radiatus*)	Endangered	Not relevant. No known records of species within 100km of survey area. If present, this species may occasionally utilise habitat associated with Duck Creek; however, presence restricted to transient/occasional visitation rather than permanent occupancy.
Grey Falcon (*Falco hypoleucos*)	Vulnerable	**Relevant.** DBCA database searches indicate that the Grey Falcon has been recorded on three occasions in the vicinity of the survey area, with the closest record located nearly 15 km north of the survey area. The species was recorded north of the survey area on three occasions during detailed and targeted surveys undertaken by GHD (2020) within the Western Hub with at least two birds recorded utilising habitat within Serpentine Creek. Drainage Line/River/Creek (major) habitat within the MDE represents potential breeding and foraging habitat for this species.
Night Parrot (*Pezoporus occidentalis*)	Critically Endangered	Not relevant. Analysis of vegetation mapping undertaken within the survey area indicates that *Triodia longiceps* does not occur within the survey area. Vast sections of the survey area have been impacted by recent fires and long-unburnt spinifex is generally absent from the survey area. The survey area is located within the High Priority region for night parrot surveys. No night parrot calls recorded during the *ecologia* (2025b) and previous surveys and significant portions of the survey area have been recently burnt (<25 years). **Figure 13-1** below presents fire history mapping within the MDE and the broader region over the last 8 years showing that the majority of the MDE has been recently burned.
Princess Parrot, Alexandra's Parrot (*Polytelis alexandrae*)	Vulnerable	Not relevant. No known records of species within 100 km of survey area. No suitable habitat identified within survey area (preferred habitat is lightly wooded country, including desert oak (*Casuarina decaisneana*), open mallee-spinifex and open marble gum (*Eucalyptus gongylocarpa*) woodland).
Australian Painted Snipe (*Rostratula australis*)	Endangered	Not relevant. No known records of species within 100 km of survey area. If present, this species may occasionally utilise habitat associated with Duck Creek; however, presence restricted to transient/occasional visitation rather than permanent occupancy. Permanent habitat does not occur within survey area.
Mammals		
Northern Quoll (*Dasyurus hallucatus*)	Endangered	**Relevant – recorded in the MDE.** Based on the number of individuals identified and frequency of detections during the *ecologia* (2025b) and previous surveys, the survey area appears to support a high density, reproductive population of Northern Quolls. Rocky Escarpment, Gorge/Gully, Drainage Line/River/Creek (major) and Hills/Ranges/Plateaux habitat types within the survey area is considered critical habitat. All other habitat types may be utilised by the species during foraging and dispersal activities.
Ghost Bat (*Macroderma gigas*)	Vulnerable	**Relevant – recorded in the MDE.** The Ghost Bat has been recorded in the Wyloo North MDE and surrounding area in previous fauna surveys. Primary evidence of the Ghost Bat was recorded at three sites during the *ecologia* (2025b) survey and secondary evidence (middens) were recorded at five caves. An additional 14 Ghost Bat records (sightings, calls and middens) were recorded during previous surveys (*ecologia* 2022b; Stantec 2021; GHD 2020). The Gorge/Gully and Rocky Escarpments habitat types represent critical roosting, dispersal and foraging habitat for the Ghost Bat.
Pilbara Leaf-nosed Bat (*Rhinonicteris aurantia* Pilbara form)	Vulnerable	**Relevant – recorded in the MDE.** The Pilbara leaf-nosed bat (PLNB) has been recorded in the Wyloo North MDE and surrounding area in previous fauna surveys. Ultrasonic calls belonging to the PLNB were recorded at seven sites during the *ecologia* (2025b) survey, with the species also recorded on 94 occasions during previous surveys. Rocky Escarpment and Gorge/Gully habitat types within the survey area represent critical roosting habitat, as well as Priority 1/Priority 2 and Priority 3 foraging habitat, respectively.
Reptiles		

Species	Status	Relevance to the Proposal
Pilbara Olive Python (*Liasis olivaceus barroni*)	Vulnerable	**Relevant – recorded in the MDE**. The Pilbara Olive Python has been recorded previously within the MDE and surrounding areas several times, however it was not recorded by *ecologia* (2025b). Gorge/Gully and Rocky Escarpment habitat types within the MDE represent critical habitat due to the presence of rock crevices and outcrops near water holes. Similarly, the Drainage Line/River/Creek (major) habitat type within the MDE may provide critical dispersal and foraging habitat, due to the presence of permanent and semi-permanent pools within this habitat type
Migratory Birds		
Marine		
Fork-tailed Swift (*Apus pacificus*)	Migratory	**Relevant.** Although not recorded during the *ecologia* (2025b) survey, this species was recorded during previous surveys at Wyloo in 2021 (*ecologia* 2022b). The species does not utilise terrestrial habitats; however, may utilise the airspace above the survey area while transiting. Critical habitat for this species does not occur within the MDE.
Terrestrial		
Barn Swallow (*Hirundo rustica*)		Not relevant. No known records of species within 100 km of survey area. Potential usage of habitat within the survey area restricted to transient presence rather than permanent occupancy. Species typically utilises aerial habitat and is unlikely to be impacted by on ground disturbances.
Grey Wagtail *(Motacilla cinerea*)		Not relevant. No known records of species within 100 km of survey area. If present, this species may occasionally utilise habitat associated with Duck Creek; however, presence restricted to transient/occasional visitation rather than permanent occupancy. Permanent habitat does not occur within survey area.
Yellow Wagtail (*Motacilla flava*)		Not relevant. No known records of species within 100 km of survey area. Potential usage of habitat within the survey area restricted to transient presence rather than permanent occupancy. Species typically utilises aerial habitat and is unlikely to be impacted by on ground disturbances.
Wetlands		
Common Sandpiper (*Actitis hypoleucos*)		Not relevant. One record located 39.1 km southeast of the survey area. Permanent habitat does not occur within survey area. If present, this species may occasionally utilise habitat associated with Duck Creek; however, presence restricted to transient/occasional visitation rather than permanent occupancy.
Pectoral Sandpiper (*Calidris melanotos*)		Not relevant. No known records of species within 100 km of survey area. If present, this species may occasionally utilise habitat associated with Duck Creek; however, presence restricted to transient/occasional visitation rather than permanent occupancy. Permanent habitat does not occur within survey area.
Oriental Plover, Oriental Dotterel (*Charadrius veredus*)		Not relevant. One database record located 37.8 km south of the survey area. If present, this species may occasionally utilise habitat associated with Duck Creek; however, presence restricted to transient/occasional visitation rather than permanent occupancy. Permanent habitat does not occur within survey area.
Oriental Pratincole (*Glareola maldivarum*)		Not relevant. No known records of species within 100 km of survey area. If present, this species may occasionally utilise habitat associated with Duck Creek; however, presence restricted to transient/occasional visitation rather than permanent occupancy. Permanent habitat does not occur within survey area.
Osprey (*Pandion cristatus*)		**Relevant**. Recorded in a previous *ecologia* (2015) survey, approximately 10 km north of the MDE associated with the northern section of Duck Creek. Utilisation of habitat within the survey area is likely to represent vagrant visitation to inland waterbodies, rather than permanent occupancy. Critical habitat for this species does not occur within the MDE.





Legend

- Homesteads
- Fortescue Mines
- Road
- Watercourses
- Wyloo North Iron Ore Mine Development Envelope

Data Source(s):
Watercourses, SRTM, Geoscience Aus.
Roads, Homesteads, Landgate.

N

0 4 8 12 16 20
Kilometres

Requested By: A. Imbergamo
Drawn By: R. Kerr
Revised By: rykerr
Approved By:
Scale: 1:300,000
Coordinate System: GDA2020 MGA Zone 50
Project Name: WH_MP_EN_0003_SRE_Fire
Document Name: WH_MP_EN_0003_022_r1_FireHistory

Date: 10/17/2025
Size: A3L
Revision: 1
Confidentiality: No

Figure 13-1: Wyloo North Iron Ore Mine Fire History in the Mine Development Envelope

Fortescue

13.3 Threatened Flora

13.3.1 Fringed Fire Bush (*Seringia exastia*) – Critically Endangered

As discussed in Section 7.2.5.2 previously, a recent taxonomic study has found that *Seringia exastia* and *Seringia elliptica* are the same species (Binks et al. 2020). The species have subsequently been combined under the older taxonomic name of *Seringia exastia*. Given that *Seringia elliptica* is known to be common and widespread throughout the Pilbara region, western desert, adjacent Kimberley regions and extending into South Australia and Northern Territory, it is expected to be delisted from the EPBC Act. It is currently on DCCEEW's "Deletions and other changes list" (refer to DCCEEW 2025a). The species has already been delisted from Threatened status in WA under the BC Act. The species has been recorded in three locations within the MDE and in two locations outside the MDE as presented in Figure 7-7.

Impacts to this species as a result of implementing the Proposed Action are unlikely to be significant. None of the records are located within the IDF, and therefore not expected to be cleared. The species is known to be common and widespread across multiple regions.

13.4 Threatened and Migratory Fauna

13.4.1 Northern Quoll (*Dasyurus hallucatus*) - Endangered

13.4.1.1 Relevant Policy and Guidance

Relevant Commonwealth policy and guidance for the Northern Quoll, which are informing studies, planning and development of the Proposed Action, are summarised in Table 13-3.

Table 13-3 Relevant Commonwealth Policy and Guidance for the Northern Quoll

Author	Year of Publication	Policy / Guidance
Department of the Environment (DoE)	2016	EPBC Act referral guideline for the endangered Northern Quoll *Dasyurus hallucatus:* EPBC Act Policy Statement
DoE	2013	EPBC Act MNES Significant Impact Guidelines 1.1.
Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC)	2011a	Survey guidelines for Australia's threatened mammals: Guidelines for detecting mammals listed as threatened under the EPBC Act
Hill and Ward	2010	National Recovery Plan for the Northern Quoll, *Dasyurus hallucatus*
Threatened Species Scientific Committee (TSSC)	2005	Commonwealth Listing Advice on Northern Quoll *(Dasyurus hallucatus)*

13.4.1.2 Description and Habitat

The Northern Quoll, smallest of the Australian quolls, is a carnivorous and predominantly nocturnal marsupial which once had a range which extended contiguously across northern Australia but is now restricted to six major geographical centres, including the Pilbara. The Pilbara is currently regarded as the stronghold population for the species as this region does not currently support populations of the cane toad. The preferred denning habitat for the Northern Quoll is rocky escarpments, but the species also utilises riverine habitat for dispersal. Rocky habitats with rock crevices and caves support higher densities of Northern Quoll. While this species is predominantly nocturnal, it may be observed during the day particularly during the breeding season and on overcast days (*ecologia* 2025b).

Predominantly inhabiting dissected rocky escarpments, a male quoll can have a home range of more than 100 ha while a female occupies territories of up to 35 ha lifespan of females in the wild is typically less than three years, with most females only surviving a single breeding season. Males undergo die-off events annually following intense physical exertion during the breeding season (*ecologia* 2025b).

The *EPBC Act referral guideline for the endangered Northern Quoll* (DoE 2016) states that habitat critical to the survival of the Northern Quoll usually occurs in the form of:

- offshore islands where the Northern Quoll is known to exist
- rocky habitats such as ranges, escarpments, mesas, gorges, breakaways, boulder fields, major drainage lines or treed creek lines
- structurally diverse woodland or forest areas containing large diameter trees, termite mounds or hollow logs
- Dispersal and foraging habitat associated with or connecting populations important for the long-term survival of the Northern Quoll.

The *National Recovery Plan for the Northern Quoll* (Hill and Ward 2010) lists the following top threats to the Northern Quoll:

- predation by introduced predators including cats and foxes
- inappropriate fire regimes, specifically, more extensive and frequent fires in northern Australia and increased predation following extensive fire
- loss of habitat
- invasion of weeds
- lethal ingestion of cane toad toxin.

13.4.1.3 Potential Impacts

Potential direct and indirect impacts of the Proposed Action on the Northern Quoll include the following:

- Direct Impacts

- habitat loss due to clearing
- habitat degradation as a result of fragmentation
- loss or injury of individuals during clearing, vehicle movements and trenching
- loss or injury due to entrapment in HDPE-lined, above ground water storage facilities

- Indirect Impacts
  - habitat degradation as a result of erosional processes and changed water regimes
  - altered behaviour due to noise and light emissions
  - increased predation by feral predators (foxes and cats) due to increased feral population as a result of:
    - provision of permanent artificial water, food (i.e. food waste) and shelter provided by built structures
    - increased distribution via linear infrastructure
    - habitat degradation as a result of the introduction and spread of weeds
    - habitat degradation due to altered fire regimes increased predation immediately post-fire
    - permanent artificial water features could act as invasion hubs for toads, sustaining pest species all year round, with a reduction of local wildlife values as a result of ingesting cane toad toxin
    - cumulative impacts to fauna and available habitat from the Proposed Action and other regional development.

The mitigation hierarchy (avoid, minimise, rehabilitate) has been and will continue to be applied to the Proposed Action to ensure that terrestrial fauna values are protected from significant harm. An overview of these measures is outlined in Section 14.

13.4.1.4 Significance Assessment

The Northern Quoll has been recorded in numerous locations in the Wyloo North MDE and surrounding area in previous fauna surveys. During the *ecologia* (2025b) survey, the Northern Quoll was recorded on 35 occasions, comprising one secondary sign (scat), two captures (one male, one female) and 42 motion camera visits (eight individuals). An additional 570 Northern Quoll records have been recorded within the survey area during previous surveys.

There are three habitats mapped within the MDE which are considered critical habitat (as defined in DoE (2016) for the Northern Quoll: Rocky Escarpments (denning habitat), Gorge/Gully (denning habitat), and Hills/Range/Plateaux habitat in the western portion of the MDE (dispersal and foraging habitat). The following habitats also are considered supporting

habitat for dispersal and foraging: Drainage Line/River/Creek (major), Lower Slopes/Hillslopes and Hills/Range/Plateaux (*ecologia* 2025b).

Based on the number of individuals identified and frequency of detections recorded during previous surveys, *ecologia* (2025b) has concluded that Wyloo North appears to support a high density populations of Northern Quoll which, as a part of the Pilbara population, are considered important for the long-term survival of the species as defined in DoE (2016). One cluster of records is located in the western half of the MDE and the other spans across the eastern half of the MDE and outside of the MDE to the north.

Based on the above, the Proposed Action has the potential to significantly impact the Northern Quoll mainly by the loss of habitat critical to the survival of the species.

13.4.2 Ghost Bat (*Macroderma gigas*) – Vulnerable

13.4.2.1 Relevant Policy and Guidance

Relevant Commonwealth policy and guidance for the Ghost Bat, which are informing studies, planning and development of the Proposed Action, are summarised in Table 13-4.

Table 13-4 Relevant Commonwealth Policy and Guidance for the Ghost Bat

Author	Year of Publication	Policy / Guidance
Bat Call WA	2021a	A review of Ghost Bat ecology, threats and survey requirements
TSSC	2016a	Conservation Advice *Macroderma gigas* Ghost Bat
DoE	2013	*EPBC Act Significant Impact Guideline 1.1.*
DSEWPaC	2011a	Survey guidelines for Australia's threatened mammals: Guidelines for detecting mammals listed as threatened under the EPBC Act
DEWHA	2010a	Survey guidelines for Australia's threatened bats: Guidelines for detecting bats listed as threatened under the EPBC Act

13.4.2.2 Description and Habitat

The Ghost Bat is the largest microchiropteran (micro bat) bat in Australia and is strictly carnivorous. The Ghost Bat was historically distributed across much of Australia but now has a fragmented although widespread distribution restricted to northern Australia. Unlike other microchiropterans, the Ghost Bat does not continuously call when in flight and instead uses its eyes and ears to scan for prey. Females reach reproductive maturity between two and three years of age (*ecologia* 2025b).

Preferred roosting habitat in the Pilbara includes caves beneath bluffs of low, rounded hills composed of Marra Mamba geology, and granite rock piles. Ghost Bats have also been known to roost in large colonies within sandstone caves, under boulder piles and in abandoned mines. Permanent roost sites are typically deep caves, rock crevices or old mine adits with a

relatively stable temperature (23-28°C) and high humidity (50-100%). During daylight hours, Ghost Bats roost in large caves, mines or deep rock fissures (*ecologia* 2022b).

According to *A review of Ghost Bat ecology, threats and survey requirements* (Bat Call WA 2021a), roost types critical to the survival of the Ghost Bat includes:

- Category 1 - maternity/diurnal roost sites with permanent Ghost Bat occupancy:
    - Usually, these caves are deep and dark, with one or more elevated roosting chambers that provide a stable microhabitat. Caves with proven permanent presence must all be assumed to be maternity caves. There are no currently documented category 1 caves in the Hamersley Ranges.
- Category 2 - maternity/diurnal roost sites with regular Ghost Bat occupancy
    - The caves have similar features as Category 1 caves but are often less complex with only a single inner chamber and are often in less productive areas that the bats only utilise periodically. Any cave that has regular occupancy must be assumed to be capable of supporting one or more reproducing females and their offspring and are therefore critical habitat.
- Category 3 - diurnal roost caves with occasional occupancy when adjacent to Category 2 caves
    - Normally less well-developed structures and often used as feeding sites or temporary refuges. When adjacent to Category 2 caves, these are considered to be a part of an 'apartment block' and are therefore critical habitat important for the ongoing presence of the species in the area. Otherwise, isolated Category 3 caves are not considered critical habitat essential to the long-term viability of a local population.

Category 4 nocturnal roost caves with opportunistic usage are not considered critical habitat.

13.4.2.3 Threats

The *Conservation Advice for Macroderma gigas, Ghost Bat* (TSSC 2016a) lists threats to the Ghost Bat as the following:

- habitat loss (destruction of, or disturbance to, roost sites and nearby areas) due to mining activities
- disturbance of breeding sites
- modification of foraging habitat, due to grazing, inappropriate fire regimes, weed encroachment
- collision with fences (especially barbed wire)
- collapse or reworking of old mine adits
- contamination by mining residue at roost sites

- lethal ingestion of cane toad toxin (due to predation)
- competition for prey with foxes and feral cats
- slow reproductive rate and rarity of suitable habitat restricts movement, such that it renders the species vulnerable to local threats and localised extinction.

One of the primary mechanisms which could lead to the long-term decline in the size of the Ghost Bat population is loss of critical habitat, notably, Category 1 and 2 roosts.

13.4.2.4 Potential Impacts

Potential direct and indirect impacts to the Ghost Bat from the Proposed Action include:

- Direct Impacts
    - loss of potential roosting and foraging habitat due to clearing
    - disturbance and damage to possible roosting habitat due to blasting and
    - inground vibration
    - direct loss or injury of individuals due to vehicle strike and collision with fencing installed around infrastructure, in particular, barb-wire fencing.
- Indirect Impacts
    - foraging habitat degradation via indirect impacts such as changed water regimes, e.g. groundwater drawdown and mounding, salinity, changes to surface hydrology
    - degradation of foraging habitat due to inappropriate fire regimes
    - increased predation by feral predators (foxes and cats) due to increased feral population as a result of:
        - provision of permanent artificial water, food (i.e. food waste) and shelter provided by built structures
        - increased distribution via linear infrastructure
    - altered behaviour due to increased noise, light spill and dust emissions and provision of artificial permanent water sources
    - cumulative impacts to fauna and available habitat from the Proposed Action and other regional development.

The mitigation hierarchy (avoid, minimise, rehabilitate) has been and will continue to be applied to the Proposed Action to ensure that the Ghost Bat is protected from significant harm. An overview of these measures is outlined in Section 14.

13.4.2.5 Significance Assessment

The Ghost Bat has been recorded in numerous locations in the Wyloo North MDE and surrounding area in previous fauna surveys. Primary evidence of the Ghost Bat was recorded at three sites during the *ecologia* (2025b) survey and secondary evidence (middens) were recorded at five caves. An additional 14 Ghost Bat records (sightings, calls and middens) were recorded during previous surveys (*ecologia* 2022b; Stantec 2021; GHD 2020).

The records obtained to date indicate that at least three caves within the survey area provide confirmed diurnal roosting habitat for the species (Category 3 – diurnal roost cave with occasional occupancy – not critical habitat), with an additional 16 caves providing nocturnal shelter and potential roosting habitat based on the presence of middens and/or echolocation call recordings at cave entrances (Category 4 – nocturnal roost cave with opportunistic usage). Category 4 roost caves are not considered critical habitat for the survival of the species (*ecologia* 2025b).

Figure 13-2 shows cave habitat features that have been identified both inside the MDE and within the broader survey area by previous surveys including GHD (2020), Stantec (2021), *ecologia* (2022b), *ecologia* (2023a), *ecologia* (2025b). Within the MDE, 55 caves have been identified, and 53 caves have been identified outside the MDE within the survey areas.

Three caves identified by *ecologia* (2022b) and one cave by Stantec (2021) have been found inside the MDE which provide diurnal roosting habitat for Ghost Bat which would be considered Category 3 (diurnal roost caves with occasional occupancy – not critical habitat) (Figure 13-2). GHD (2020) also identified 7 caves, outside the MDE (approximately 9 to 30 km north) which they assessed as known Ghost Bat diurnal roosting habitat (Figure 13-2). Other caves shown on Figure 13-2 have varying characteristics and include Category 4 nocturnal refuges and potential Category 3 diurnal roost diurnal roost caves with occasional occupancy. As mentioned previously in this document (Section 8.2.2, Table 8-3), a targeted bat survey will be undertaken to confirm the location, size and number of roosts used by Ghost Bat within the MDE.

The Gorge/Gully and Rocky Escarpments habitat types represent critical roosting, dispersal and foraging habitat for the Ghost Bat, with habitat surrounding Duck Creek associated with a concentration of Ghost Bat foraging records. The Gorge/Gully and Rocky Escarpment habitat types have suitable geologies to support the presence of diurnal Ghost Bat roosts. The Drainage Line/River/Creek (major) and Hills/Range/Plateaux habitats in the western portion of the MDE represent critical foraging and dispersal habitat. The Ghost Bat may utilise all other habitat types within the MDE while foraging and dispersing.

As mentioned above, there are a large number of caves located outside the MDE which contain known and potential diurnal roost as well as nocturnal refuges. The MDE is also not on the edge of the Ghost Bat's range, and it is unlikely to represent an important population necessary for the long-term survival of the species. **Therefore, the Proposed Action is unlikely to significantly impact the Ghost Bat.**

13.4.3 Pilbara Leaf-nosed Bat (*Rhinonicteris aurantia*) – Vulnerable

13.4.3.1 Relevant Policy and Guidance

Relevant Commonwealth policy and guidance for the Pilbara Leaf-nosed Bat (PLNB), which are informing studies, planning and development of the Proposed Action, are summarised in Table 13-5.

Table 13-5 Relevant Commonwealth Policy and Guidance for the Pilbara Leaf-Nosed Bat

Author	Year of Publication	Policy / Guidance
Bat Call WA	2021b	A review of Pilbara leaf-nosed bat ecology, threats and survey requirements
TSSC	2016b	Conservation Advice *Rhinonicteris aurantia* (Pilbara form) (Pilbara Leaf-nosed Bat)
DoE	2013	EPBC Act MNES Significant Impact Guidelines 1.1.
DSEWPaC	2011a	Survey guidelines for Australia's threatened mammals: Guidelines for detecting mammals listed as threatened under the EPBC Act
DEWHA	2010a	Survey guidelines for Australia's threatened bats: Guidelines for detecting bats listed as threatened under the EPBC Act

13.4.3.2 Description and Habitat

The PLNB is a small insectivorous bat that occurs throughout the Pilbara and adjacent upper Gascoyne regions of WA. The species was listed under the EPBC Act as Vulnerable in April 2001 as it had undergone a substantial reduction in numbers, its geographic distribution is precarious for its survival (being limited to the Pilbara), the estimated total number of mature individuals is limited, and the number is likely to continue to decline. The PLNB has very restrictive habitat requirements, including caves and disused mines with hot to very hot and humid roost sites with temperatures in the 28° to 32°C range and 96% to 100% relative humidity. During the Pilbara's dry, winter months, preceding the heavy summer rains, PLNB colonies are thought to contract to the deepest mines and caves that maintain microclimates suitable for roosting. During the hotter, wetter and more humid summer months, the species has a greater ability to disperse through the landscape (*ecologia* 2025b).

According to the *Conservation Advice Rhinonicteris aurantia (Pilbara form) (Pilbara Leaf-nosed Bat)* (TSSC 2016b) an underground diurnal roost is critical to the survival of the PLNB. Roost types critical to the survival of the PLNB include:

- Permanent diurnal roosts (Priority 1):
    - Occupied year-round and likely the focus for some part of the 9-month breeding cycle; considered as critical habitat that is essential for the daily survival of the PLNB.
- Non-permanent breeding roosts (Priority 2):

- Evidence of usage during some part of the 9-month breeding cycle (July–March), but not occupied year-round; considered as critical habitat that is essential for both the daily and long-term survival of the PLNB.

- Transitory diurnal roosts (Priority 3):

  - Occupied for part of the year only, outside the breeding season (i.e. April–June), and which could facilitate long distance dispersal in the region; considered as critical habitat that is essential for both the daily and long-term survival of the PLNB.

- Nocturnal refuges (Priority 4) which are occupied at night for resting or feeding are not considered critical habitat but are important for persistence in a local area.

The type and quality of potential foraging habitat surrounding known or suspected roost sites can be critical to the survival of the PLNB. Foraging habitats, as outlined by the *Conservation Advice Rhinonicteris aurantia (Pilbara form) (Pilbara Leaf-nosed Bat)* (TSSC 2016b) that are considered to be important for sustaining a nearby PLNB colony include five habitat categories (Priority 1-5). The PLNB uses a variety of habitats but in the Pilbara, they are often encountered in large waterways, around rocky outcrop, gullies, gorges and over pools (TSSC 2016b).

13.4.3.3 Threats

The *Conservation Advice Rhinonicteris aurantia (Pilbara form) (Pilbara Leaf-nosed Bat)* (TSSC 2016) and *A review of Pilbara leaf-nosed bat ecology, threats and survey requirements* (Bat Call 2021b) lists key threats to the PLNB as the following:

- Loss of roosts and foraging habitat
- Mine development and operational impacts – changed water regimes, sound, inground vibration, airborne dust, increase light, vehicle strike
- Interruption of breeding activity
- Predation by feral species
- Disease.

13.4.3.4 Potential Impacts

Potential direct and indirect impacts to the PLNB from the Proposed Action include:

- Direct Impacts

  - Loss of potential roosting and foraging habitat due to clearing

  - Disturbance and damage to possible roosting habitat due to blasting and inground vibration

  - Direct loss or injury of individuals due to vehicle strike and collision with fencing, in particular, barb-wire fencing.

- Indirect Impacts
    - foraging habitat degradation via indirect impacts such as changed water regimes, e.g. groundwater drawdown and mounding, salinisation, changes to surface hydrology
    - inappropriate fire regimes resulting in degradation of foraging habitat
    - increased predation by feral predators (foxes and cats) due to increased feral population as a result of:
        - provision of permanent artificial water, food (i.e. food waste) and shelter provided by built structures
        - increased distribution via linear infrastructure
    - altered behaviour due to increased noise, light spill and dust emissions and provision of artificial permanent water sources
    - cumulative impacts to fauna and available habitat from the Proposed Action and other regional development.

The mitigation hierarchy (avoid, minimise, rehabilitate) has been and will continue to be applied to the Proposed Action to ensure that the PLNB is protected from significant harm. An overview of these measures is outlined in Section 14.

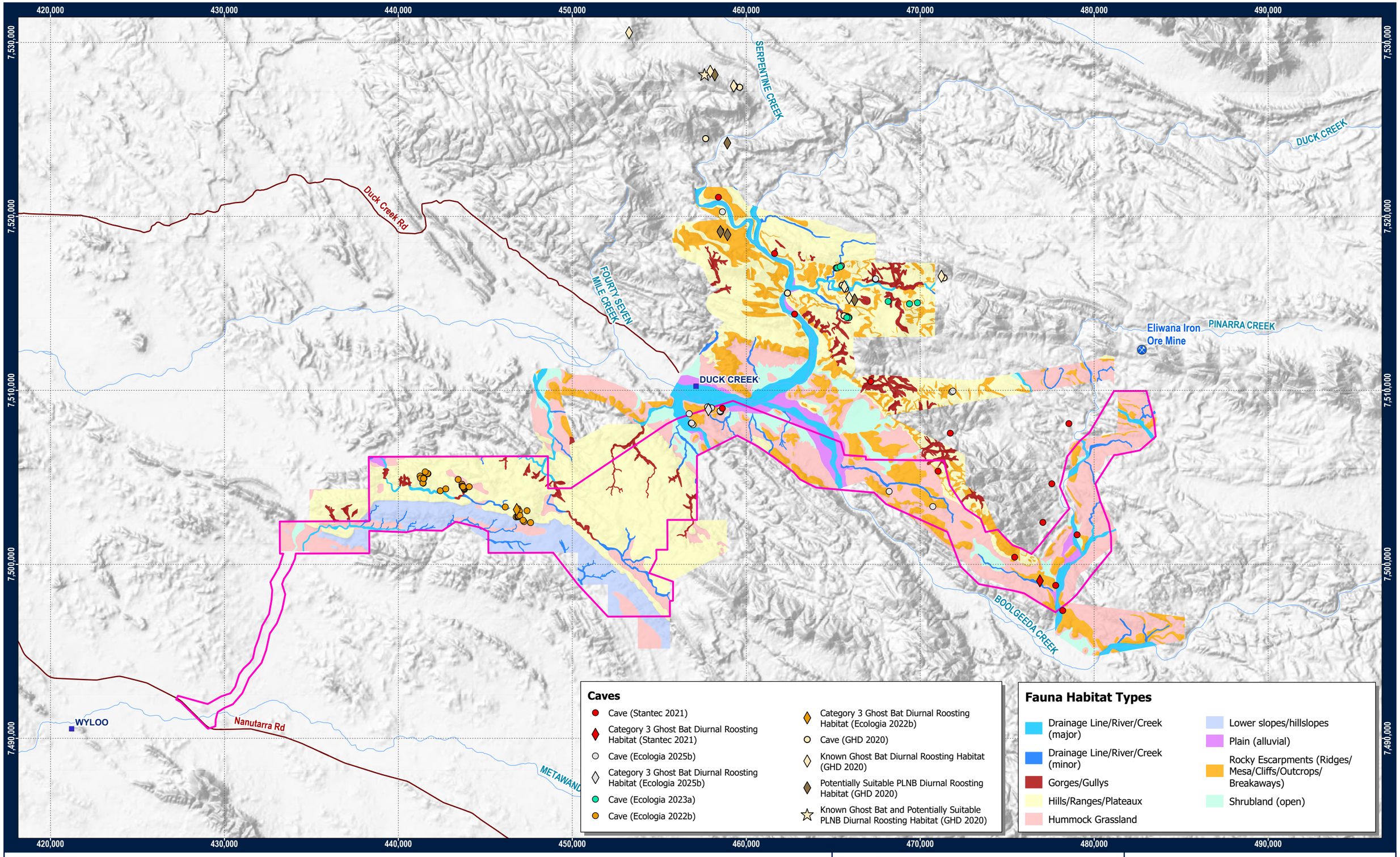
13.4.3.5 Significance Assessment

The PLNB has been recorded in numerous locations in the Wyloo North MDE and surrounding area in previous fauna surveys. Ultrasonic calls belonging to the PLNB were recorded at seven sites during the *ecologia* (2025b) survey and 42 sites within the Wyloo North mine area during the previous *ecologia* (2022b) survey, with the species also recorded on 94 occasions during previous surveys. Historical low-time calls (<30 minutes after/before civil twilight) recorded by GHD (2020) and Biologic (2013) indicate that PLNB roosting habitat may be present in or adjacent to the survey area. It is noted that the surveys undertaken by Biologic (2013) and GHD (2020) overlapped partially with the current MDE only in the area of the transport corridor. However, the location of a roost was not identified during subsequent targeted surveys, and no low-time calls were recorded in these areas by *ecologia* (2025b) in the most recent survey. This indicates that the area may be used for transitory visitation rather than permanent occupancy.

Figure 13-2 shows cave habitat features that have been identified both inside the MDE and within the broader survey area by previous surveys including GHD (2020), Stantec (2021), *ecologia* (2022b), *ecologia* (2023a), *ecologia* (2025b). Within the MDE, 55 caves have been identified, and 53 caves have been identified outside the MDE within the survey areas. As referred to above, GHD (2020) only identified potentially suitable PLNB roosting habitat at 6 caves located outside the MDE (approximately 9 to 20 km north). Other caves shown on Figure 13-2 have varying characteristics and include potential Category 4 nocturnal refuges. As mentioned early in this document (Table 8-3), a targeted bat survey will be undertaken to determine the location, size and number of roosts used by PLNB within the MDE.

Rocky Escarpment and Gorge/Gully habitats within the survey area represent critical roosting habitat for the PLNB, as well as Priority 1/Priority 2 and Priority 3 foraging habitat, respectively. Based on the regular detection rates and distribution of PLNB records within the survey area, all remaining habitat types within the survey area also provide priority foraging habitat for the Pilbara leaf-nosed bat (ranging from Priority 3 to Priority 5).

Given that the Wyloo North MDE is likely to be used by the PLNB as transitory visitation rather than permanent occupancy, and the MDE is unlikely to contain a significant PLNB roost, **the Proposed Action is unlikely to significantly impact the PLNB.**

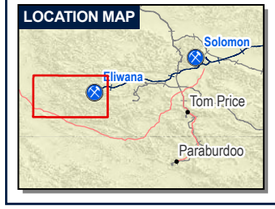


Caves

- Cave (Stantec 2021)
- Category 3 Ghost Bat Diurnal Roosting Habitat (Stantec 2021)
- Cave (Ecologia 2025b)
- Category 3 Ghost Bat Diurnal Roosting Habitat (Ecologia 2025b)
- Cave (Ecologia 2023a)
- Cave (Ecologia 2022b)
- Category 3 Ghost Bat Diurnal Roosting Habitat (Ecologia 2022b)
- Cave (GHD 2020)
- Known Ghost Bat Diurnal Roosting Habitat (GHD 2020)
- Potentially Suitable PLNB Diurnal Roosting Habitat (GHD 2020)
- Known Ghost Bat and Potentially Suitable PLNB Diurnal Roosting Habitat (GHD 2020)

Fauna Habitat Types

- Drainage Line/River/Creek (major)
- Drainage Line/River/Creek (minor)
- Gorges/Gullys
- Hills/Ranges/Plateaux
- Hummock Grassland
- Lower slopes/hillslopes
- Plain (alluvial)
- Rocky Escarpments (Ridges/ Mesa/Cliffs/Outcrops/ Breakaways)
- Shrubland (open)



Legend

- Homesteads
- Fortescue Mines
- Road
- Watercourses
- Wyloo North Iron Ore Mine Development Envelope

Data Source(s):
Watercourses, SRTM, Geoscience Aus.
Roads, Homesteads, Landgate.

N

0 2 4 6 8 10
Kilometres

Requested By: A. Imbergamo
Drawn By: R. Kerr
Revised By: rykerr
Approved By:
Scale: 1:200,000
Coordinate System: GDA2020 MGA Zone 50
Project Name: WH_MP_EN_0003_Caves
Document Name: WH_MP_EN_0003_023_r3_Caves

Date: 10/17/2025
Size: A3L
Revision: 3
Confidentiality: No

Figure 13-2: Wyloo North Iron Ore Mine Cave Habitat Features in the Mine Development Envelope

Fortescue

13.4.4 Grey Falcon (*Falco hypoleucos*) - Vulnerable

13.4.4.1 Relevant Policy and Guidance

Relevant Commonwealth policy and guidance for the Grey Falcon, which are informing studies, planning and development of the Proposed Action, are summarised in Table 13-6.

Table 13-6 Relevant Commonwealth Policy and Guidance for the Grey Falcon

Author	Year of Publication	Policy / Guidance
TSSC	2020	Conservation Advice *Falco hypoleucos* Grey Falcon
DoE	2013	EPBC Act MNES Significant Impact Guideline 1.1
DEWHA	2010b	Survey guidelines for Australia's threatened birds: Guidelines for detecting birds listed as threatened under the EPBC Act

13.4.4.2 Description and Habitat

The Grey Falcon is a rare, nomadic species sparsely distributed across much of arid and semi-arid Australia. In WA, they are restricted to arid environments occurring in a variety of habitats ranging from wooded drainage systems through to open spinifex plains. Grey Falcons once occurred across much of WA, with sightings as far south as York and New Norcia during colonial times. However, the current distribution is now thought to be restricted to north of 26 °S. Because of the relative paucity of this species, sightings are very uncommon (*ecologia* 2022b). The total population size is accepted to be <1,000 mature individuals and as a result, this species was listed as Vulnerable under the EPBC Act in September 2019 (*ecologia* 2025b).

The Grey Falcon occurs in a wide variety of arid habitats, including open woodlands and open acacia shrubland, hummock and tussock grasslands and low shrublands, and may also be seen around swamps and waterholes that attract prey. Like other falcons, this species preys primarily on birds such as parrots and pigeons, although reptiles and mammals are also taken. Two to three eggs are laid in winter in the nests of other birds of prey and ravens, typically in tall eucalypt trees near water (*ecologia* 2022b). Grey Falcons do not build their own nests and use old stick-nests of other birds, mainly corvids and other raptors in trees or on artificial structures such as telecommunication towers and powerline poles (*ecologia* 2025b).

13.4.4.3 Threats

The *Conservation Advice for Falco hypoleucos (Grey Falcon)* (TSSC 2020) acknowledges an absence of relevant studies and provides the following extrapolated and speculative, but nonetheless plausible threats to the Grey Falcon. Lowest priority threats have been excluded here, as they are not considered plausible in relation to the Proposed Action.

- Very High Priority (immediate mitigation action required):
    - Predation by cats
    - Climate change leading to increased temperatures in arid and semi-arid Australia

- Habitat loss and fragmentation due to grazing by exotic herbivores.

- High Priority (mitigation action and an adaptive management plan required):
  - Small population size
  - Nest shortage due to land clearing and overgrazing of arid zone rangelands
- Moderate Priority (obtain additional information and develop mitigation action if required):
  - Disturbance from bird watchers and photographers which impacts breeding success
  - Vehicle strike
  - Collision with fences and powerlines.

13.4.4.4 Potential Impacts

Direct and indirect impacts on the Grey Falcon as a result of implementing the Proposed Action may include the following:

- Direct Impacts
  - clearing of potential nesting habitat
  - direct loss or injury of individuals due to vehicle strike
  - loss or injury due to entrapment in HDPE-lined, above ground water storage facilities.
- Indirect Impacts
  - foraging habitat degradation via indirect impacts such as changed water regimes, e.g. groundwater drawdown and mounding, salinisation, changes to surface hydrology
  - increased predation by feral predators, in particular, nest predation by foxes and cats due to increased feral population as a result of:
  - provision of permanent artificial water, food (i.e. food waste) and shelter provided by built structures
    - increased distribution due to dispersal along linear infrastructure
    - altered behaviour due to increased noise, light spill and dust emissions and provision of artificial permanent water sources
  - degradation of habitat due to the introduction and spread of weeds
  - degradation of habitat due to altered fire regimes

- cumulative impacts to fauna and available habitat from the Proposed Action and other regional development.

An overview of the measures that has been and will continue to be applied to the Proposed Action to mitigate impacts and protect the Grey Falcon from significant harm are outlined in Section 14.

13.4.4.5 Significance Assessment

The Grey Falcon has not been previously recorded in the Wyloo North MDE or in the survey area. DBCA database searches indicate that the Grey Falcon has been recorded on three occasions in the vicinity of the survey area (*ecologia* 2025b), with the closest record located nearly 15 km north of the survey area. The species was also recorded north of the survey area on three occasions during previous detailed and targeted surveys undertaken by GHD (2020) within the Western Hub, with at least two birds recorded utilising habitat within Serpentine Creek, approximately 24 km north of the MDE.

Drainage Line/River/Creek (major) habitat within the MDE represents potential breeding and foraging habitat for this species if suitable nesting trees and existing corvid nests are present for the Grey Falcon to use.

The MDE is unlikely to support an ecologically significant proportion of the population. **Therefore, the Proposed Action is unlikely to significantly impact the Grey Falcon.**

13.4.5 Pilbara Olive Python (*Liasis olivaceus barroni*) – Vulnerable

13.4.5.1 Relevant Policy and Guidance

Relevant Commonwealth policy and guidance for the Pilbara Olive Python, which are informing studies, planning and development of the Proposed Action, are summarised in Table 13-7.

Table 13-7 Relevant Commonwealth Policy and Guidance for the Pilbara Olive Python

Author	Year of Publication	Policy / Guidance
DoE	2013	EPBC Act MNES Significant Impact Guidelines 1.1.
DSEWPaC	2011b	Survey guidelines for Australia's threatened reptiles: Guidelines for detecting reptiles listed as threatened under the EPBC Act
DEWHA	2008	Conservation Advice for *Liasis olivaceus barroni* (Olive Python-Pilbara subspecies)

13.4.5.2 Description and Habitat

The Pilbara Olive Python is a subspecies of the olive python that occurs in the ranges of the Pilbara region of WA. The subspecies is dull olive-brown with a white/cream belly and grows to 2.5 m in length. It is known only from ranges within the Pilbara region, north-western WA, such as the Hamersley Range and islands of the Dampier Archipelago (DEWHA 2008). It inhabits waterways and areas of permanent water in rocky gorges and gullies. The subspecies

is an adept swimmer, often hunting in water, feeding on a variety of vertebrates such as rock wallabies, fruit bats, ducks and pigeons. Individuals spend the cooler winter months sheltering in caves and rock crevices. In the warmer months the pythons can move widely, usually in close proximity to water and rock outcrops. In late winter or early spring males will travel large distances to find, and mate with, females (*ecologia* 2022b).

13.4.5.3 Threats

According to the *Conservation Advice for Liasis olivaceus barroni (Olive Python-Pilbara subspecies)* (DEWHA 2008), the key threats to the Pilbara olive python are:

- Predation by feral cats and foxes (particularly of juveniles)
- Competition with foxes for prey
- Habitat loss due to gas and mining development
- Vehicle strike
- Deliberate death by humas due to mistaken identification as a venomous brown snake.

13.4.5.4 Potential Impacts

Potential direct and indirect impacts to the Pilbara Olive Python from the Proposed Action include:

- Direct Impacts
    - habitat loss due to clearing of dispersal / foraging and nesting habitat
    - loss or injury of individuals during clearing, vehicle movements and trenching
    - loss or injury due to entrapment in HDPE-lined, above ground water storage facilities.
- Indirect Impacts
    - habitat degradation due to changed surface and groundwater regimes
    - increased competition for prey with feral animals and increased predation by feral predators (foxes and cats) due to an increase in the feral population.
    - Greater success of feral animals and population increase due to anthropogenic development which provides:
        - permanent artificial water, food (i.e. food waste) and shelter provided by built structures
        - increased opportunity for dispersal / distribution via linear infrastructure.
    - altered behaviour due to increased noise, light spill and dust emissions and provision of artificial permanent water sources

- cumulative impacts to fauna and available habitat from the Proposed Action and other regional development.

The mitigation hierarchy (avoid, minimise, rehabilitate) has been and will continue to be applied to the Proposed Action to ensure that the Pilbara Olive Python is protected from significant harm. An overview of these measures is outlined in Section 14.

13.4.5.5 Significance Assessment

The Pilbara Olive Python was not recorded in the most recent survey by *ecologia* (2025b), but it has been historically recorded several times in previous years within the MDE and surrounding areas.

Gorge/Gully and Rocky Escarpment habitat types within the MDE represent critical habitat for the Pilbara olive python due to the presence of rock crevices and outcrops near water holes. Similarly, Drainage Line/River/Creek (major) habitat within the MDE may provide critical dispersal and foraging habitat for the species, due to the presence of permanent and semi-permanent pools within this habitat type. The Pilbara Olive Python may disperse and forage across all habitat types.

However, given the Pilbara Olive Python's ability to disperse and forage across all habitat types and the presence of suitable habitat in the surrounding region, the MDE is unlikely to support an important population of the species. **Therefore, the Proposed Action is unlikely to significantly impact the Pilbara Olive Python.**

13.4.6 Migratory Birds

13.4.6.1 Relevant policy and guidance

Relevant Commonwealth policy and guidance for migratory waterbirds and shorebirds, are informing the studies, planning and development of the Proposal, as summarised in Table 13-8.

Table 13-8 Relevant Commonwealth policy and guidance for Migratory species

Author	Year of Publication	Policy / Guidance
Department of the Environment and Energy (DoEE)	2017	EPBC Act Policy Statement 3.21 – Industry Guidelines for avoiding, assessing and mitigating impacts on EPBC Act listed migratory shorebird species
DoE	2015	Wildlife Conservation Plan for Migratory Shorebirds
DoE	2013	EPBC Act MNES Significant Impact Guidelines 1.1

13.4.6.2 Description and Habitat

Migratory birds make their annual journey from their breeding grounds in the northern hemisphere and their non-breeding grounds in the southern hemisphere via what is known as the East Asian - Australian Flyway. Thirty-seven species of migratory shorebird regularly visit Australia from spring to autumn, utilising the coastal and freshwater wetlands habitats to rest

and feed. Birds utilise 'staging areas' in the northern Australian coastline before dispersing across the continent. Suitable inland ephemeral wetlands provide alternative, important habitat for birds on their migration route. These birds make round trip migrations of up to 26,000 kms each year (DBCA n.d.; DoEE 2017).

Two migratory birds, the Fork-tailed Swift and the Osprey, listed in Table 13-9, have been recorded in the Wyloo North MDE or survey area.

Table 13-9 Migratory Birds recorded or have potential to occur in the MDE

Common Name	Species Name
Fork-tailed swift	*Apus pacificus*
Osprey	*Pandion cristatus*

Although not recorded during the current survey (*ecologia* 2025b), the Fork-tailed Swift was recorded overflying the Wyloo North deposit during the previous surveys conducted by *ecologia* (2022b). According to database searches, the Fork-tailed Swift has previously been recorded on three occasions within 50 km range outside the survey area; however, has not previously been recorded inside the survey area. This species is an aerial specialist which does not utilise terrestrial habitats and this record represents intermittent rather than regular visitation through the airspace above the survey area. Critical habitat for this species does not occur within the Wyloo North MDE.

According to database searches, the Osprey has previously been recorded two occasions within 100 km of the survey area, with a single record from Fortescue's database in 2013 located within the Wyloo North survey area. The Osprey is highly dependent on water and is typically associated with coastal areas. Fortescue's internal record identified is likely to represent vagrant visitation to an inland waterbody by this species and is not indicative of permanent occupancy. Critical habitat for this species does not occur within the Wyloo North MDE.

Other migratory bird species listed under the PMST database search have been assessed to be unlikely to occur mainly due to a lack of permanent suitable foraging or roosting habitat occurring within the survey area. Any presence would be restricted to transient/occasional visitation or solely utilising aerial habitat (*ecologia* 2025b) as discussed previously in Table 13-2.

13.4.6.3 Threats

The *Wildlife Conservation Plan for Migratory Shorebirds* (DoE 2015) details the following threats to migratory birds:

- Habitat loss due to clearing.
- Habitat modification via pollution, invasive species and altered hydrological regimes.
- Anthropogenic disturbance due to aircraft over-flights, industrial operations, construction, artificial lighting and recreational activities such as fishing, off-road driving, water traffic and domestic animals.

- Climate variability and change that is expected to result in increased temperatures, rising sea levels and a drying trend and more frequent, extreme climate events.
- Harvesting of shorebird prey, e.g. fish, molluscs, seaweed.
- Fisheries by-catch, i.e. birds caught in fishing nets drown.
- Hunting – although prohibited in Australia, illegal hunting may still occur.

13.4.6.4 Potential Impacts

Potential direct and indirect impacts to Migratory birds from the Proposed Action include:

- Direct impacts:
    - Habitat loss due to clearing portions of riparian vegetation associated with Drainage Line/River/Creek (major) and (minor) habitat..
    - Direct loss or injury of individuals during clearing and vehicle movements.
- Indirect impacts:
    - Habitat degradation due to changed surface and groundwater regimes and reduced water quality.
    - Degradation of habitat due to the introduction and spread of weeds.
    - Degradation of habitat due to altered fire regimes.
    - Increased predation by feral carnivores, in particular, nest predation by foxes and cats, due to increased feral population as a result of:
        - Provision of permanent artificial water sources, food (i.e. food waste) and shelter provided by built structures.
        - Increased distribution via linear infrastructure.
    - Altered behaviour due to increased noise and light spill (likely to avoid human activity) and provision of permanent artificial water sources (attractant).
    - Cumulative impacts to fauna and available habitat from the Proposal and other regional development.

13.4.6.5 Significance Assessment

Neither the Fork-tailed Swift, nor the Osprey were recorded by the most recent survey (*ecologia*, 2025b), however both species have been recorded flying above the MDE or the surrounding area in previous surveys (*ecologia* 2022a; *ecologia* 2015). The Fork-tailed Swift is an aerial specialist which does not utilise terrestrial habitats. Previous records represent intermittent visitation through the airspace above the MDE. Critical habitat for this species does not occur within the MDE. The Osprey is highly dependent on water and is typically associated with coastal areas. A previous sighting was associated with the northern section

of Duck Creek, approximately 10 km north of the MDE. Any utilisation of habitat within the MDE would be likely to represent vagrant visitation to inland waterbodies, rather than permanent occupancy. Critical habitat for this species does not occur within the MDE.

Therefore, the Proposed Action is unlikely to significantly impact the migratory bird species, Fork-tailed Swift and Osprey.

14 MITIGATION HIERARCHY

Fortescue will consistently employ the mitigation hierarchy while implementing the Proposal so as to minimise impacts to MNES Threatened and Migratory species. Relevant guidance published by the DCCEEW in relation to the application of the mitigation hierarchy and application of offsets has been considered (DCCEEW 2023b). High-level guidance on the design of mitigative strategies published by the EPA in the *Statement of Environmental Principles, Factors, Objectives, and Aims of EIA* (EPA 2023d) has also been considered.

An overview of the approach that has been and will be taken with respect to mitigating impacts related to the Proposal are outlined in the following sections.

14.1 Avoid

The following measures will support the objective to avoid potential impacts wherever found to be feasible and/or practicable:

Design:

- Targeted flora and fauna surveys will be undertaken in accordance with applicable EPA and DCCEEW guidance to determine distribution of conservation significant flora and fauna.
- Conservation significant flora and fauna and habitat identified during targeted flora and fauna surveys will be recorded in Fortescue's GIS system and PIMS (Fortescue's document control system) in accordance with Fortescue's *Environmental Datasets – Data Governance Guidelines (100-GU-EN-0020).*
- All Heritage Places and HRZs are identified in Fortescue's GIS system.
- The Proposal was designed and planned based on alternative options analysis to avoid disturbance of significant environmental values, major waterways as well as heritage places and culturally significant locations, where practicable.
- The Proposal was design and planned based on consideration of Fortescue's Mineral Waste Management Plan (100-PL-EN-1034) which requires the avoidance of potential mineral waste sources where possible.

Implementation:

- Prior to conducting ground disturbance activities, ensure known locations of significant flora and fauna habitat, as well as Heritage Places, are to be retained and protected from disturbance are identified on the ground by appropriate signage, fencing or flagging in accordance with Fortescue's *Land Use Certification Procedure (100-PR-TA-001)*.
- Implement Fortescue's *Weed Management Plan (IO-PL-EN-0035)* to ensure all vehicles, plant and equipment, including trailered equipment, are clean, inspected and certified prior to entry into Fortescue controlled sites to prevent the degradation of priority fauna habitat.

14.2 Minimise

Where avoidance is not considered feasible or practicable, the following measures will be implemented to minimise potential impacts of the Proposal.

- Infrastructure siting, design, construction and operation will reflect alternative options analysis outcomes so that impacts on conservation significant flora and fauna and associated habitat, as well as cultural heritage values are minimised.

- Drainage infrastructure siting, design, construction and operation to design specifications which reflect risk assessment outcomes in minimising interference and disruption of natural surface water flows and quality in accordance with Fortescue's *Standard Engineering Specification for Drainage and Flood Protection (100-SP-CI-0004)* and the *Standard Engineering Specification for Road Design for Projects (100-SP-CI-0002)*.

- Minimise clearing and vegetation disturbance to ensure conservation significant flora and fauna and associated habitat is minimally impacted. Conduct clearing in accordance with a permit issued under Fortescue's *Land Use Certificate Procedure (100-PR-TA-0001)*.

- Ensure that appropriate measures and level of effort is expended to disperse individual conservation significant fauna in safe manner prior to clearing activities. These measures will be fauna-specific, based on an understanding of local habitat values and the ecology and behaviour of the taxa.

- Employ personnel trained in fauna handling during trenching operations to clear open trench of fauna on a daily basis and prior to backfilling.

- To minimise the potential for fauna injuries or deaths on haul and access roads, implement appropriate mitigation measures such as speed limit restrictions, right of way for fauna and the prohibition of off-road driving.

- Ensure fencing installed around infrastructure is designed to mitigate risks (injury or death due to impact or entanglement) to conservation significant fauna, in particular bats.

- Ensure staff and contractors are provided with appropriate training to ensure conservation significant fauna and associated habitat are protected.

- Ensure all vehicles, plant and equipment, including trailered equipment, are clean, inspected and certified prior to entry into Fortescue controlled sites to prevent the degradation of priority fauna habitat in accordance with Fortescue's *Weed Management Plan (IO-PL-EN-0035).*

- In addition to the above design and construction specifications, impacts to surface water quality and quantity will be minimised via implementation of Inland Waters related Management Plan(s), which will include a suite of appropriate measures. These measures may include:

    - Erosion control and sediment management

- Appropriate management of mine and non-mine waste to minimise pollution
- Separation of mine-impacted and non-impacted runoff to reduce water potentially requiring treatment and management
- Measures to protect natural drainage lines from construction impacts where possible to minimise impacts to water quality

- Develop and implement a Feral Animal Program to effectively manage and control feral animals throughout construction and operation to decrease impacts to native fauna, including conservation significant species.
- 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 a relevant Fortescue Bushfire Management Plan.
- Implement Fortescue's *Dust Management Plan (IO-PL-EN-0001)* and adopt suitable operational protocols, including enforcing speed limits on unsealed roads.
- Implement Fortescue's *Mineral Waste Management Plan (100-PL-EN-1034)* so that disturbed mineral waste sources are appropriately managed to prevent adverse impacts to the environment.
- Manage waste materials and on-site landfill facilities in accordance with *Fortescue's Waste Management Plan (IO-PL-EN-0001)* to minimise the likelihood of increased feral animal population and resultant increased rate of native animal predation.

14.3 Rehabilitate

Where impacts cannot be avoided or minimised, the following measures will assist establishment of habitat and fauna values post disturbance:

- Develop and implement a Mine Closure Plan that aligns with DMPE Guidance (DMIRS 2025).
- Progressively rehabilitate disturbed land that is not required to support ongoing operations with local native plant species to re-establish local vegetation and fauna habitats that support native fauna foraging.

14.4 Offset

The WA Environmental Offsets Guidelines (Government of WA 2014) defines environmental offsets as '*actions that provide environmental benefits which counterbalance the significant residual environmental impacts or risks of a project or activity*'. Unlike mitigation actions, which are implemented on-site to reduce the direct impacts of the project, offsets are undertaken outside of the project area and counterbalance significant residual impacts. The Australian Government's EPBC Act Environmental Offset Policy (DSEWPaC 2012) define offsets as "measures that compensate for residual adverse impacts of an action on the environment". The Policy states that "Offsets provide environmental benefits to counterbalance the impacts that remain after avoidance and mitigation measures. These remaining, unavoidable impacts are termed 'residual impacts.' For assessments under the EPBC Act, offsets are only required

if residual impacts are “significant”. Environmental offsets are applied when the residual impacts of a project are deemed significant, after efforts to avoid, minimise, and rehabilitate have been exhausted. As the Proposal is further refined and developed and potential impacts mitigated via the mitigation hierarchy, compensation measures may be considered should all other mitigation measures be exhausted, i.e. alternatives not considered practicable. No compensation is currently proposed. If, following detailed impact assessment and application of the mitigation hierarchy, compensatory measures are considered necessary, Fortescue would implement an environmental offset strategy, tailored to/proportionate to the scale and significance of the residual environmental impact. Fortescue would propose to use the Pilbara Environmental Offsets Fund (PEOF) as the offset mechanism for the Proposal with the intention of maximising regional biodiversity benefits.

The Pilbara Environmental Offsets Fund (PEOF) was established as a strategic offsets fund to address the cumulative impacts of development on the Pilbara bioregion, in partnership with Traditional Owners, conservation agencies, industry and the government. The fund facilitates the coordinated delivery of environmental offset projects within the Pilbara bioregion of WA. The PEOF was established to invest in strategic conservation projects in the Pilbara bioregion to improve vegetation and species habitat impacted by development. The PEOF combines money from individual offset payments required under the WA EP Act and as conditioned under the EPBC Act into a special purpose account. This enables the delivery of larger and more strategic landscape-scale projects than would occur if individual offset projects were delivered independently, leading to better biodiversity conservation outcomes (DWER 2019).

Fortescue recognises that the effective implementation of offsets in the Pilbara is hampered by the region’s unique land tenure (being all Crown land with overlapping mining, native title and pastoral interests). This makes traditional land acquisition and access for on-ground offset activities difficult. The fund was established to overcome these barriers and as such, Fortescue would propose to use the fund to facilitate offsets for the Proposal.

15 HOLISTIC IMPACT ASSESSMENT

Fortescue will evaluate the Proposal's impact on the environment as a whole, considering the connections and interactions between various impacts and assessing the effects on individual environmental factors (EPA 2023d).

Fortescue continues to undertake studies and investigations within the MDE and surrounds, to gain a comprehensive understanding of the receiving environment and the Proposal's potential impacts. Additionally, consultation with stakeholders, particularly Kurrama and Pinikura Traditional Owners, are considered essential for gaining a holistic understanding of the inter-relationships that exist within the environment. Kurrama and Pinikura have intimate knowledge of their country and a deep understanding of the interconnectedness of environmental values.

To enhance a holistic assessment, Fortescue is adopting an adaptive management approach, which incorporates feedback from continuous environmental and social impact monitoring and adjusts mitigation strategies as needed. This approach ensures that the Proposal remains responsive to any emerging impacts or changing conditions.

15.1 Connections and Interactions between Environmental Factors

Fortescue's ongoing environmental surveys and studies within the MDE continue to inform the understanding of environmental values which will, in turn, inform impact assessment and shape development of suitable mitigation strategies. Although potential impacts will be evaluated against the EPA's environmental objectives for each individual environmental factor, Fortescue acknowledges that complex interconnections exist between various factors, including Flora and Vegetation, Terrestrial Fauna, Inland Waters, Subterranean Fauna, Social Surroundings and Landforms.

The strong inter-dependencies and dynamic interplay underlying the ecological function of factors such as Inland Waters, Flora and Vegetation, and Terrestrial Fauna are particularly important, as an impact on one environmental value, e.g. altered water regimes, can critically impact another. This interdependence is further highlighted by cultural values, which are often associated to areas of significant visual appeal, rich botanical diversity, and important fauna habitats. The inter-relationships between environmental factors are illustrated in Schematic 15-1 and will be further detailed in the ERD.

15.2 Consideration of Holistic Effects

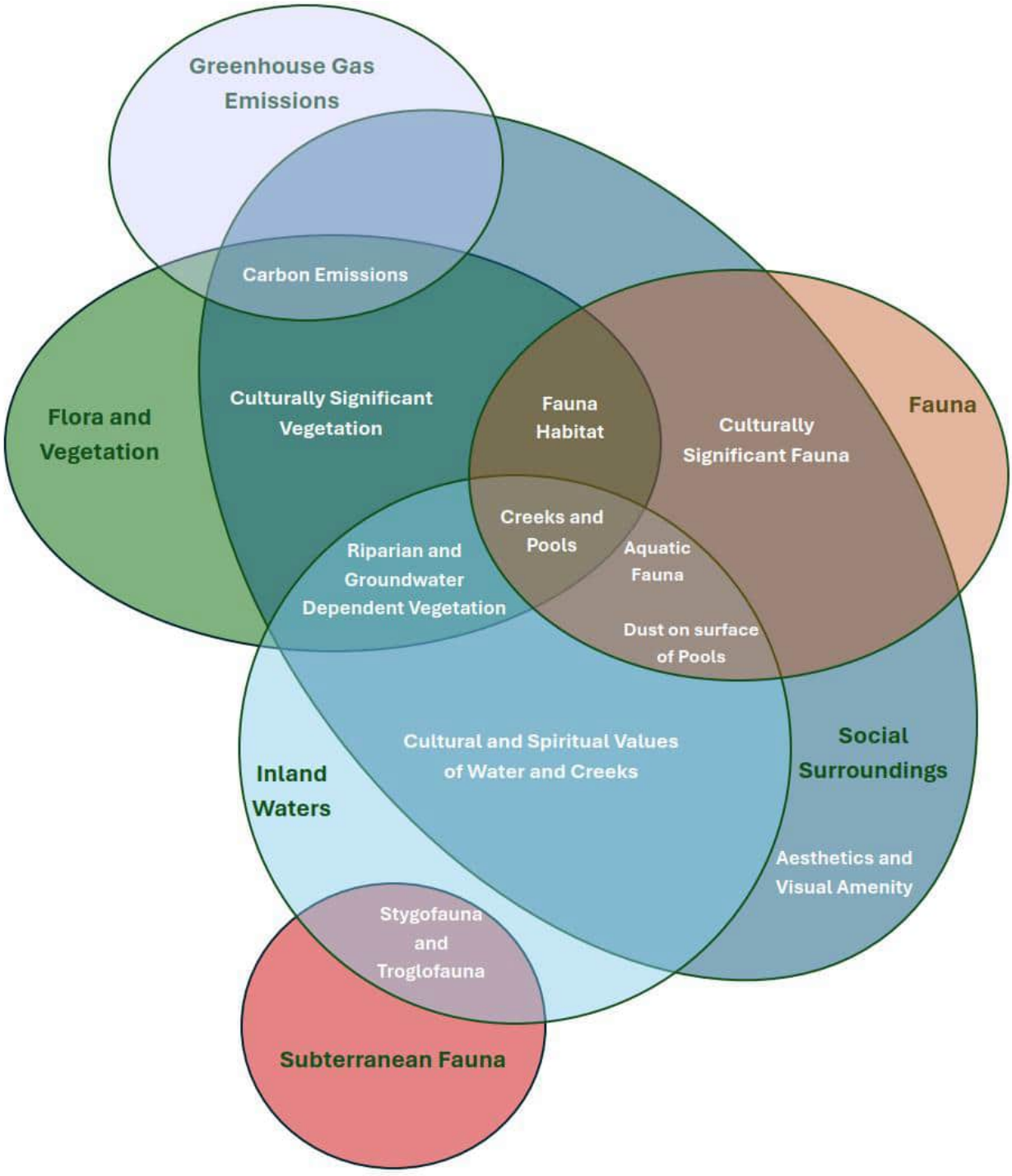
In accordance with EPA guidance, Fortescue will evaluate the environmental effects of the Proposal as a whole, recognising the intricate interplay of impacts across various environmental factors. This comprehensive approach ensures that cumulative effects are fully understood and addressed. The holistic assessment will consider the following principles:

1. Impacts that have been entirely avoided will not contribute to overall environmental effects and, therefore, require no further evaluation.
2. When a significant impact has already been mitigated for a specific Environmental Factor, additional measures to address cumulative effects are typically unnecessary.

3. If a significant impact spans more than one environmental factor, further analysis will be conducted to determine whether additional mitigation is required to manage the combined effects.
4. In cases where multiple minor impacts overlap or affect several environmental values, a more thorough assessment may be needed to address cumulative effects, which could be more significant than the individual impacts considered in isolation.
5. The principles of intergenerational equity, and the conservation of biological diversity and ecological integrity, including Fortescue's Biodiversity Strategy objectives (net positive biodiversity by 2030) will be considered when determining the potential significance of the holistic effects of the Proposal.

Consideration of the above-mentioned principles will ensure that environmental sustainability and the objective of net positive biodiversity, is central to the Proposal's planning and implementation.

The ERD will provide a detailed holistic evaluation of the Proposal's environmental impacts to ensure that potential interconnected impacts are effectively identified and mitigated.



Schematic 15-1 Holistic View of Inter-relationships between Environmental Factors and Values

16 CUMULATIVE IMPACT ASSESSMENT

16.1 Overview

The EPA guidance for environmental impact assessment requires that cumulative environmental impacts resulting from the Proposal are considered. The EPA defines cumulative environmental impacts as the successive, incremental and interactive impacts on the environment of a proposal with one or more past, present and reasonably foreseeable future activities (EPA 2023d).

The proposed Wyloo North Iron Ore Mine is located within the Hamersley Ranges in the Shire of Ashburton in the western Pilbara. The Proposal spans two pastoral stations, and the region has been developed for pastoral use historically, with a number of large-scale pastoral leases currently operating grazing enterprises. The region currently hosts mining development and exploration by several proponents, such as Rio Tinto, API Management and Black Cat Syndicate. Fortescue has existing operations at Eliwana Iron Ore Mine and has future plans to develop various deposits in the greater Western Hub area.

Despite mining and pastoral development, the western Pilbara is recognised for its high biotic diversity and significant environmental and cultural features, making it a focal point for both conservation and further mining activities. The added pressures associated with climate change on the Pilbara environment and the outcomes for environmental values are uncertain, but likely to be significant in coming decades, and this aspect requires consideration in the context of historical and future development.

16.2 Cumulative Impact Assessment

The proposed Wyloo North Iron Ore Mine is located in an area with ongoing and planned resource development, and Fortescue acknowledges the potential for cumulative impacts in this region. The assessment will evaluate how the Proposal's activities, alongside other mining and land-use projects, may affect the environment at both local and regional scales.

Fortescue will use publicly available data and baseline data gathered via survey effort, to establish trends in key receptors, identified as most at risk from cumulative impact. The cumulative impact assessment (CIA) will be guided by principles outlined in the Proposal's Environmental Scoping Document (ESD), which will ensure a structured approach to assessing broader impacts associated with the Proposal.

In addition to the environmental impacts, Fortescue acknowledges that cumulative impacts may significantly impact Kurrama and Pinikura Traditional Owners, particularly in relation to the connection to and health of country. Engagement with Kurrama and Pinikura will be central to the CIA process, ensuring insights and concerns are considered in relation to assessing and managing cumulative impact. The ERD will provide a detailed assessment of cumulative impact in the context of the Proposal.

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Threatened Species Scientific Committee (TSSC). (2020). *Conservation Advice Falco hypoleucos Grey Falcon*. Canberra: Department of Agriculture, Water and the Environment. Available from: http://www.environment.gov.au/biodiversity/threatened/species/pubs/929-conservation-advice-09072020.pdf. In effect under the EPBC Act from 09-Jul-2020.

Water Quality Australia. (2018) *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*. Australian and New Zealand Governments and Australian state and territory governments, Canberra ACT, Australia. Available at www.waterquality.gov.au/anz-guidelines.

DOCUMENT CONTROL

Supporting Document – Section 38 and EPBC Referral		
Status	IFU - Issued for Use	4-Feb-26
Summary of Changes	Rev 1	
Author	Amy Imbergamo	amy.imbergamo Digitally signed by amy.imbergamo DN: cn=amy.imbergamo, email=amy.imbergamo@fortescue.com Date: 2026.02.04 09:05:06 +08'00' Signature
Checked or Squad Review# (if applicable)	Squad Check complete 24/10/2025	Signature
Approved	Matthew Dowling	matthew.dowling Digitally signed by matthew.dowling DN: cn=matthew.dowling, email=matthew.dowling@fortescue.com Date: 2026.02.05 09:55:31 +08'00' Signature
Next Review Date (if applicable)	N/A	

APPENDIX A REFERRAL FORM

Form

Referral of a proposal under s. 38 of the EP Act

PART A: Referrer, proponent and proposal information *ALL referrals*

A1. Referrer information

Who is referring this proposal?	✓ Proponent ☐ Decision-making authority ☐ Community member/third party

Name Fortescue Ltd *Name of the person or organisation referring*		Signature	
Position	Jarrod Pittson General Manager, Environment and Closure	Organisation	Fortescue Ltd
Email	primaryenvironmentapprovals @fortescue.com	Phone	08 6218 8888
Address	256 St Georges Terrace		
	Perth	WA	6000
Date	2/02/2026		

Does the referrer request that the EPA treat any part of the proposal information in the referral as confidential?	✓ Yes ☐ No Fortescue requests that certain cultural/heritage information is kept confidential, at the Traditional Owners' request, and not be made public by the EPA. Fortescue has provided a redacted version of the referral supporting document to be made publicly available.
Does the referrer confirm that they consent to receive correspondence electronically?	✓ Yes ☐ No

Referral declaration for proponent and Authorised representative:
I, Jarrod Pittson, declare that I am authorised to refer this proposal on behalf of Fortescue Ltd and further declare that the information contained in this form is true and not misleading.

Date: 2/02/2026

A2. Proponent information

Name of the proponent/s *Include Trading Name if relevant*	Fortescue Ltd
Australian Company Number(s) ☐ OR	57 002 594 872

Australian Business Number(s) ✓	
A3. Proposal information	
Proposal title	Wyloo North Iron Ore Mine
What is the proposal? *(Include a brief description of the proposal)*	The Proposal is to construct and operate an iron ore mine approximately 110 km west of Tom Price in the Pilbara Region of Western Australia. Ore will be transported by road train to Fortescue's adjacent Eliwana Mine for processing. The Proposal has an approximate disturbance footprint of 4,954.5 hectares (ha) and is located within a 21,910.1 ha Mine Development Envelope. The Proposal includes: • The development of above and below water table open cut pits. • Crushing and screening plant, including several mobile crushing and screening plants, and supporting infrastructure. • Infrastructure corridor including but not limited to power generation, transmission and distribution infrastructure, haul roads, water management infrastructure, borrow pits, laydowns and workshops. • Groundwater abstraction for water supply and dewatering to facilitate mining below the water table. • Water management infrastructure for the purposes of abstraction, conveyance, reinjection, water treatment and storage, including but not limited to, pumps, pipelines, bores, ponds, turkey nests, levees, diversions, culverts, drains, floodways, sediment control and other water quality management structures. • Surplus water management, including but not limited to aquifer reinjection, infiltration or evaporation using in-pit disposal or ponds, or use by third party receivers or other mining operations. • Mine waste management including, but not limited to, waste rock landforms, in-pit storage and low-grade ore stockpiles. • Ore, topsoil and subsoil stockpiles. • Linear and ancillary infrastructure to support mining, including but not limited to an accommodation camp, offices, workshops, roads, powerlines, water pipelines, borrow pits and laydown areas.
Where is the proposal?	The Proposal is located approximately 110 km west of Tom Price and 120 km southwest of Paraburdoo in the Pilbara Region of Western Australia. Fortescue's

	Eliwana Iron Ore Mine is adjacent to the Proposal. There is a sealed main road that intersects the southern extent of the Mine Development Envelope (MDE), called Nanutarra Road.
What type of proposal is being referred? *For significant amendment or derived proposal, provide the associated existing Ministerial statement number/s* *For a proposal under an assessed planning scheme, provide the scheme number and name*	☐ significant proposal. *Choose which type of significant proposal* ✓ new proposal ☐ significant amendment (proposal only) ☐ significant amendment (conditions only) ☐ significant amendment (proposal and conditions) ☐ strategic proposal ☐ derived proposal ☐ proposals of a prescribed class ☐ proposal under an assessed planning scheme

A4. Environmental factors

What are the relevant environmental factors for this proposal?	☐ Benthic Communities and Habitat ☐ Coastal Processes ☐ Marine Environmental Quality ☐ Marine Fauna ✓ Flora and Vegetation ☐ Landforms ✓ Subterranean Fauna ☐ Terrestrial Environmental Quality ✓ Terrestrial Fauna ✓ Inland Waters ☐ Air Quality ☐ Greenhouse Gas Emissions ✓ Social Surroundings ☐ Human Health

A5. Basis for referral *Third party referrals ~~ONLY~~*

Outline the potentially significant environmental impacts?	
Are you providing supporting information? *If so, provide with the referral*	☐ Yes ☐ No

A6. Basis for referral *Decision-making authorities ~~ONLY~~*

What approval/s, under your authority, are required for this proposal? *Please provide details.*	

PART B: Pre-referral and referral information *Proponent referrals ~~ONLY~~*

B1. Pre-referral discussions

Have you had pre-referral discussions with the EPA (including the EPA Services of DWER)?	✓ Yes ☐ No Meeting occurred on 10 December 2025 via Microsoft Teams. Nathan

If so, provide name, date, and any references numbers. Further details on outcomes of discussions should be included in the ERD.	Sumner and Jack Goldie from EPA Services were present.
Have you had pre-referral discussions DMAs regarding parallel processing? *If so, provide details in the ERD*	☐ Yes ✓ No
B2. Minimum information requirements *Must be provided or a request for information will be issued under s. 38F*	
Have you provided electronic spatial data, maps, and figures in the appropriate format?	✓ Yes ☐ No
Have you provided a Proposal Content Document? (*according to Instructions and template: How to identify the content of a proposal for the type of proposal identified above*).	✓ Yes ☐ No
Have you provided an Environmental Review Document? (*according to Instructions and template: how to prepare an Environmental Review Document*).	✓ Yes ☐ No
B3. Commonwealth Government approvals	
Does the proposal involve an action that may be or is a controlled action under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)?	✓ Yes ☐ No
Has the proposed action been referred? If yes, when was it referred and what is the reference number (EPBC No.)?	☐ Yes ✓ No – The Proposed Action has not yet been referred but will be referred to DCCEEW soon. Date: _____ EPBC No.: _____
If referred, has a decision been made on whether the proposed action is a controlled action? If 'yes', check the appropriate box and provide the decision in an attachment.	☐ Yes ☐ No ☐ Decision – controlled action ☐ Decision – not a controlled action
If the proposal is determined to be a controlled action, do you request that this proposal be assessed under a Bilateral Agreement or as an accredited assessment?	☐ Yes - Bilateral ☐ No ✓ Yes - Accredited

APPENDIX B PROPOSAL CONTENT DOCUMENT

Wyloo North Iron Ore Mine

Proposal Content Document

Table 1: General proposal content description

Proposal title	Wyloo North Iron Ore Mine
Proponent name	Fortescue Ltd
Short description	The Proposal is to construct and operate an iron ore mine approximately 110 km west of Tom Price in the Pilbara Region of Western Australia (Figure 1). Ore will be transported by road train to Fortescue's adjacent Eliwana Mine for processing. The Proposal includes: • The development of above and below water table open cut pits. • Crushing and screening plant, including several mobile crushing and screening plants, and supporting infrastructure. • Infrastructure corridor including but not limited to power transmission, generation and distribution infrastructure, haul roads, water management infrastructure, borrow pits, laydowns and workshops. • Groundwater abstraction for water supply and dewatering to facilitate mining below the water table. • Water management infrastructure for the purposes of abstraction, conveyance, reinjection, water treatment and storage, including but not limited to, pumps, pipelines, bores, ponds, turkey nests, levees, diversions, culverts, drains, floodways, sediment control and other water quality management structures. • Surplus water management, including but not limited to aquifer reinjection, infiltration or evaporation using in-pit disposal or ponds, or use by third party receivers or other mining operations. • Mine waste management including, but not limited to, waste rock landforms, in-pit storage and low-grade ore stockpiles. • Ore, topsoil and subsoil stockpiles. • Linear and ancillary infrastructure to support mining, including but not limited to an accommodation camp, offices, workshops, roads, powerlines, water pipelines, borrow pits and laydown areas. The Proposal requires up to 4,954.5 ha of disturbance and is located within a 21,910.1 ha Mine Development Envelope.

Table 2: Proposal content elements

Proposal element	Location / description	Maximum extent, capacity or range
Physical elements		
Mine, processing and associated infrastructure elements, including but not limited to: • Open cut pits, above and below water table. • Crushing and screening plant (including several mobile crushing and screening plants) and supporting infrastructure. • Groundwater management borefields for the purposes of water supply, dewatering and reinjection. • Water management infrastructure for the purposes of abstraction, conveyance, reinjection, water treatment and storage, including but not limited to, pumps, pipelines, bores, ponds and turkey nests. • Surface water management infrastructure including but not limited to levees, diversions, culverts, drains, floodways, sediment control and other water quality management structures. • Access and haul roads that may include culverts, drains, floodways and bridge infrastructure, including land bridges. • Pipelines and pipeline corridors. • Waste rock landforms and low-grade stockpiles. • Topsoil and subsoil stockpiles. • Ore stockpiles. • Borrow pits and laydowns. • Ancillary buildings and supporting infrastructure including, but not limited to offices, workshops, hydrocarbon/chemical storage, laydown areas, and explosive storage / handling facilities. • Accommodation camp and ancillary infrastructure. • Power generation and distribution infrastructure, including battery storage. • Landfill and waste management facilities. Infrastructure corridor and associated elements, including but not limited to: • Power generation, transmission and distribution infrastructure. • Haul roads and access roads. • Water management infrastructure for the purposes of abstraction, conveyance, reinjection, water treatment and storage, including but not limited to, pumps, pipelines, bores, ponds and turkey nests. • Borrow pits. • Topsoil and subsoil stockpiles.	Figure 2	Up to 4,954.5 ha of disturbance within a 21,910.1 ha Mine Development Envelope.

Proposal element	Location / description	Maximum extent, capacity or range
• Laydowns and workshops.		
Construction elements		
Key construction elements will include, but not be limited to, the following physical and operational elements: • Construction camp. • Water supply borefield and water management infrastructure for the purposes of abstraction, conveyance, reinjection, water treatment and storage, including but not limited to, pumps, pipelines, bores, ponds and turkey nests. • Surface water management infrastructure including but not limited to flood protection and sediment controls. • Temporary offices/ablutions. • Access roads and bridges. • Borrow pits and laydowns. • Pipelines and pipeline corridors. • Movement of topsoil, and bulk earthworks. • Power generation (diesel or renewable energy), transmission and distribution infrastructure. • Landfill and waste management facilities.	Figure 2	Disturbance required for the construction elements is included within the indicative disturbance footprint.
Operational elements		
Mining production capacity	Figure 2	Up to 12 million tonnes per annum (mtpa) of mined ore.
Groundwater abstraction	Figure 2	Abstraction of up to 6 GL per annum (GL/a) for dewatering and water supply.
Surplus water management	Figure 2	Up to 5 GL/a surplus water, exceeding the operational requirement, will be managed through a variety of methods, including but not limited to: - Aquifer reinjection via reinjection borefield(s). - Infiltration or evaporation using ponds or in-pit disposal. - Supply of water to third party receiver

Proposal element	Location / description	Maximum extent, capacity or range
		and other Fortescue mining operations. - No discharge of groundwater to creeks under standard operating conditions.
Power supply	Figure 2	Post-construction, power will predominantly be supplied by a solar and renewable mix and batteries via an overhead power line connecting to Fortescue's Pilbara Transmission Network. Emergency diesel powered generators and power storage would remain on site in case of power supply disruptions.
Greenhouse gas emissions		
Peak annual emissions		
Construction	Scope 1 estimated of 98,823 t CO2-e	
Mining and Operations	Scope 1 estimated of 52,311 t CO2-e	
	Scope 2 estimated of 44,112 t CO2-e	
	Scope 3 estimated of 20,000,000 t CO2-e	
Rehabilitation		
Progressive rehabilitation will be undertaken over the life of the mine where practicable. At the cessation of mining, the site will be rehabilitated in accordance with the Wyloo North Iron Ore Mine Closure Plan. The Mine Closure Plan will ensure that any landforms that remain in-situ (such as waste rock landforms) will be designed to be safe, stable, non-polluting, whilst meeting overarching objectives for closure in consultation with key stakeholders.		
Commissioning		
Commissioning will be undertaken in accordance with the limits outlined above and in accordance with the licensing requirements under the *Environmental Protection Act 1986*.		
Decommissioning		
The Mine Closure Plan will provide a plan for decommissioning of the mine and the post-closure land use.		

Proposal element	Location / description	Maximum extent, capacity or range
Other elements which affect extent of effects on the environment		
Proposal time*	Maximum project life	Approximately 20 years
	Construction phase	Approximately 2 years
	Operations phase	Approximately 13 years
	Decommissioning phase	Approximately 5 years

** Proponents should only provide realistic timeframes to avoid unnecessary change to proposal applications at referral (section 38C), assessment (section 43A) or post assessment (section 45C).*

Legend

- Wyloo North Iron Ore Mine
- Towns
- Major Rivers
- Major Roads
- Fortescue Rail
- Other Rail
- Fortescue Marsh

Data Sources:
Topography, Landgate
Watercourses, Marsh, DWER.
All other data, Fortescue, 2024

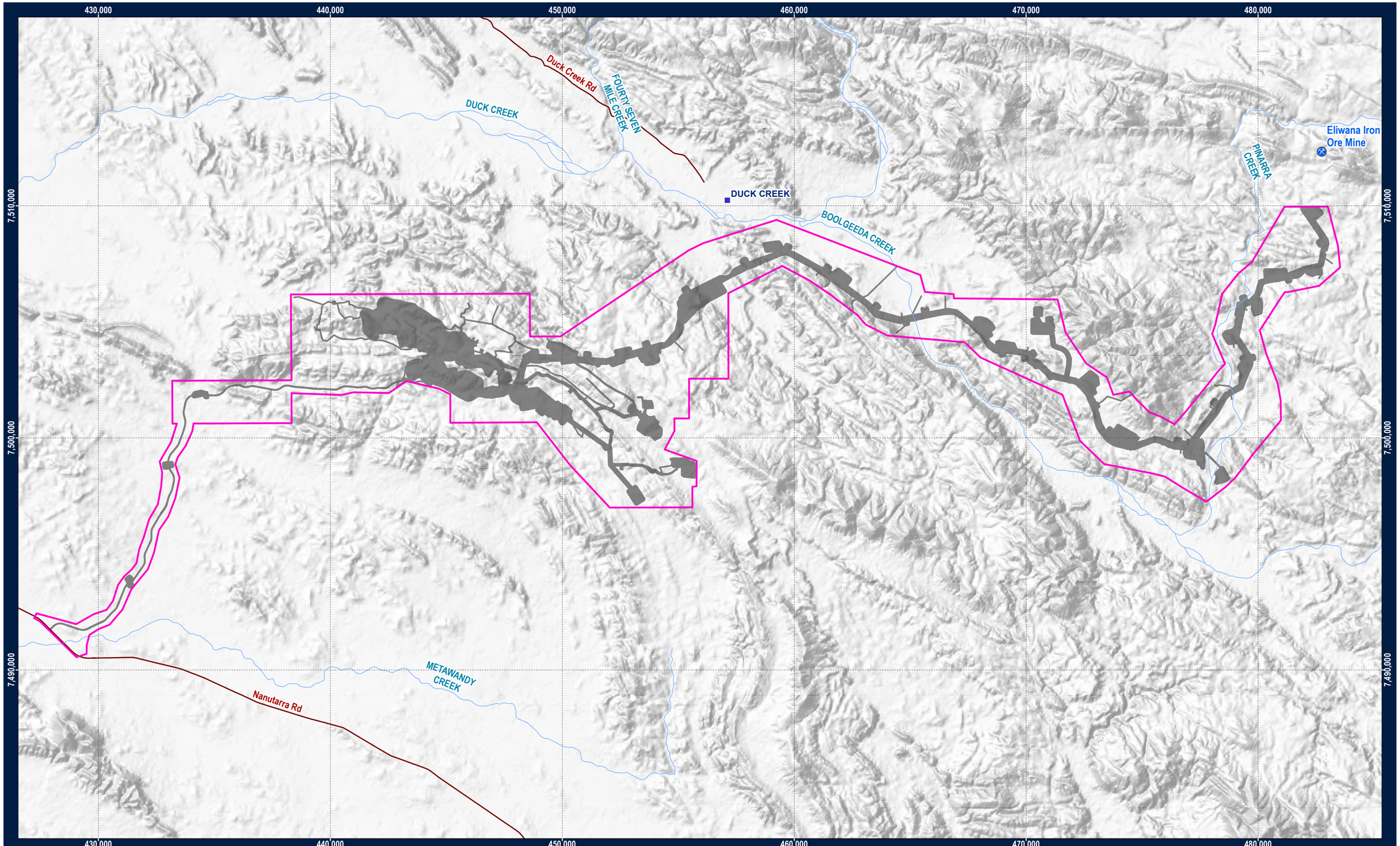
N

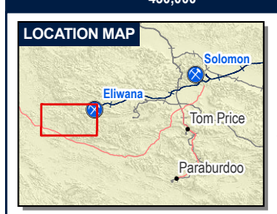
0 20 40 60 80 100
Kilometres

Figure 1
Wyloo North Iron Ore Mine Location

Requested By: A. Imbergamo	Date: 30/07/2025
Drawn By: S. Costello	Size: A4L
Revised By: scostello	Revision: 0
Approved By:	Confidentiality: 0
Scale: 1:2,000,000	
Coordinate System: GDA2020 MGA Zone 50	
Project Name: WH_MP_EN_0003	
Document Name: WH_MP_EN_0003_001_r0_Location	

Fortescue





Legend

- Homesteads
- Fortescue Mines
- Road
- Watercourses
- Wyloo North Iron Ore Mine Development Envelope
- Wyloo North Iron Ore Mine Indicative Disturbance Footprint

Data Sources:
Watercourses, SRTM, Geoscience Aus.
Roads, Homesteads, Landgate.

N

0 2 4 6 8 10
Kilometres

Requested By: A. Imbergamo
Drawn By: S. Costello
Revised By: rykerr
Approved By:
Scale: 1:150,000
Coordinate System: GDA2020 MGA Zone 50
Project Name: WH_MP_EN_0003
Document Name: WH_MP_EN_0003_002_r2_DE_IDF

Date: 12/30/2025
Size: A3L
Revision: 2
Confidentiality: No

Figure 2: Wyloo North Iron Ore Mine Development Envelope and Indicative Disturbance Footprint

Fortescue

APPENDIX C FORTESCUE ENVIRONMENTAL POLICY

Environment Policy

Our commitment

Fortescue Ltd (Fortescue) is committed to being a leader in safeguarding the environment and taking accountability for our impacts.

We understand the immense value that the environment provides and that it underpins almost every aspect of human development. We know there is a vital need to reduce global environmental impacts and to fundamentally transform and transition to a greener future.

We believe practical, technology and policy-driven solutions are key to addressing our impacts on the environment. We have the technology, the knowledge, the resources, and the will to make it happen. We are implementing measures to mitigate and manage environmental risks and maximising opportunities provided by improvements in science and technology. We integrate these risks and opportunities into our planning and operating decisions to inform our business strategy.

Our mission to decarbonise our operations and provide opportunities for global decarbonisation through the creation, use and sale of green energy will have environmental and community benefits including air quality, ecosystem function, pollution abatement and will promote economic development.

We are committed to driving change and escalating accountability for environmental protection, and we encourage and empower those who want to join us in changing the world for the better.

Our strategy

Fortescue will achieve our commitment by:

Applying a robust governance framework

- Implementing an effective Environmental Management System to identify and manage risks, set appropriate targets, measure the effectiveness of compliance programs and continually improve our performance.
- Complying with relevant environmental laws and obligations.
- Providing education and training to employees to build capacity and awareness on environmental issues and the environmental effects of their activities.

- Working with our stakeholders to understand the scientific, community and cultural values within our areas of influence to ensure optimal environmental management and performance.
- Linking the remuneration of executives to environment related key performance indicators.

Protecting biodiversity

- Adopting a hierarchy of avoid, minimise, mitigate, rehabilitate, and offset.
- Achieving a net positive impact on biodiversity.
- Activities within or adjacent to legally protected areas, areas designated for legal protection and areas recognised for their high biodiversity value will not be undertaken if they are to the detriment of the area's value. These areas are inclusive of UNESCO World Heritage Areas and the International Union for the Conservation of Nature (IUCN) protected area categories I – IV. At a minimum, activities conducted will be consistent with the area's legal protection and management objectives and plans and all significant adverse impacts will be avoided in these areas.
- Committing to working collectively to reverse forest loss and land degradation, in line with the Glasgow Leaders Declaration on forest and land use.
- Committing to research and conservation initiatives which improve the collective body of scientific knowledge.
- Acknowledging the value of ecosystem services at local, regional and global scales and aligning the development and operation of our projects to the United Nations Sustainable Development Goals 14 and 15.

Conserving resources

- Efficiently using water, energy and raw materials to maximise the value gained from their use.
- Respecting the value of water resources and reliance on them by surrounding ecosystems and communities

Reducing emissions and waste

- Decarbonising our operations in line with our *Climate Change Policy* (100-PO-GH-0003) and producing green energy, green hydrogen and green ammonia to reduce global reliance on fossil fuels.
- Implementing strategies to reduce atmospheric emissions and discharges, including their negative impacts, to land and water from our operations.

- Not disposing of mined waste materials or tailings into rivers or marine environments.
- Prioritising the procurement of sustainable materials and reducing waste generation through prevention, reduction, reuse and recycling strategies.

Responsibility

It is the responsibility of everyone at Fortescue to ensure that we safeguard the environment wherever we operate. All Fortescue employees, vendors, contractors, suppliers, consultants, and other business partners are expected to adhere to this policy and all related standards, guidelines, and procedures. Our Board of Directors has ultimate responsibility for the oversight of all environment-related matters.

Fortescue's Audit and Risk Management Committee, a subcommittee of the Board, is charged with the oversight of Fortescue's risk management framework and processes including ensuring implementation and compliance with this policy.

Related Publications

The following Standards should be read in conjunction with this Policy.

Document Number	Title of Document
100-ST-EN-0018	Atmospheric Emissions Standard
100-ST-EN-0009	Biodiversity Standard
100-ST-EN-0011	Environmental Data Standard
100-ST-EN-0012	Environmental Governance Standard
100-ST-EN-0015	Water Standard
100-ST-EN-0014	Waste Standard

"signature not required if approved online in PIMS"

Dino Otranto
Chief Executive Officer

"Insert Date approved here"

Dated

Mark Hutchinson
Chief Executive Officer

8 April 2025

Dated

APPENDIX D EPBC ACT PROTECTED MATTERS REPORT

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 01-Aug-2025

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	13
Listed Migratory Species:	10

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	15
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	1
Regional Forest Agreements:	None
Nationally Important Wetlands:	1
EPBC Act Referrals:	7
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Listed Threatened Species			[Resource Information]
Status of Conservation Dependent and Extinct are not MNES under the EPBC Act. Number is the current name ID.			
Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Erythrotriorchis radiatus Red Goshawk [942]	Endangered	Species or species habitat may occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat known to occur within area	In feature area
Pezoporus occidentalis Night Parrot [59350]	Endangered	Species or species habitat may occur within area	In feature area
Polytelis alexandrae Princess Parrot, Alexandra's Parrot [758]	Vulnerable	Species or species habitat may occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area	In feature area
MAMMAL			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dasyurus hallucatus			
Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu] [331]	Endangered	Species or species habitat known to occur within area	In feature area
Macroderma gigas			
Ghost Bat [174]	Vulnerable	Species or species habitat known to occur within area	In feature area
Rhinonicteris aurantia (Pilbara form)			
Pilbara Leaf-nosed Bat [82790]	Vulnerable	Roosting known to occur within area	In feature area
PLANT			
Thryptomene wittweri			
Mountain Thryptomene [16645]	Vulnerable	Species or species habitat may occur within area	In feature area
REPTILE			
Liasis olivaceus barroni			
Pilbara Olive Python [66699]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Listed Migratory Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Migratory Terrestrial Species			
Hirundo rustica			
Barn Swallow [662]		Species or species habitat may occur within area	In feature area
Motacilla cinerea			
Grey Wagtail [642]		Species or species habitat may occur within area	In feature area
Motacilla flava			
Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area	In feature area
Glareola maldivarum Oriental Pratincole [840]		Species or species habitat may occur within area	In buffer area only

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
[Chalcites osculans as Chrysococcyx osculans](#) Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area	In feature area
[Charadrius veredus](#) Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area overfly marine area	In feature area
[Glareola maldivarum](#) Oriental Pratincole [840]		Species or species habitat may occur within area overfly marine area	In buffer area only
[Haliaeetus leucogaster](#) White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area	In feature area
[Hirundo rustica](#) Barn Swallow [662]		Species or species habitat may occur within area overfly marine area	In feature area
[Merops ornatus](#) Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
[Motacilla cinerea](#) Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area

Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
Barlee Range	Nature Reserve	WA	In buffer area only

Nationally Important Wetlands		[Resource Information]
Wetland Name	State	Buffer Status
Kookhabinna Gorge	WA	In buffer area only

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Extension to Brockman Syncline Iron Ore Operations	2019/8518		Post-Approval	In buffer area only
Controlled action				
Eliwana Iron Ore Mine Project, Pilbara region, WA	2017/8024	Controlled Action	Post-Approval	In buffer area only
Eliwana Railway Project, Pilbara region, WA	2017/8025	Controlled Action	Post-Approval	In buffer area only
Proposed West Pilbara Iron Ore Project	2009/4706	Controlled Action	Post-Approval	In buffer area only
Not controlled action				
Brockman Syncline 4 Iron Ore Project	2005/2289	Not Controlled Action	Completed	In buffer area only
Eliwana Iron Ore Mine	2020/8749	Not Controlled Action	Completed	In buffer area only
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data is available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on the contents of this report.

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions when time permits.

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded breeding sites; and
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

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-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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