Iron Bridge

Procedure

Impact Reconciliation Procedure – North Star Magnetite Project Extension

North Star Magnetite Project

31 March 2025

IB-0000-PR-EN-0007

Revision A

TABLE OF CONTENTS

LIST OF TABLES

1 PURPOSE

This Impact Reconciliation Procedure (IRP) provides a basis for determining environmental offset payment amounts for clearing of environmental values associated with the North Star (Iron Bridge) Magnetite Project Extension currently subject to assessment under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and Western Australian *Environmental Protection Act 1986* (EP Act). The procedure has been prepared to align with the *Instructions on how to prepare Environmental Protection Act 1986 Part IV Impact Reconciliation Procedures and Impact Reconciliation Reports* (*Environmental Protection Authority (EPA)* 2024).

2 SCOPE

Table 1: Key Accountabilities

Role	Responsibility
GIS Manager	Quality control of GIS data collection, storage and analysis. Schedule aerial photography imagery acquisition.
GIS Officer	Digitise spatial data for determination of direct impact footprints.
Site Environmental Superintendent	Ground truthing/review of direct impact footprints.
Mine Site General Manager	Approve direct impact footprints, to be used for the calculation of offset payments.
Manager, Nature and Science	Calculate the spatial extent of impacts for the North Star Impact Reconciliation Report (North Star IRR). Submit the North Star IRR to relevant regulators. Review the IRP.

3 DEFINITIONS

Table 2: Definition of Terms/Acronyms

Word/Term	Definition
Clearing	Clearing is defined as follows, consistent with the EP Act: (a) The killing or destruction of; or (b) The removal of; or (c) The severing or ringbarking of trunks or stems of; or (d) The doing of any substantial damage to, some or all of the native vegetation in an area, and includes the draining or flooding of land, the burning of vegetation*, the grazing of stock, or any other act or activity that causes: (a) The killing or destruction of; or (b) The severing of trunks or stems of; or (c) Any other substantial damage to, some or all of the native vegetation in an area. * Note: where caused by FMGIB operations
Commencement of implementation	The date at which FMGIB provides written notification of commencement of implementation of the Proposed Amendment as required by approval conditions.

Word/Term	Definition
Conservation significant vegetation category	Vegetation categories that are subject to this IRP.
CPI	Consumer Price Index
DCCEEW	Department of Climate Change, Energy, the Environment and Water
Direct Impacts	Physical clearing by FMGIB related to implementation and operation of the North Star Project.
DWER	Department of Water and Environment Regulation
ecologia	ecologia Environment
Environmental Values	Vegetation condition, community type, and fauna habitat categories that are subject to this IRP as per anticipated EP Act approval conditions
EP Act	*Environmental Protection Act 1986*
EPA	Environmental Protection Authority
EPBC Act	*Environmental Protection and Biodiversity Conservation Act 1999*
FMGIB	FMG Iron Bridge (Aust) Pty Ltd
Fortescue	Fortescue Limited all subsidiaries and employees
FY	Financial Year
GIS	Geographical Information Systems
'Good to Excellent' condition native vegetation	Classifications as per Table 2 of the EPA publication *Technical Guide – Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016).
GST	Goods and Service Tax
IBRA sub-region	Sub-regions defined under the Interim Biogeographic Regionalisation for Australia (IBRA) (Version 7), published by the Australian Government.
ICDE	Infrastructure Corridor Development Envelope
IRP	Impact Reconciliation Procedure
IRP Mapping Units	Areas subject to IRP reporting, classified based on the offset value of the conservation significant vegetation and/or fauna habitat that they contain.
IRR	Impact Reconciliation Report
MDE	Mine Development Envelope
Project Disturbance Footprint	The spatial extent of direct impacts to conservation significant vegetation, ecological communities and fauna habitat at the North Star Project. The Updated Project Site Disturbance Footprint is the spatial extent of direct impacts to conservation significant vegetation applicable to the current IRP reporting period. The Approved Project Site Disturbance Footprint is the spatial extent of direct impacts to conservation significant vegetation approved for offset calculations.
Most recent aerial photography	The most recently available aerial photography for North Star Project, acquired as per the schedule in Table 5. Image resolution ≤0.5 m.
MS	Ministerial Statement
NSE	North Star Extension
North Star Project	The North Star Magnetite Project Extension
North Star IRP Polygons	GIS polygons representing IRP mapping units (i.e. which depict the extent of environmental values and protected matters that require offsets as identified in conditions of EP Act and EPBC Act approvals.

Word/Term	Definition
PEOF	Pilbara Environmental Offset Fund
Protected Matters	Relevant matters protected under the EPBC Act including Northern Quoll, Pilbara Olive Python, Pilbara Leaf-nosed Bat and Ghost Bat.
SCDE	Slurry Corridor Development Envelope
the Approved Proposal	The existing North Star Magnetite Project approved under the EP Act by MS 993 and under the EPBC Act by EPBC 2012/6689
the Proposed Amendment	Proposed amendment to the Approved Proposal through an extension of the MDE to enable the development of new mine pits, an extension of the waste rock dump, and ancillary infrastructure currently subject to assessment under the EP Act and the EPBC Act
Vegetation condition	Classifications as per Table 2 of the EPA publication *Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA 2016).
WCDE	Waste Corridor Development Envelope

4 THE PROPOSAL AND CONDITION REQUIREMENTS

4.1 The Proposal

FMG Iron Bridge (Aust) Pty Ltd (FMGIB) operates the existing North Star Magnetite Project, (the Approved Proposal), which is located approximately 110 kilometres (km) southeast of Port Hedland in the Pilbara region of Western Australia. The Approved Proposal encompasses the following development envelopes and associated elements:

- Mine Development Envelope (MDE): opencut mine pits, waste rock dumps, groundwater production bores, tailing storage facility and associated infrastructure approximately 110 km south-south east of Port Hedland.
- Water Corridor Development Envelope (WCDE): the Canning Basin borefield, a water supply pipeline and associated infrastructure, located approximately 160 km east of Port Hedland.
- Slurry Corridor Development Envelope (SCDE): slurry pipeline, water return pipeline, natural gas pipeline, access road and associated infrastructure connecting the North Star mine area to facilities in Port Hedland.
- Infrastructure Corridor Development Envelope (ICDE): aerodrome, access roads, groundwater production bores, transmission lines, gas pipeline, slurry pipeline, water return pipeline and associated infrastructure.

FMGIB is seeking to amend the Approved Proposal through an extension of the MDE (referred to as the North Star Extension (NSE) hereafter) to enable the development of new mine pits, an extension of the waste rock dump, and ancillary infrastructure (henceforth referred to as the Proposed Amendment).

4.2 Condition Requirements

The Approved Proposal was approved under the Western Australian *Environmental Protection Act 1986* (EP Act) by MS 993 on the 5 January 2015 and under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) by EPBC 2012/6689 on the 6 February 2015. In view of significant residual impacts to Environmental Values and Protected Matters, resulting from implementation of the project, both approvals included offset related conditions that provided provision to meet associated obligations via contribution of funds to an approved conservation offset fund.

The Proposed Amendment was referred to the EPA (assessment number 2353) in July 2022 with the level of assessment set at Referral Information with additional information (required under s.40(2)(a) of the EP Act) and public review. It was also determined to be a Controlled Action assessed as a Public Environmental Report (PER) under the EPBC Act (assessment number 2023/09466).

It is anticipated that conditions in relation to offsets for significant residual impacts will be required for future approvals for the Proposed Amendment issued under both the EP Act and EPBC Act. As these approvals are currently pending, the actual conditions have not been included within this IRP. The IRP will be revised within three months of the grant of approvals for the Proposed Amendment to account for actual conditions received in the EP

Act and/or EPBC Act approvals and submitted to the EPA and/or DCCEEW for approval as required (see schedule included in Section 6.1).

The Proposed Amendment is expected to result in clearing of approximately an additional 607 ha of vegetation and fauna habitat within the Chichester IBRA subregion. It is anticipated that the EP Act approval conditions will require offsets for significant residual impacts to:

- Critical Habitat for Northern Quoll, Pilbara Olive Python, Pilbara Leaf-nosed Bat, and Ghost Bat
- Native vegetation in 'Good to Excellent' condition including supporting habitat for fauna species
- Vegetation types supporting populations of *Quoya zonalis* (Threatened Flora).

EPBC act approval conditions are expected to require offsets to be paid to the Pilbara Environmental Offset Fund (PEOF) for impacts to:

- Critical Habitat for Northern Quoll, Pilbara Olive Python, Pilbara Leaf-nosed Bat, and Ghost Bat
- Supporting Habitat for Northern Quoll, Pilbara Olive Python, Pilbara Leaf-nosed Bat, and Ghost Bat
- Vegetation types (Supporting Habitat) for *Quoya zonalis.*

Whilst this IRP has been drafted based on anticipated approval conditions, future revisions of the IRP and related Impact Reconciliation Reports (IRRs) will be implemented in accordance with actual conditions received in the EP Act and EPBC Act approvals (anticipated that MS 993 will be superseded, EPBC 2010/6689 to remain in place, and additional EPBC Act approval granted over the NSE).

5 PROCEDURE

5.1 Identification of the Environmental Values and Protected Matters Requiring Offsets

FMGIB proposes monetary contributions to the PEOF to meet the anticipated offset related conditions of EP Act and EPBC Act approvals for clearing of native vegetation in 'Good to Excellent' vegetation condition, critical and supporting fauna habitat for MNES species, and vegetation types known to support populations of *Quoya zonalis*. Rates per hectare of clearing for the Proposed Amendment will be implemented in accordance with actual conditions received in EP Act and EPBC Act approvals but are estimated within the IRP here based on:

- rates published on the PEOF website for the Chichester IBRA subregion and 2023-2024 financial year (for EP Act Environmental Values)
- EPBC Act Controlled Actions for other projects in the Pilbara issued in 2024 that include conditions stipulating contribution rates for PEOF (for EPBC Act Protected Matters).

Rates will be subject to the Perth – *All Groups Consumer Price Index* (CPI) with adjustments made annually according to the calendar year within which impacts occurred to align with the existing Impact Reconciliation timelines (reporting and payment dates) for the Approved Proposal and EPBC 2010/6689 conditions that are anticipated to remain in effect. Where Environmental Values or Protected Matters requiring offset overlap, only the highest applicable rate will be applied.

Table 3: Anticipated Environmental Values and Protected Matters that require offsets for the Proposed Amendment

IRP unit	EP Act Environmental value	EPBC Act Protected Matter	Corresponding Mapping Units	Potential extent of residual impact	EP Act Offset Rate	EPBC Act Offset Rate	Map Reference(s)
1	'Good' to 'Excellent' condition native vegetation cleared within the WCDE and SCDE	N/A	Native vegetation in Good, Very Good and Excellent condition	Approx. 886 ha within the WCDE and 435 ha within the SCDE.	$932/ha (PEOF Chichester base)	N/A	Figures 2 and 3 of this IRP
2	'Good' to 'Excellent' condition native vegetation cleared within the MDE	N/A	Native vegetation in Good, Very Good and Excellent condition	Approx. 4,100 ha (overlaps IRP unit 2,3,4 and 5)	$932/ha (PEOF Chichester base)	N/A	Figure 1 of this IRP
3	N/A	Clearing of Supporting Habitat for Ghost bat, Pilbara Leaf-nosed bat, Northern Quoll, and Pilbara Olive Python within the MDE	**Within Approved Proposal MDE** ecologia (2012b) 'Rocky Spinifex Hills' and 'Creekline' fauna habitats **Within Approved Proposal MDE and NSE** Spectrum (2022) 'Hills, Ranges and Plateau' and 'Minor Drainage Line' fauna habitats	Approx. 4,182 ha (overlaps IRP units 2 and 4)	N/A	$1,653/ha (EPBC base – applicable rate)	Figure 4 of this IRP
4	Native vegetation supporting *Quoya zonalis* populations cleared within the MDE	Clearing of Supporting Vegetation (Habitat) for *Quoya zonalis* within the MDE	**Within Approved Proposal MDE** ecologia (2012a) VTs: AaTw1, AaTw2, AaTw3, AaTw4, AiTb, AoTw, Ap, ApTp, At, AtEm, AtTw, ElApEm, ElApTw, GwTe, SpTl, Tl, Tp, Tw1, Tw2, Tw4; and Ecoscape (2018) VTs: AaTw1, AaTw2, AbTw, AiTw, ChAaTl, ElTw, EvAtCc **Within NSE** Ecoscape (2020) VTs: AiTb, AoTb, ElAaTw, ElAiTw1, ElAiTw2, ElApTw, ElAtTw1, ElAtTw2, EvApTl	Approx. 4,100 ha (overlaps IRP units 2, 3 and 4	$1,864/ha (PEOF Chichester higher - applicable rate)	$1,653/ha (EPBC base)	Figure 5 of this IRP
5	Critical Habitat for the Ghost bat, Pilbara Leaf-nosed bat, Northern Quoll, or Pilbara Olive Python cleared within the MDE	Clearing of Critical Habitat for Ghost bat, Pilbara Leaf-nosed bat, Northern Quoll, and Pilbara Olive Python within the MDE	**Within Approved Proposal MDE** ecologia (2012b) - Rocky ridge/breakaway/gorge'; and ecologia (2012c) 'Northern Quoll Habitat', 'Pilbara Leaf-nosed Bat Habitat' and 'Pilbara Olive Python Habitat' **Within Approved Proposal MDE and NSE** Spectrum (2021) 'Gorge/Gullies' and 'Rocky Escarpments' fauna habitats	Approx. 132.4 ha (overlaps IRP units 2 and 4)	$1,864/ha (PEOF Chichester higher)	$3,306 /ha (EPBC higher – applicable rate)	Figure 4 of this IRP

5.2 Method to Determine Impacts

5.2.1 Baseline Data

5.2.1.1 Vegetation

The Approved Proposal MDE was surveyed under a two-phase flora and vegetation survey by ecologia Environmental (ecologia 2012a). Additional surveys and assessments were completed between 2014 and 2021 (including regional and targeted surveys) to comply with the conditions of MS 993, understand and account for areas that were not previously surveyed, and review and consolidate the previous survey data.

A detailed (two phase) flora and vegetation survey was conducted in 2018 by Ecoscape (2018) over the Glacier Valley area, to build on previous data. The Glacier Valley area lies to the south-east of the MDE.

Ecoscape undertook a flora and vegetation assessment consolidation and supplementary survey of the NSE in 2020 including targeted searches for conservation significant flora (Ecoscape 2020).

A targeted flora assessment of the NSE, parts of the Approved Proposal MDE, and areas west of NSE was also conducted by ecologia in April and May 2023 (ecologia 2023) which confirmed the number of threatened flora individuals (*Quoya zonalis*) within the MDE and NSE.

These assessments provide the baseline vegetation information for this IRP including vegetation type and condition mapping and populations of *Quoya zonalis*. No vegetation recorded from the survey area was assessed as being representative of any currently described as Threatened Ecological Communities (TEC) or Priority Ecological Communities (PEC) (ecologia 2012a & Ecoscape 2020).

5.2.1.2 Fauna Habitat

A level 2 vertebrate fauna survey of the Approved Proposal and a subsequent targeted conservation significant fauna survey was undertaken by ecologia (2012b & c).

A terrestrial vertebrate fauna assessment was undertaken for the NSE which built on the previous surveys completed as part of the Approved Proposal. The assessment included a two-phase detailed (level 2) fauna survey, short range endemic invertebrate survey, targeted conservation significant vertebrate fauna surveys and regional critical habitat modelling for the Northern Quoll and Pilbara Olive Python (Spectrum, 2021). Targeted surveys and regional critical habitat modelling for the Ghost Bat and Pilbara Leaf-nosed Bat were also completed (GHD, 2020).

The surveys undertaken for the project area are considered to adequately describe the fauna assemblage, conservation significant fauna species and habitat that may be present.

5.2.1.3 Existing Cleared Areas

FMGIB maintains a cleared areas GIS dataset that is updated and verified at a minimum annually via interrogation of recent aerial photography and our Land Use Certificate (LUC) system. The dataset captures clearing footprints for both Fortescue and non-Fortescue clearing (e.g. pastoral, overlapping proposals from other entities) within approval boundaries.

Non-Fortescue clearing is captured within the dataset as “Pastoral, Non-FMG and Competitor” records and verified by the site Environmental Superintendents.

The following areas are known to overlap the Amended Proposal and are considered exempt from offsets due to not being associated with the construction or operation of the project:

- Clearing undertaken along Fortescue’s Main Line Rail (MS 690) and Herb Elliot Port (MS 690 and MS 771);
- Clearing within the Project Envelopes which is not associated with the project (for example, clearing undertaken by Pastoral Stations);

The Approved Proposal clearing under MS 993 will be considered offset exempt as part of this IRP, with offset requirements subject to the conditions of MS 993 and the associated approved IRP.

For this IRP FMGIB will use aerial photography from within a month of commencement of the Amended Proposal to establish the baseline for existing clearing not attributable to the project and therefore exempt from offsets (inclusive of pastoral and non-Fortescue clearing associated within overlapping proposals from other entities as above).

5.2.2 Land User Management

Fortescue’s *Land Use Certification Procedure* (100-PR-TA0001) provides a process to ensure appropriate approvals have been obtained for all proposed activities prior to activities commencing. The procedure applies to all situations where a Fortescue employee or contractor requests to disturb or rehabilitate land, change the purpose of the land, increase the previously approved activity area or conduct maintenance works involving earth movement. All clearing associated with an authorising LUC. The LUC process broadly includes the following:

- Work is characterised by applicant;
- An assessment is undertaken by each approver (tenure, stat agreement, environment, heritage, pastoral access and water infrastructure);
- Topsoil storage area is identified (if applicable);
- Sensitivity checks are reviewed, conditional and remedy mark-ups are applied;
- Approval conditions assigned and accepted; and
- LUC activated if accepted by all parties.

All LUCs are assessed by an environmental approver to ensure compliance with relevant approvals, obligations and legislation. As part of the process LUCs are attributed to relevant environmental approvals, which environmental approvers confirm are appropriate to support the proposed activity and that the associated LUC footprint lies within relevant approval boundaries. Approved LUCs are reviewed by site Environmental Superintendents when verifying that digitised footprints within Fortescue’s cleared areas dataset has been allocated to the correct environmental approvals or as non-Fortescue (third party) clearing.

5.2.3 Direct Impacts

Direct impacts on native vegetation within the Amended Proposal will be verified on a biennial basis (i.e. every two years). The assessment process described in Table 4 will be applied to each category of Environmental Value and Protected Matter requiring offset as defined in Table 3 in accordance with the timings identified in Table 5.

Table 4: Methodology to Determine Direct Impacts

Responsibility	Steps (Tasks)	Outputs
GIS Manager	Commission the capture of North Star aerial photography on an annual basis.	Digital orthophotos spanning North Star Project with ground accuracy <2.0 m and pixel resolution <0.5 m.
GIS Officer	Upload the relevant North Star IRP Polygons, Approved Disturbance Footprint from the most recent North Star IRR, and most recent aerial photography of North Star into a GIS platform.	GIS files created for IRP reporting purposes for North Star Project.
GIS Officer	Delineate the Provisional Updated Disturbance Footprint, by: • Visually identifying areas of current disturbance using the most recent aerial imagery.	Provisional Updated Disturbance Footprint polygons for North Star Project.
Site Environmental Superintendent	Review the Provisional Updated Disturbance Footprint to confirm the total area of clearing. Review is required to ensure: • Disturbance is attributable to the project; • Non-Fortescue disturbance is identified in the dataset where it occurs within the approval areas; • Aerial interpretation has been undertaken accurately (i.e., no areas missing or have been incorrectly classified).	Reviewed Provisional Updated Disturbance Footprint.
GIS Officer	Amend the Provisional Updated Disturbance Footprint polygons to reflect the findings of the Site Environmental Superintendent review.	Updated Disturbance Footprint polygons for North Star Project.
GIS Officer	Calculate the area of new direct impacts to each IRP unit by subtracting previously reported impacts and impacts not attributable to the project from total impact footprint.	Updated GIS files created for IRR purposes for the North Star Project.
Manager, Nature and Science	Prepare the North Star IRR in accordance with this IRP.	North Star IRR
DWER	Calculate and confirm offset rates and Consumer Price Index adjustments for EP Act conditioned areas.	PEOF contribution invoice for each biennial reporting period
DCCEEW	Calculate and confirm offset rates and Consumer Price Index adjustments for the EPBC Act conditioned areas.	PEOF contribution invoice for each biennial reporting period

6 REPORTING

6.1 Frequency and Timing

FMGIB will prepare IRRs biennially with the first reporting period to begin on commencement of ground disturbance activities associated with the Amended Proposal (or date specified in approval conditions received) and end on the second 31 December following commencement (Table 5). The first IRR will be submitted to DWER by 31 March, and payment to the PEOF by 31 May, following the end of the first biennial period.

Subsequent biennial reporting periods will occur on a calendar year basis as shown in Table 5, and will continue for the life of the Amended Proposal.

Table 5: Frequency and Timing of North Star IRR

Biennial Period	Action	Timing
Approved Proposal Stage	MS 993 issued	5 Jan 2015
	EPBC 2012/6689	6 Feb 2015
	Commencement of Approved Proposal	5 Aug 2019
Amended Proposal Approval Stage	Amended Proposal approved (MS 993 superseded, EPBC 2012/6689 to remain in effect and additional EPBC Act approval granted over NSE).	Nominally August 2025
Amended Proposal Post Approval Stage	Commencement of Amended Proposal	On commencement of ground disturbance activities associated with Amended Proposal
	IRP revised, approved and implemented in accordance with approval conditions	Within three months of Amended Proposal approval grant
Amended Proposal Period 1	First biennial reporting period	On commencement of ground disturbance activities associated with Amended Proposal or date specified in approval conditions received
	Aerial survey / ground truthing	Dec each year
	Submit North Star IRR to DWER	31 Mar following second year
	Payment into PEOF following receipt invoice	Prior to 31 May following second year
	Submit evidence of payment into PEOF account to DCCEEW	Within 48 hours of payment
Per Biennial Period	Biennial reporting period	1 Jan to 31 Dec – two-year period
	Aerial survey / ground truthing	Dec each year
	Submit North Star IRR to DWER	31 Mar following second year
	Payment into PEOF following receipt of invoice	Prior to 31 May following second year
	Submit evidence of payment into PEOF account to DCCEEW	Within 48 hours of payment

6.2 Impacts and Reconciliation

The North Star IRR submitted for each biennial reporting period will meet the requirements of the *Environmental Protection Act 1986 Part IV Impact Reconciliation Procedures and Impact Reconciliation Reports* (EPA 2024) (or any subsequent revision), Section 3(2) which includes the following:

- Detail impacts that have occurred during each calendar year of the reporting period, attributed by environmental value/protected matter.
- Information used to validate impact areas, including aerial imagery or remote sensing data; digitised polygons and ground-truthing surveys used to determine impacts for each calendar year.
- Information regarding any exemptions, other clearing approvals or reductions to contributions to the fund, where relevant (such information may include the details and spatial data for impacts approved against a previous Ministerial Statement or clearing permit).
- Details and spatial data for historical impacts which are excluded from offset contributions.
- An estimate of impacts expected to be reported in subsequent reporting periods.
- Submit metadata statement of IRR impacts data submission for each biennial reporting period.

7 MONITORING AND REVIEW

Table 6: Monitoring and Review Schedule

Monitor (Audit) and Review	Frequency	Responsibility
Procedure Review	As required	Manager, Nature and Science

8 DOCUMENTATION AND RECORDS MANAGEMENT

This Procedure and all supporting documents will be managed as per Fortescue Document Standards.

9 STAKEHOLDER CONSULTATION

Table 7 provides details on receipt of stakeholder comments and revision history. This will be updated as required as a result of the review and approval process.

Table 7: Stakeholder Consultation

Stakeholder	Date	Correspondence	Changes
DWER	27/03/2024	**Fortescue:** Submission of revised Impact Reconciliation Procedure (IB-0000-PR-EN-0005 Rev A) for MS 993 (UID-172950) and NSE.	Incorporated EPBC Act requirements and North Star Extension
DWER	30/07/2024	**DWER:** Required Amendments and comments on IB-PR-EN-0005 Rev A to allow approval against MS 993 conditions, including the removal of all North Star Extension (North Star Magnetite Extension Project) elements (UID-181494)	Creation of separate IRP solely for North Star Magnetite Extension Project (IB-0000-PR-EN-0007 Rev A)

REFERENCES

[1] ecologia Environment (2012a). Fortescue Metals Group Ltd North Star Vegetation and Flora Assessment. Perth: unpublished report for Fortescue Metals Group Limited.

[2] ecologia Environment (2012b). Fortescue Metals Group Ltd North Star Project Level 2 Vertebrate Fauna Assessment. Perth: unpublished report for Fortescue Metals Group Limited.

[3] ecologia Environment (2012c). Fortescue Metals Group Ltd North Star Project Targeted Conservation Significant Fauna Survey. Perth: unpublished report for Fortescue Metals Group Limited.

[4] ecologia Environment (2023). North Star Extension Targeted Flora Assessment. Unpublished report for Fortescue Metals Group Limited.

[5] Ecoscape (2018). Glacier Valley Extension Flora and Vegetation Survey, North Star Project. Unpublished report for Fortescue Metals Group Limited.

[6] Ecoscape (2020) North Star Extension Flora and Vegetation Survey – Iron Bridge.

[7] Environmental Protection Authority (EPA) 2024. Instructions on how to prepare Environmental Protection Act 1986 Part IV Impact Reconciliation Procedures and Impact Reconciliation Reports. Environmental Protection Authority, Joondalup WA.

[8] GHD (2020). Glacier Valley and South Star Fauna Surveys Fauna Survey Report.

[9] Spectrum Ecology (2021). Glacier Valley Terrestrial Vertebrate Fauna Assessment.

[10] Spectrum Ecology (2022). Shooting Star Targeted *Quoya zonalis* Survey. Unpublished report for Fortescue Metals Group Limited.

[11] Spectrum Ecology (2023). *Quoya zonalis* Data Consolidation. s.l.:Unpublished report prepared for Fortescue Metals Group Ltd.

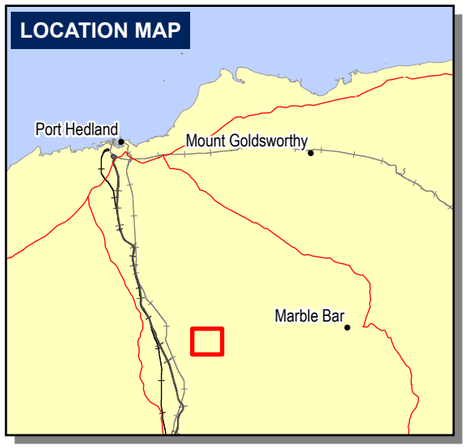
DOCUMENT CONTROL

Impact Reconciliation Procedure – North Star Magnetite Project Extension		
Status	IFR - Issued for Review	31-Mar-25
Summary of Changes	N/A	
Author	Samantha Mickan, Jared Nelson	Signature
Checked or Squad Review# (if applicable)	Jared Nelson	Signature
Approved	Todd Edwards	Signature
Next Review Date (if applicable)	As required	

FIGURE 1 MDE VEGETATION CONDITION

705,000
710,000
715,000
7,655,000
7,650,000
7,645,000
Chichester

LOCATION MAP



LEGEND

- Approved Proposal MDE
- North Star Extension Boundary
- IBRA Subregions

Vegetation Condition

- Excellent
- Very Good
- Good

Data Sources:
Aerial, Fortescue and ESRI.
IBRA Subregions, DWER.

N

0 0.5 1 1.5 2 2.5
Kilometres

Iron Bridge Mine
Vegetation Condition

Requested By: J. Nelson
Drawn By: S. Costello
Revised By: jarnelson
Approved By: S. Costello
Scale: 1:50,000
Coordinate System: GDA 1994 MGA Zone 50
Project Name: 662NS_0000_MP_EN_0335_MNSE_r2
Document Name: 662NS_0000_MP_EN_0335_005_r1

Date: 25/11/2024
Size: A3L
Revision: 1
Confidentiality: 1

GDA94

Fortescue

FIGURE 2 SCDE VEGETATION CONDITION

660,000
670,000
7,740,000
7,730,000
7,720,000
Roebourne
Chichester

LEGEND

- Approved Proposal SCDE
- IBRA Subregions

Vegetation Condition

- Excellent
- Very Good
- Good
- Poor
- Completely Degraded

Data Sources:
Aerial, ESRI.
IBRA Subregions, DWER.

N

0 1 2 3 4 5
Kilometers

Iron Bridge Slurry Corridor
Vegetation Condition Map 1 of 3

Requested By: J. Nelson
Drawn By: S. Costello
Revised By: jarnelson
Approved By: S. Costello
Scale: 1:100,000
Coordinate System: GDA 1994 MGA Zone 50
Project Name: 662NS_0000_MP_EN_0335_S_r1
Document Name: 662NS_0000_MP_EN_0335_001_r1

Date: 24/04/2025
Size: A3P
Revision: 1
Confidentiality: 0

Fortescue

660,000 670,000 680,000

7,710,000 7,700,000 7,690,000

Roebourne

Chichester

LEGEND

- Approved Proposal SCDE
- IBRA Subregions

Vegetation Condition

- Very Good
- Completely Degraded

Data Sources:
Aerial, ESRI.
IBRA Subregions, DWER.

N

0 1 2 3 4 5
Kilometers

Iron Bridge Slurry Corridor
Vegetation Condition Map 2 of 3

Requested By: J. Nelson
Drawn By: S. Costello
Revised By: jarnelson
Approved By: S. Costello
Scale: 1:100,000
Coordinate System: GDA 1994 MGA Zone 50
Project Name: 662NS_0000_MP_EN_0335_S_r1
Document Name: 662NS_0000_MP_EN_0335_001_r1

Date: 24/04/2025
Size: A3P
Revision: 1
Confidentiality: 0

Fortescue

670,000 680,000 690,000

7,680,000

7,670,000

7,660,000

Chichester

LEGEND

- Approved Proposal SCDE
- IBRA Subregions

Vegetation Condition

- Excellent
- Very Good
- Poor
- Degraded
- Completely Degraded

Data Sources:
Aerial, ESRI.
IBRA Subregions, DWER.

N

0 1 2 3 4 5
Kilometers

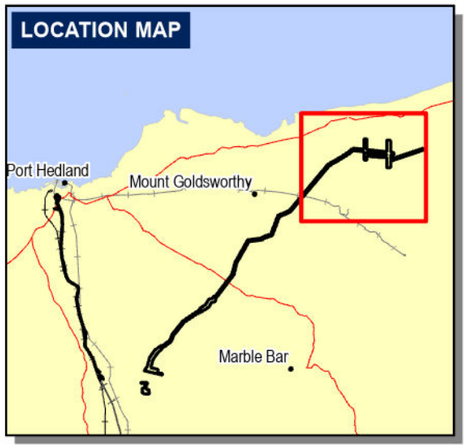
Iron Bridge Slurry Corridor
Vegetation Condition Map 3 of 3

Requested By: J. Nelson
Drawn By: S. Costello
Revised By: jarnelson
Approved By: S. Costello
Scale: 1:100,000
Coordinate System: GDA 1994 MGA Zone 50
Project Name: 662NS_0000_MP_EN_0335_S_r1
Document Name: 662NS_0000_MP_EN_0335_001_r1

Date: 24/04/2025
Size: A3P
Revision: 1
Confidentiality: 0

Fortescue

FIGURE 3 WCDE VEGETATION CONDITION



LEGEND

- Approved Proposal WCDE
- IBRA Subregions

Vegetation Condition

- Very Good

Data Sources:
Aerial, ESRI.
IBRA Subregions, DWER.

N

0 2 4 6 8 10
Kilometres

Iron Bridge Water Corridor
Vegetation Condition Map 1 of 3

Requested By: J. Nelson
Drawn By: S. Costello
Revised By: jarnelson
Approved By: S. Costello
Scale: 1:210,000
Coordinate System: GDA 1994 MGA Zone 50
Project Name: 662NS_0000_MP_EN_0335_W_r1
Document Name: 662NS_0000_MP_EN_0335_003_r1

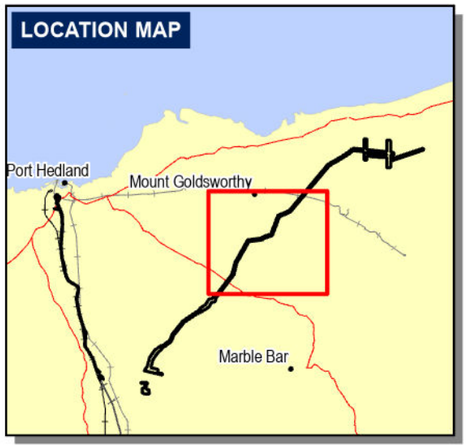
Date: 24/04/2025
Size: A3L
Revision: 1
Confidentiality: 1

GDA94

Fortescue

760,000
780,000
800,000
7,740,000
7,720,000
7,700,000

McLarty
Roebourne
Roebourne
Chichester



LEGEND

- Approved Proposal WCDE
- IBRA Subregions

Vegetation Condition

- Very Good
- Good
- Degraded

Data Sources:
Aerial, ESRI.
IBRA Subregions, DWER.

N

0 2 4 6 8 10
Kilometres

Iron Bridge Water Corridor
Vegetation Condition Map 2 of 3

Requested By: J. Nelson
Drawn By: S. Costello
Revised By: jarnelson
Approved By: S. Costello
Scale: 1:200,000
Coordinate System: GDA 1994 MGA Zone 50
Project Name: 662NS_0000_MP_EN_0335_W_r1
Document Name: 662NS_0000_MP_EN_0335_003_r1

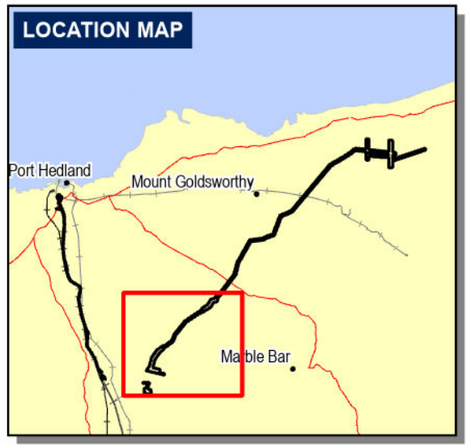
Date: 24/04/2025
Size: A3L
Revision: 1
Confidentiality: 1

GDA94

Fortescue.

700,000
720,000
740,000
7,680,000
7,660,000
Chichester

LOCATION MAP



LEGEND

- Approved Proposal WCDE
- IBRA Subregions

Vegetation Condition

- Excellent
- Very Good
- Good
- Poor

Data Sources:
Aerial, ESRI.
IBRA Subregions, DWER.

N

0 2 4 6 8 10
Kilometres

Iron Bridge Water Corridor
Vegetation Condition Map 3 of 3

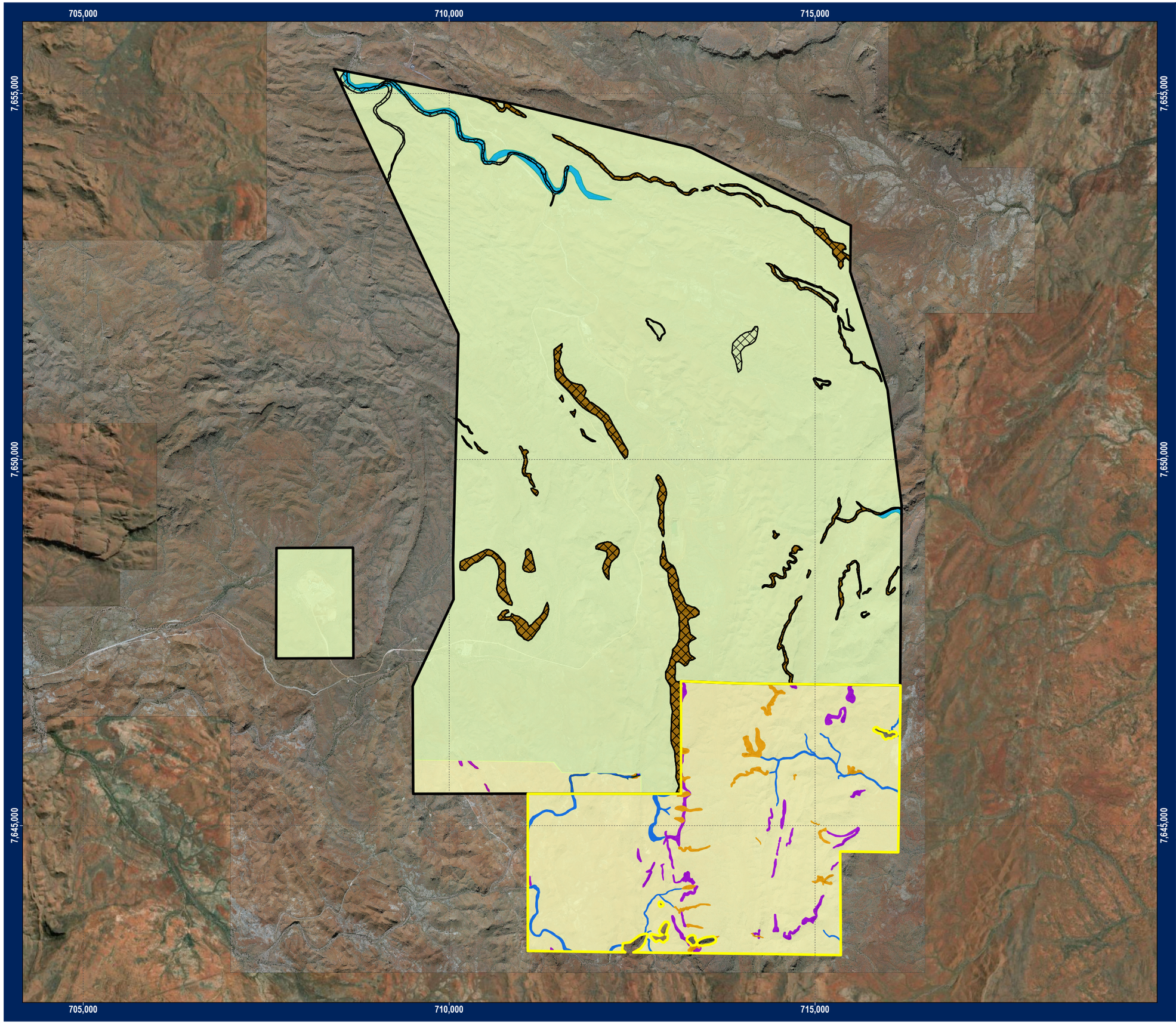
Requested By: J. Nelson
Drawn By: S. Costello
Revised By: jarnelson
Approved By: S. Costello
Scale: 1:200,000
Coordinate System: GDA 1994 MGA Zone 50
Project Name: 662NS_0000_MP_EN_0335_W_r1
Document Name: 662NS_0000_MP_EN_0335_003_r1

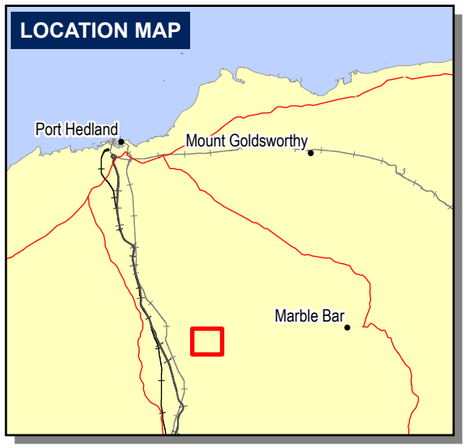
Date: 24/04/2025
Size: A3L
Revision: 1
Confidentiality: 1

GDA94

Fortescue.

FIGURE 4 MDE FAUNA HABITATS





LEGEND

- IBRA Subregions
- Approved Proposal MDE
- North Star Extension Boundary

ecologia (2012c) Fauna Habitat

- Critical Habitat - Northern Quoll, Pilbara Leaf-nosed Bat Habitat and/or Pilbara Olive Python Habitat

ecologia (2012b) Fauna Habitat

Critical Habitat
- Rocky ridge/breakaway/gorge

Supporting Habitat
- Creekline
- Rocky Spinifex Hills

Spectrum Ecology (2022) Fauna Habitat

Critical Habitat
- Gorges/Gullys
- Rocky Escarpment

Supporting Habitat
- Drainage Line/River/Creek (minor)
- Hills, Ranges and Plateaux

Data Sources:
Aerial, Fortescue and ESRI.

N

0 500 1,000 1,500
Meters

Iron Bridge Mine
Fauna Habitat

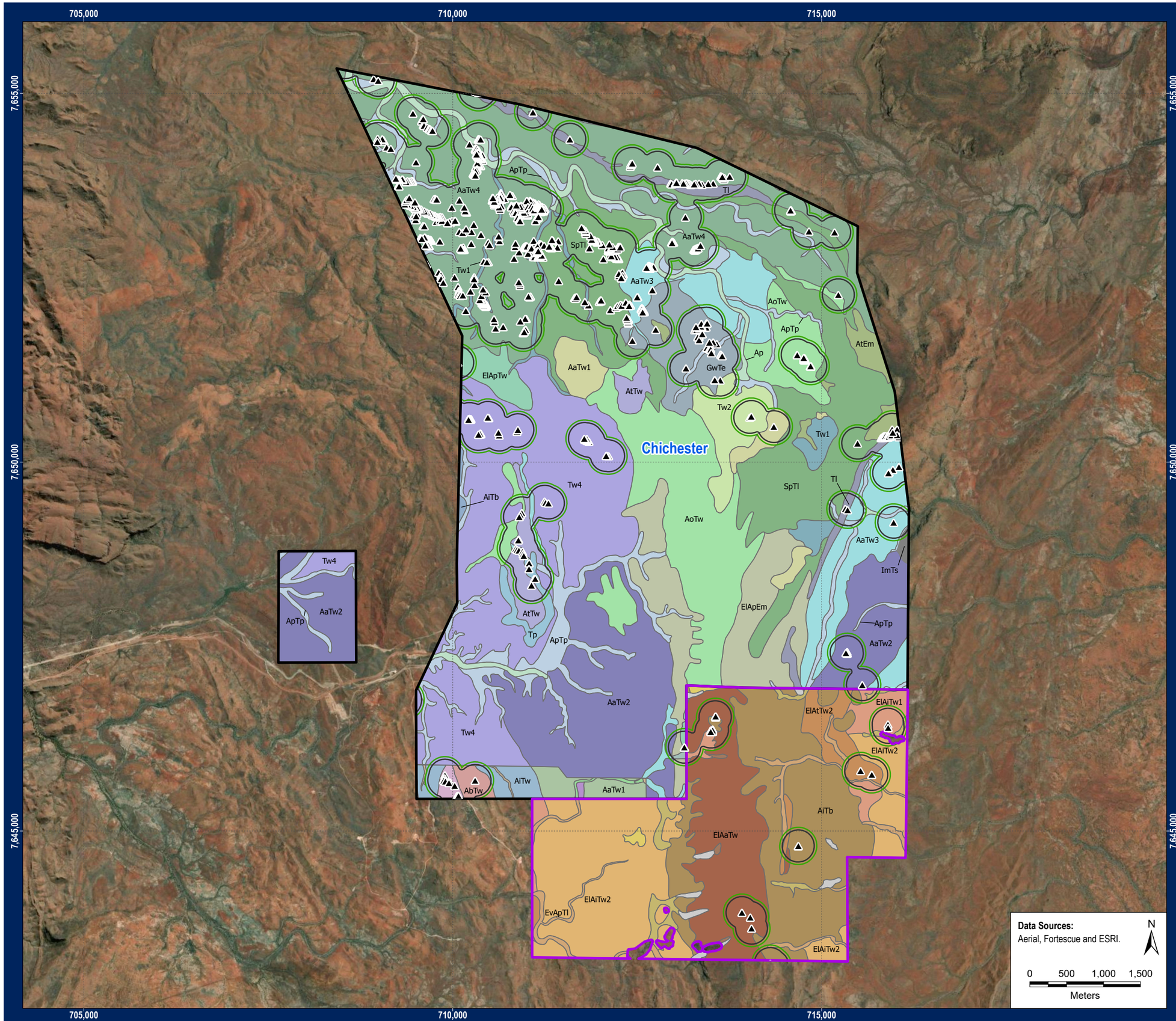
Requested By: J. Nelson
Drawn By: S. Costello
Revised By: jarnelson
Approved By: S. Costello
Scale: 1:50,000
Coordinate System: GDA 1994 MGA Zone 50
Project Name: 662NS_0000_MP_EN_0335_MNSE_r2
Document Name: 662NS_0000_MP_EN_0335_008_r1

Date: 25/11/2024
Size: A3L
Revision: 0
Confidentiality: 1

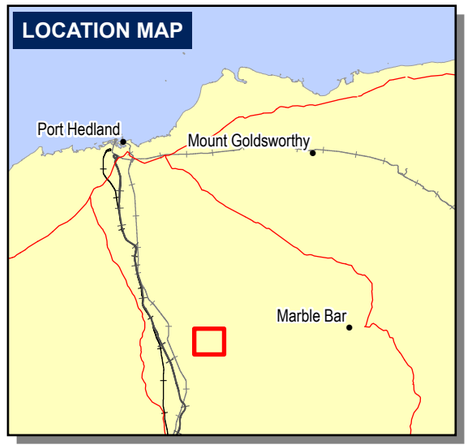
GDA94

Fortescue.

FIGURE 5 MDE VEGETATION TYPES



LOCATION MAP



LEGEND

- *Quoya zonalis* Locations
- *Quoya zonalis* Populations
- IBRA Subregions
- Approved Proposal MDE
- North Star Extension Boundary

ecologia (2012a) Vegetation Types

VTs containing *Quoya zonalis* records

- AaTw1
- AaTw2
- AaTw3
- AaTw4
- AiTb
- AoTw
- Ap
- ApTp
- At
- AtEm
- AtTw
- ElApEm
- ElApTw
- GwTe
- SpTl
- Tl
- Tp
- Tw1
- Tw2
- Tw4

VTs not containing *Quoya zonalis* records

- ImTs

Ecoscape (2018) Vegetation Types

VTs containing *Quoya zonalis* records

- AaTw1
- AaTw2 - equvalent to ecologia (2012a) AaTw2*
- AbTw
- AiTw
- ChAaTl - equivalent to ecologia (2012a) Ap*
- ElTw
- EvAtCc

Ecoscape (2020) Vegetation Types

VTs containing *Quoya zonalis* records

- AiTb
- AoTb - equivalent to ecologia (2012a) AoTw*
- ElAaTw
- ElAiTw1
- ElAiTw2 - equivalent to ecologia (2012a) AaTw3*
- ElApTw - equivalent to ecologia (2012a) AaTw*
- ElAtTw1 - equivalent to ecologia (2012a) ApTp*
- ElAtTw2
- EvApTl - equivalent to ecologia (2012a) Ap*

VTs not containing *Quoya zonalis* records

- AeTb; CfAtCa; TcAtTw

*ecologia (2012a) VT that contains *Quoya zonalis* records

Data Sources:
Aerial, Fortescue and ESRI.

N

0 500 1,000 1,500
Meters

Iron Bridge Mine Vegetation Types

Requested By: J. Nelson
Drawn By: S. Costello
Revised By: jarnelson
Approved By: S. Costello
Scale: 1:50,000
Coordinate System: GDA 1994 MGA Zone 50
Project Name: 662NS_0000_MP_EN_0335_MNSE_r2
Document Name: 662NS_0000_MP_EN_0335_007_r1

Date: 26/11/2024
Size: A3L
Revision: 0
Confidentiality: 1

GDA94

Fortescue