

Oak Park Mine Vegetation Management Plan

EPBC 2003/1005

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
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DOCUMENT DETAILS

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OAK PARK MINE: VEGETATION MANAGEMENT PLAN

- **EPBC number:** 2003/1005
- **Project name:** Open cut coal mine at Oak Park
- **Approval holder:** Anglo Coal (Capcoal Management) Pty Ltd, ABN: 73 010 037 564
- **Approved action:** To construct and operate an open cut coal mine at Oak Park, as an extension to the existing German Creek Coal Mine.
- **Location of the action:** Oak Park, near Middlemount, Central Queensland, Australia.
- **Date of preparation of the Vegetation Management Plan:** 27 June 2025
- **Person accepting responsibility for the offset area management plan as per the signed declaration (see below):**

DECLARATION OF ACCURACY

In making this declaration, I am aware that section 491 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) makes it an offence in certain circumstances to knowingly provide false or misleading information or documents to specified persons who are known to be performing a duty or carrying out a function under the EPBC Act or the *Environment Protection and Biodiversity Conservation Regulations 2000* (Cth). The offence is punishable on conviction by imprisonment or a fine, or both. I am authorised to bind the approval holder to this declaration and that I have no knowledge of that authorisation being revoked at the time of making this declaration.

Signed _____

Full name (please print) _____

Organisation (please print) Anglo American - Steelmaking CoalDate 30 / 06 / 2025

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 3 of 54

Table of Contents

1	Introduction	6
1.1	Objectives	6
1.2	Site Context	6
1.3	EPBC Act Approval Conditions Relevant to the VMP	10
2	Methods	12
2.1	Desktop Guidelines and References	12
2.2	Field Surveys	13
2.3	Likelihood of Occurrence	17
2.4	Habitat Mapping Method	17
2.5	Determining Habitat Quality Score	18
2.6	Limitations and Assumptions	19
3	Existing Environment	20
3.1	Landscape attributes	20
3.2	Regional ecosystems	23
3.3	Flora Diversity	26
3.4	Invasive Fauna	26
3.5	Threatened ecological communities	27
3.6	Listed Threatened Species	31
4	Baseline Habitat Quality Scoring	40
5	Prohibited Activities and Associated Impacts	41
5.1	Permitted Activities	41
5.2	Prohibited Activities	41
6	Management Outcomes and Measures	42
6.1	Management Outcomes	42
6.2	Management Measures	43
7	Risk management strategy	48
8	Management Response Plan	51
8.1	Monitoring Schedule and Methodology	51
8.2	Data Analysis	51
8.3	Reporting and Review	51
8.4	Failure to Meet Outcomes	51
8.5	Training	52
8.6	VMP Review	52
9	Adaptive Management Approach	53
9.1	Corrective Actions	53

Acronyms and Abbreviations

Acronym	Description
AHD	Australian Height Datum
Approval holder	Anglo American Steelmaking Coal
Biosecurity Act	<i>Biosecurity Act 2014</i>
Brigalow TEC	Brigalow (<i>Acacia harpophylla</i> dominant and co-dominant) TEC
DBH	Diameter at breast height
DoR	Department of Resources
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPBC Act Approval	EPBC Act Approval (2003/1005)
ERM	Environmental Resources Management Australia Pty Ltd
Management Area	The retained native vegetation
MHQA	Modified Habitat Quality Assessment
ML	Mining Lease
Oak Park	Oak Park Mine
PMLU	Post Mine Land Use
RE	Regional Ecosystem
TEC	Threatened Ecological Community
Threatened species	Threatened species relevant to this management plan as per the EPBC Approval (Corben's Long-eared Bat, Dunmall's Snake, Southern Squatter Pigeon and Yakka Skink)
VMP	Vegetation Management Plan
WoNS	Weeds of National Environmental Significance

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 5 of 54

1 Introduction

Environmental Resources Management Australia Pty Ltd (ERM) has been engaged by Anglo Coal (Capcoal Management) Pty Ltd (the Approval holder) to prepare a Vegetation Management Plan (VMP) for Oak Park Mine. The VMP has been prepared to ensure the management and protection of native vegetation within the retained native vegetation area (herein referred to as the Management Area) to meet the requirements of the Oak Park EPBC Act Approval (2003/1005).

The four listed threatened species defined in the EPBC Approval, and relevant to this VMP, are:

- Corben's long-eared bat (*Nyctophilus corbeni*);
- Dunmall's snake (*Furina dunmalli*);
- Squatter pigeon (southern) (*Geophaps scripta scripta*); and
- Yakka skink (*Egernia rugosa*).

This VMP is effective for the entirety of the period of Approval, being until 1 October 2030.

1.1 Objectives

The objective of this VMP is to address condition 2E of the EPBC Act Approval as stated above, through:

- Description of the existing environment, including the presence of Brigalow TEC and the potential presence of habitat for the four fauna species listed in the EPBC Approval;
- Description of potential direct and indirect impacts to vegetation and habitats during construction, operation and decommissioning; and
- Prescription of methods for the minimisation and management of impacts on the relevant threatened species habitats during construction and operation.

The following objectives have been identified to drive the successful implementation of the VMP to protect and enhance vegetation biodiversity and improve ecosystem health:

- The rehabilitation or establishment of Brigalow within the Management Area within the period of Approval; and
- The protection of habitat for listed threatened species within the Management Area, specifically squatter pigeon (southern) within the period of Approval.

1.2 Site Context

Oak Park Mine (Oak Park) is part of the Capcoal Complex, a metallurgical coal mining operation owned and operated by Anglo Coal (Capcoal Management) Pty Ltd located approximately 25 km south-west of the Middlesbrough township in Queensland, Australia. The Capcoal Complex consists of the following surface mining areas, shown in Figure 1-1:

- German Creek and German Creek East (ML1831, ML1998) – historical open cut mining areas that were operated from the 1980's;
- Lake Lindsay (ML70336, ML700076) – an open cut mining area which commenced in 2006 and is currently operational; and
- Oak Park (ML70311) – an open cut mining area that commenced operation in 2003 and was subsequently placed in Care and Maintenance in 2014. Operations resumed in 2022.

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 6 of 54

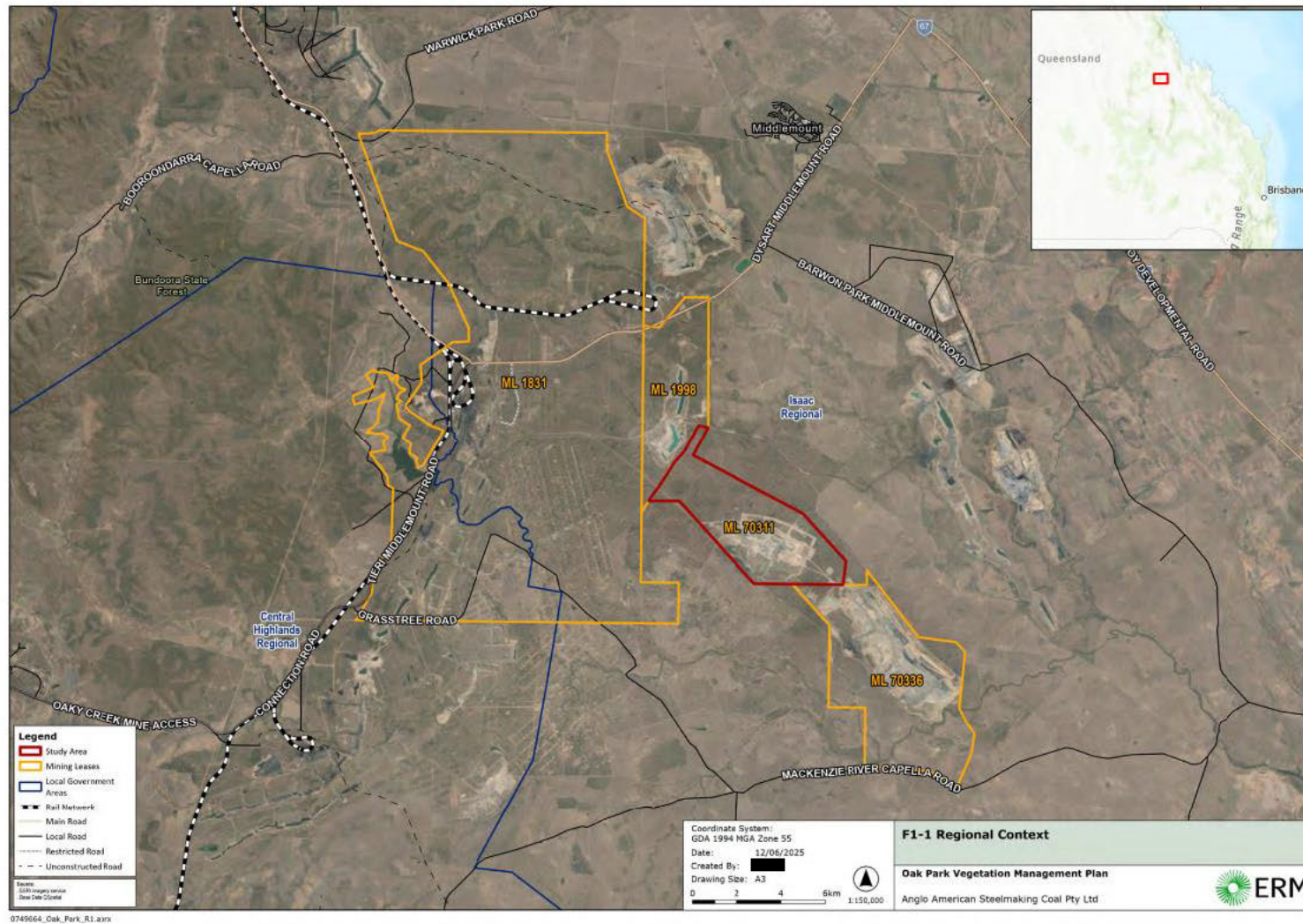
This VMP focuses on the areas of retained native vegetation within the Oak Park Mining Lease (ML70311), shown in Figure 1-2.

Oak Park is situated on freehold land with the retained native vegetation areas containing a Post Mine Land Use (PMLU) of grazing.

Oak Park (originally comprised of cattle grazing land) was acquired by Capcoal to allow for an extension to the existing German Creek Mine life of operations through the use of land as a satellite deposit and coal supply.

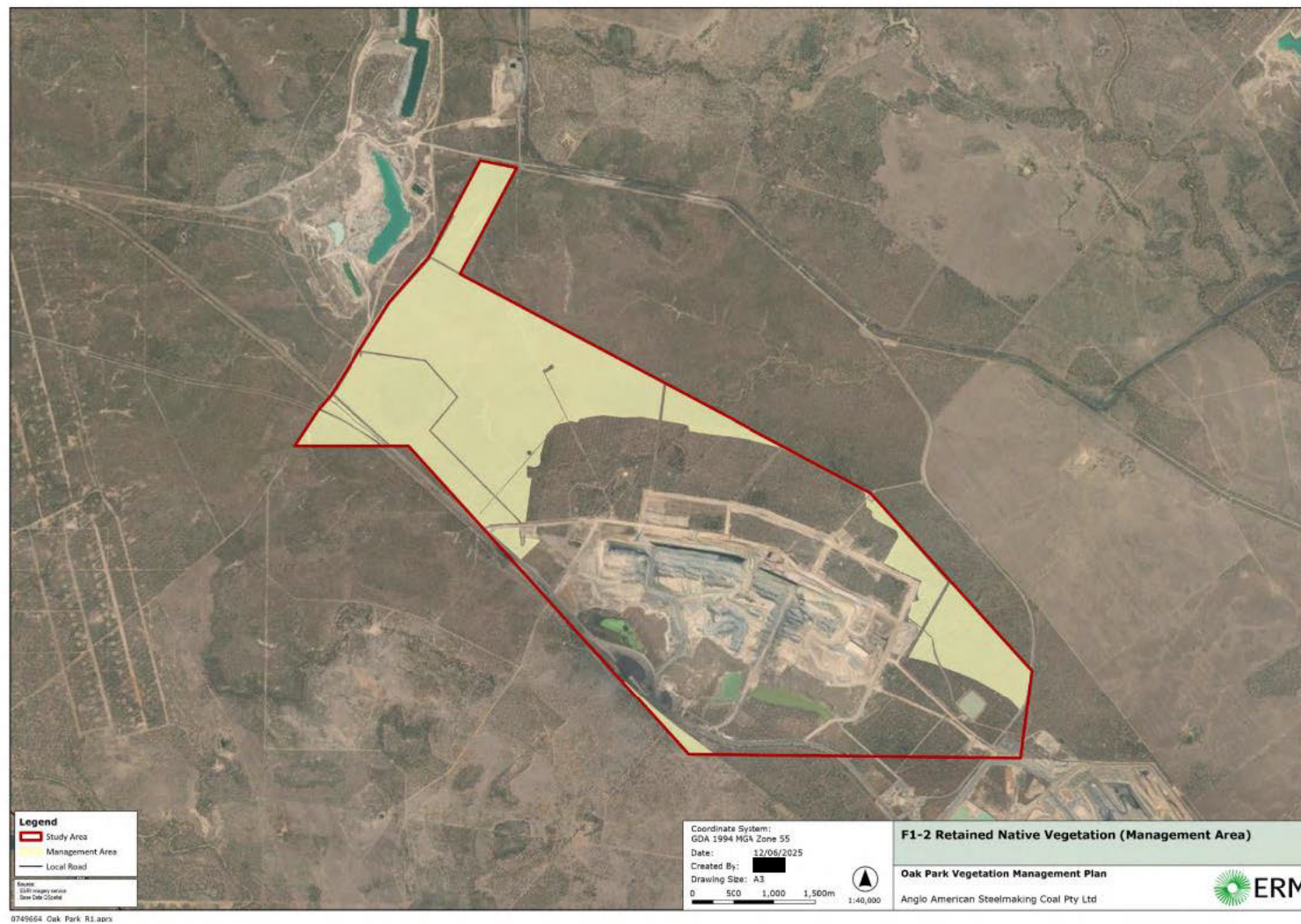
Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 7 of 54

Figure 1-1 Regional Context



Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 8 of 54

Figure 1-2 Retained Native Vegetation (Management Area)



Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 9 of 54

1.3 EPBC Act Approval Conditions Relevant to the VMP

The approval conditions relevant to this VMP, as specified in the EPBC Act Approval, are summarised in Table 1-1.

Table 1-1 EPBC Act approval conditions relevant to the VMP

EPBC Act Approval (2003/ 1005) Condition Number	Condition relevant to the VMP	Section within this VMP
2E	The VMP submitted for the Minister's approval must: a. include maps that clearly show: - the retained native vegetation (the management area); and - the extent of Brigalow and habitat for listed threatened species within the management area;	Refer to: - Figure 1-2 (retained native vegetation) - Figure 3-4 (Brigalow TEC) - Figure 3-5 (habitat for relevant listed threatened species)
2E	b. specify the timebound management outcome(s) for the management area, including but not limited to: i) the rehabilitation or establishment of Brigalow within the management area; and ii) the protection of habitat for listed threatened species within the management area;	Section 6
2E	c. specify the permitted and prohibited activities within the management area.	Section 5.1 and Section 5.2
2E	d. include a risk management strategy that includes: i) an assessment of the events or circumstances (risk event(s)) that may prejudice the successful implementation of the VMP, and achievement and maintenance of the specified outcome(s); ii) a risk rating for each identified risk event based on the likelihood and consequence of occurrence; iii) measures that will mitigate identified risk events (mitigation measures) by reducing the likelihood and/or lessening the consequence of occurrence for each risk event; iv) details, including the timeframes and circumstances, for the implementation of mitigation measures; and v) a rating of the residual risk for each risk event, based on the likelihood and consequence of occurrence with mitigation measures in place;	Section 7
2E	e. detail the management measures, including the timeframes and circumstances for the implementation of those measures, that will be implemented to achieve and maintain the specified management outcome(s) including but not limited to: i) the instalment and maintenance of fencing; ii) grazing control; iii) invasive species control; and iv) the implementation of a suitable fire regime;	Section 6.2

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 10 of 54

EPBC Act Approval (2003/ 1005) Condition Number	Condition relevant to the VMP	Section within this VMP
2E	f. detail monitoring activities, including the timeframes and circumstances for the implementation of those activities, that will: i) detect the occurrence of prohibited activities and risk events within the management area; and ii) demonstrate the achievement and maintenance of the management outcome(s).	Section 8.1
2E	g. detail the timely, effective and feasible management response(s) that will be implemented in the following events: i) any management outcome is not achieved within the specified timeframe or is not maintained, that will correct such failures, ensuring the achievement and maintenance of outcomes. ii) prohibited activities occur within the management area, that will prevent reoccurrence and correct any adverse impacts. iii) any risk event is realised, to mitigate the consequence where within the approval holder's power to do so.	Section 8
2E	h. include a program to review and report on the successful implementation of the plan, including internal and external reporting requirements, that includes: i) the timeframes and circumstances for reviews and the preparation and submission of each report; ii) the parties responsible for reviews and the preparation and submission of each report; iii) details of the minimum content requirements for each type of report; and iv) a commitment to provide a detailed report of plan implementation to the department annually with each compliance report required by condition 12 of this approval.	Section 8.3

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 11 of 54

2 Methods

2.1 Desktop Guidelines and References

This VMP has been prepared utilising publicly available information to identify listed threatened ecological communities and listed threatened species habitats and key management measures.

A summary of the desktop databases, including Commonwealth, State, and other public information source, is provided in Table 2-1.

Table 2-1 Data Sources Reviewed

Information Source	Name	Data Description
Ala.org.au	Atlas of Living Australia (ALA).	Australia's national biodiversity database (supported by the National Collaborative Research Infrastructure Strategy, CSIRO). The database contains records accessed through an interactive spatial portal. Threatened species are searched to identify known records in proximity to the Study Area. Search area: the Management Area and a 10 km radius around the centre of the Management Area.
DCCEEW	Species Profile and Threats Database (SPRAT).	The SPRAT profiles and associated conservation advice documents were consulted as they provide detailed information for Brigalow TEC and each listed threatened species on: • Species distribution; and • Species habitat preferred and general.
Threatened Species Scientific Committee (TSSC)	Conservation Advice <i>Geophaps scripta scripta</i> squatter pigeon (southern).	The conservation advice was referred to provide habitat mapping rules and additional information on suitable management measures for improving listed threatened species habitat quality.
TSSC	Conservation Advice <i>Nyctophilus corbeni</i> south-eastern long-eared bat.	The conservation advice was referred to provide habitat mapping rules and additional information on suitable management measures for improving listed threatened species habitat quality.
Department of the Environment (DoE)	Approved Conservation Advice for <i>Furina dunmallii</i> (Dunmall's Snake).	The conservation advice was referred to provide habitat mapping rules and additional information on suitable management measures for improving listed threatened species habitat quality.
DoE	Approved Conservation Advice for <i>Egernia rugosa</i> (Yakka Skink).	The conservation advice was referred to provide habitat mapping rules and additional information on suitable management measures for improving listed threatened species habitat quality.
DoE	Approved Conservation Advice for the Brigalow (<i>Acacia harpophylla</i> dominant and co-dominant) ecological community	The conservation advice for Brigalow TEC are particularly important for assessing the quality of the TEC during the field surveys against the listed TEC guidelines. The conservation advice was referred to provide additional information on suitable management measures for improving Brigalow TEC quality.

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 12 of 54

2.2 Field Surveys

2.2.1 Survey Effort

One field survey has been undertaken within the Management Area in May 2025 to verify the extent and condition of retained native vegetation and assess habitat suitability for the relevant listed threatened species noted in the approval. The field survey consisted of the following methods.

- Three qualified ecologists undertook a four day survey from 20 – 23 May 2025, with a total 85 person hours on the ground. The field survey involved undertaking BioCondition plots, quaternary assessments and habitat assessments throughout the Management Area; and
- Two ecologists undertook a five day ecological survey from 26 – 30 May 2025, with a total 70 person hours on the ground. The field survey involved undertaking BioCondition assessments, quaternary assessments and habitat assessments throughout the Management Area.

A summary of the field survey effort undertaken is presented in Table 2-2.

Table 2-2: Field survey effort

Date	Target	Techniques	Survey Effort
20 – 23 May 2025	Vegetation Assessments	Quaternary assessments	• 23 individual quaternary assessment locations
		BioCondition assessments	• 10 individual BioCondition assessment locations
	Listed threatened species habitat features	Habitat assessments	• 11 individual habitat assessment locations
26 – 29 May 2026	Vegetation Assessments	Quaternary assessments	• 24 individual quaternary assessment locations
		BioCondition assessments	• 5 individual BioCondition assessment locations
	Listed threatened species habitat features	Habitat assessments	• 9 individual habitat assessment locations

2.2.2 Survey Techniques

The survey techniques carried out during the field surveys include:

- BioCondition assessments;
- Quaternary assessments; and
- Habitat quality assessments.

The methodology for each survey technique are provided in the following subsections.

2.2.2.1 BioCondition Assessments

BioCondition assessments were carried out within a 100m x 50m area and included measurement and recording of the following ecological characteristics:

- Habitat description;
- Mapped Regional Ecosystem;
- Tree canopy and sub-canopy height;
- Coarse woody debris (length and diameter);

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 13 of 54

- Species richness for: tree and sub-canopy layer, shrub layer, grass layer, and forb layer;
- Proportion of dominant canopy species with evidence of recruitment;
- Proportion of non-native plant cover;
- Ground cover details (i.e., native perennial grass, non-native grass, rock etc.); and
- Number of large eucalyptus and non-eucalyptus trees.

2.2.2.2 Quaternary Assessments

Quaternary assessments were used to ground-truth state-mapped REs within the Management Area, thus assisting in determining the presence of vegetative MNES. All quaternary assessments were conducted in accordance with the 'Methodology for surveying and mapping regional ecosystems and vegetation communities in Queensland – Version 7.0' (Neldner, et al., 2024). The following additional parameters were recorded at each quaternary survey location:

- Landform and soil;
- Flora species present, including dominant species in each tree layer; and
- Height of species in the following layers: emergent, tree, shrub, and ground cover.

2.2.2.3 Habitat Assessments

Habitat quality assessments were carried out in line with *Guide to determining terrestrial habitat quality* (DES, 2020), to determine the occurrence of specific habitat types and features for threatened species in particular areas. Ecological and habitat features recorded as part of this assessment include:

- Assessment of condition to determine if regrowth or remnant, as defined by the VM Act;
- Connectivity attributes;
- Slope and terrain;
- Soil moisture and description (i.e., ground cover);
- Food sources;
- Signs of fauna (i.e., scats and scratches) and/or fauna breeding (i.e., bird nests or juvenile fauna);
- Sheltering/breeding resources (i.e., woody debris, hollow logs, stags, rocky escapements);
- Hollow presence, size, abundance and type (i.e., large hollows in live, mature trees over 80cm diameter at breast height (DBH));
- Other microhabitat features (i.e., associated species, gilgai etc.)
- Understorey density;
- Canopy cover and strata height/s;
- Leaf litter description;
- Presence of disturbances (i.e., grazing, dogs, weeds, erosion, fire, dieback, pollution, light/noise);
- Water and wetland features (i.e., proximity, type, flow, vegetation etc.); and
- Bank features.

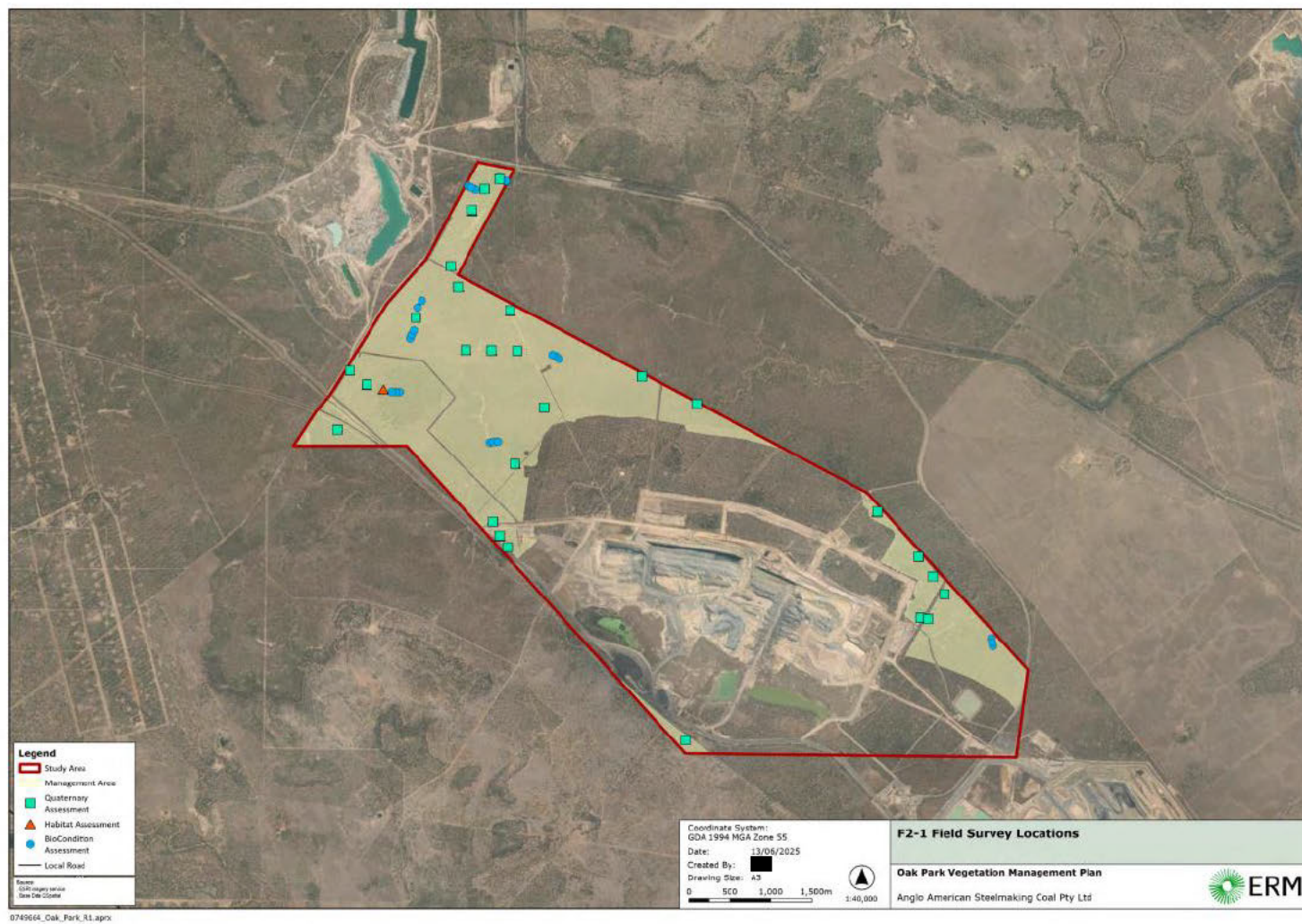
Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 14 of 54

Habitat assessments targeted species-specific habitat requirements relevant to the four threatened species outlined in the Conditions of Approval, being:

- Corben's long-eared bat;
- Dunmall's snake;
- Squatter pigeon (southern); and
- Yakka skink.

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 15 of 54

Figure 2-1 Field survey locations



Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 16 of 54

2.3 Likelihood of Occurrence

A likelihood of occurrence assessment, informed by desktop sources and the field surveys, has been undertaken for the TEC and four EPBC Act listed threatened species listed in the EPBC Act Approval, including:

- Brigalow (*Acacia harpophylla* dominant and co-dominant) TEC;
- Corben's long-eared bat (*Nyctophilus corbeni*);
- Dunmall's snake (*Furina dunmalli*);
- Squatter pigeon (southern) (*Geophaps scripta scripta*); and
- Yakka skink (*Egernia rugosa*).

The likelihood of occurrence assessment was undertaken to determine the likelihood of the species, or species habitat occurring within the Management Area.

The likelihood of occurrence assessment determined the likelihood of the species occurring through analysis of species distribution information, publicly available species records and the presence of specific habitat attributes within the Management Area. The criteria applied are outlined in Table 2-3.

Species records were sourced from WildNet and/or Atlas of Living Australia. Where a species was recorded within 10 km of the Management Area, that is dated within the previous 20 years, these records are defined as a 'recent record'.

Table 2-3 Likelihood Of Occurrence Criteria

	Preferred habitat exists	Suitable habitat exists ¹	Habitat does not exist ²
Records within Study Area (based on site surveys and recent (last 20 years) records)	Known	Known	Known
Records within 10 km of the Study Area	Likely	Potential	Unlikely
No records within 10 km of the Study Area, but Study Area is within known distribution	Potential	Potential	Unlikely
No records within 10 km of the Study Area, and Study Area is outside of distribution	Unlikely	Unlikely	Unlikely
¹ Habitat may be considered suitable but not known preferable because: some desired habitat features may be present, but not all; habitat may have poor connectivity; or habitat may be known to be disturbed; or suitable habitat requires confirmation.			
² Based on sources reviewed and/or field survey results.			

2.4 Habitat Mapping Method

Habitat mapping for the Management Area was undertaken through the use of desktop assessments and ground-truthed data. Desktop investigations to inform the habitat mapping included the review of species-specific habitat requirements and their ecology and biology.

The following desktop sources of data were utilised during the habitat mapping to examine landscape features that influence species habitats:

- Hi-resolution aerial imagery;
- Topography;
- Watercourse mapping; and
- Geology and soils mapping.

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 17 of 54

Desktop data and potential species' habitats were ground-truthed through vegetation and habitat assessments (including species present, condition and structure) and BioCondition assessments. These surveys later informed the ground-truthed broad habitat mapping and ground-truthed regional ecosystem mapping. As a general approach, habitat mapping for the four listed threatened species was derived from:

- Undertaking a likelihood of occurrence assessment for the TEC and four threatened species listed in the EPBC Act Approval to determine their likelihood of occurrence and presence of habitat critical to the survival of the species within the Management Area. The assessment was undertaken using species' distribution, publicly available records and results of the field survey;
- Reviewing species specific conservation and listing guidance, published literature of each species' habitat requirements, ecology and biology;
- Identifying which broad habitat types provide preferred/suitable habitat for each species; and followed by;
- Refinement of habitat within each broad habitat type to produce potential habitat mapping using ground-truthed REs and considering the information obtained during habitat and vegetation assessments, including:
 - Land zones;
 - Vegetation structure and condition;
 - Vegetation communities and dominant flora species;
 - Presence of required habitat features (e.g., hollow bearing trees, fallen timber, hollow logs etc.);
 - Presence of direct or indirect signs of fauna use (e.g., scats, scratch marks etc.); and
 - Overall condition of habitat.

Species-specific habitat requirements within Central Queensland were considered during the habitat mapping process. Species-specific habitat mapping rules and their habitat requirements are further detailed within Section 3.6.

2.5 Determining Habitat Quality Score

The EPBC Act Modified Habitat Quality Assessment (MHQA) method has been used to determine the quality of habitat for Brigalow TEC and those relevant listed threatened species where habitat is mapped within the Management Area. Habitat quality scores are represented as a total, whole number out of 10 (x/10), and is determined by three components (site condition, site context and species stocking rate) that convey the suitability of a given site to support an ongoing population or area of a Matter of National Environmental Significance. Table 5-2 below outlines these components.

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 18 of 54

Table 2-4 Habitat Quality Scoring Criteria

Component of Habitat Quality Score	Rationale (per DCCEEW)
Site condition (30%)	<i>This is the condition of a site in relation to the ecological requirements of a threatened species or ecological community. This includes considerations such as vegetation condition and structure, the diversity of habitat, species present, and the number of relevant habitat features.</i>
Site context (30%)	<i>This is the relative importance of a site in terms of its position in the landscape, taking into account the connectivity needs of a threatened species or ecological community. This includes considerations such as movement patterns of the species, the proximity of the site in relation to other areas of suitable habitat, and the role of the site in relation to the overall population or extent of a species or community.</i>
Species stocking rate (40%)	<i>This is the usage and/or density of a species at a particular site. The principle acknowledges that a particular site may have a high value for a particular threatened species, despite appearing to have poor condition and/or context. It includes considerations such as survey data for a site in regard to a particular species population or, in the case of a threatened ecological community, this may be a number of different populations. It also includes consideration of the role of the site population in regard to the overall species population viability or community context.</i>

Site condition is determined via collection of the 10 site-based habitat quality attributes assessed in the Queensland Bio-Condition in accordance with the Bio-Condition Assessment Manual (Eyre, et al., 2015), with additional MNES-specific data collected as well, that being quality and availability of food and foraging habitat and quality and availability of shelter.

2.6 Limitations and Assumptions

The survey effort was limited due to timing constraints. The survey effort was focussed on verifying the extent and condition of retained native vegetation and assess habitat suitability for the relevant listed threatened species noted in the approval, and as such, targeted fauna surveys were not undertaken.

All calculations throughout this VMP have been rounded to the nearest decimal place.

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 19 of 54

3 Existing Environment

3.1 Landscape attributes

Oak Park comprises an open cut mining area within the central and southern extents and retained native vegetation areas located outside of the mining disturbance areas. The retained native vegetation areas are dispersed across the mining lease cumulatively occupying approximately 903.9 ha of the 2,551 ha mining lease.

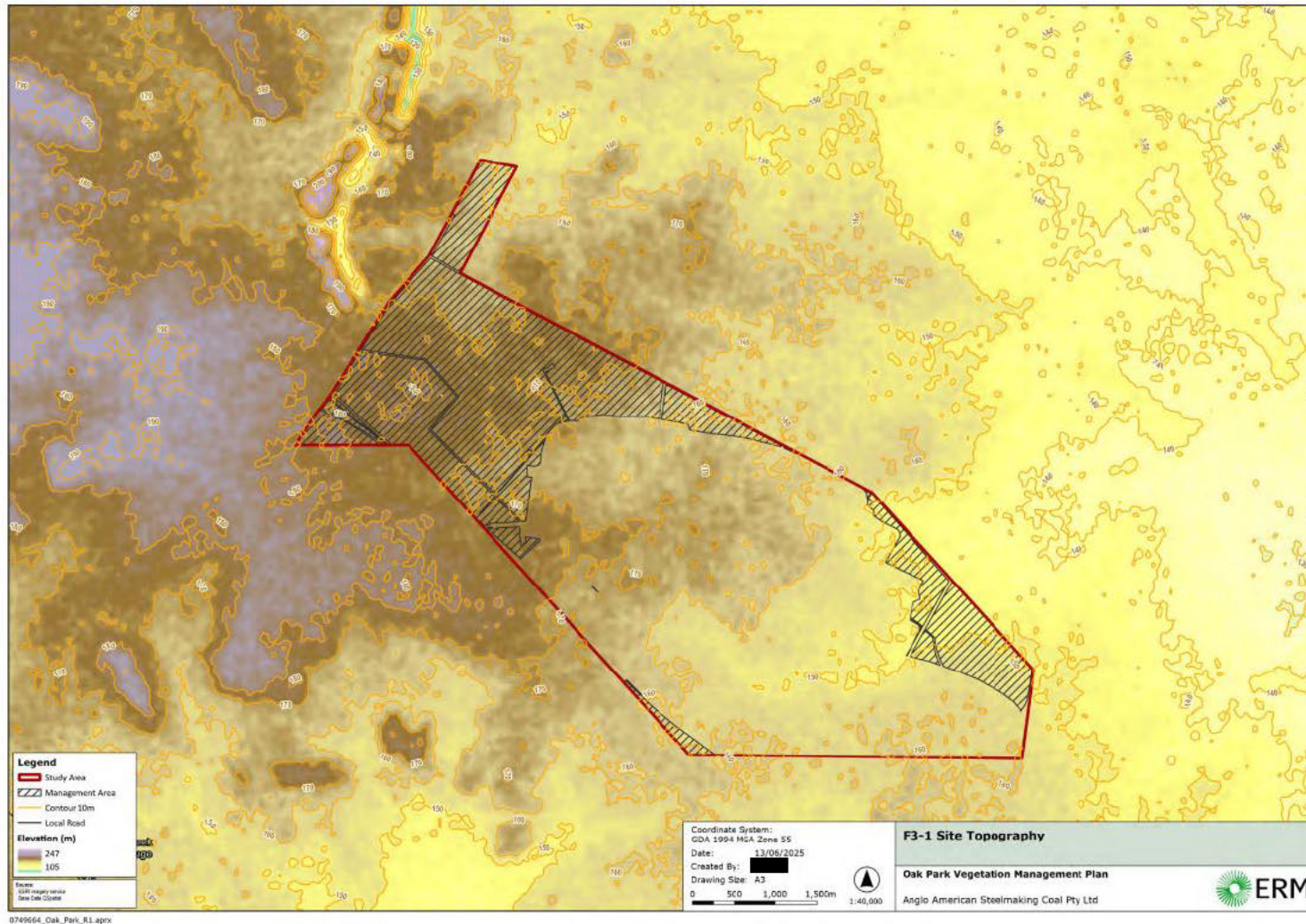
Oak Park is situated within the Brigalow Belt bioregion as defined by the Interim Biographic Regionalisation of Australia framework and includes a range of landscape features, vegetation communities and habitats typical of the region. It is underlain entirely by the Tertiary Duaringa Formation comprising sandy clays, discontinuous sand and gravel bodies. The soils overlaying the Duaringa Formation are identified by the Australian Soil Classification as sodosols.

Topography within Oak Park varies from 180 m Australian Height Datum (AHD) within the retained native vegetation areas to the to the northwest, sloping gently to 140 m AHD within the southeast (Figure 3-1).

Oak Park is located within the Mackenzie River drainage sub-basin, a sub-basin of the Fitzroy River Catchment. Several unnamed ephemeral tributaries of Roper Creek intercept Oak Park, draining west to east. These tributaries are mapped as Stream Order 1 and 2 watercourses mapped under the Strahler system of stream order (Figure 3-2).

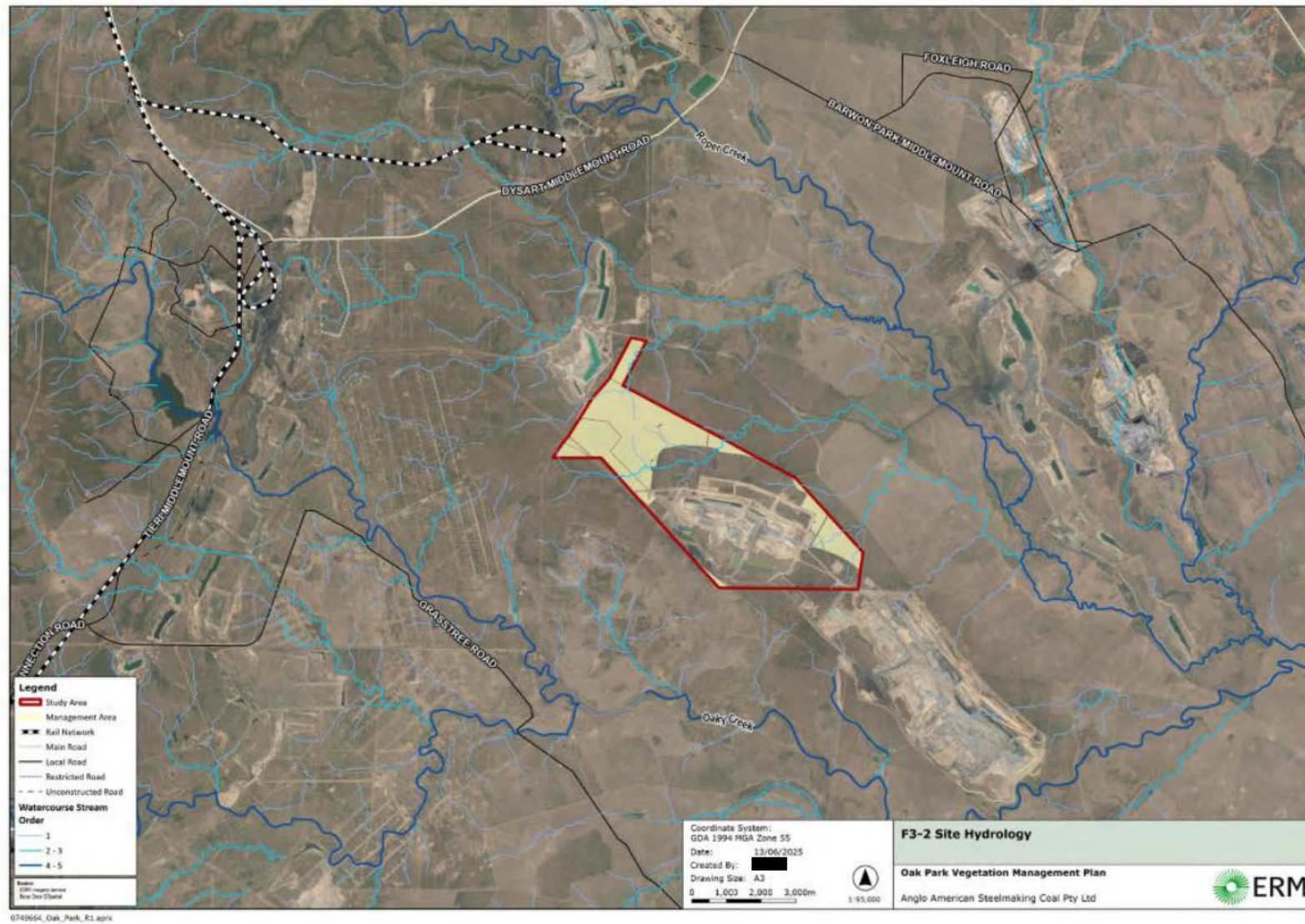
Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 20 of 54

Figure 3-1 Site Topography



Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 21 of 54

Figure 3-2 Site Hydrology



Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 22 of 54

3.2 Regional ecosystems

There are 12 regional ecosystems mapped by the Queensland Government Department of Resources (DoR) in the Management Area.

The operation areas within Oak Park consist of non-remnant vegetation due to the historical and existing land use. Retained native vegetation areas exist to the northwest and southeast of the mine. The dominant vegetation community within the retained native vegetation areas largely consist of mixed eucalypt woodlands (REs 11.5.2, 11.5.3, 11.4.8 and 11.3.4). Small areas of brigalow woodlands are present in small disjointed patches across the remnant vegetation (REs 1.4.8 and 11.4.9).

3.2.1 Ground-truthed Regional Ecosystems

Regional ecosystems within the Oak Park Mine have been field-verified through ground-truthing surveys, including quaternary assessments and BioCondition surveys. Following the field verification, a total of 11 ground-truthed REs were found to occur within the Oak Park Mine, ranging in areas of 7.3 – 370.4 ha. The Oak Park Mine further contains non-remnant vegetation, totalling 1,010.7 ha.

The ground-truthed REs within the Management Area are summarised in Table 3-1 and presented in

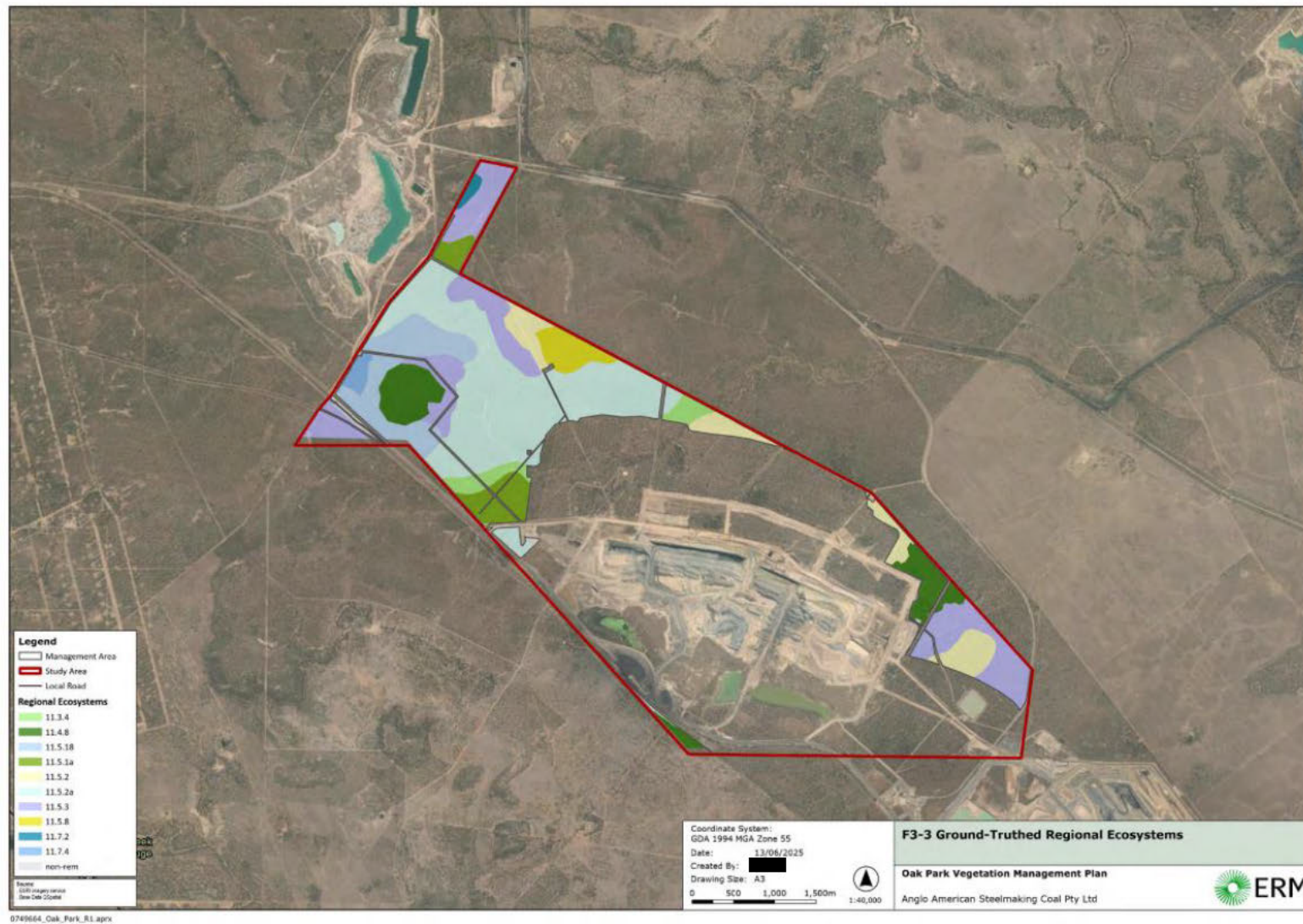
Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 23 of 54

Table 3-1 Ground-Truthed Regional Ecosystems In The Management Area

Regional Ecosystem	Description	Status		Area (ha)
		Biodiversity Status	Vegetation Management Act Status	
11.3.4	<i>Eucalyptus tereticornis</i> and/or <i>Eucalyptus</i> spp. woodland on alluvial plains	Of concern	Of concern	28.7
11.4.8	<i>Eucalyptus cambageana</i> woodland to open forest with <i>Acacia harpophylla</i> or <i>A. argyrodendron</i> on Cainozoic clay plains	Endangered	Endangered	80.2
11.5.1a	<i>Eucalyptus populnea</i> woodland with <i>Allocasuarina luehmannii</i> low tree layer. Occurs on flat to gently undulating plains formed from weathered sandstones. Duplex soils with sandy surfaces.	No concern at present	Least concern	45.9
11.5.2	<i>Eucalyptus crebra</i> , <i>Corymbia</i> spp., with <i>E. moluccana</i> woodland on lower slopes of Cainozoic sand plains and/or remnant surfaces	No concern at present	Least concern	77.2
11.5.2a	<i>Allocasuarina luehmannii</i> low tree layer with or without emergent woodland. Occurs on Cainozoic sandplains which are often below hills and ranges.	No concern at present	Least concern	311.9
11.5.18	<i>Micromyrtus capricornia</i> open shrubland on Cainozoic sand plains and/or remnant surfaces	Of concern	Of concern	91.8
11.5.3	<i>Eucalyptus populnea</i> +/- <i>E. melanophloia</i> +/- <i>Corymbia clarksoniana</i> woodland on Cainozoic sand plains and/or remnant surfaces	No concern at present	Least concern	185.1
11.5.8	<i>Melaleuca</i> spp., <i>Eucalyptus crebra</i> , <i>Corymbia intermedia</i> woodland on Cainozoic sand plains and/or remnant surfaces	No concern at present	Least concern	29.8
11.7.2	<i>Acacia</i> spp. woodland on Cainozoic lateritic duricrust. Scarp retreat zone	No concern at present	Least concern	5.6
11.7.4	<i>Eucalyptus decorticans</i> and/or <i>Eucalyptus</i> spp., <i>Corymbia</i> spp., <i>Acacia</i> spp., <i>Lysicarpus angustifolius</i> woodland on Cainozoic lateritic duricrust	No concern at present	Least concern	10.5
Non-remnant	none	none	none	10.8
Total REs (excluding non-remnant)				866.7 ha

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 24 of 54

Figure 3-3 Ground-Truthed Regional Ecosystems



Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 25 of 54

3.3 Flora Diversity

A total of 217 flora species from 45 families and 23 orders were identified during the field survey within the Oak Park Mine. The plant families to represent the majority taxa were Poaceae (28%), followed by Fabaceae (7.4%), Amaranthaceae (6.5%) and Myrtaceae (5%). No threatened flora species were identified during the field survey.

Of the 217 flora species identified within the Oak Park Mine, 15 are introduced species, representing 6.9% of the total flora species identified. The introduced flora recorded within the Oak Park Mine are summarised in Table 3-2, with only one species listed as a restricted invasive plant under the Queensland *Biosecurity Act 2014* (Biosecurity Act).

Table 3-2 Introduced flora recorded within the Oak Park Mine

Scientific Name	Common Name	WoNS	Biosecurity Act 2014 Status
<i>Opuntia tomentosa</i>	velvety prickly pear	yes	Category 3
<i>Melinis repens</i>	red natal grass	no	N/A
<i>Urochloa mosambicensis</i>	sabi grass	no	N/A
<i>Eragrostis</i> spp.	-	no	N/A
<i>Cenchrus ciliaris</i>	buffel grass	no	N/A
<i>Achyranthes aspera</i>	devil's horsewhip	no	N/A
<i>Stylosanthes scabra</i>	shrubby stylo	no	N/A
<i>Sida cordifolia</i>	flannel weed	no	N/A
<i>Stylosanthes</i> spp.	-	no	N/A
<i>Ageratum conyzoides</i>	Billy goat weed	no	N/A
<i>Sida corrugata</i>	corrugated sida	no	N/A
<i>Cyanthillium cinereum</i>	ironweed	no	N/A
<i>Harissa</i>	harrisia cactus	no	N/A
<i>Chloris inflata</i>	purple top Rhodes grass	no	N/A
<i>Portulaca pilosa</i>	pink purslane	no	N/A

Opuntia tomentosa (velvet prickly pear) was identified during the field surveys. Category 3 restricted invasive species under the *Biosecurity Act 2014* must not be given away, sold or released into the environment. Weeds of National Environmental Significance (WoNS) are weed species that have been agreed upon by the Australian government using an assessment process that prioritised these weeds based on their invasiveness, potential for spread and environmental impacts. Reasonable and practical measures will be undertaken by the Approval holder to minimise the biosecurity risks associated with dealing with invasive weeds (refer to Section 6.2). Local government biosecurity plans will also need to be consulted to determine any local measures that should be adopted for management and included in the Biosecurity Management Plan for the Project.

3.4 Invasive Fauna

Evidence of invasive fauna was recorded within the Management Area during the field surveys. The field surveys noted evidence of feral pigs (*Sus scrofa*) through scats and trampling within the Management Area. Feral pigs are listed as a category 3, 4 and 6 invasive species under the *Biosecurity Act 2014*.

No other invasive species were detected during the field survey.

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 26 of 54

3.5 Threatened ecological communities

One TEC is confirmed occurring within the Management Area, being Brigalow (*Acacia harpophylla* dominant and co-dominant) TEC.

3.5.1 Brigalow (*Acacia harpophylla* dominant and co-dominant)

The Brigalow (*Acacia harpophylla* dominant and co-dominant) TEC is listed as Endangered under the EPBC Act and is assessed as known to occur due to field surveys confirming patches meeting the diagnostic criteria.

The Brigalow TEC occurs throughout semi-arid Queensland and New South Wales, mostly west of the Great Dividing Range between Townsville (QLD), east of Blackall (QLD) and south to Narrabri, NSW (DoE, 2013). The Brigalow TEC occurs in several IBRA Bioregions, including the Brigalow Belt Bioregion, in which the Oak Park Mine is located.

In Queensland, the Brigalow TEC is defined using regional ecosystem frameworks used for biodiversity planning. In the Brigalow Belt bioregion, a suspected patch of Brigalow TEC must meet the description of one of the following regional ecosystems (DoE, 2013):

- RE 11.3.1 – *Acacia harpophylla* and/or *Casuarina cristata* open forest on alluvial plains;
- RE 11.4.3 – *Acacia harpophylla* and/or *Casuarina cristata* shrubby open forest on Cainozoic clay plains;
- RE 11.4.7 – Open forest to woodland of *Eucalyptus populnea* with *Acacia harpophylla* and/or *Casuarina cristata* on Cainozoic clay plains;
- RE 11.4.8 – *Eucalyptus cambageana* woodland to open forest with *Acacia harpophylla* or *A. argyrodendron* on Cainozoic clay plains;
- RE 11.4.9 – *Acacia harpophylla* shrubby open forest to woodland with *Terminalia oblongata* on Cainozoic clay plains;
- RE 11.4.10 – *Eucalyptus populnea* or *E. pilligaensis*, *Acacia harpophylla*, *Casuarina cristata* open forest to woodland on margins of Cainozoic clay plains;
- RE 11.5.16 – *Acacia harpophylla* and/or *Casuarina cristata* open forest in depressions on Cainozoic sand plains/remnant surfaces;
- RE 11.9.1 – *Acacia harpophylla*-*Eucalyptus cambageana* open forest to woodland on fine-grained sedimentary rocks;
- RE 11.9.5 – *Acacia harpophylla* and/or *Casuarina cristata* open forest on fine-grained sedimentary rocks;
- RE 11.9.6 – *Acacia melvillei* +/- *A. harpophylla* open forest on fine-grained sedimentary rocks;
- RE 11.11.14 – *Acacia harpophylla* open forest on deformed and metamorphosed sediments and interbedded volcanics; and
- RE 11.12.21 – *Acacia harpophylla* open forest on igneous rocks; colluvial lower slopes.

Of these REs, only 11.4.8 has been field-verified to occur within the Management Area.

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 27 of 54

3.5.1.1 Vegetation Structure

The Brigalow TEC varies drastically in composition and structure; however, the canopy tree layer is generally dominated by brigalow (*Acacia harpophylla*) or co-dominated with belah (*Casuarina cristata*) or *Eucalyptus* spp. (DoE, 2013). The tree layer ranges in heights from 9 m tall in low rainfall areas (500 mm per annum) to 25 m tall in high rainfall areas (750 mm per annum). Where co-dominant with *Eucalyptus* spp., eucalyptus trees may be scattered or form an emergent layer, taller than the brigalow canopy, typically comprising of (but is not limited to) Chinchilla white-gum (*E. argophloia*), Reid River box (*E. brownii*), blackbutt (*E. cambageana*), black box (*E. largiflorens*) grey box (*E. microcarpa*), grey-topped box (*E. moluccana*) etc. (DoE, 2013).

The lower tree and shrub layer is typically moderately dense, including sandalwood (*Eremophila mitchellii*) and wilga (*Geijera parviflora*), or in northern areas, yellowwood (*Terminalia oblongata*) (DoE, 2013).

The ground layer is typically sparse, containing both grasses and forbs. Grasses include curly windmill-grass (*Enteropogon acicularis*), native millet (*Panicum decompositum*), *Paspalidium* spp. and *Sporobolus* spp. and slender sedge (*Cyperus gracilis*) (DoE, 2013). Whereas forbs generally present within the ground layer include blue trumpet (*Brunoniella australis*), pink tongue (*Rostellularia adscendens*), bristly cloak fern (*Cheilanthes distans*) and rock fern (*C. sieberi*) (DoE, 2013).

The key faunal habitat features of the Brigalow TEC are litter and woody debris on the forest floor, large trees providing hollows or pockets under their bark and sources of nectar and fruit.

3.5.1.2 TEC Diagnostic Criteria

To be considered Brigalow TEC, the suspected patch must meet the following diagnostic criteria (DoE, 2013):

1. The presence of *Acacia harpophylla* as one of the most abundant tree species in the patch. *A. harpophylla* is either dominant in the tree layer, or co-dominant with other species (notably *Casuarina cristata*, other *Acacia* spp., or *Eucalyptus* spp.);
2. The patch size is 0.5 ha or more in size; and
3. Exotic perennial plants comprise less than 50% of the total vegetation cover of the patch, as assessed over a minimum sample area of 0.5 ha (100 m by 50 m), that is representative of the patch.

The above criteria were considered in refining potential mapping TEC patches during the field survey.

3.5.1.3 Known Threats

Threats to the Brigalow TEC, in order of significance, include:

- Clearing – clearing of brigalow communities has altered the typical landscape context of the ecological community, resulting in fragmented patches within substantially modified landscapes;
- Fire – fire is an increasing threat for the TEC particularly where fuel characteristics have been changed including by the presence of introduced weed species in or adjacent to brigalow woodlands. Fragmentation in conjunction with introduced grasses increases the risk of fire in remnant woodlands;
- Weeds – introduced flora can alter the structure and function of brigalow ecosystems and subsequently alter the suitability of habitat for associated native fauna. Brigalow TEC is particularly threatened by the introduction of buffel grass (*Cenchrus ciliaris*), Rhodes grass (*Chloris gayana*) and green panic grass (*Megathyrsus maximus*). The introduction of weeds within the ecological community may lead to a greater risk of bushfire severity;

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 28 of 54

- Feral animals – feral animals, including feral pigs (*Sus scrofa*), goats (*Capra aegagrus hircus*) cane toads (*Rhinella marina*), feral cats (*Felis catus*) and European red fox (*Vulpes vulpes*) pose a significant threat to the ecological community by destroying the ground and shrub layer and disturbing the soil. Additionally, cane toads impact native fauna populations, and feral cats and European red foxes predate on fauna inhabiting the ecological community;
- Inappropriate grazing – trampling and grazing by livestock degrades the ground layer of the ecological community by compacting the soil, reducing the abundance of woody debris and leaf litter, and alters the composition/density of shrubs in the understory (DoE, 2013).

Additionally, climate change is an emerging threat to the ecological community; in addition to directly threatening species that cannot adapt, increased temperatures and decreased, more erratic, rainfall will likely lead to unplanned, high-intensity fires will become a greater threat. This can substantially reduce the understorey diversity.

Disturbances such as clearing, intense fires and overgrazing, tend to reduce one or more of the key habitat characteristics for the listed threatened fauna species.

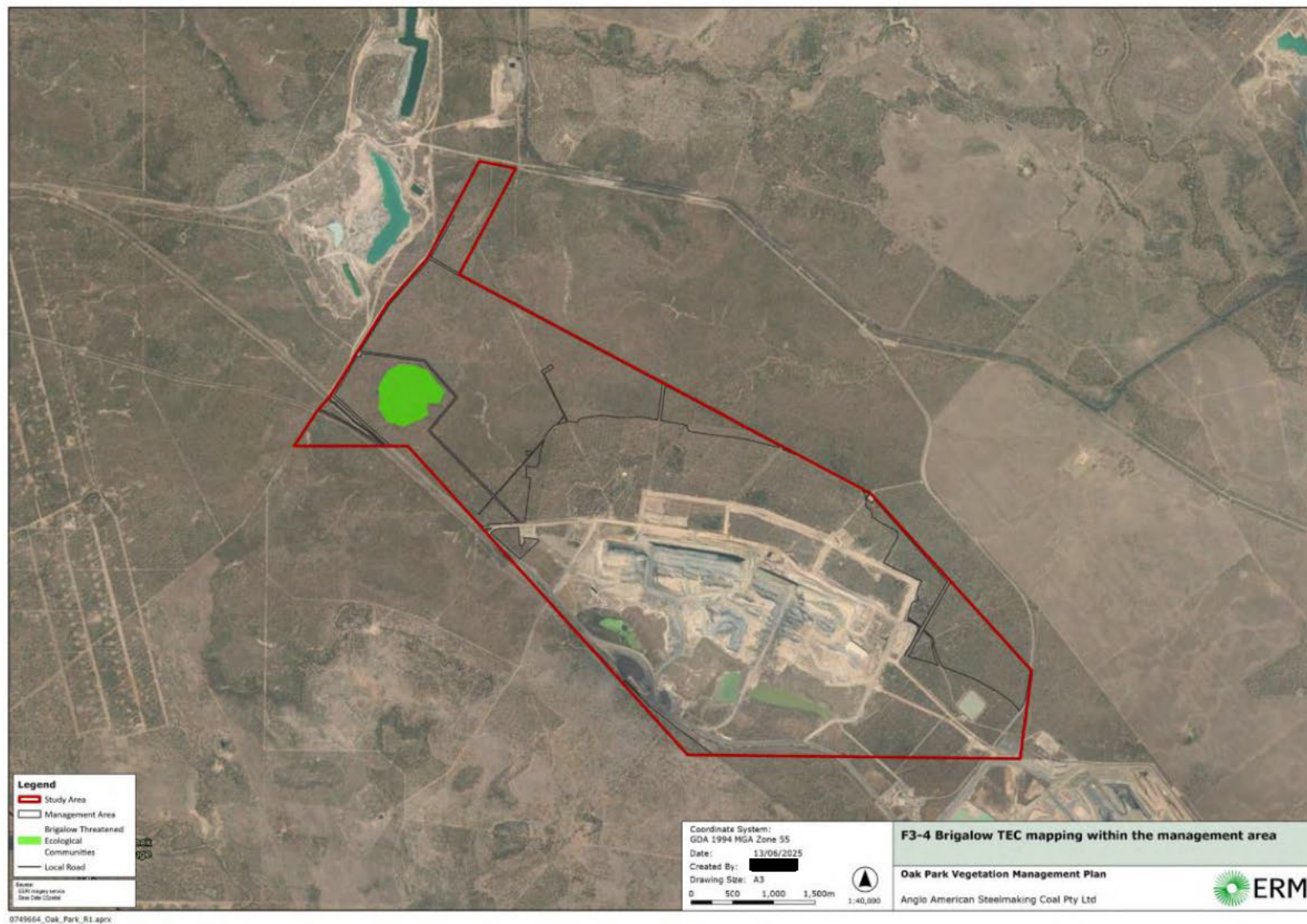
3.5.1.4 Occurrence within the Management Area

A total of 15 BioCondition assessments and 47 quaternary assessments were completed within the Oak Park Mine, in which representative sampling of Regional Ecosystems (RE) was undertaken. Data collected during these assessments included a list of species present in each strata (canopy, subcanopy, shrub layer and ground layer), the presence and height of each strata, topographical features and assessment of water features. These assessments included quaternary assessments in accordance with Neldner et al. (2022) and BioCondition assessments which also defined the boundaries of vegetation communities.

The mapping of Brigalow TEC patches within the Management Area was undertaken based on field-verified polygons recorded during the field survey. A total of five patches of RE 11.4.8 woodland were confirmed (as specified in Section 3.5.1.2). Where patches of RE 11.4.8 occur but did not meet the diagnostic criteria, these were not considered Brigalow TEC and were not mapped. The Management Area contains a total 42.5 ha of Brigalow TEC, occurring as one patch.

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 29 of 54

Figure 3-4 Threatened Ecological Community - Brigalow



Version: [Document Version]

Review Type: [Review Type]

Approved: [Approved Date]

Next Review: [Next Review Date]

Printed copies of this document are uncontrolled and are only valid on the day of printing.

Page 30 of 50

3.6 Listed Threatened Species

As per the Approval, listed threatened species is defined as “the threatened fauna species listed under the EPBC Act for which this approval has effect, including:

- I) Corben’s long-eared bat (*Nyctophilus corbeni*);
- II) Dunmall’s snake (*Furina dunmalli*);
- III) Squatter pigeon (southern) (*Geophaps scripta scripta*); and
- IV) Yakka skink (*Egernia rugosa*).”

3.6.1 Corben’s Long-eared Bat

Corben’s long-eared bat is listed as vulnerable under the EPBC Act and is considered unlikely to occur within the Management Area.

Corben’s long-eared bat occurs in a patchy distribution across southern central Queensland, central western New South Wales, north-western Victoria and eastern South Australia (TSSC, 2015). Majority of the species range is located within the Murray Darling Basin. While the species has a large range, the species is considered uncommon and is rarely recorded. The greatest distribution of the species occurs in Queensland (30%); however, records exist from only 30 localities, particularly located within the Brigalow Belt South bioregion (TSSC, 2015).

3.6.1.1 Habitat

3.6.1.1.1 General Habitat

Corben’s long-eared bat inhabits a variety of inland woodlands, ranging from box / ironbark / cypress pine woodlands, woodlands dominated by any of the following: buloke (*Allocasuarina luehmannii*), brigalow, belah (*Casuarina cristata*), smooth-barked apple (*Angophora costata*), river red gum (*Eucalyptus camaldulensis*) and black box (*Eucalyptus largiflorens*) (TSSC, 2015). The species is also known to inhabit various types of tree mallee. The species is most abundant in extensive stands of old growth vegetation, compared to smaller woodland patches, and is known to prefer habitats with a distinct tree canopy and a dense, cluttered understorey (TSSC, 2015).

In Queensland specifically, the Corben’s long-eared bat is predominantly recorded in box / ironbark / cypress-pine vegetation occurring in a north-south belt along the western slopes and plains southern Queensland (TSSC, 2015).

Hollows and exfoliating bark are essential resources for Corben’s long-eared bat roosting, particularly those in dead trees or dead sprouts of live trees.

3.6.1.1.2 Central Queensland Habitat

In Central Queensland, Corben’s long-eared habitat is defined into preferred and suitable habitat (Kerswell, Kaveney, Evans, & Appleby, 2020).

Preferred habitat is defined by Kerswell et al. (2020) as areas comprising the following features in combination:

- Woodland or open forest with a complex understorey, typically on land zones 5 and 7, occasionally land zones 3 and 10 and characterised by the following floristic associations:
 - Canopy layer of *Eucalyptus fibrosa* subsp. *nubilis* and/or *E. crebra* and/or *E. populnea* and/or *E. microcarpa*/*E. moluccana*, often with *Angophora leiocarpa* and/or *Corymbia* spp., over a low tree layer of *Callitris* spp. and/or *Allocasuarina luehmannii*.

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 31 of 54

- Centred around three key groups of regional ecosystems, including:
 - 11.5.1 / 11.5.4 – cypress/bullock/eucalypt on sandy or duplex soils; undulating plains
 - 11.7.4 / 11.7.7 – cypress/bullock/eucalypt on shallow soils; low hills; and
 - 11.3.18 / 11.3.2 – poplar box/cypress/bullock on sands and duplex soils; alluvial plains.
- Large tract size i.e. greater than ~500 ha;
- High stem-density of the low tree layer;
- High density of dead trees especially bullock, cypress and eucalypts, which are critical for providing abundant roost microhabitat; and
- High abundance of hollows (especially in small diameter dead trees) is particularly important as they are used to a greater extent than fissures & loose bark.

Suitable habitat is defined by Kerswell et al. (2020) as:

- Areas adjacent and connected to areas of preferred habitat (noting particularly the requirement for large tract size), where vegetation is structurally and floristically similar to that of preferred habitat.

3.6.1.2 Threats

Corben's long-eared bat is threatened by habitat loss and fragmentation, fire, reduction in hollow availability, exposure to agrichemicals, grazing and potentially the predation by feral animals (TSSC, 2015).

Habitat loss and fragmentation is the considered the key threat to the species, with clearing of habitats typically for agriculture and extractive industries. Grazing in uncleared habitats, particularly shrubs, leads to a reduction in foraging habitat and limits regeneration of habitats for the species. Given the species' requirements for extensive stands of vegetation, particularly of old-growth maturity, smaller fragmented woodlands may not provide viable habitat for the species (TSSC, 2015).

In remaining habitats, bushfires threaten the species through direct mortality and the loss of foraging and roosting sites. Studies suggest that the impact of bushfires (including fuel reduction burns and frequent burning) is unknown but is likely to be detrimental to the species.

The Corben's long-eared bat is an insectivorous species, and as such, the species may be susceptible to exposure from insecticides, as a result of direct application on foraging trees or spray drift from adjacent areas. The overall threat level of insecticides is not yet determined; however, is thought to be a potential threatening factor to the species.

3.6.1.3 Likelihood of Occurrence in the Management Area

Corben's long-eared bat was not observed while undertaking habitat extent and condition assessments.

The Management Area is located within the species modelled distribution as 'species or species habitat may to occur' (DCCEEW, 2025a).

There are no previous publicly available records of Corben's long-eared bat within the Oak Park Mine or within 10 km of the Oak Park Mine. The nearest record of the species is located 100 km south of the Oak Park Mine and was recorded in 1998. The nearest recent record (within 20 years) is located 227 km south-west of the Oak Park Mine and was recorded in 2014.

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 32 of 54

While the Management Area contains vegetation that may be considered of habitat for the Corben's long-eared bat, the likelihood of occurrence of the species is reduced on the basis of an absence of records within the region. Additionally, the vegetation that may be considered of habitat quality for the species is isolated to two patches within the Management Area. These potential habitat patches are not considered extensive areas and are isolated in the landscape, therefore it is unlikely the species will occur within the Management Area. As such, the Corben's long-eared bat is considered unlikely to occur at this stage, and habitat mapping has not been undertaken for the species.

3.6.2 Dunmall's Snake

Dunmall's snake is listed as vulnerable under the EPBC Act and is unlikely to occur within the Management Area.

In Queensland, the distribution of Dunmall's snake spans from Yeppoon and the Expedition Range, south to Oaky, Glenmorgan and Inglewood in southern Queensland. The species also occurs in central and south-central, and inland north-eastern New South Wales (DoE, 2014). Records and habitat for the species is generally found between 200 – 500 m above sea level (DoE, 2014).

3.6.2.1 Habitat

Within the species range, Dunmall's snake primarily inhabits open forests and woodlands dominated by brigalow, growing on floodplains of deep-cracking black clay and clay loam soils (DoE, 2014). The species requires microhabitat, including fallen timber and deep soil cracks and cavities, for sheltering.

The species has also been recorded in various blue spotted gum (*Corymbia citriodora*), ironbark (*Eucalyptus crebra*, *Eucalyptus melanophloia*), white cypress pine (*Callitris glaucophylla*) and buloke open forest and woodland associations on sandstone derived soils (DCCEEW, 2025b).

Known important habitat for the Dunmall's snake is defined as:

- Suitable habitat within the known / likely to occur distribution of this species and any habitat corridors in between (DCCEEW, 2024).

3.6.2.2 Threats

Threats to the Dunmall's snake include continual broadscale land clearing and habitat modification for agricultural purposes (i.e., grazing by livestock, pasture improvement, crop production) and urban development (DoE, 2014). Predation by feral animals and the introduction of weeds in the species habitat, as well as the possible drainage of swamps and loss of fallen timber and ground litter are considered additional threats to the species (DCCEEW, 2025b).

3.6.2.3 Likelihood of Occurrence in the Management Area

The Dunmall's snake was not observed while undertaking habitat extent and condition assessments.

The Management Area is located within the species modelled distribution as 'species or species habitat may to occur' (DCCEEW, 2025d). As the Management Area is not located within the known or likely distribution of the species, the Management Area does not provide known important habitat for the Dunmall's snake. Additionally, the Management Area is located between 100 – 150 m above sea level, below the known elevation range of the species.

There are no previous publicly available records of the Dunmall's snake within the Oak Park Mine or within 10 km of the Oak Park Mine. The nearest record of the species is located 92 km north-east of the Oak Park Mine and was recorded in 2025.

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 33 of 54

While the Management Area contains vegetation that may be considered habitat or the Dunmall's snake, the likelihood of occurrence of the species is reduced on the basis of an absence of records within the region. Additionally, the vegetation that may be considered of habitat quality for the species is isolated to one singular patch within the Management Area. As the potential habitat patch is extremely isolated, and located less than 200 m above sea level, it is unlikely the species will occur within the Management Area due to their limited dispersal nature. Therefore, the Dunmall's skink is considered unlikely to occur at this stage, and habitat mapping has not been undertaken for the species.

3.6.3 Squatter Pigeon (southern)

The squatter pigeon (southern) is listed as vulnerable under the EPBC Act and is likely to occur within the Management Area.

Squatter pigeon (southern) is distributed from the Burdekin-Lynd divide in the Cape York Peninsula and south to the Queensland/New South Wales border. Across this north-south range, the species is distributed inland to Hughenden, Longreach, and Charleville in Queensland.

3.6.3.1 Habitat

3.6.3.1.1 General Habitat

The squatter pigeon (southern) typically inhabits open forests to sparse, open woodlands and scrub dominated by a eucalyptus, corymbia, acacia or callitris overstorey, and remnant, regrowth, or partly modified vegetation communities. Squatter pigeon (southern) are almost always observed within reasonable proximity to water (TSSC, 2015). As such, habitat for the squatter pigeon (southern) must be located within 3 km (foraging and dispersal habitat) or within 1 km (breeding habitat) of a water source or water body.

The species is unlikely to occur large distances away from wooded vegetation as predation rates by predatory birds, feral cats (*Felis catus*) and European red foxes (*Vulpes vulpes*) are higher in open areas (Squatter Pigeon Workshop, 2011).

An important sub-population of the squatter pigeon (southern) is defined as '*all of the relatively small, isolated and sparsely distributed sub-populations occurring south of the Carnarvon Ranges in Central Queensland*' (Squatter Pigeon Workshop, 2011).

As per the definition, important populations of the species include, but are not limited to:

- Populations in the Condamine River Catchment and Darling Downs of southern Queensland;
- Populations known to occur in the Warwick-Inglewood-Texas region of southern Queensland; and
- Any population potentially occurring in northern New South Wales.

It should be noted that the Management Area is located outside of the above regions and therefore does not contain an important population of squatter pigeon (southern).

3.6.3.1.2 Central Queensland Habitat

In Central Queensland, squatter pigeon (southern) habitat is defined into preferred and suitable habitat (Kerswell, Kaveney, Evans, & Appleby, 2020).

Preferred squatter pigeon (southern) habitat includes:

- Remnant or regrowth grassy open forest to woodland dominated by Eucalyptus, Corymbia, Callitris or Acacia with patchy, relatively sparse ground cover vegetation (33 %) and sparse shrub layer on well-draining sandy, loamy or gravelly soils within 1 km of a suitable permanent waterbody; and
- Preferred habitat may be located on land zones 3, 5, 7, 8, 9 and 10.

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 34 of 54

Suitable squatter pigeon (southern) habitat includes:

- Remnant or regrowth grassy open forest to woodland dominated by Eucalyptus, Corymbia, Callitris or Acacia with patchy, relatively sparse ground cover vegetation (<33%) on well-draining sandy, loamy or gravelly soils between 1 and 3 km of a suitable permanent or seasonal waterbody; and
- Non-remnant areas within 100 m of preferred habitat.

Squatter pigeon (southern) habitat is categorised into the following four components:

- Breeding habitat – preferred habitats within 1 km of a suitable permanent waterbody;
- Foraging and dispersal habitat – preferred habitat within 3 km of a permanent or seasonal waterbody;
- Dispersal habitat – areas of suitable habitat that are not considered breeding, foraging and dispersal habitat; and
- Waterbodies – include all natural, permanent, and seasonal waterbodies, including rivers, streams, and farm dams.

Habitat within the Management Park is discussed in Section 3.6.3.4.

3.6.3.2 Known Threats

Historically, squatter pigeon (southern) was threatened by a combination of habitat destruction, predation and hunting causing a decrease in the overall population (DCCEEW, 2025c). Habitat loss and fragmentation are an ongoing threat to the species, particularly habitat clearing for agricultural purposes and overgrazing by domesticated herbivores. Additionally, the degradation of squatter pigeon (southern) habitat by invasive weeds (e.g., buffel grass (*Cenchrus ciliaris*)) and predation by terrestrial and avian predators continues to threaten the species. Known predators of the squatter pigeon (southern) include birds of prey, snakes, dingo (*Canis lupus dingo*), European red fox and feral cats (DCCEEW, 2025c).

3.6.3.3 Likelihood of Occurrence in the Management Area

Squatter pigeon (southern) was not recorded within the Management Area during the field survey, however the Management Area is located within the species modelled distribution as 'species or species habitat likely to occur' (DCCEEW, 2025c). There are no previous publicly available records of the squatter pigeon (southern) within the Oak Park Mine or within 10 km of the Oak Park Mine. The nearest record of the species is located 20 km east of the Oak Park Mine and was recorded in 2001. There are numerous records of the squatter pigeon (southern) south and west of the Oak Park Mine.

As there are records of the species in the region and the Management Area contains potential habitat for the species, the squatter pigeon (southern) is likely to occur within the Management Area. As such, habitat for the species has been mapped, and is discussed in Section 3.6.3.4.

3.6.3.4 Habitat Mapping within the Management Area

Habitat mapping for squatter pigeon (southern) was undertaken using the methodology described in Section 2.4, and on the basis of the habitat requirements presented in Table 3-3. Species-specific habitat requirements information was derived from the following sources:

- Species Profile and Threats Database (DoE, 2014); and
- Conservation advice *Geophaps scripta scripta* (squatter pigeon (southern)) (TSSC, 2015).

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 35 of 54

As part of the habitat mapping approach, squatter pigeon (southern) habitat has been categorised into the following four components:

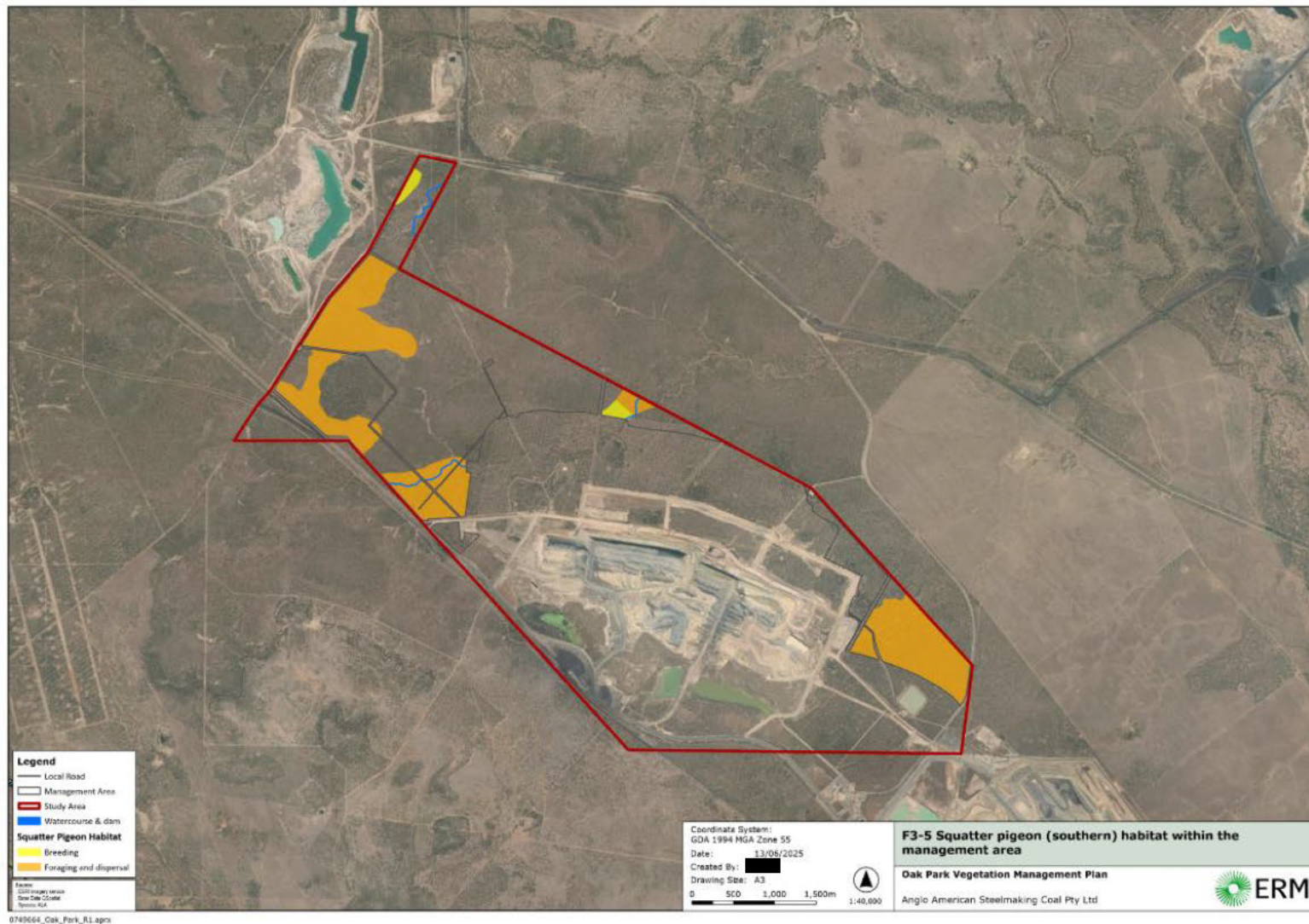
- Breeding habitat – preferred habitats within 1 km of a suitable permanent waterbody, and constitutes 10.5 ha within the Management Area;
- Foraging and dispersal habitat – preferred habitat within 3 km of a permanent or seasonal waterbody and constitutes 277.6 ha within the Management Area;
- Dispersal habitat – areas of suitable habitat that are not considered breeding, foraging and dispersal habitat, and have been included in the above foraging and dispersal habitat calculation; and
- Waterbodies – include all natural, permanent, and seasonal waterbodies, including rivers, streams, and farm dams. Lined waterbodies constructed by Oak Park Mine are not included as suitable habitat for the species.

Squatter pigeon (southern) habitat occurs in the north-western areas of the Management Area, particularly where natural waterbodies are present, as presented in Figure 3-5.

Table 3-3 squatter pigeon (southern) habitat mapping rules

Habitat Category	Habitat Requirements and Rules
Breeding habitat	Breeding habitat occurs where GTREs in land zones 3, 5 and 7: • are within 1 km of a permanent waterbody (not including mine lined dams); • are recorded to have <33% grass cover (per BC plots); and • are recorded to have <20% shrub cover (per BC plots)
Foraging habitat	Foraging habitat occurs where GTREs in land zones 3, 5 and 7: • are within 3 km of a permanent or seasonal waterbody (not including mine lined dams); • are recorded to have <33% grass cover (per BC plots); and • are recorded to have <20% shrub cover (per BC plots).
Dispersal habitat	Dispersal habitat occurs where GTREs in land zones 3, 5 and 7: • are within 3 km of a permanent or seasonal waterbody (not including mine lined dams); • are recorded to have <33% grass cover (per BC plots); and • are recorded to have <20% shrub cover (per BC plots).
Waterbodies	• All natural, permanent, and seasonal waterbodies, including rivers, streams and farm dams

Figure 3-5 Squatter pigeon (southern) habitat within the Management Area



Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 37 of 54

3.6.4 Yakka Skink

The yakka skink is listed as vulnerable under the EPBC Act and is unlikely to occur within the Management Area.

The yakka skink is endemic to Queensland, occurring in a patchy distribution from Coen and Cape York in northern Queensland, to St George in the south. The core habitat for the yakka skink primarily occurs within the Mulga Lands Brigalow Belt South bioregions (DoE, 2014).

3.6.4.1 Habitat

3.6.4.1.1 General Habitat

The yakka skink inhabits open dry sclerophyll forest or woodlands and scrub within land zones 3, 4, 5, 7, 9 and 10. Open dry sclerophyll forest or woodlands inhabited by the yakka skink are commonly comprised of:

- Brigalow (*Acacia harpophylla*);
- Mulga (*A. aneura*);
- Bendee (*A. catenulata*);
- Lancewood (*A. shirleyi*);
- Belah (*Casuarina cristata*);
- Poplar box (*Eucalyptus populnea*);
- Ironbark (*Eucalyptus* spp.); and
- White cypress pine (*Callitris glaucophylla*) (DCCEEW, 2025d).

In these woodlands, the yakka skink requires dense groundcover, including vegetation and woody debris or rocks for sheltering (DoE, 2014). The yakka skink takes refuge in large hollow logs, burrow systems, cavities in soil-bound root systems of fallen trees and beneath rocks (DoE, 2014).

The draft referral guidelines for the nationally listed Brigalow Belt reptiles (DCCEEW, 2024) defines known important habitat for the yakka skink as:

- Any contiguous patch of suitable habitat, particularly remnant vegetation, where a colony is known or identified; and
- Any microhabitat where colonies are likely to be found.

Additionally, DCCEEW (2024) further notes the species may be prone to localised extinctions based on their longevity, low fecundity, high site-fidelity and fragmented populations.

3.6.4.1.2 Central Queensland Habitat

Kerswell et al. (2020) categorises yakka skink habitat in Central Queensland into two categories, preferred and marginal habitat:

- Preferred yakka skink habitat – Areas of remnant and regrowth woodlands and open woodlands, as well as non-remnant vegetation, with suitable light clay loam, loam and sandy loam substrates on land zones 3, 5, 7, 9 and 10 supporting microhabitat features including large hollow logs, cavities or burrows under large fallen trees and/or tree stumps, log piles, large rocks and rock piles, deep rock crevices, deeply eroded gullies or sinkholes/areas of tunnel erosion; and
- Marginal yakka skink habitat – areas of remnant and regrowth woodlands and open forests, as well as non-remnant vegetation, with suitable light clay loam, loam and sandy loam substrates on land zones 3, 5, 7, 9 and 10, with only rare occurrences of microhabitat features (Kerswell, Kaveney, Evans, & Appleby, 2020).

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 38 of 54

Preferred habitat may be delineated further to areas within 10 km of a known occurrence; however, this delineation is only possible when the survey effort is adequate for a region.

3.6.4.2 Known threats

The yakka skink is primarily threatened by broadscale land clearing and habitat degradation (DoE, 2014), as well as inappropriate roadside management, removal of woody debris and rock microhabitat features, ripping of rabbit warrens and predation by feral animals (e.g., feral cats and European red foxes) (DoE, 2014).

3.6.4.3 Likelihood of Occurrence in the Management Area

The yakka skink was not observed while undertaking habitat extent and condition assessments.

The Management Area is located within the species modelled distribution as 'species or species habitat may to occur' (DCCEEW, 2025d). There are no previous publicly available records of the yakka skink within the Management Area or within 10 km of the Management Area.

The nearest record of the species is located 46 km east of the Management Area and was recorded in 2000. The nearest recent record (records within 20 years) is located 356 km south of the Management Area and was recorded in 2006. Due to the absence of records within the region, and the absence of colonies within the Management Area, the Management Area does not provide known important habitat for the yakka skink.

While the Management Area contains vegetation that may be considered of habitat quality for the yakka skink, the likelihood of occurrence of the species is reduced on the basis of an absence of records within the region. Additionally, the vegetation that may be considered of habitat quality for the species is isolated to one singular patch within the Management Area. The species is limited in their capacity to disperse from a colony site (DCCEEW, 2025d), and as the potential habitat patch is extremely isolated, it is unlikely the species will occur within the Management Area. Therefore, the yakka skink is considered unlikely to occur at this stage, and habitat mapping has not been undertaken for the species.

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 39 of 54

4 Baseline Habitat Quality Scoring

The field surveys within the Management Area were undertaken to assess the baseline vegetation data, specific to Brigalow TEC and habitat for four threatened species.

As Corben's long-eared bat, Dunmall's snake and yakka skink are considered unlikely to occur within the Management Area (refer to their respective sections in Section 3.6), these species are excluded from the baseline data and habitat quality scores.

A summary of the baseline habitat quality scores for Brigalow TEC and squatter pigeon (southern) habitat within the Management Area are presented in Table 4-1.

Table 4-1 Baseline Habitat Quality Scores

Assessment Unit	Weighted Habitat Quality Score
Brigalow TEC	
AU1	3.46
Final habitat quality score	3.46
Squatter pigeon (southern)	
AU1	0.72
AU2	0.90
AU3	1.26
AU4	1.16
AU5	0.29
AU6	0.09
AU7	0.02
AU8	0.26
Final habitat quality score	4.69

5 Prohibited Activities and Associated Impacts

5.1 Permitted Activities

The permitted activities within the Management Area include:

- Activities to the extent reasonably necessary for exploration and activities ancillary to the mining; and
- Activities required for compliance to the vegetation management plan.

5.2 Prohibited Activities

The prohibited activities within the Management Area include:

- Open cut mining; and
- Broadscale clearing of native retained vegetation

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 41 of 54

6 Management Outcomes and Measures

The purpose, objectives, targets and key references for management and mitigation measures are summarised in Table 6-1. Detailed management measures for the Management Area are outlined in Table 6-1.

Table 6-1 Management Purpose, Objectives and Targets

Aspect	Implementation
Purpose	The purpose of this VMP is to describe how impacts on vegetation, particularly Brigalow TEC and threatened species will be minimised, managed and enhanced within the Management Area.
Objectives	The key objective of the VMP is to ensure that impacts to Brigalow TEC and threatened species habitats are managed and habitat quality is improved within the Management Area. To achieve this objective, the following will be undertaken: - Only permitted activities are carried out in the Management Area to minimise potential adverse impacts to biodiversity values within the Management Area; - Ensure appropriate measures are implemented to address the management outcomes.
Targets	The following targets have been established for the improvement of habitat quality for Brigalow TEC and listed threatened species: - Only permitted activities are carried out in the Management Area to minimise impacts to Brigalow TEC and squatter pigeon (southern) habitat; - No increase in distribution of noxious weeds currently existing within the Management Area; - No new noxious weeds introduced within the Management Area.
Key references	- Approved Conservation Advice for the Brigalow (<i>Acacia harpophylla</i> dominant and co-dominant) ecological community (DoE, 2013); - Conservation Advice <i>Geophaps scripta scripta</i> squatter pigeon (southern) (TSSC, 2015); - Approved Conservation Advice for <i>Furina dunmallii</i> (Dunmall's snake) (DoE, 2014); - Conservation Advice <i>Nyctophilus corbeni</i> south-eastern long-eared bat (TSSC, 2015); - Approved Conservation Advice for <i>Egernia rugosa</i> (yakka skink) (DoE, 2014); <i>Biosecurity Act 2014</i>; <i>Environment Protection and Biodiversity Conservation Act 1999</i>; <i>Environmental Protection Act 1994</i> (and Regulation); <i>Nature Conservation Act 1992</i>; and <i>Vegetation Management Act 1999</i>.

6.1 Management Outcomes

The management outcomes for the Management Area include:

- The rehabilitation or establishment of Brigalow within the Management Area within the period of Approval; and
- The protection of habitat for listed threatened species within the Management Area, specifically squatter pigeon (southern) within the period of Approval.

The management outcomes are timebound to be implemented and achieved within the period of Approval, being until 1 October 2030. Management measures will be implemented following approval of the VMP, with completion criteria achieved within the period of approval (1 October 2030).

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 42 of 54

6.2 Management Measures

The management measures to achieve the management outcomes (as specified in Section 6.1) are outlined in Table 6-2. Specific management measures for Brigalow TEC and threatened species **Error! Reference source not found.****Error! Reference source not found.**

It should be noted that there is currently no grazing by livestock (e.g., cows) in the Management Area.

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 43 of 54

Table 6-2 Management Measures within the Management Area

Management Type	Management Measure	Management Objective	Management Timing
Grazing management	The introduction of grazing livestock within the Management Area will be used for grass fuel load management as per EPBC Approval. Grazing livestock will be managed with an appropriate management regime for the Management Area and will occur at a low density to reduce risks of deteriorating foraging habitat for listed threatened species.	Control of Buffel grass within the Management Area and improve the quality of Brigalow TEC and threatened species habitat.	At all times for the duration of the VMP and EPBC Act Approval.
	Stockproof fencing has been erected around sections of the Oak Park Mine (excluding sections that extend to the existing operations, east and west) to enable the management and control of animal grazing. This fencing should be monitored and maintained on a frequent basis. Identify the stockproof fencing with appropriate signage. Verify effectiveness of fencing at a quarterly interval and amend if fencing is impermeable.		Quarterly fencing checks.
	Grazing will be limited to only when the baseline buffel grass biomass is exceeded and is limited to the dry season (nominally between April and December).		Dry season
Management of Brigalow TEC and listed threatened species habitats	No clearing of threatened species habitats or Brigalow TEC, except for completing management actions required for habitat quality improvement and the permitted activities defined in Section 5.1 for the duration of the VMP and EPBC Act Approval.	Improve the quality of Brigalow TEC and threatened species habitat within the Management Area.	At all times for the duration of the VMP and EPBC Act Approval.
	No removal of hollow-bearing trees, including live or dead trees to improve habitat for Corben's long-eared bat		
	No removal of fallen logs, leaf litter and rocks from potential habitat sites for listed threatened species.		
	Management and exclusion of feral animals (e.g., feral pigs) within species habitats will be undertaken as per invasive species management.		As per Oak Park invasive species management.
Direct impacts to retained vegetation	Driving will be carried out within speed limits designated for the Management Area.	The quality of habitat for Brigalow TEC and listed threatened species is not	

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 44 of 54

Management Type	Management Measure	Management Objective	Management Timing
	Signage will be in place on main access routes to the Management Area to ensure vehicle movements are contained within the approved areas. Habitat information included in disturbance management system to ensure activities are aligned to prohibited and restricted activities. All near misses and incidents will be investigated to establish root cause. Where necessary corrective actions will be developed to improve existing processes.	significantly impacted by activities associated with mining.	At all times for the duration of the VMP and EPBC Act Approval.
Introduction and spread of pests and pathogens.	Carry out treatment of declared weeds in the Management Area through adaptive management. Weed control will be undertaken as early as practicable within the natural regeneration process throughout the Management Area and then periodically as required to treat the weeds at the optimum time in their life cycles to control and minimise the spread of the existing weed species.	Reduction of invasive flora and fauna (observations of evidence and sightings) when compared to the baseline data, based on recorded observations during quarterly inspections or BioCondition monitoring.	As early as practicable within the natural regeneration process and then periodically as required.
	All vehicles traversing through the Management Area on main roads require a weed and seed declaration prior to entering.	Reduction in non-native plant cover within the Management Area when compared to the baseline BioCondition data.	At all times prior to entering Management Area
	Management and exclusion of feral animals (e.g., feral pigs) will be undertaken as per invasive species management.		As per Oak Park invasive species management.
	Establish yearly monitoring programs to track the distribution and ecological impacts of invasive species comparing against reference sites and the baseline data collected to assess progress.		Annually
	Where the proportion of Category 3 restricted invasive plant species and Weeds of National Significance are >10% of total vegetative groundcover, implement management techniques in line with site invasive species management. Management techniques include the manual removal, chemical control, biological control or integrated pest management.		As per Oak Park invasive species management.
	Verify effectiveness of removal and control measures and determine whether any change to mitigation is required.		Annually
Biodiversity management	Conduct annual monitoring to assess the quality of Brigalow TEC and listed threatened species habitats are improved when compared to the baseline habitat quality scores.	Successful biodiversity is an overall gain in the habitat quality score when compared to the baseline BioCondition	Annually

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 45 of 54

Management Type	Management Measure	Management Objective	Management Timing
	Establish annual monitoring to closely monitor biodiversity outcomes. Successful biodiversity is an overall gain in the habitat quality score within the Management Area.	data within the Management Area, for example: - Brigalow TEC: - Baseline HQS = 3.46 - Year 4 = 3.9 - Year 5 = 4.0 - Squatter pigeon (southern); - Baseline HQS = 4.69 - Year 4 = 5.1 - Year 5 = 5.2	Annually
Fire regime	Fire breaks should be implemented around the Management Area to reduce the risk of fire in Brigalow TEC and threatened species habitats.	Fire management in accordance with the prescribed fire management requirements for respective regional ecosystems within the Management Area, available from the Queensland Government Regional Ecosystems Description Database.	Following the approval of this VMP
	Firebreak inspections of main fire breaks to determine maintenance requirements		Bi-annually
	No deliberate fires in the Management Area except as per the fire management guidelines for regional ecosystems.		At all times for the duration of the VMP and EPBC Act Approval.

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 46 of 54

Management Type	Management Measure	Management Objective	Management Timing
	Fire management guidelines for Regional Ecosystems (Queensland Herbarium, 2024) will be used to inform fire management practices across the Management Area. There are three different burning strategies applicable to the ground-truthed REs within the Management Area; these are: - For RE 11.3.4, RE 11.5.1, RE 11.5.1a, RE 11.5.2, RE 11.5.2a, RE 11.5.8 and RE 11.7.4, woodlands and grassy woodlands, low intensity burns (to protect habitat trees) in mosaic patches can be used to control fuel loads and invasive shrubs. Controlled burns must be conducted under conditions of good soil moisture and when plants are actively growing. - For RE 11.7.2 and RE 11.4.8 (Brigalow TEC), protection from fire is necessary. Can only maintain fire management of surrounding areas. Frequent fire at the edge of these REs will keep fuel loads low. - For RE 11.5.3 and RE 11.5.18, shrubby woodlands require longer fire intervals than grassy woodlands because of the time required for post-fire regrowth (often >5 years) and therefore none of these areas should receive two consecutive controlled burns at intervals of <6 years. Where it occurs with grassy woodlands (as is the case in the Oak Park Covenant), attempt to burn the shrubby woodland every second fire rotation in the grassy woodland (by burning early breaks around the shrubby areas).		At all times for the duration of the VMP and EPBC Act Approval.
	Undertake monitoring of fire risk conditions during the hot season to identify high-risk areas and implement Oak Park's fire trigger action response plan where required.		As per Oak Park's fire risk response plan.
	Maintain vegetation around roads and tracks within and surrounding the area to create a firebreak to act as a barrier to slow or stop fire from spreading. Maintenance should be ongoing with particular attention in the dry season.		At all times for the duration of the VMP and EPBC Act Approval.
	Post-fire evaluations should occur after any fire event to evaluate the effectiveness of mitigation strategies.		Immediately following any fire event

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 47 of 54

7 Risk management strategy

Risks can occur in many forms from natural risk and human-induced risks. All types of risk can be assessed against likelihood and consequence. The following Anglo American biodiversity risk consequence guidelines and risk rating matrix, as shown in Table 7-1 and Table 7-2, has been used to assess potentially occurring risks.

A risk management strategy is outlined in

Table 7-3, identifying potential risks that could impact the successful implementation of the VMP. This strategy includes risk ratings and mitigation measures designed to reduce both the likelihood and consequences of these risks.

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 48 of 54

Table 7-1 Risk consequence Rating guidelines for biodiversity

1 – Insignificant	2 – Minor	3- Moderate	4 – High	5 - Major
Minor incident of environmental damage that can be reversed	Isolated but substantial instances of environmental damage that could be reversed with intensive efforts	Substantial instances of environmental damage that could be reversed with intensive efforts	Major loss of environmental amenity and real danger of continuing	Severe widespread loss of environmental amenity and irrecoverable environmental damage

Table 7-2 Risk Rating matrix

Consequence / Likelihood		1 – Insignificant	2 – Minor	3- Moderate	4 – High	5 - Major
5 - Almost Certain 1 year	Is expected to occur in most circumstances	11 - Medium	16 - Significant	20 - Significant	23 - High	25 - High
4 - Likely 3 years	Will probably occur during the life of the project	7 - Medium	12 - Medium	17 - Significant	21 - High	24 - High
3 – Possible 10 years	Might occur during the life of the project	4 - Low	8 - Medium	13 - Significant	18 - Significant	22 - High
2 – Unlikely 30 years	Could occur but considered unlikely or doubtful	2 - Low	5 - Low	9 - Medium	14 - Significant	19 - Significant
1 – Rarely >30 years	May occur in exceptional circumstances	1 - Low	3 - Low	6 - Medium	10 - Medium	15 - Significant

Table 7-3 Management Response Measures

Risk	Risk Rating	Management Response	Residual Risk
Invasive Species	Significant	- Establish yearly monitoring programs to track the distribution and ecological impacts of invasive species comparing against reference sites and the baseline data collected to assess progress. - Where the proportion of Category 3 restricted invasive plant species and Weeds of National Significance are >10% of total vegetative groundcover, implement management techniques. Management techniques include the manual removal, chemical control, biological control or integrated pest management. - Following removal of invasive species, if deemed necessary replant native species (such as <i>Acacia</i> spp.) using tube stock to restore ecosystem functions and prevent re-establishment of invasive species. Species selection is dependent upon the soil quality. Existing species such as those noted within Section 2.2 regional ecosystems provide evidence of plant species which can be sustained within the environment. - Verify effectiveness of removal and control measures and determine whether any change to mitigation is required.	Low
Biodiversity Loss	Significant	- Identify the primary threats to biodiversity including invasive species and apply management in relation to the threat. Assess what preventative mitigation measures that may be required to avoid/minimise the threats. Record the measures, implement and monitor to verify effectiveness. - Successful biodiversity is any overall gain in the habitat quality score, when compared to the baseline BioCondition data, within the Management Area, for example: - Brigalow TEC: - Baseline HQS = 3.46 - Year 4 = 3.9 - Year 5 = 4.0 - Squatter pigeon (southern); - Baseline HQS = 4.69 - Year 4 = 5.1 - Year 5 = 5.2	Low
Fire Risk	Significant	- Fire breaks should be implemented around the Management Area to reduce the risk of fire in Brigalow TEC and threatened species habitats. - No deliberate fires in the Management Area except as per the fire management guidelines for regional ecosystems.. - Develop and implement a fire management plan to include fire management planning outlining prevention, response and communication strategies. Conduct the fire management plan in conjunction with the Queensland Fire Management Guidelines which identify management strategies for each bioregion and specifies management for each individual species. - Undertake fire risk assessments during the hot season to identify high-risk areas and implement Oak Park's fire risk response plan where required.	Medium

Risk	Risk Rating	Management Response	Residual Risk
		- Maintain vegetation around roads and tracks within and surrounding the area to create a firebreak to act as a barrier to slow or stop fire from spreading. Maintenance should be ongoing with particular attention in the dry season. - Post-fire evaluations should occur after any fire event to evaluate the effectiveness of mitigation strategies.	
Over Grazing	Medium	Stockproof fencing has been erected around parts of the Oak Park Mine to enable the management and control of animal grazing. This fencing should be monitored and maintained on a frequent basis. Identify the stockproof fencing with appropriate signage. Verify effectiveness of fencing and amend as necessary.	Low

8 Management Response Plan

8.1 Monitoring Schedule and Methodology

Vegetation monitoring will need to be conducted annually in the form of onsite field surveys. As per the BioCondition Assessment Manual (Eyre, et al., 2015), the ideal time for assessment is typically at the end of the summer rainfall growing season, when plant diversity is greatest. For the majority of Queensland, this is often from late March to late May. However, sampling in spring is possible following an unseasonably wet winter when many plant species are flowering. These surveys should be conducted using the transect method whereby transects of 50 m are taken across the within Brigalow TEC and threatened species habitats and include the monitoring of invasive species, total biodiversity, native biodiversity, biomass and soils.

Monitoring will allow the occurrence of prohibited activities and risk events to be detected and recording of all monitoring data within a site appropriate database will be undertaken. Monitoring will further assist in demonstrating the achievement and maintenance of the management outcomes.

8.2 Data Analysis

Data collected from the annual and future targeted monitoring events will be compared against the baseline data set to assess the progress of the VMP. Areas of significant improvement will be identified to understand why these areas are succeeding. Similarly, areas which have shown no to minimal improvement will be assessed and factors preventing this progress understood.

8.3 Reporting and Review

After monitoring, the annual reports will be submitted to DCCEE. In the event of extreme impacts on the vegetation such as a wildfire event, additional monitoring and reporting may be required to be conducted to determine the extent of impacts. The reports will be completed by a qualified ecologist.

As a minimum, the annual reports will include:

- Site Setting;
- Environmental setting;
- Methodology of site data collection;
- Presentation of site data;
- Review and analysis of the data collected including analysis of progress towards overall improvement in habitat quality scores;
- Detailed review of VMP implementation; and
- A plan to further manage areas which have not successfully met the criteria.

8.4 Failure to Meet Outcomes

The following performance metrics are to be met to successfully achieve outcomes:

- Improvement of baseline condition, as measured using BioCondition plots in areas of Brigalow TEC and squatter pigeon (southern) habitat;
- Proportion of Category 3 restricted invasive plant species and Weeds of National Significance are not >10% of total vegetative groundcover;

Failure to meet these outcomes will require the reassessment of mitigation measures and potential implementation of further measures to confirm the Management Area is successfully improving towards the outcomes.

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 51 of 54

8.5 Training

Training will be conducted, by a suitably qualified person, on the identification of invasive species is advised to allow for clear recognition of these species allowing mitigation measures to be implemented effectively and within a reasonable timeframe.

8.6 VMP Review

Adaptive management will be undertaken to adjust management measures and the VMP if the condition is not on the trajectory to meeting the final habitat score committed to.

The VMP is intended to be a dynamic management tool expected to change and adapt overtime to protect, enhance vegetation biodiversity and improve ecosystem health. The monitoring data and verification of measures will inform the changes required.

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
Printed copies of this document are uncontrolled and are only valid on the day of printing.			Page 52 of 54

9 Adaptive Management Approach

Corrective actions in relation to vegetation management may arise during the course of the Project. Corrective action and management plan adaptation may be required due to a number of reasons, including:

- Recommendation outlines in incident investigation reports, including investigation into community concern, near miss incidents and non-compliance matters;
- Review of monitoring results indicating performance trends that are inconsistent with required outcomes of the management plan (e.g., increase in noted edge effects, vegetation decline, increase in weeds and increase in dust and sediment);
- Outcomes of audits, checks and investigations; and
- Identification of hazards or improvement opportunities.

In ensuring that the Project has capacity to adapt to any changes experienced with the Project timeline, performance targets and triggers for response have been provided in Table 9-1.

Table 9-1 Performance target triggers

Performance Target	Trigger
No disturbance other than permitted activities as per Section 5.1	Unauthorised clearing noted during informal or formal monitoring activities
No increase in distribution of noxious weeds currently existing within the Management Area	Spread of weed cover noted
No new noxious weeds introduced to the Management Area	Presence of new weeds noted
Habitat quality score improvement	Habitat quality scores not on trajectory towards achieving overall improvement

9.1 Corrective Actions

Should a trigger in Table 9-1 be met or exceeded, a decision-making process will be followed to determine if the trigger event is a result of the Project and, if relevant, what corrective action may be appropriate to address the trigger event.

Corrective actions will be undertaken in accordance with operational work conditions in Table 9-2.

Table 9-2 Potential corrective actions and triggers

Trigger	Potential Corrective Action
Compliance audits note matters of concern regarding condition compliance	1. Identify potential cause; 2. Investigate circumstances that resulted in identified cause; 3. Implement corrective action as deemed appropriate after identifying cause of the trigger event; and 4. Notify appropriate compliance authority as required.
Unauthorised clearing noted during informal or formal monitoring activities	1. Identify cause, which may include: a. Clearing beyond the footprint (over-clearing); 2. Implement remedial action as related to the identified potential cause (e.g., implement contingencies accordingly, revegetation of the area cleared without approval etc.); 3. Determine whether the unauthorised clearing has exceeded clearing limits and/or regulatory requirements; and 4. Continue monitoring of response to ensure the effectiveness of remedial actions.
Spread of weed cover noted	1. Identify and investigate potential cause; 2. Implement remedial actions which may involve weed control measures;
Presence of new weeds noted	3. Continue monitoring of weed presence and spread within the Management Area; and 4. Provide report to the appropriate authority as required.

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
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Trigger	Potential Corrective Action
Habitat quality scores not aligned to achieving overall score improvement	Review management measures and identify corrective actions or further management measures required to ensure management outcomes are aligned to achieving habitat quality score improvement.

Version: [Document Version]	Review Type: [Review Type]	Approved: [Approved Date]	Next Review: [Next Review Date]
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