

**Department of Planning and Environment** 

# Biodiversity Development Assessment Report, 2513 Getta Getta Road, North Star feedlot expansion

Prepared by Tom Pollard, BAAS18071





Final Report February 2025

environment.nsw.gov.au

# **Document control**

Version	Date	Author	Details
1	12/04/2024	T. Pollard	RDC Engineers
2	20/02/2025	T. Pollard	Final issued with development application

# Summary

- The proposed development is for the expansion of an existing cattle feedlot, from 999 head to 3,500 head of cattle.
- The BOS applies to the proposed development as native vegetation removal for the proposal exceeds the clearing threshold for the minimum lot size shown in the Gwydir LEP 2012 applicable to the subject land.
- The subject land supports 9.41 ha of PCT 429 White Cypress Pine Poplar Box Silverleaved Ironbark viney shrub woodland of the Brigalow Belt South Bioregion.
- PCT 429 vegetation on the subject land is not consistent with the characteristics of a state-listed threatened ecological community (TEC) or commonwealth-listed endangered community (EC).
- Direct impacts of the proposal consist of removal of 9.41 ha of PCT 429.
- No direct impacts on species credit species would occur.
- Possible indirect impacts of the proposed development would include:
  - Inadvertent impacts on adjacent habitat or vegetation
- Avoiding and minimising biodiversity impacts:
  - The project has been located to occupy an already substantially disturbed site. The majority of the subject land (98%) is vegetated with derived native grassland (vegetation 429\_low\_DNG). All of the vegetation being removed within vegetation zone 429\_low\_DNG is in low condition and below the threshold requiring a biodiversity offset.
  - The project location does not coincide with any vegetation that is consistent with the characteristics of a state-listed threatened ecological community (TEC) or commonwealth-listed endangered community (EC).
  - Furthermore, the results of the BAM targeted surveys indicate that removal of native vegetation for the proposal would be unlikely to impact on threatened species and their habitat.
  - If ancillary facilities are required for the proposed development these would be located within the low condition derived native grassland area (vegetation zone 429\_low\_DNG). This would therefore result in ancillary facilities being located within areas with a low biodiversity value and with the lowest vegetation integrity score.
- Recommended mitigation measures consist of protection of adjacent areas of retained woodland (PCT 429) vegetation.

Table E1 identifies impacts (ecosystem credits) that require an offset (as per BAM Subsection 9.2.2(2.)). No impacts to species credit species require an offset.

Vegetation zone	РСТ	TEC/EC	<b>Impact</b> area (ha)	Number of ecosystem credits required
429_low_w oodland	PCT 429 White Cypress Pine - Poplar Box - Silver- leaved Ironbark viney shrub woodland of the Brigalow Belt South Bioregion	none	0.21	3

#### Table E1 Impacts that require an offset – ecosystem credits

# Contents

Sum	nmary		iii	
Sho	rtened	forms	vii	
Dec	laration	S	viii	
Stag	ge 1: Bi	odiversity assessment	1	
1.	Introdu	iction	1	
	1.1	Proposed development	1	
	1.2	Biodiversity Offsets Scheme entry	2	
	1.3	Excluded impacts	2	
	1.4	Matters of national environmental significance	2	
	1.5	Information sources	2	
2.	Metho	ds	4	
	2.1	Site context methods	4	
	2.2	Native vegetation, threatened ecological communities and		
		vegetation integrity methods	4	
	2.3	Threatened flora survey methods	5	
	2.4	I hreatened fauna survey methods	6	
	2.5	Veather conditions	6	
•	2.0	Limitations	0	
3.	Site co	ontext	7	
	3.1	Assessment area	7	
	3.2	Landscape features	7	
	3.3	Native vegetation cover	8	
4.	Native	vegetation, threatened ecological communities and	•	
	vegeta	tion integrity	9	
	4.1	Native vegetation extent	9	
	4.2	Plant community types	9	
	4.3	Vegetation zones	12	
_	4.4	Vegetation integrity (vegetation condition)	14	
5.	Habita	t suitability for threatened species	15	
	5.1	Identification of threatened species for assessment	15	
	5.2	Presence of candidate species credit species	30	
	5.3	I hreatened species surveys	31	
	5.4 5.5	Expert reports	33	
	5.5 5.6	Area or count, and location of quitable babitat for a species gradit	33	
	0.0	species (a species polygon)	33	
6.	Identify	ving prescribed impacts	34	

Stag	ge 2: In	npact assessment (biodiversity values and prescribed	
	impac	ts)	35
7.	Avoid	and minimise impacts	35
	7.1	Avoid and minimise direct and indirect impacts	35
	7.2	Summary of measures to avoid and minimise impacts	35
8.	Impac	t assessment	38
	8.1	Direct impacts	38
	8.2	Indirect impacts	39
	8.3	Prescribed impacts	40
	8.4	Mitigating residual impacts – management measures and implementation	41
	8.5	Consistency with other legislation - State Environmental Planning Policy (Biodiversity and Conservation) 2021, Chapter 3 – Koala Habitat Protection 2020	42
9.	Impac	t summary	43
	9.1	Determine an offset requirement for impacts	43
	9.2	Impacts that do not need further assessment	45
10.	Biodiv	ersity credit report	46
	10.1	Ecosystem credits	46
11.	Refere	ences	47
12.	Figure	S	48
Арр	endix A	A: BDAR requirements compliance	58
Арр	endix E	3: Vegetation survey data	75
Арр	endix (	C: Credit reports	83

# List of tables

Table E1	Impacts that require an offset – ecosystem credits	iii
Table 1	Environmental conditions during threatened species surveys	6
Table 2	Native vegetation cover in the assessment area	8
Table 3	PCTs identified within the subject land	9
Table 4	PCT 429 White Cypress Pine - Poplar Box - Silver-leaved Ironbark viney shrub woodland of the Brigalow Belt South Bioregion	9
Table 5	Vegetation zones and patch sizes	13
Table 6	Vegetation integrity scores	14
Table 7	Predicted ecosystem credit species	15

Table 8	Predicted flora species credit species	23
Table 9	Predicted fauna species credit species	25
Table 10	Determining the presence of candidate flora species credit species on the subject land	30
Table 11	Threatened species surveys for candidate flora species credit species on the subject land	31
Table 12	Threatened species surveys for candidate fauna species credit species on the subject land	32
Table 13	Prescribed impacts identified	34
Table 14	Avoidance and minimisation measures for direct, indirect and prescribed impacts	35
Table 15	Summary of residual direct impacts	38
Table 16	Impacts to vegetation integrity	38
Table 17	Summary of residual indirect impacts	39
Table 18	Summary of proposed mitigation and management measures for residual impacts (direct, indirect and prescribed)	41
Table 19	Impacts that do not require offset – ecosystem credits	43
Table 20	Impacts that require an offset – ecosystem credits	44
Table 21	Ecosystem credit class and matching credit profile	46
Table 22	Assessment of compliance with BDAR minimum information requirements	58
Table 23	Vegetation survey data and locations	75

# List of figures

Figure 1	Site Map	48
Figure 2	Location Map	49
Figure 3	Development layout (as per RDC Engineers drawing: proposed development - infrastructure layout (E2-103-5000-01))	50
Figure 4	Biodiversity Values Map	51
Figure 5	Field survey locations	52
Figure 6	Native vegetation extent	53
Figure 7	Plant community types	54
Figure 8	Vegetation zones	55
Figure 9	Final impacts likely to occur on the subject land	56
Figure 10	Thresholds for assessing and offsetting impacts	57

# **Shortened forms**

BAM	Biodiversity Assessment Method
BAM-C	Biodiversity Assessment Method Calculator
BC Act	Biodiversity Conservation Act 2016 (NSW)
BC Regulation	Biodiversity Conservation Regulation 2017 (NSW)
BDAR	Biodiversity Development Assessment Report
BOAMS	Biodiversity Offsets and Agreement Management System
BOS	Biodiversity Offsets Scheme
DBH	diameter at breast height over bark
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)
EP&A Act	Environmental Planning and Assessment Act 1979 (NSW)
HTW	high threat weed
IBRA	Interim Biogeographic Regionalisation for Australia
LLS Act	Local Land Services Act 2013 (NSW)
MNES	matters of national environmental significance
NSW	New South Wales
PCT	plant community type
SAII	serious and irreversible impact
TBDC	Threatened Biodiversity Data Collection
TEC	threatened ecological community

# Declarations

# i. Certification under clause 6.15 *Biodiversity Conservation Act 2016*

I certify that this report has been prepared based on the requirements of, and information provided under, the Biodiversity Assessment Method and clause 6.15 of the *Biodiversity Conservation Act 2016* (BC Act).

Signature: The Relhul

Date: 20/02/2025

BAM Assessor Accreditation no: BAAS18071

This BDAR has been prepared to meet the requirements of BAM 2020. Appendix A provides an assessment of compliance with the minimum information requirements outlined in BAM Appendix K.

The lead or responsible assessor for the project must certify in the BDAR that the report has been prepared on the basis of the requirements of, and information provided under the BAM as at a specified date, and that date is within 14 days of the date the report is submitted to the decision-maker.

The BAM Calculator (BAM-C) must also be finalised and submitted within the Biodiversity Offsets and Agreement Management System (BOAMS). The date the assessor certifies (signs) the BDAR does not need to match the date on the finalised credit report; however, to be considered valid, the BDAR must be submitted to the decision-maker within 14 days of the finalisation of the BAM-C.

# ii. Details and experience of author/s and contributors

# Authors and contributors

Name	BAM Assessor Accreditation no. (if relevant)	Position/Role	Tasks performed	Relevant qualifications
Tom Pollard	BAAS18071	Ecologist	<ul> <li>targeted threatened flora surveys</li> <li>targeted threatened fauna surveys</li> <li>BAM plot surveys</li> <li>BAM-C data entry and analysis</li> <li>figure preparation</li> <li>report preparation</li> </ul>	BSc (1 <sup>st</sup> Class Honours University of Queensland PhD (Vegetation ecology) University of Tasmania

# iii. Conflict of interest

I declare that I have considered the circumstances and there is no actual, perceived or potential conflict of interest

This declaration has been made in the interests of full disclosure to the decision-maker. Full disclosure has also been provided to the client.

Signature: The Rellul

Date: 20/02/2025

BAM Assessor Accreditation no: BAAS18071

# **Stage 1: Biodiversity assessment**

# 1. Introduction

# 1.1 Proposed development

#### 1.1.1 Development overview

The proposed development is for the expansion of an existing cattle feedlot, from 999 head to 3,500 head of cattle.

The proposal land is zoned RU1 (Primary Production) under the Gwydir Local Environmental Plan 2012, with a minimum lot size of 200 ha.

The legislative pathway is for a designated development that requires consent under Part 4 of the EP&A Act.

### 1.1.2 Location

The proposed development is located at 2513 Getta Getta Road, North Star (Lot 8 DP 756018 & Lot 1 DP 1212915) (refer to Figure 1 and Figure 2).

#### 1.1.3 Proposed development and the subject land

The layout of the proposed development is shown in Figure 3.

The development includes:

- Water supply/storage and reticulation infrastructure Water storage tanks and pipelines to supply clear water for livestock drinking water;
- Pens Fenced areas are required for accommodating beef cattle (production pens);
- Commodity storage Commodities such as hay and grain are stored onsite;
- Access and internal roads All weather road access to the site is provided;
- Construction of stock yards accessed by loop rood from Getta Getta Road;
- Controlled drainage area Rainfall runoff from areas such as the production pens and livestock handling areas that has a high organic matter and therefore a high pollution potential is controlled within a system that collects and conveys this runoff to a sedimentation system and holding pond prior to environmentally sustainable utilisation;
- Drainage system The controlled drainage area contains a systems including=, catch drains, sedimentation system and holding pond(s) for conveying stormwater, allow entrained sediment to 'settle out' and capture and storage of the stormwater from the controlled drainage areas until it can be sustainably utilised; and
- Solid waste and effluent management areas Solid wastes such as manure and mortalities are temporarily stockpiled and processed within the solid waste stockpile and carcass composting area prior to removal off-site onto adjoining land for utilisation. Effluent is store in a holding pond pending application to the effluent utilisation area.
- The proposed development also includes associated cropping land for effluent and solid waste utilisation. When available, effluent shall be applied to land via irrigation within a dedicated effluent utilisation area.

The subject land boundary is shown in Figure 1 and occupies an area of approximately 11.23 ha.

The construction footprint and operation footprint occupies all of the subject land (refer to Figure 3).

The subject land is located within the Brigalow Belt South bioregion and Northern Basalts subregion (Interim Biogeographic Regionalisation of Australia (IBRA) version 7, Department of the Environment [2012]) in an area with low relief. Site elevation ranges from approximately 315-335 m above mean sea level. The area is an ancient depositional landscape that has formed an extensive alluvial plain. Underlying geology consists of sedimentary rock (sandstone). Soils on the subject land are Ferrosols and are described as a reddish brown sandy clay loam.

Two small 1<sup>st</sup> and 2<sup>nd</sup> order waterways occur on the subject land. These waterways are minor tributaries of Back Creek and are ephemeral (the waterways were not flowing at the time the survey was conducted). Two dams/holding ponds of approximately 1800 m<sup>2</sup> and 4000 m<sup>2</sup> occurs on the subject land.

Previous land use is likely to have included timber and firewood removal, stock grazing and some cropping. Current land use consists of a cattle feedlot and stock grazing.

# **1.2 Biodiversity Offsets Scheme entry**

The BOS applies to the proposed development as native vegetation removal exceeds the area clearing threshold of 1 ha for the defined minimum lot size of 200 ha (Gwydir Local Environmental Plan 2012) (refer to Appendix B Biodiversity Values Map and Threshold tool report).

The site-based development assessment methodology has been used in this BAM assessment.

# 1.3 Excluded impacts

Clause 6.8(3) of the BC Act specifies that the BAM is to exclude the assessment of the impacts of any clearing of native vegetation and loss of habitat on category 1-exempt land (as defined in Part 5A of the LLS Act). The subject land is not mapped on the draft Native Vegetation Regulatory Map as of March 2024.

Category 1-exempt land includes land containing low conservation value' grasslands for the purposes of Division 2 of Part 5A of the Act if the land is determined to contain low conservation value grasslands under the "Interim Grasslands and other Groundcover Assessment Method" published by the Minister for the Environment in the Gazette on 25 August 2017. BAM assessment of the derived native grasslands as defined as having a VI score of <15 in the "Interim Grasslands and other Groundcover Assessment Method".

Therefore, there is no category 1-exempt land mapped on the subject land, and no excluded impacts to consider.

# **1.4 Matters of national environmental significance**

The proposed development would be unlikely to significantly impact any Matters of National Environmental Significance (MNES) and therefore does not need referral under the EPBC Act and is not deemed a controlled action.

# **1.5** Information sources

The following key information sources were used in this BDAR:

- Interim Biogeographic Regionalisation for Australia (IBRA) (Subregions States and Territories) version 7 [ESRI shapefile]. Department of the Environment (2012)
- *Mitchell Landscapes version 3.1* [ESRI shapefile]. NSW Office of Environment and Heritage (2010)
- BioNet Vegetation Classification Database. NSW Department of Planning, Industry and Environment (2024). Accessed online via login at <a href="https://www.environment.nsw.gov.au/NSWVCA20PRapp/LoginPR.aspx">https://www.environment.nsw.gov.au/NSWVCA20PRapp/LoginPR.aspx</a>
- NSW Biodiversity Values Map <u>https://www.lmbc.nsw.gov.au/Maps/index.html?viewer=BOSETMap</u>
- NSW Office of Environment and Heritage (2020). *Biodiversity Assessment Method.* Office of Environment and Heritage for the NSW Government, Sydney, NSW.
- Department of Planning, Industry and Environment (2020). *Biodiversity Assessment Method 2020 Operational Manual - Stage 1.* State of NSW and Department of Planning, Industry and Environment.
- Department of Planning, Industry and Environment (2023). *Biodiversity Assessment Method 2020 Operational Manual - Stage 2.* State of NSW and Department of Planning, Industry and Environment.
- NSW BAM Credit Calculator. Accessed online via login at <u>https://customer.lmbc.nsw.gov.au/assessment/s/userlogin</u>
- NSW Atlas of NSW Wildlife (BioNet) (including BioNet 'threatened biodiversity data collection' [TBDC]). Accessed online via login at <u>https://www.environment.nsw.gov.au/asmslightprofileapp/Account/MyApps</u>
- NSW Threatened Species Profiles
   <a href="https://www.environment.nsw.gov.au/threatenedspeciesapp/">https://www.environment.nsw.gov.au/threatenedspeciesapp/</a>
- Commonwealth Department of the Environment and Energy Protected Matters Search Tool (PMST). Accessed online at <u>http://environment.gov.au/epbc/protected-matters-</u> <u>search-tool</u>
- Australian Government's Species Profiles and Threats (SPRAT) database <u>http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl</u>
- NSW Wetlands layer [ESRI Shapefile]. Office of Environment and Heritage (2013).
- NSW Flora Online. National Herbarium of NSW, Royal Botanic Garden, Sydney Australia. Available from: <u>http://plantnet.rbgsyd.nsw.gov.au/floraonline.htm</u>
- NSW State Vegetation Type Map Extant PCT (Release C1.1.M1.1). [Quickview (Vector Data - Geodatabase Format) and SVTM NSW Extant PCT 5m (Raster Data -TIFF format)]. State Government of NSW and Department of Planning and Environment (2022).

# 2. Methods

# 2.1 Site context methods

# 2.1.1 Landscape features

A full site walk over of the subject land was conducted to determine the occurrence of rivers, streams, estuaries or wetlands, karsts, caves, crevices or cliffs, rocks or other areas of geological significance.

# 2.1.2 Native vegetation cover

Desktop assessment to determine the extent and condition of native vegetation cover on the subject land and assessment area consisted of investigation of available vegetation mapping (State Government of NSW and Department of Planning and Environment 2022), aerial photograph interpretation and knowledge of the vegetation within the assessment area.

It was not possible to estimate the extent of derived grassland communities with native vegetation occurring within the assessment area outside of the subject land due to project time and cost constraints and inability to gain access to the required properties for assessment. Consequently, only mapped PCTs as shown in the NSW SVTM were included to estimate the native vegetation cover in the assessment area.

# 2.2 Native vegetation, threatened ecological communities and vegetation integrity methods

# 2.2.1 Existing information

Potential PCTs and TECs occurring at the subject land and in adjoining parts of the assessment area were determined using photograph interpretation and available vegetation mapping (State Government of NSW and Department of Planning and Environment 2022).

Several potentially occurring vegetation types were identified, consisting of:

- PCT 589 White Box White Cypress Pine Silver-leaved Ironbark grassy woodland on mainly clay loam soils on hills mainly in the Nandewar Bioregion
- PCT 429 White Cypress Pine Poplar Box Silver-leaved Ironbark viney shrub woodland of the Brigalow Belt South Bioregion
- PCT 441 Carbeen White Box +/- Silver-leaved Ironbark grassy tall woodland on basalt hills, Brigalow Belt South Bioregion
- PCT 56 Poplar Box Belah woodland on clay-loam soils on alluvial plains of northcentral NSW
- PCT 36 River Red Gum tall to very tall open forest / woodland wetland on rivers on floodplains mainly in the Darling Riverine Plains Bioregion

Relevant BioNet Flora Survey data was also reviewed within a 5 km radius of the subject land.

# 2.2.2 Mapping native vegetation extent

The extent of native vegetation on the subject land was determined by way of a full site walk over. All vegetation that met the definition of native vegetation under section 60B of the *Local Land Services Act 2013* was mapped as native vegetation.

### 2.2.3 Plot-based vegetation survey

A plot-based vegetation survey was undertaken on 18<sup>th</sup> December 2023 in accordance with the BAM (State of NSW and Department of Planning, Industry and Environment 2020). Floristic data was collected from the minimum number of plots established within each vegetation zone to provide information on determining the PCTs present (refer to Appendix F and Figure 5).

# 2.2.4 Vegetation integrity survey

A vegetation integrity survey was undertaken on 18<sup>th</sup> December 2023 in accordance with the BAM (State of NSW and Department of Planning, Industry and Environment 2020). The aim of the survey was to use the BAM to assess PCT structure, function and composition. The number of plots was determined by vegetation zone area (refer to Figure 5).

Plot locations were initially selected using aerial photography (September 2023 imagery) with the aim to sample representative areas within each vegetation zone. Where the vegetation zone was of an adequate size, the final location of the plot was randomised in the field by walking a random distance into the vegetation zone and establishing the plot on a random bearing.

The survey predominantly consisted of data collection within a 400 m<sup>2</sup> survey plot (for measuring composition and structure attributes) nested within a 1000 m<sup>2</sup> survey plot (for measuring function attributes).

These attributes were measured against the relevant benchmark data from the BioNet Vegetation Classification. The use of more appropriate local benchmark data was not proposed to conduct the integrity assessment.

# 2.3 Threatened flora survey methods

### 2.3.1 Review of existing information

Habitat constraints and microhabitats were reviewed or each candidate threatened flora species identified by the BAM-C using descriptions in the TBDC.

### 2.3.2 Habitat constraints assessment

An assessment of the subject land was undertaken on 18<sup>th</sup> December 2023 to identify the presence of habitat constraints and microhabitats occurring on the subject land relevant to each candidate threatened flora species. This involved a random meander of the subject land.

### 2.3.3 Field surveys

Threatened flora surveys were required for the potentially occurring species *Dichanthium setosum* (Bluegrass), *Polygala lineariifolia* (Native Milkwort), *Pomaderris queenslandica* (Scant Pomaderris), *Swainsona sericea* (Silky Swainson-pea) and *Tylophora linearis*.

Targeted surveys for these threatened flora were undertaken in accordance with the NSW Threatened Guideline to Surveying Threatened Plants (OEH 2016). With consideration of the open vegetation present at the site a separation between parallel field-traverses of 10 m was selected which was adequate for detection of the groundcover species.

Figure 5 shows the location of field surveys undertaken on the subject land.

# 2.4 Threatened fauna survey methods

### 2.4.1 Review of existing information

Habitat constraints and microhabitats were reviewed or each candidate threatened fauna species identified by the BAM-C using descriptions in the TBDC.

### 2.4.2 Habitat constraints assessment

A preliminary assessment of the subject land was undertaken on 18<sup>th</sup> December 2023 to identify the presence of habitat constraints and microhabitats occurring on the subject land relevant to each candidate threatened fauna species. This involved a random meander of the subject land. In particular, focus was given to identifying:

- the presence of hollow-bearing trees with suitably sized hollow dimensions (and height above ground where relevant)
- the presence of raptor nest trees
- presence of koala food trees (parallel field traverses in accordance with DPE 2022).

### 2.4.3 Field surveys

Following the habitat constraints assessment, none of the identified candidate threatened fauna species (auto-populated in the BAM-C) were identified as requiring survey.

# 2.5 Weather conditions

Table 1 documents the weather conditions at the time that surveys were conducted. There had been a small amount of 0.2mm rain in the previous 3 days prior to the surveys and temperatures were above average.

Survey undertaken (e.g. method / targeted species)	Date	Time	Temperature (min. & max.)	<b>Wind</b> (light, mod…)	Rainfall (mm)	Other conditions relevant to the species
Threatened flora (refer to list in section 2.3.3.)	18 <sup>th</sup> December 2023	10:00am- 3:00pm	min 23.7 max 40.7	light	0.0 mm	
Habitat constraints assessment (hollow-bearing tree survey, Koala potential habitat, raptor nest trees)		10:00am- 11:00am				

#### Table 1 Environmental conditions during threatened species surveys

# 2.6 Limitations

There were no particular limitations in undertaking the required surveys.

Appropriate licences to undertake the surveys are listed below:

- Scientific Licence (SL101582).
- Animal Research Authority (15/1405)

# 3. Site context

# 3.1 Assessment area

The proposal is for a site-based development. The assessment area covers approximately 1027 ha and consists of the subject land and the area of land within the 1500 metre buffer zone surrounding the subject land (refer to Figure 2).

# 3.2 Landscape features

Landscape features identified within the subject land and assessment area are shown on Figure 1 and Figure 2, respectively. A discussion of relevant landscape features is provided below.

# 3.2.1 IBRA bioregions and IBRA subregions

The subject land and assessment area are located within the Brigalow Belt South bioregion and Northern Basalts subregion (Interim Biogeographic Regionalisation of Australia (IBRA) version 7, Department of the Environment [2012]).

# 3.2.2 Rivers, streams, estuaries and wetlands

A full site walk over was conducted to determine the presence of rivers, streams, estuaries and wetlands on the subject land. A desktop analysis was undertaken of the NSW hydrography GIS layer (NSW Department of Customer Service - Spatial Services 2022) and the NSW Wetlands GIS layer (Office of Environment and Heritage 2013) downstream from the site within the assessment area.

Two small 1<sup>st</sup> and 2<sup>nd</sup> order waterways occur on the subject land. These waterways are minor tributaries of Back Creek and are ephemeral (the waterways were not flowing at the time the survey was conducted). Two dams/holding ponds of approximately 1800 m<sup>2</sup> and 4000 m<sup>2</sup> occurs on the subject land. No other rivers, estuaries or wetlands occur on the subject land. Back Creek and tributaries of Forest Creek occur in the assessment area. No estuaries or wetlands occur in the assessment area.

# 3.2.3 Habitat connectivity

Connectivity between small patches of woodland vegetation (mostly occurring as scattered trees) occurring at the subject land and in surrounding areas is poor. The locality has been heavily cleared of vegetation, with only tenuous connectivity remaining between onsite vegetation in the north of the subject land and vegetation within the road corridor of Getta Getta Road. There is therefore very limited potential for movement of less mobile threatened fauna species between the subject land and surrounding vegetation (e.g. Koala).

### 3.2.4 Karst, caves, crevices, cliffs, rocks or other geological features of significance

No karsts, caves, crevices or cliffs, rocks or other areas of geological significance occur within or adjacent to the subject land (a full site walk over was conducted).

A desktop analysis was undertaken of NSW imagery and NSW topography GIS layers (NSW Department of Customer Service - Spatial Services 2022) across the assessment area, indicating that none of the above-listed features are present to the best of the knowledge of the assessor.

### 3.2.5 Areas of outstanding biodiversity value

No areas of Outstanding Biodiversity Value have been declared under the *Biodiversity Conservation Act 2016* that occur within the subject land or assessment area.

#### 3.2.6 NSW (Mitchell) landscape

The subject land and part of the assessment area is located within the Mitchell Landscape 'Strathmore Sandstones'. The assessment area also includes small areas of the 'Croppa Clay Plains' and 'Croppa Creek Channels and Floodplains' Mitchell Landscapes. (Mitchell Landscape, version 3.1, NSW Office of Environment and Heritage [2010]).

# 3.3 Native vegetation cover

Native vegetation (woody and non-woody) in the assessment area (subject land and 1500 m buffer) was estimated to occupy an area of approximately 125 ha out of a total area of 1027 ha. The corresponding native vegetation cover within the assessment area is therefore estimated to be approximately 12%, and within the >10-30% vegetation cover class. This figure was arrived at by way of investigation of available vegetation mapping (State Government of NSW and Department of Planning and Environment 2022), aerial photograph interpretation and knowledge of the vegetation within the assessment area.

Table 2 summarises the extent of native vegetation cover within the assessment area.

Table 2	Native vegetation cover in the assessment area
---------	--

Assessment area (ha)	1027
Total area of native vegetation cover (ha)	125
Percentage of native vegetation cover (%)	12
Class (0-10, >10-30, >30-70 or >70%)	>10-30

# 4. Native vegetation, threatened ecological communities and vegetation integrity

# 4.1 Native vegetation extent

A total area of 11.23 ha of native vegetation was determined to occur on the subject land (refer to Figure 6).

#### 4.1.1 Areas that are not native vegetation

No areas of native vegetation on the subject land are considered to be non-native, in accordance with the definition of native vegetation in section 60B of the *Local Land Services Act 2013*.

# 4.2 Plant community types

#### 4.2.1 Overview

Vegetation within the subject land has been assessed as aligning with one BioNet Vegetation Classification PCTs identified within Table 3. The extent of this PCT on the subject land is shown in Figure 7. Detailed descriptions of the PCT is provided in the following subsections.

#### Table 3 PCTs identified within the subject land

PCT ID	PCT name	Subject land area (ha)
429	White Cypress Pine - Poplar Box - Silver-leaved Ironbark viney shrub woodland of the Brigalow Belt South Bioregion	9.41
	Total area	9.41

# 4.2.2 PCT 429 White Cypress Pine - Poplar Box - Silver-leaved Ironbark viney shrub woodland of the Brigalow Belt South Bioregion

#### 4.2.2.1 PCT overview

# Table 4PCT 429 White Cypress Pine - Poplar Box - Silver-leaved Ironbark viney shrub<br/>woodland of the Brigalow Belt South Bioregion

PCT ID	429
PCT name	White Cypress Pine - Poplar Box - Silver-leaved Ironbark viney shrub woodland of the Brigalow Belt South Bioregion
Vegetation formation	Dry Sclerophyll Forest (shrub-grass sub-formation)
Vegetation class	North-west Slopes Dry Sclerophyll Forests
Per cent cleared value (%)	50
Extent within subject land (ha)	0.21

This community on the subject land occurs mostly as a derived native grassland and a small are of open woodland.

Within the subject land the overstorey is mostly absent. Where present in the open woodland area, the overstorey is limited to widely scattered Cooba (*Acacia salicina*) or regrowth of saplings and seedlings of Quinine Tree (*Alstonia constricta*).

Midstorey shrubs are absent.

The understorey is grassy and dominated by Couch (*Cynodon dactylon*). Other common species present are Goose Grass (*Dactyloctenium radulans*, Early Spring Grass (*Eriochloa pseudoatrotricha*, Slender Rat's-tail Grass (*Sporobolus creber*), and the exotic species Buffel Grass (*Cenchrus ciliaris*)\* and *Eragrostis trichophora*\*. Common herbs include Tarvine (*Boerhavia dominii*) and Goosefoot (*Chenopodium* sp.)\* in the derived native grassland and Yellow Burr-daisy (*Calotis lappulacea*), Golden Rod (*Sida hackettiana*) and Mayne's Pest (*Glandularia aristigera*)\* in the sparse woodland.

#### 4.2.2.2 Condition states

PCT 429 on the subject land occurs as a low condition derived native grassland and woodland (refer to Photo 1 and Photo 2).

This vegetation has been subject to past and ongoing disturbances including vegetation clearing and grazing by stock. Overstorey trees, where present predominantly occur as regenerating saplings and seedlings. Hollow-bearing trees are not present.



Photo 1 PCT 429 – low condition derived native grassland



Photo 2 PCT 429 – low condition open woodland

### 4.2.2.3 Justification of PCT selection

Based on NSW SVTM (State Government of NSW and Department of Planning and Environment 2022), PCT 429 is mapped as occurring on the subject land.

As indicated in the PCT description in the BioNet Vegetation Classification, PCT 429 is known to occur in the Brigalow Belt South bioregion and Northern Basalts subregion. Occurs on moist light brown to red-brown clay loam to sandy loam soils derived from sedimentary rocks with some clay content such as conglomerate, lithic sandstone or siltstone on flats or hillslopes in low rise and plains landscape patterns in the Brigalow Belt South Bioregion north of Narrabri. Soils on the subject land are Ferrosols and are described as a reddish brown sandy clay loam.

With reference to the species by growth form for this PCT in the BioNet Vegetation Classification, species relied upon for identification as PCT 429 include:

- presence of Quinnine Tree (*Alstonia constricta*) and Gargaloo (*Parsonsia eucalyptophylla*) in the midstorey;
- presence of Lovegrasses (*Eragrostis* spp.) and Yellow Burr-daisy (*Calotis lappulacea*) in the understorey; and
- (although no overstorey is present within the subject land) presence of White Cypress Pine (*Callitris glaucophylla*) in the adjacent regrowth woodland area.

#### 4.2.2.4 Alignment with TECs

PCT 429 is not associated with a TEC within the BioNet Vegetation Classification.

#### 4.2.2.5 Alignment with EPBC Act listed ECs

PCT 429 is not associated with an EC listed under the EPBC Act within the BioNet Vegetation Classification.

# 4.3 Vegetation zones

Within the subject land each PCT was stratified into a single vegetation zone, as listed below (refer to Table 5 and Figure 8).

- 441\_zone 1 PCT 441 occurring as a low condition derived native grassland
- 429\_zone 1 PCT 429 occurring as a low condition woodland

Patch size was calculated using available vegetation mapping and the results of the field survey for all patches of intact native vegetation on and adjoining the subject land. The patch size for all vegetation zones was determined to be within the 25-100 ha patch size class (refer to Table 5).

Vegetation zone ID	PCT ID number and name	Condition / other defining feature	Area (ha)	Patch size class (select multiple if areas of native vegetation are discontinuous)	No. vegetation integrity plots required	No. vegetation integrity plots completed	No. vegetation integrity plots used in assessment	Plot IDs of vegetation integrity plots used in assessment
429_low_DNG	PCT 429 - White Cypress Pine - Poplar Box - Silver-leaved Ironbark viney shrub woodland of the Brigalow Belt South Bioregion	Low condition derived native grassland	9.20	□ <5 ha □ 5–24 ha ⊠ 25–100 ha □ >100 ha	3	3	3	Plot 1 Plot 2 Plot 3
429_low_woodland	PCT 429 - White Cypress Pine - Poplar Box - Silver-leaved Ironbark viney shrub woodland of the Brigalow Belt South Bioregion	Low condition woodland	0.21	□ <5 ha □ 5–24 ha ⊠ 25–100 ha □ >100 ha	1	1	1	Plot 4

Table 5Vegetation zones and patch sizes

# 4.4 Vegetation integrity (vegetation condition)

### 4.4.1 Vegetation integrity survey plots

Data was collected from the required number of vegetation integrity plots in each vegetation zone, as detailed in BAM Table 3. The number of plots completed in each zone is listed below.

- 441\_zone 1 (9.20 ha) 3 VI plot completed; 3 used in BAM-C
- 429\_zone 1 (1.21 ha) 1 VI plots completed; 1 used in BAM-C

#### 4.4.2 Scores

Vegetation integrity scores from sampled vegetation integrity survey plots are shown in Table 6.

#### Table 6 Vegetation integrity scores

Vegetation zone ID	Composition condition score	Structure condition score	Function condition score (where relevant)	Vegetation integrity score	Hollow bearing trees present?
441_zone 1	13.8	65	19.1	25.8	No
429_zone 1	55.3	28	16	29.1	No

#### 4.4.3 Use of benchmark data

These attributes were measured against the relevant benchmark data from the BioNet Vegetation Classification. The use of more appropriate local benchmark data was not proposed to conduct the integrity assessment.

# 5. Habitat suitability for threatened species

# 5.1 Identification of threatened species for assessment

### 5.1.1 Ecosystem credit species

Ecosystem credit species likely to occur on or use the subject land as automatically populated in BAM-C is provided in Table 7.

Table 7	Predicted ecosystem credit species
---------	------------------------------------

Common name	Scientific name	Listing status		Dual credit	Sources	Species retained for	Reason for exclusion	Vegetation zone ID species retained	Sensitivity to gain
		BC Act	EPBC Act	species		further assessment?	from further assessment	within, including PCT ID	class
Artamus cyanopterus cyanopterus	Dusky Woodswallow	Vulnerable	Not Listed	No	<ul> <li>☑ BAM-</li> <li>C</li> <li>□</li> <li>TBDC</li> <li>□</li> <li>Previous</li> <li>survey</li> <li>□</li> <li>Current</li> <li>survey</li> </ul>	Yes		429_low_woodland 429_low_DNG	Moderate
Calyptorhynchus Iathami	Glossy Black- Cockatoo (Foraging)	Vulnerable	Vulnerable	Yes	<ul> <li>☑ BAM-</li> <li>C</li> <li>☑</li> <li>☑</li> <li>☑</li> <li>Previous</li> <li>Survey</li> <li>☑</li> <li>Current</li> <li>Survey</li> </ul>	No	Habitat constraints		High

Common name	Scientific name	Listing status		Dual Sources	Species retained for	Reason for exclusion	Vegetation zone ID	Sensitivity to gain	
		BC Act	EPBC Act	species		further assessment?	from further assessment	within, including PCT ID	class
Chalinolobus picatus	Little Pied Bat	Vulnerable	Not Listed	No	BAM- C TBDC Previous survey Current	Partial (when a species is retained within one vegetation zone but not another)	Habitat constraints	429_low_woodland	Moderate
Chthonicola sagittata	Speckled Warbler	Vulnerable	Not Listed	No	survey ⊠ BAM- C □ TBDC □ Previous survey □ Current survey	Partial (when a species is retained within one vegetation zone but not another)	Habitat constraints	429_low_woodland	High
Circus assimilis	Spotted Harrier	Vulnerable	Not Listed	Νο	<ul> <li>☑ BAM-</li> <li>C</li> <li>□</li> <li>TBDC</li> <li>□</li> <li>Previous survey</li> <li>□</li> <li>Current survey</li> </ul>	Yes		429_low_woodland 429_low_DNG	Moderate

Common name	Scientific name	Listing status		Dual Sources credit	Sources	ces Species retained for	Reason for	Vegetation zone ID	Sensitivity to gain
		BC Act	EPBC Act	species		further assessment?	from further assessment	within, including PCT ID	class
Climacteris picumnus victoriae	Brown Treecreeper (eastern subspecies)	Vulnerable	Not Listed	No	<ul> <li>☑ BAM-</li> <li>C</li> <li>☑</li> <li>☑</li> <li>☑</li> <li>Previous</li> <li>Survey</li> <li>☑</li> <li>Current</li> </ul>	No	Habitat constraints		High
Daphoenositta chrysoptera	Varied Sittella	Vulnerable	Not Listed	No	Survey BAM- C TBDC Previous survey Current survey	Partial (when a species is retained within one vegetation zone but not another)	Habitat constraints	429_low_woodland	Moderate
Dasyurus maculatus	Spotted-tailed Quoll	Vulnerable	Endangered	No	<ul> <li>☑ BAM-</li> <li>C</li> <li>□</li> <li>□</li> <li>Previous</li> <li>survey</li> <li>□</li> <li>Current</li> <li>survey</li> </ul>	Yes		429_low_woodland 429_low_DNG	High

Common name	Scientific name	Listing status		Dual	Sources	Sources Species	Reason for	Vegetation zone ID	Sensitivity
		BC Act	EPBC Act	species		further assessment?	from further assessment	within, including PCT ID	class
Glossopsitta pusilla	Little Lorikeet	Vulnerable	Not Listed	No	<ul> <li>☑ BAM-</li> <li>C</li> <li>☑</li> <li>☑</li> <li>Previous</li> <li>Survey</li> <li>☑</li> <li>Current</li> </ul>	No	Habitat constraints		High
Grantiella picta	Painted Honeyeater	Vulnerable	Vulnerable	No	Survey BAM- C TBDC Previous Survey Current Survey	No	Habitat constraints		Moderate
Hieraaetus morphnoides	Little Eagle (Foraging)	Vulnerable	Not Listed	No	<ul> <li>☑ BAM-C</li> <li>☑</li> <li>☑</li> <li>☑</li> <li>Previous</li> <li>Survey</li> <li>☑</li> <li>Current</li> <li>Survey</li> </ul>	Partial (when a species is retained within one vegetation zone but not another)	Habitat constraints	429_low_woodland	Moderate

Common name	Scientific name	Listing status		Dual Source credit	Sources	Sources Species retained for	Reason for	Vegetation zone ID	Sensitivity to gain
		BC Act	EPBC Act	species		further assessment?	from further assessment	within, including PCT ID	class
Hirundapus caudacutus	White-throated Needletail	Not Listed	Vulnerable	No	<ul> <li>☑ BAM-</li> <li>C</li> <li>□</li> <li>□</li> <li>Previous</li> <li>survey</li> <li>□</li> <li>Current</li> <li>survey</li> </ul>	Yes			High
Lathamus discolor	Swift Parrot (Foraging)	Endangered	Critically Endangered	Yes	<ul> <li>☑ BAM-C</li> <li>☑ TBDC</li> <li>☑ Previous survey</li> <li>☑ Current survey</li> </ul>	No	Habitat constraints		Moderate
Lophoictinia isura	Square-tailed Kite (Foraging)	Vulnerable	Not Listed	No	<ul> <li>☑ BAM-C</li> <li>☑</li> <li>☑</li> <li>☑</li> <li>Previous</li> <li>Survey</li> <li>☑</li> <li>Current</li> <li>Survey</li> </ul>	Partial (when a species is retained within one vegetation zone but not another)	Habitat constraints	429_low_woodland	Moderate

Common name	Scientific name	Listing status		Dual Sources	Species retained for	Reason for exclusion	Vegetation zone ID	Sensitivity to gain	
		BC Act	EPBC Act	species		further assessment?	from further assessment	within, including PCT ID	class
Macropus dorsalis	Black-striped Wallaby	Endangered	Not Listed	No	<ul> <li>☑ BAM-</li> <li>C</li> <li>☑</li> <li>☑</li></ul>	No	Habitat constraints		High
Melanodryas cucullata cucullata	Hooded Robin (south-eastern form)	Vulnerable	Not Listed	No	Survey ⊠ BAM- C □ TBDC □ Previous survey □ Current survey	Partial (when a species is retained within one vegetation zone but not another)	Habitat constraints	429_low_woodland	Moderate
<i>Miniopterus orianae oceanensis</i>	Large Bent-winged Bat	Vulnerable	Not Listed	Yes	<ul> <li>☑ BAM-</li> <li>C</li> <li>☑</li> <li>☑</li> <li>Previous</li> <li>survey</li> <li>☑</li> <li>Current</li> <li>survey</li> </ul>	Partial (when a species is retained within one vegetation zone but not another)	Habitat constraints	429_low_woodland	High

Common name	Scientific name	Listing status		Dual Sources	ources Species retained for	Reason for	Vegetation zone ID	Sensitivity	
		BC Act	EPBC Act	species		further assessment?	from further assessment	within, including PCT ID	class
Neophema pulchella	Turquoise Parrot	Vulnerable	Not Listed	No	BAM- C TBDC TBDC Previous survey Current survey	Yes		429_low_woodland 429_low_DNG	High
Nyctophilus corbeni	Corben's Long- eared Bat	Vulnerable	Vulnerable	No	<ul> <li>BAM-C</li> <li>BDC</li> <li>Previous survey</li> <li>Current survey</li> </ul>	Partial (when a species is retained within one vegetation zone but not another)	Habitat constraints	429_low_woodland	High
Pomatostomus temporalis temporalis	Grey-crowned Babbler (eastern subspecies)	Vulnerable	Not Listed	No	<ul> <li>☑ BAM-</li> <li>C</li> <li>☑</li> <li>☑</li></ul>	Partial (when a species is retained within one vegetation zone but not another)	Habitat constraints	429_low_woodland	Moderate

Common name	Scientific name	Listing status		Dual credit	Sources	Species retained for	Reason for exclusion	Vegetation zone ID	Sensitivity to gain
		BC Act	EPBC Act	species		further assessment?	from further assessment	within, including PCT ID	class
Pteropus poliocephalus	Grey-headed Flying-fox (Foraging)	Vulnerable	Vulnerable	Yes	<ul> <li>☑ BAM-</li> <li>C</li> <li>☑</li> <li>☑</li> <li>Previous</li> <li>survey</li> <li>☑</li> <li>Current</li> <li>survey</li> </ul>	Partial (when a species is retained within one vegetation zone but not another)	Habitat constraints	429_low_woodland	High
Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	Vulnerable	Not Listed	No	<ul> <li>BAM-C</li> <li>TBDC</li> <li>Previous survey</li> <li>Current survey</li> </ul>	Yes		429_low_woodland 429_low_DNG	High
Stagonopleura guttata	Diamond Firetail	Vulnerable	Not Listed	No	<ul> <li>☑ BAM-</li> <li>C</li> <li>☑</li> <li>☑</li> <li>Previous</li> <li>survey</li> <li>☑</li> <li>Current</li> <li>survey</li> </ul>	Yes		429_low_woodland 429_low_DNG	Moderate

The following species were excluded or partially excluded from further assessment (refer to Table 7) in identified vegetation zones:

- Calyptorhynchus lathami (Glossy Black-Cockatoo (Foraging)) excluded due to habitat constraints as no Allocasuarina/Casuarina species present.
- *Climacteris picumnus victoriae* (Brown Treecreeper (eastern subspecies)) excluded as subject land vegetation is not within 100 m of moderate to good condition vegetation of suitable type.
- *Glossopsitta pusilla* (Little Lorikeet) and *Lathamus discolor* (Swift Parrot (Foraging)), excluded as vegetation zones do not contain suitable eucalypts for foraging.
- Grantiella picta (Painted Honeyeater) excluded due to habitat constraints as Mistletoes are not present at a density of greater than five mistletoes per hectare.
- Macropus dorsalis (Black-striped Wallaby) excluded due to habitat constraints as no suitable habitat is present (dense vegetation within 3 m of the ground – TBDC).
- Chalinolobus picatus (Little Pied Bat), Chthonicola sagittata (Speckled Warbler), Daphoenositta chrysoptera (Varied Sittella), Hieraaetus morphnoides (Little Eagle (Foraging)), Lophoictinia isura (Square-tailed Kite (foraging)), Melanodryas cucullata cucullata (Hooded Robin (south-eastern form)),)), Miniopterus orianae oceanensis (Large Bent-winged Bat), Nyctophilus corbeni (Corben's Long-eared Bat), Pomatostomus temporalis temporalis (Grey-crowned Babbler (foraging)), Pteropus poliocephalus (Grey-headed Flying-fox (Foraging)) partially excluded from 429\_low\_DNG as not associated with grassland habitats.

All other predicted ecosystem credit species were retained.

#### 5.1.2 Species credit species

Predicted flora species credit species as automatically populated in BAM-C is provided in Table 8. Predicted fauna species credit species as automatically populated in BAM-C is provided in Table 9.

#### Table 8 Predicted flora species credit species

Common name	Scientific name	Listing status		Sources	Species	Reason for exclusion	Vegetation zone ID	
		BC Act	EPBC Act		retained for further assessment?	from further assessment	species retained within, including PCT ID	
Bluegrass	Dichanthium setosum	Vulnerable	Vulnerable	<ul><li>☑ BAM-C</li><li>☑ TBDC</li><li>☑ Previous survey</li></ul>	Yes		429_low_woodland 429_low_DNG	

Common name	Scientific name	Listing status		Sources	Species	Reason for exclusion	Vegetation zone ID	
		BC Act	EPBC Act		retained for further assessment?	from further assessment	species retained within, including PCT ID	
				□ Current survey				
Native Milkwort	Polygala linariifolia	Endangered	Not listed	<ul> <li>BAM-C</li> <li>TBDC</li> <li>Previous survey</li> <li>Current survey</li> </ul>	Partial (when a species is retained within one vegetation zone but not another)	Habitat constraints	429_low_woodland	
Scant Pomaderris	Pomaderris queenslandica	Endangered	Not listed	<ul> <li>BAM-C</li> <li>TBDC</li> <li>Previous survey</li> <li>Current survey</li> </ul>	Partial (when a species is retained within one vegetation zone but not another)	Habitat constraints	429_low_woodland	
Silky Swainson- pea	Swainsona sericea	Vulnerable	Not listed	<ul> <li>BAM-C</li> <li>TBDC</li> <li>Previous survey</li> <li>Current survey</li> </ul>	Partial (when a species is retained within one vegetation zone but not another)	Habitat constraints	429_low_woodland 429_low_DNG	
Tylophora linearis	Tylophora linearis	Vulnerable	Endangered	<ul> <li>BAM-C</li> <li>TBDC</li> <li>Previous survey</li> <li>Current survey</li> </ul>	Partial (when a species is retained within one vegetation zone but not another)	Habitat constraints	429_low_woodland	

The following species were excluded or partially excluded from further assessment in identified vegetation zones (refer to Table 7):

• Native Milkwort (*Polygala linariifolia*), Scant Pomaderris (Pomaderris *queenslandica*), Tylophora linearis (*Tylophora linearis*) - partially excluded from 429\_low\_DNG as not associated with grassland habitats.

All remaining predicted flora species credit species were retained for further assessment.

Common name	Scientific name	Listing status		Dual credit	Sources	Species	Reason for	Vegetation zone ID
		BC Act	EPBC Act	species		retained for further assessment?	further assessment	species retained within, including PCT ID
Zigzag Velvet Gecko	Amalosia rhombifer	Endangered	Not listed	No	<ul> <li>☑ BAM-C</li> <li>☑ TBDC</li> <li>□ Previous</li> <li>survey</li> <li>□ Current</li> <li>survey</li> </ul>	No	Habitat degraded	
Glossy Black- Cockatoo (Breeding)	Calyptorhynchus Iathami	Vulnerable	Vulnerable	Yes	<ul> <li>☑ BAM-C</li> <li>☑ TBDC</li> <li>□ Previous</li> <li>survey</li> <li>□ Current</li> <li>survey</li> </ul>	No	Habitat constraints	
Eastern Pygmy- possum	Cercartetus nanus	Vulnerable	Not listed	No	<ul> <li>☑ BAM-C</li> <li>☑ TBDC</li> <li>□ Previous</li> <li>survey</li> <li>□ Current</li> <li>survey</li> </ul>	No	Habitat degraded	
Large-eared Pied Bat	Chalinolobus dwyeri	Vulnerable	Endangered	No	<ul> <li>☑ BAM-C</li> <li>☑ TBDC</li> <li>□ Previous</li> <li>Survey</li> </ul>	No	Habitat constraints	

### Table 9 Predicted fauna species credit species

Common	Scientific name	Listing status		Dual credit	Sources	Species	Reason for	Vegetation zone ID
name		BC Act	EPBC Act	species		retained for further assessment?	exclusion from further assessment	species retained within, including PCT ID
					□ Current survey			
Squatter Pigeon (southern subspecies)	Geophaps scripta scripta	Critically Endangered	Vulnerable	No	<ul> <li>☑ BAM-C</li> <li>☑ TBDC</li> <li>□ Previous</li> <li>survey</li> <li>□ Current</li> <li>survey</li> </ul>	No	Habitat degraded	
Little Eagle (Breeding)	Hieraaetus morphnoides	Vulnerable	Not listed	Yes	<ul> <li>☑ BAM-C</li> <li>☑ TBDC</li> <li>□ Previous</li> <li>survey</li> <li>□ Current</li> <li>survey</li> </ul>	No	Habitat constraints	
Pale-headed Snake	Hoplocephalus bitorquatus	Vulnerable	Not listed	No	<ul> <li>☑ BAM-C</li> <li>☑ TBDC</li> <li>□ Previous</li> <li>survey</li> <li>□ Current</li> <li>survey</li> </ul>	No	Habitat degraded	
Swift Parrot (Breeding)	Lathamus discolor	Endangered	Critically Endangered	Yes	<ul> <li>☑ BAM-C</li> <li>□ TBDC</li> <li>□ Previous</li> <li>survey</li> <li>□ Current</li> <li>survey</li> </ul>	Νο	Habitat constraints	
Common	Scientific name	Listing status		Dual credit	Sources	Species	Reason for	Vegetation zone ID
---	--------------------------------------	----------------	------------	-------------	--	--	--------------------------------------	---
name		BC Act	EPBC Act	species		retained for further assessment?	exclusion from further assessment	species retained within, including PCT ID
Square-tailed Kite (Breeding)	Lophoictinia isura	Vulnerable	Not listed	Yes	<ul> <li>☑ BAM-C</li> <li>☑ TBDC</li> <li>□ Previous</li> <li>survey</li> <li>□ Current</li> <li>survey</li> </ul>	No	Habitat constraints	
Large Bent- winged Bat (Breeding)	Miniopterus orianae oceanensis	Vulnerable	Not listed	Yes	<ul> <li>☑ BAM-C</li> <li>☑ TBDC</li> <li>□ Previous</li> <li>survey</li> <li>□ Current</li> <li>survey</li> </ul>	No	Habitat constraints	
Barking Owl	Ninox connivens	Vulnerable	Not listed	Yes	<ul> <li>☑ BAM-C</li> <li>☑ TBDC</li> <li>□ Previous</li> <li>survey</li> <li>□ Current</li> <li>survey</li> </ul>	No	Habitat constraints	
Squirrel Glider	Petaurus norfolcensis	Vulnerable	Not listed	No	<ul> <li>☑ BAM-C</li> <li>☑ TBDC</li> <li>□ Previous</li> <li>survey</li> <li>□ Current</li> <li>survey</li> </ul>	No	Habitat degraded	
Koala	Phascolarctos cinereus	Endangered	Endangered	Yes	<ul> <li>☑ BAM-C</li> <li>☑ TBDC</li> <li>□ Previous</li> <li>survey</li> </ul>	No	Habitat constraints	

Common	Scientific name	Listing status		Dual credit	t Sources	Species	Reason for	Vegetation zone ID
name		BC Act	EPBC Act	species		retained for further assessment?	exclusion from further assessment	species retained within, including PCT ID
					□ Current survey			
Grey-headed Flying-fox (Breeding)	Pteropus poliocephalus	Vulnerable	Vulnerable	Yes	<ul> <li>☑ BAM-C</li> <li>□ TBDC</li> <li>□ Previous</li> <li>survey</li> <li>□ Current</li> <li>survey</li> </ul>	No	Habitat constraints	
Masked Owl	Tyto novaehollandiae	Vulnerable	Not listed	Yes	<ul> <li>☑ BAM-C</li> <li>☑ TBDC</li> <li>□ Previous</li> <li>survey</li> <li>□ Current</li> <li>survey</li> </ul>	No	Habitat constraints	
Border Thick-tailed Gecko	Uvidicolus sphyrurus	Vulnerable	Vulnerable	No	<ul> <li>☑ BAM-C</li> <li>☑ TBDC</li> <li>□ Previous</li> <li>survey</li> <li>□ Current</li> <li>survey</li> </ul>	No	Microhabitats	
Eastern Cave Bat	Vespadelus troughtoni	Vulnerable	Not listed	No	<ul> <li>☑ BAM-C</li> <li>☑ TBDC</li> <li>□ Previous survey</li> <li>□ Current survey</li> </ul>		Habitat constraints	

The following predicted fauna species credit species were fully or partially excluded in identified vegetation zones (refer to Table 9):

- Zigzag Velvet Gecko (*Amalosia rhombifer*) Habitat degraded. Woodland habitat is absent in 429\_low\_DNG and occurs in low condition (VI score <30) in 429\_low\_woodland.
- Eastern Pygmy-possum (*Cercartetus nanus*) and Squirrel Glider (*Petaurus norfolcensis*) Habitat degraded. Vegetation on the subject land is highly fragmented and has been substantially degraded by clearing and stock grazing. Woodland habitat is absent in 429\_low\_DNG and occurs in low condition (VI score <30) in 429\_low\_woodland. This vegetation does not contain a dense midstorey/understorey of flowering shrubs preferred by this species and no hollows are present.
- Squatter Pigeon (southern subspecies) (*Geophaps scripta scripta*) Habitat degraded. Inhabits woodland vegetation. Woodland habitat is absent in 429\_low\_DNG and occurs in low condition (VI score <30) in 429\_low\_woodland with no eucalypt overstorey present.
- Glossy Black-Cockatoo (Breeding) (*Calyptorhynchus lathami*) Habitat constraints. The subject land does not contain living or dead tree with hollows greater than 15cm diameter and greater than 8m above ground.
- Large-eared Pied Bat (*Chalinolobus dwyeri*) Habitat constraints. The subject land does not contain cliffs/and is not within two kilometres of rocky areas containing caves, overhangs, escarpments, outcrops, or crevices, or within two kilometres of old mines or tunnels.
- Little Eagle (Breeding) (*Hieraaetus morphnoides*) Habitat constraints. No nest trees are present.
- Swift Parrot (Breeding) (*Lathamus discolor*) Habitat constraints. The subject land is not located within the important habitat map for this species.
- Square-tailed Kite (Breeding) (*Lophoictinia isura*) Habitat constraints. No nest trees are present.
- Large Bent-winged Bat (*Miniopterus orianae oceanensis*) (Breeding) Habitat constraints. Subject land does not contain cave, tunnel, mine, culvert or other structure known or suspected to be used for breeding including species records with microhabitat code "IC in cave" observation type code "E nest-roost" with numbers of individuals >500.
- Barking Owl (*Ninox connivens*) and Masked Owl (*Tyto novaehollandiae*) Habitat constraints. Subject land does not contain living or dead trees with hollows greater than 20 cm diameter and greater than 4m above the ground.
- Koala (Phascolarctos cinereus) Habitat constraints. Subject land does not contain koala food trees.
- *Pteropus poliocephalus* (Grey-headed Flying-fox (Breeding)) the subject land does not support any breeding camps.
- Eastern Cave Bat (*Vespadelus troughtoni*) Habitat constraints. Subject land is not within two kilometres of rocky areas containing caves, overhangs, escarpments, outcrops, crevices or boulder piles, or within two kilometres of old mines, tunnels, old buildings or sheds.
- Border Thick-tailed Gecko (Uvidicolus sphyrurus) Microhabitats. The subject land does not contain rocky outcrops.

All other predicted fauna species credit species were retained for further assessment.

#### 5.2 **Presence of candidate species credit species**

The presence of candidate species credit species on the subject land is shown in Table 10 (flora).

Common name	Scientific name	Listing status		Method used to determine presence	Present?	Further assessment required? (BAM Subsections 5.2.5 and 5.2.6)
		BC Act	EPBC Act			
Bluegrass	Dichanthium setosum	Vulnerable	Vulnerable	Targeted threatened species survey	No	No
Native Milkwort	Polygala linariifolia	Endangered	Not listed	Targeted threatened species survey	No	No
Scant Pomaderris	Pomaderris queenslandica	Endangered	Not listed	Targeted threatened species survey	No	No
Silky Swainson- pea	Swainsona sericea	Vulnerable	Not listed	Targeted threatened species survey	No	No
Tylophora linearis	Tylophora linearis	Vulnerable	Endangered	Targeted threatened species survey	No	No

# Table 10Determining the presence of candidate flora species credit species on the<br/>subject land

#### 5.3 Threatened species surveys

Details of targeted threatened species surveys used to determine presence of the species are shown in Table 11 (flora) and Table 12 (fauna).

# Table 11 Threatened species surveys for candidate flora species credit species on the subject land

Common name	Scientific name	Threatene	d flora speci	Present	Further assessment required (BAM Subsections 5.2.5 and 5.2.6)		
		Survey method (transects or grids)	Timing of s within reco period? (BAM-C / T	survey – ommended BDC)	Effort (hours & no. people)		
Bluegrass	Dichanthium setosum	Transects	<ul> <li>☑ Yes</li> <li>December</li> <li>18<sup>th</sup></li> <li>10:00am-</li> <li>3:00pm</li> </ul>	□ No	5 hrs one person	No	No
Native Milkwort	Polygala linariifolia	Transects	<ul> <li>☑ Yes</li> <li>December</li> <li>18<sup>th</sup></li> <li>10:00am-</li> <li>3:00pm</li> </ul>	□ No	5 hrs one person	No	No
Scant Pomaderris	Pomaderris queenslandica	Transects	<ul> <li>☑ Yes</li> <li>December</li> <li>18<sup>th</sup></li> <li>10:00am-</li> <li>3:00pm</li> </ul>	□ No	5 hrs one person	No	No
Silky Swainson- pea	Swainsona sericea	Transects	□ Yes	⊠ No December 18 <sup>th</sup> 10:00am- 3:00pm	5 hrs one person	No	No
Tylophora linearis	Tylophora linearis	Transects	<ul> <li>☑ Yes</li> <li>December</li> <li>18<sup>th</sup></li> <li>10:00am-</li> <li>3:00pm</li> </ul>	□ No	5 hrs one person	No	No

The surveys were undertaken in accordance with the methods of NSW Threatened Guideline to Surveying Threatened Plants (OEH 2016) and survey guidelines for individuals species within the TBDC. No variations from these methods were required.

Common	Scientific	Threatened fau	una species s	ys	Present	Further assessment required (BAM Subsections 5.2.5 and 5.2.6)	
name	name	Survey method (e.g. harp trap, Elliott trap, bioacoustics, etc.)	Timing of survey – within recommended period? (BAM-C / TBDC)		Effort (hours & no. people)		
Koala	Phascolarctos cinereus	Survey for suitable koala habitat (in conjunction with threatened flora survey)	⊠ Yes 18 <sup>th</sup> December	□ No	5 hours One person	No	No

# Table 12 Threatened species surveys for candidate fauna species credit species on the subject land

#### Koala (Phascolarctos cinereus)

Suitable koala habitat was not determined to be present on the subject land due to a lack of koala food tree species in any of the vegetation zones. No further surveys for the koala were deemed to be necessary.

The surveys were undertaken in accordance with the methods contained within the Koala (*Phascolarctos cinereus*): Biodiversity Assessment Method Survey Guide (DPE 2022).

#### 5.4 Expert reports

No expert reports were used to inform the presence of any candidate species credit species for this BDAR.

#### 5.5 More appropriate local data (where relevant)

Use of more appropriate local data to assess habitat suitability was not requested for this this BDAR.

# 5.6 Area or count, and location of suitable habitat for a species credit species (a species polygon)

No species credit species were assumed or determined to be present on the subject land (by survey, expert report or important habitat map). Nor were any EPBC Act listed species present (recorded within the subject land).

# 6. Identifying prescribed impacts

Table 13 details prescribed impacts that are present on the subject land. Prescribed impacts that are relevant to the proposed development consist of waterbodies, water quality and hydrological processes.

Of these identified prescribed impacts, no threatened entities were identified that use, are likely to use, or are part of the habitat feature (as per auto-populated BAM-C list).

The absence of other prescribed impacts was confirmed by way of a full site walk over of the subject land.

Feature	Present	Description of feature characteristics and location	Threatened entities that use, are likely to use, or are part of the habitat feature. Where relevant, threatened species or fauna that are part of a TEC or EC, that are at risk of vehicle strike
Karst, caves, crevices, cliffs, rocks or other geological features of significance	⊡Yes / ⊠No	n/a	n/a
Human-made structures	⊡Yes / ⊠No	n/a	n/a
Non-native vegetation	⊡Yes / ⊠No	n/a	n/a
Habitat connectivity	⊡Yes / ⊠No	n/a	n/a
Waterbodies, water quality and hydrological processes	⊠Yes / ⊡No	Two small 1 <sup>st</sup> and 2 <sup>nd</sup> order waterways occur on the subject land. These waterways are minor tributaries of Back Creek and are ephemeral (the waterways were not flowing at the time the survey was conducted). Two dams/holding ponds of approximately 1800 m <sup>2</sup> and 4000 m <sup>2</sup> occurs on the subject land.	None of the predicted fauna species credit species (as per auto-populated BAM-C list) would potentially use these features
Wind turbine strikes (wind farm development only)	⊡Yes / ⊠No		
Vehicle strikes	⊡Yes / ⊠No	n/a	n/a

 Table 13
 Prescribed impacts identified

# Stage 2: Impact assessment (biodiversity values and prescribed impacts)

# 7. Avoid and minimise impacts

## 7.1 Avoid and minimise direct and indirect impacts

#### 7.1.1 Project location

The project has been located to occupy an already substantially disturbed site. The majority of the subject land (98%) is vegetated with derived native grassland (vegetation 429\_low\_DNG). All of the vegetation being removed within vegetation zone 429\_low\_DNG is in low condition and below the threshold requiring a biodiversity offset.

The project location does not coincide with any vegetation that is consistent with the characteristics of a state-listed threatened ecological community (TEC) or commonwealth-listed endangered community (EC).

Furthermore, the results of the BAM targeted surveys indicate that removal of native vegetation for the proposal would be unlikely to impact on threatened species and their habitat.

#### 7.1.2 Project design

If ancillary facilities are required for the proposed development these would be located within the low condition derived native grassland area (vegetation zone 429\_low\_DNG). This would therefore result in ancillary facilities being located within areas with a low biodiversity value and with the lowest vegetation integrity score.

## 7.2 Summary of measures to avoid and minimise impacts

Table 14 summarises measures to be taken to avoid and minimise direct, indirect and prescribed impacts in relation to the development proposal.

Action	Outcome (Describe the outcome of implementing the measure, with reference to specific entities identified in Sections 4 and 5)	Timing	Responsibility
Locating the proposal in areas lacking biodiversity values	Areas of highest biodiversity value are avoided. The project has been located to occupy an already substantially disturbed site. The majority of the subject land (98%) is vegetated with low condition derived native grassland (vegetation 429_low_DNG) of low biodiversity value.	During project planning	Project planning team

# Table 14 Avoidance and minimisation measures for direct, indirect and prescribed impacts

Action	Outcome (Describe the outcome of implementing the measure, with reference to specific entities identified in Sections 4 and 5)	Timing	Responsibility
Locating the proposal where the native vegetation or threatened species habitat is in the poorest condition (i.e. areas that have a low vegetation integrity score)	Areas of better quality native vegetation and threatened species habitat are avoided. Vegetation being removed within vegetation zone 429_low_DNG is in low condition (VI score 16.8) and below the threshold requiring a biodiversity offset.	During project planning	Project planning team
Locating the proposal in areas that avoid habitat for species with a high biodiversity risk weighting or land mapped on the important habitat map, or native vegetation that is a TEC or a highly cleared PCT.	The proposal is located in an area that avoids habitat for species with a high biodiversity risk weighting or land mapped on the important habitat map, or native vegetation that is a TEC or a highly cleared PCT. Considering that the proposal is predominantly located to occupy an already substantially disturbed site (98% of the subject land is vegetated with low condition derived native grassland), the proposal would have limited impacts on any habitat for ecosystem credit species with a high biodiversity risk weighting (auto-populated from BAM-C). The results of the targeted surveys indicate that removal of native vegetation for the proposal would not impact on the habitat of any confirmed species credit species. The subject land is also not located on any land mapped on the important habitat map for any threatened species. The project location does not coincide with any vegetation that is consistent with the characteristics of a state-listed threatened ecological community (TEC) or commonwealth-listed endangered community (EC).	During project planning	Project planning team
Locating the proposal outside of the buffer area around breeding habitat features such as nest trees or caves.	No breeding habitat features and associated buffer areas are located within the subject land.	n/a	n/a
Reducing the proposal's clearing footprint by	As 98% of the proposal is located within an area containing very limited biodiversity value, the	During project planning	Project planning team

Action	Outcome (Describe the outcome of implementing the measure, with reference to specific entities identified in Sections 4 and 5)	Timing	Responsibility
minimising the number and type of facilities	proposal does not seek to reduce the proposal clearing footprint by minimising the number and type of facilities.		
Locating ancillary facilities in areas that have no biodiversity values	Areas of highest biodiversity value are avoided. If ancillary facilities are required for the proposed development these would be located within the low condition derived native grassland area (vegetation zone 429_low_DNG). This would therefore result in ancillary facilities being located within areas with low biodiversity value.	During construction phase of project	Proponent
Locating ancillary facilities in areas where the native vegetation or threatened species habitat is in the poorest condition (i.e. areas with the lowest vegetation integrity scores)	Areas of better condition native vegetation are avoided. If ancillary facilities are required for the proposed development these would be located within the low condition derived native grassland area (vegetation zone 429_low_DNG). This would therefore result in ancillary facilities being located within areas with a lowest vegetation integrity score.	During construction phase of project	Proponent
Locating ancillary facilities in areas that avoid habitat for species and vegetation that has a high threat status (e.g. an endangered ecological community (EEC) or critically endangered ecological community (CEEC) or is an entity at risk of a serious and irreversible impact (SAII)	Habitat for species and vegetation with a high threat status is avoided None of the vegetation on the subject land is habitat for species and vegetation that has a high threat status (e.g. an endangered ecological community (EEC) or critically endangered ecological community (CEEC) or is an entity at risk of a serious and irreversible impact (SAII).	During construction phase of project	Proponent

## 8. Impact assessment

#### 8.1 Direct impacts

#### 8.1.1 Residual direct impacts

Table 15 lists impacts likely to occur on the subject land after steps taken to avoid and minimise impacts (refer to Figure 10).

#### Table 15 Summary of residual direct impacts

<b>Direct impact</b> (Describe the impact on PCT/TEC/EC or threatened species and their habitat)	BC Act status	EPBC Act status	SAII entity	Project phase/timing of impact (e.g. construction, operation, rehabilitation)	Extent (ha, number of individuals)
Removal of PCT 429 White Cypress Pine - Poplar Box - Silver-leaved Ironbark viney shrub woodland of the Brigalow Belt South Bioregion	n/a	n/a	No	Construction and operation	9.41 ha

#### 8.1.2 Change in vegetation integrity score

Table 16 documents the change in vegetation integrity for residual direct impacts on native vegetation, TECs, threatened species and their habitat that were identified on the subject land.

#### Table 16 Impacts to vegetation integrity

Vegetation zone	Vegetation zone PCT Management		Area	rea Before development				After development				
	ID	zone	(ha)	Composition	Structure	Function	VI score	Composition	Structure	Function	VI score	Change in VI score
429_low_DNG	429	remove	9.2	12.1	27.4	16	16.8	0	0	0	0	-16.8
429_low_woodland	429	remove	0.21	55.3	28	16	29.1	0	0	0	0	-29.1

## 8.2 Indirect impacts

Table 17 documents residual indirect impacts (likely to occur on native vegetation, threatened entities and their habitat beyond the development footprint).

#### Table 17 Summary of residual indirect impacts

Indirect impact (Describe impact, e.g. transport of weeds and pathogens form the site to adjacent vegetation)	Impacted entities (PCT/threatened entity and their habitats and where relevant, EPBC Act listing)	Extent (ha or zone reference)	Frequency	Duration (long-term/ short-term/ medium- term)	Project phase/ timing of impact (e.g. construction, operation, rehabilitation)	Likelihood and consequences
Inadvertent impacts on adjacent habitat or vegetation	PCT 429 (woodland)	woodland adjacent to the development footprint (off-site) (vegetation zone 429_low_woodland)	once	short-term	during construction phase	Moderate Potential damage to adjacent habitat or vegetation Mitigation measures required to minimise risk

#### 8.3 **Prescribed impacts**

#### 8.3.1 Waterbodies, water quality and hydrological processes

#### 8.3.1.1 Nature

The proposal could potentially impact on these features and result in degradation of water quality and hydrological processes.

#### 8.3.1.2 Extent

Two small 1<sup>st</sup> and 2<sup>nd</sup> order waterways occur on the subject land. These waterways are minor tributaries of Back Creek and are ephemeral (the waterways were not flowing at the time the survey was conducted). Two dams/holding ponds of approximately 1800 m<sup>2</sup> and 4000 m<sup>2</sup> occurs on the subject land.

#### 8.3.1.3 Duration

This prescribed impact would occur during construction and operation.

#### 8.3.1.4 Consequences

These features are substantially degraded as a result of historic and ongoing farming disturbances on the subject land. The results of the BAM targeted surveys indicated that none of these features provide any potential habitat for candidate species credit species.

#### 8.4 Mitigating residual impacts – management measures and implementation

Table 18 detail proposed mitigation and management measures.

#### Table 18 Summary of proposed mitigation and management measures for residual impacts (direct, indirect and prescribed)

<b>Mitigation measure</b> (specify if none proposed and ensure an adaptive management strategy is developed and addressed in Section 1.1)	Method/technique	Timing	Frequency	Responsibility	Likely efficacy (including risk of failure)	MNES (when relevant)
Adoption of clearing protocols that identify vegetation to be retained, prevent inadvertent damage and reduce soil disturbance	The extent of the clearing footprint would be delineated (e.g. pegging, temporary fencing/ high-visibility flagging) where clearing will occur in vegetation zone 429_low_woodland (refer to Figure 9).	prior to vegetation clearing commencing	once	project manager/contractors	high	n/a

#### 8.5 Consistency with other legislation - State Environmental Planning Policy (Biodiversity and Conservation) 2021, Chapter 3 – Koala Habitat Protection 2020

This Policy aims to encourage the proper conservation and management of areas of natural vegetation that provide habitat for koalas to ensure a permanent free-living population over their present range and reverse the current trend of koala population decline:

(a) by requiring the preparation of plans of management before development consent can be granted in relation to areas of core koala habitat, and

(b) by encouraging the identification of areas of core koala habitat, and

(c) by encouraging the inclusion of areas of core koala habitat in environment protection zones.

Schedule 2 lists LGAs for which Koala Habitat Protection 2020 applies, which includes Gwydir LGA.

Part 3.2 Development control of koala habitats

This Part applies to land-

(a) that is land to which this Chapter applies, and

(b) that is land in relation to which a development application has been made, and

(c) that, whether or not the development application applies to the whole, or only part, of the land—

(i) has an area of more than 1 hectare, or

(ii) has, together with adjoining land in the same ownership, an area of more than 1 hectare.

The site meets the above requirements and is therefore land to which Part 3.2 applies.

Part 3.2 assesses the presence of potential koala habitat and core koala habitat on the land and whether development consent can be granted in relation to core koala habitat.

Schedule 1 lists ten eucalypt species which are primary koala feed trees:

Potential koala habitat is defined in Chapter 3 as areas of native vegetation where the trees of the types listed in Schedule 2 constitute at least 15% of the total number of trees in the upper or lower strata of the tree component.

No Schedule 2 listed koala food tree species are present on the subject land and therefore no part of the site is consistent with this definition of potential koala habitat.

Based on the above finding, there is no supporting evidence for the land to be mapped as core koala habitat as defined in Chapter 3. No further provisions of the policy apply to the DA, and no individual plan of management is required.

## 9. Impact summary

#### 9.1 Determine an offset requirement for impacts

#### 9.1.1 Impacts on native vegetation and TECs or ECs (ecosystem credits)

Table 19 details impacts on native vegetation and TECs or ECs that do not require an offset (as per BAM Subsection 9.2.1(3.)) (refer to Figure 10). The vegetation integrity score of vegetation zone 429\_low\_DNG was <17 and this PCT is not a TEC. Therefore, no offset (ecosystem credits) are required.

Table 20 details impacts (ecosystem credits) that require an offset (as per BAM Subsection 9.2.1(1.)) (refer to Figure 10).

Vegetation zone	PCT name	TEC	<b>Impact</b> area (ha)	TEC association	Entity at risk of an SAII?	Current VI score
429_low_DNG	PCT 429 White Cypress Pine - Poplar Box - Silver- leaved Ironbark viney shrub woodland of the Brigalow Belt South Bioregion	no	9.2	Not associated	No	16.8

#### Table 19 Impacts that do not require offset – ecosystem credits

Vegetation zone	PCT name	TEC	<b>Impact</b> area (ha)	Current VI score	Future VI score	Change in VI score	Biodiversity risk weighting	Number of ecosystem credits required
429_low_woodland	PCT 429 White Cypress Pine - Poplar Box - Silver-leaved Ironbark viney shrub woodland of the Brigalow Belt South Bioregion	no	0.21	29.1	0	-29.1	1.75	3
Total credits						3		

#### Table 20 Impacts that require an offset – ecosystem credits

#### 9.1.2 Impacts on threatened species and their habitat (species credits)

There are no impacts on threatened species (species credits) that require an offset (as per BAM Subsection 9.2.2(2.)).

#### 9.2 Impacts that do not need further assessment

Areas within the subject land that do not contain native vegetation do not need to be assessed for ecosystem credits.

All vegetation that met the definition of native vegetation under section 60B of the *Local Land Services Act 2013* was mapped as native vegetation on the subject land. No nonnative vegetation was mapped. Therefore, there were no impacts that do not need further assessment for ecosystem credits on the subject land.

# **10. Biodiversity credit report**

Ecosystem credits and matching credit profiles are detailed in Table 21 (also refer to Appendix C). No species credits are required.

## **10.1 Ecosystem credits**

able 21	Ecosystem cr	Ecosystem credit class and matching credit profile							
Ecosystem credit	Attributes shared with matching credits								
	PCT name	PCT vegetation class	PCT vegetation formation	Associated TEC or EC	Offset trading group (BAM Section 10.2, Tables 4 & 5)	Hollow bearing trees present?	<b>IBRA subregion</b> (in which proposal is located)		
3	PCT 429 White Cypress Pine - Poplar Box - Silver-leaved Ironbark viney shrub woodland of the Brigalow Belt South Bioregion	North-west Slopes Dry Sclerophyll Forests	Dry Sclerophyll Forest (shrub/grass sub-formation)	none	North-west Slopes Dry Sclerophyll Woodlands - ≥ 50% - < 70% cleared group (including Tier 3 or higher threat status).	No	Northern Basalts		

#### 4 - 1- 2 .124 ....

## 11. References

DEC (2004). Threatened Species Survey and Assessment: Guidelines for developments and activities (working draft), New South Wales Department of Environment and Conservation, Hurstville, NSW.

Department of Planning & Environment (DPE) (2022). *Koala (Phascolarctos cinereus): Biodiversity Assessment Method Survey Guide.* Department of Planning & Environment, Sydney.

Department of Planning, Industry and Environment (DPIE 2020). Surveying threatened plants and their habitats. NSW survey guide for the Biodiversity Assessment Method 2020. State of NSW and Department of Planning, Industry and Environment, Sydney.

NSW Office of Environment and Heritage (2020). *Biodiversity Assessment Method.* Office of Environment and Heritage, Sydney.

State Government of NSW and Department of Planning and Environment (2022). *NSW* State Vegetation Type Map – Extant PCT (Release C1.1.M1.1). [Quickview (Vector Data -Geodatabase Format) and SVTM NSW Extant PCT 5m (Raster Data - TIFF format)]

# 12. Figures











Figure 3 Development layout (as per RDC Engineers drawing: proposed development - infrastructure layout (E2-103-5000-01))



This map is valid as at the date the report was generated. Checking the <u>Biodiversity Values Map viewer</u> for mapping updates is recommended.





Figure 5 Field survey locations



#### Figure 6 Native vegetation extent



#### Figure 7 Plant community types



Figure 8 Vegetation zones



Figure 9 Final impacts likely to occur on the subject land



Figure 10 Thresholds for assessing and offsetting impacts

# **Appendix A: BDAR requirements compliance**

#### Table 22 Assessment of compliance with BDAR minimum information requirements

BDAR section	BAM ref.	BAM requirement	Page reference(s) in the BDAR
Introduction	Chapters 2 and 3	Information	
		Introduction to the biodiversity assessment including:	_
		☑ brief description of the proposal	<1.1.1>
		<ul><li>identification of subject land boundary, including:</li><li>operational footprint</li></ul>	<1.1.3>
		construction footprint indicating clearing associated with temporary/ancillary construction facilities and infrastructure	
		general description of the subject land	<1.1.3>
		sources of information used in the assessment, including reports and spatial data	<1.5>
		identification and justification for entering the BOS	<1.2>
		Maps and tables	
		Map of the subject land boundary showing the final proposal footprint, including the construction footprint for any clearing associated with temporary/ancillary construction facilities and infrastructure	<figure 1=""></figure>
Landscape	Sections 3.1 and 3.2, Appendix E	Information	
		Identification of site context components and landscape features, including:	-
		general description of subject land topographic and hydrological setting, geology and soils	<1.1.3>
		per cent native vegetation cover in the assessment area (as described in BAM Section 3.2)	<3.3>
		☑ IBRA bioregions and subregions (as described in BAM Subsection 3.1.3(2.))	<3.2.1>

<b>Biodiversity Development</b>	Assessment Report, 251	3 Getta Getta Road, North	Star feedlot expansion
		,	

BDAR section	BAM ref.	BAM requirement	Page reference(s) in the BDAR
		$\boxtimes$ rivers and streams classified according to stream order (as described in BAM Subsection 3.1.3(3.) and Appendix E)	<3.2.2>
		wetlands within, adjacent to and downstream of the site (as described in BAM Subsection 3.1.3(3.))	<3.2.2>
		Connectivity of different areas of habitat (as described in BAM Subsection 3.1.3(5–6.))	<3.2.3>
		karst, caves, crevices, cliffs, rocks and other geological features of significance and for vegetation clearing proposals, soil hazard features (as described in BAM Subsections 3.1.3(7.) and 3.1.3(12.))	<3.2.4>
		areas of outstanding biodiversity value occurring on the subject land and assessment area (as described in BAM Subsection 3.1.3(8–9.))	<3.2.5>
		any additional landscape features identified in any SEARs for the proposal	n/a
		NSW (Mitchell) landscape on which the subject land occurs	<3.2.6>
		details of field reconnaissance undertaken to confirm the extent and condition of landscape features and native vegetation cover (as described in Operational Manual Stage 1 Section 2.4)	<2.1>
		Maps and tables	
		<ul> <li>Site Map</li> <li>Boundary of subject land</li> <li>Cadastre of subject land (including labelling of Lot and DP or section plan if relevant)</li> <li>Landscape features identified in BAM Subsection 3.1.3</li> </ul>	<figure 1=""></figure>
		<ul> <li>Location Map</li> <li>Digital aerial photography at 1:10,000 scale or finer</li> <li>Boundary of subject land</li> <li>Assessment area (i.e. the subject land and either 1500 m buffer area or 500 m buffer for linear development)</li> </ul>	<figure 2=""></figure>

BDAR section	BAM ref.	BAM requirement	Page reference(s) in the BDAR
		Landscape features identified in BAM Subsection 3.1.3	
		Additional detail (e.g. local government area boundaries) relevant at this scale	
		Landscape features identified in BAM Subsection 3.1.3 and to be shown on the Site Map and/or Location Map include:	_
		<ul> <li>IBRA bioregions and subregions</li> <li>rivers, streams and estuaries</li> <li>wetlands and important wetlands</li> <li>connectivity of different areas of habitat</li> <li>karst, caves, crevices, cliffs, rocks and other geological features of significance and if required, soil hazard features</li> <li>areas of outstanding biodiversity value occurring on the subject land and assessment area</li> <li>any additional landscape features identified in any SEARs for the proposal</li> <li>NSW (Mitchell) landscape on which the subject land occurs</li> </ul>	<figure &="" 1="" figure<br="">2&gt;</figure>
		Data	
		All report maps as separate jpeg files	_
		Individual digital shape files of:	_
		Subject land boundary	_
		assessment area (i.e. subject land and 1500 m buffer area) boundary	-
		□ cadastral boundary of subject land	_
		areas of native vegetation cover	_
		⊠ landscape features	_
Native vegetation	Chapter 4, Appendix A and Appendix H	Information	

Biodiversity Development As	ssessment Report, 2513 Getta	a Getta Road, North Star	feedlot expansion
-----------------------------	------------------------------	--------------------------	-------------------

BDAR section	BAM ref.	BAM requirement	Page reference(s) in the BDAR
		Identify native vegetation extent within the subject land, including cleared areas and evidence to support differences between mapped vegetation extent and aerial imagery (as described in BAM Section 4.1(1–3.) and Subsection 4.1.1)	<4.1 & Figure 6>
		Provide justification for all parts of the subject land that do not contain native vegetation (as described in BAM Subsection 4.1.2)	<4.1.1>
		Review of existing information on native vegetation including references to previous vegetation maps of the subject land and assessment area (described in BAM Section 4.1(3.) and Subsection 4.1.1)	<2.2.2>
		Describe the systematic field-based floristic vegetation survey undertaken in accordance with BAM Section 4.2	<2.2.3>
		Where relevant, describe the use of more appropriate local data, provide reasons that support the use of more appropriate local data and include the written confirmation from the decision-maker that they support the use of more appropriate local data (as described in BAM Subsection 1.4.2 and Appendix A)	n/a
		For each PCT within the subject land, describe:	-
		PCT name and ID	<4.1 & Figure 7>
		vegetation class	<4.1.1>
		extent (ha) within subject land	<2.2.2>
		evidence used to identify a PCT including any analyses undertaken, references/sources, existing vegetation maps (BAM Section 4.2(1–3.))	<2.2.3>
		Description plant species relied upon for identification of the PCT and relative abundance of each species	<4.2.2.3 and Appendix B>
		if relevant, TEC status including evidence used to determine vegetation is the TEC (BAM Subsection 4.2.2(1–2.))	n/a
		estimate of per cent cleared value of PCT (BAM Subsection 4.2.1(5.))	<4.1.1>
		Describe the vegetation integrity assessment of the subject land, including:	-
		identification and mapping of vegetation zones (as described in BAM Subsection 4.3.1)	<4.3 & Figure 8>
BDAR section	BAM ref.	BAM requirement	Page reference(s) in the BDAR
-----------------	----------	--	-------------------------------
		<ul> <li>description of vegetation zones within the subject land (as described in Operational Manual Stage</li> <li>1 Table 2 and Subsection 3.3.2)</li> </ul>	<4.3 & Figure 8>
		area (ha) of each vegetation zone	<4.3>
		assessment of patch size (as described in BAM Subsection 4.3.2)	<4.3>
		survey effort (i.e. number of vegetation integrity survey plots) as described in BAM Subsection $4.3.4(1-2.)$	<4.4.1>
		use of relevant benchmark data from BioNet Vegetation Classification (as described in BAM Subsection 4.3.3(5.))	n/a
		Where use of more appropriate local benchmark data is proposed (as described in BAM Subsection 1.4.2, BAM Subsection 4.3.3(5.) and BAM Appendix A):	_
		<ul> <li>identify the PCT or vegetation class for which local benchmark data will be applied</li> <li>identify published sources of local benchmark data (if benchmarks obtained from published sources)</li> <li>describe methods of local benchmark data collection (if reference plots used to determine local benchmark data)</li> </ul>	n/a
		provide justification for use of local data rather than BioNet Vegetation Classification benchmark values	n/a
		provide written confirmation from the decision-maker that they support the use of local benchmark data	n/a
		Maps and tables	
		Map of native vegetation extent within the subject land at scale not greater than 1:10,000 including identification of all areas of native vegetation including areas that are ground cover only, cleared areas (as described in BAM Section $4.1(1-3.)$ ) and all parts of the subject land that do not contain native vegetation (BAM Subsection $4.1.2$ )	<figure 6=""></figure>
		Map of PCTs within the subject land (as described in BAM Section 4.2(1.))	<figure 7=""></figure>
		Map of vegetation zones within the subject land (as described in BAM Subsection 4.3.1)	<figure 8=""></figure>

Biodiversity Development Asses	sment Report, 2513 Getta Gett	a Road, North Star feedlot expansion
--------------------------------	-------------------------------	--------------------------------------

BDAR section	BAM ref.	BAM requirement	Page reference(s) in the BDAR
		Map the location of floristic vegetation survey plots and vegetation integrity survey plots relative to PCT boundaries	<figure 5=""></figure>
		Map of TEC distribution on the subject land and table of TEC listing, status and area (ha)	n/a
		Map of patch size locations for each native vegetation zone and table of patch size areas (as described in BAM Subsection 4.3.2)	<figure &<br="" 8="">Table 5&gt;</figure>
		Table of current vegetation integrity scores for each vegetation zone within the site and including:	_
		<ul> <li>composition condition score</li> <li>structure condition score</li> <li>function condition score</li> <li>presence of hollow bearing trees</li> </ul>	<table 6=""></table>
		Data	
		□ All report maps as separate jpeg files	-
		Plot field data (MS Excel format)	
		☑ Plot field datasheets	<appendix b=""></appendix>
		Digital shape files of:	-
		PCT boundaries within subject land	-
		TEC boundaries within subject land	n/a
		vegetation zone boundaries within subject land	_
		floristic vegetation survey and vegetation integrity plot locations	_
Threatened species	Chapter 5	Information	
		Identify ecosystem credit species likely to occur on the subject land, including:	-

BDAR section	BAM ref.	BAM requirement	Page reference(s) in the BDAR
		I list of ecosystem credit species derived from the BAM-C (as described in BAM Subsection 5.1.1 and Section 5.2(1.))	<table 7=""></table>
		justification and supporting evidence for exclusion of any ecosystem credit species based on geographic limitations, habitat constraints or vagrancy (as described in BAM Subsections 5.2.1 and 5.2.2)	<5.1.1>
		justification for addition of any ecosystem credit species to the list	n/a
		Identify species credit species likely to occur on the subject land, including:	_
		□ Iist of species credit species derived from the BAM-C (as described in BAM Subsection 5.1.1)	<table &="" 8="" table<br="">9&gt;</table>
		justification and supporting evidence for exclusions based on geographic limitations, habitat constraints or vagrancy (as described in BAM Subsections 5.2.1 and 5.2.2)	<5.1.2>
		justification and supporting evidence for exclusions based on degraded habitat constraints and/or microhabitats on which the species depends (as described in BAM Subsection 5.2.2)	<5.1.2>
		justification for addition of any species credit species to the list	n/a
		From the list of candidate species credit species, identify:	_
		□ species assumed present within the subject land (if relevant) (as described in BAM Subsection 5.2.4(2.a.))	<table &="" 10="" 11=""></table>
		species present within the subject land on the basis of being identified on an important habitat map for a species (as described in BAM Subsection 5.2.4(2.d.))	
		species for which targeted surveys are to be completed to determine species presence (BAM Subsection 5.2.4(2.b.))	
		□ species for which an expert report is to be used to determine species presence (BAM Subsection 5.2.4(2.c.))	
		Present the outcomes of species credit species assessments from:	_
		threatened species survey (as described in BAM Section 5.2.4)	<table &="" 12="" 13=""></table>
		expert reports (if relevant) including justification for presence of the species and information used to make this determination (as described in BAM Subsection 5.2.4, Section 5.3, Box 3)	n/a

BDAR section	BAM ref.	BAM requirement	Page reference(s) in the BDAR
		Where survey has been undertaken include detailed information on:	-
		survey method and effort (as described in BAM Section 5.3)	<table &="" 12="" 13="" table=""></table>
		justification of survey method and effort (e.g. citation of peer-reviewed literature) if approach differs from the department's taxa-specific survey guides or where no relevant guideline has been published	n/a
		timing of survey in relation to requirements in the TBDC or the department's taxa-specific survey guides. Where survey was undertaken outside these guides include justification for the timing of surveys	<table &="" 12="" table<br="">13 &amp; 5.3&gt;</table>
		Survey personnel and relevant experience	<declarations ii=""></declarations>
		describe any limitations to surveys and how these were addressed/overcome	n/a
		Where an expert report has been used in place of survey (as described in BAM Section 5.3, Box 3), include:	-
		<ul> <li>justification of the use of an expert report</li> <li>identify the expert, provide evidence of their expert credentials and departmental approval of expert status</li> </ul>	n/a
		all requirements of Box 3 have been addressed in the expert report	
		Where use of local data is proposed (BAM Subsection 1.4.2):	_
		<ul> <li>identify relevant species</li> <li>identify data to be amended</li> <li>identify source of information for local data, e.g. published literature, additional survey data, etc.</li> <li>justify use of local data in preference to VIS Classification or TBDC data</li> </ul>	n/a
		provide written confirmation from the decision-maker that they support the use of local data	n/a
		Species polygon completed for species credit species present within the subject land (assumed present or determined on the basis of survey, expert report or important habitat map) ensuring that:	-
		the unit of measure for each species is documented	n/a
		for species assessed by area:	_

BDAR section	BAM ref.	BAM requirement	Page reference(s) in the BDAR
		the polygon includes the extent of suitable habitat for the target species within the subject land (as described in BAM Subsection 5.2.5)	n/a
		a description of, and evidence-based justification for, the habitat constraints, features or microhabitats used to map the species polygon including reference to information in the TBDC for that species and any buffers applied	n/a
		for species assessed by counts of individuals:	-
		the number of individual plants present on the subject land (as described in BAM Subsection 5.2.5(3.))	n/a
		the method used to derive this number (i.e. threatened species survey or expert report) and evidence-based justification for the approach taken	n/a
		the polygon includes all individuals located on the subject land with a buffer of 30 m around the individuals or groups of individuals on the subject land	n/a
		□ Identify the biodiversity risk weighting for each species credit species identified as present within the subject land (as described in BAM Section 5.4)	n/a
		Maps and tables	
		Table showing ecosystem credit species in accordance with BAM Subsection 5.1.1, and identifying:	
		the ecosystem credit species removed from the list	<table 7=""></table>
		☑ the sensitivity to gain class of each species	<table 7=""></table>
		Table detailing species credit species in accordance with BAM Section 5.2 and identifying:	
		the species credit species removed from the list of species because the species is considered vagrant, out of geographic range or the habitat or microhabitat features are not present	<table &="" 8="" table<br="">9&gt;</table>
		the candidate species credit species not recorded on the subject land as determined by targeted survey, expert report or important habitat map	<table &="" 10="" 11="" table=""></table>
		Table detailing species credit species recorded or assumed as present within the subject land, habitat constraints or microhabitats associated with the species, counts of individuals (flora)/extent of	n/a

BDAR section	BAM ref.	BAM requirement	Page reference(s) in the BDAR
		suitable habitat (flora and fauna) (as described in BAM Subsection 5.2.6) and biodiversity risk weighting (BAM Section 5.4)	
		Map indicating the GPS coordinates of all individuals of each species recorded within the subject land and the species polygon for each species (as described in BAM Subsection 5.2.5)	n/a
		Data	
		Digital shape files of suitable habitat identified for survey for each candidate species credit species	_
		Survey locations including GPS coordinates of any plots, transects, grids	
		Digital shape files of each species polygon including GPS coordinates of located individuals	n/a
		□ Species polygon map in jpeg format	n/a
		Expert reports and any supporting data used to support conclusions of the expert report	n/a
		Field datasheets detailing survey information including prevailing conditions, date, time, equipment used, etc.	n/a <see &<br="" 2.5="">5.3&gt;</see>
Prescribed impacts	Chapter 6	Information	
		Identify potential prescribed biodiversity impacts on threatened entities, including:	_
		karst, caves, crevices, cliffs, rocks and other geological features of significance (as described in BAM Subsection 6.1.1)	<table 13=""></table>
		occurrences of human-made structures and non-native vegetation (as described in BAM Subsection 6.1.2)	
		☑ corridors or other areas of connectivity linking habitat for threatened entities (as described in BAM Subsection 6.1.3)	
		waterbodies or any hydrological processes that sustain threatened entities (as described in BAM Subsection 6.1.4)	
		protected animals that may use the proposed wind farm development site as a flyway or migration route (as described in BAM Subsection 6.1.5)	n/a

BDAR section	BAM ref.	BAM requirement	Page reference(s) in the BDAR
		where the proposed development may result in vehicle strike on threatened fauna or on animals that are part of a threatened ecological community (as described in BAM Subsection 6.1.6)	n/a
		□ Identify a list of threatened entities that may be dependent upon or may use habitat features associated with any of the prescribed impacts	n/a
		Describe the importance of habitat features to the species including, where relevant, impacts on life cycle or movement patterns (e.g. Subsection 6.1.3)	n/a
		Where the proposed development is for a wind farm:	—
		identify a candidate list of protected animals that may use the development site as a flyway or migration route, including: resident threatened aerial species, resident raptor species and nomadic and migratory species that are likely to fly over the proposal area (as described in BAM Subsection 6.1.5)	n/a
		provide details of targeted survey for candidate species of wind farm developments undertaken in accordance with BAM Subsection 6.1.5(2–3.)	n/a
		predict the habitual flight paths for nomadic and migratory species likely to fly over the subject land and map the likely habitat for resident threatened aerial and raptor species (BAM Subsection 6.1.5(4.))	n/a
		Where the proposal may result in vehicle strike:	-
		identify a list of threatened fauna or protected fauna species that are part of a TEC and at risk of vehicle strike due to the proposal	n/a
		Maps and tables	
		□ Map showing location of any prescribed impact features (i.e. karst, caves, crevices, cliffs, rocks, human-made structures, etc.)	n/a
		□ Map showing location of potential vehicle strike locations	n/a
		Maps of habitual flight paths for nomadic and migratory species likely to fly over the site and maps of likely habitat for threatened aerial species resident on the site (for wind farm developments only)	n/a
		Data	
		Digital shape files of prescribed impact feature locations	n/a

BDAR section	BAM ref.	BAM requirement	Page reference(s) in the BDAR
		Prescribed impact features map in jpeg format	n/a
Avoid and minimise impacts	Chapter 7	Information	
		Demonstration of efforts to avoid and minimise impacts on biodiversity values (including prescribed impacts) associated with the proposal location in accordance with Chapter 7, including an analysis of alternative:	-
		modes or technologies that would avoid or minimise impacts on biodiversity values and justification for selecting the proposed mode or technology	n/a
		routes that would avoid or minimise impacts on biodiversity values and justification for selecting the proposed route	n/a
		alternative locations that would avoid or minimise impacts on biodiversity values and justification for selecting the proposed location	n/a
		alternative sites within a property on which the proposal is located that would avoid or minimise impacts on biodiversity values and justification for selecting the proposed site	n/a
		Describe efforts to avoid and minimise impacts (including prescribed impacts) to biodiversity values through proposal design (as described in BAM Sections 7.1 and 7.2)	<7.1.2>
		Identification of any other site constraints that the proponent has considered in determining the location and design of the proposal (as described in BAM Subsection 7.2.1(3.))	<7>
		Detail measures or options considered but not implemented because they are not feasible and/or practical (e.g. due to site constraints)	n/a
		Maps and tables	
		Table of measures to be implemented to avoid and minimise the impacts of the proposal, including action, outcome, timing and responsibility	<table 14=""></table>
		□ Map of alternative footprints considered to avoid or minimise impacts on biodiversity values; and of the final proposal footprint, including construction and operation	n/a
		□ Maps demonstrating indirect impact zones where applicable	n/a

BDAR section	BAM ref.	BAM requirement	Page reference(s) in the BDAR
		Data	
		Digital shape files of:	_
		☑ alternative and final proposal footprint	_
		☑ direct and indirect impact zones	_
		Maps in jpeg format	_
Assessment of impacts	Chapter 8, Sections 8.1 and 8.2	Information	
		Determine the impacts on native vegetation and threatened species habitat, including a description of direct impacts of clearing of native vegetation, threatened ecological communities and threatened species habitat (as described in BAM Section 8.1)	<table 15=""></table>
		Assessment of indirect impacts on vegetation and threatened species and their habitat including (as described in BAM Section 8.2):	_
		description of the nature, extent, frequency, duration and timing of indirect impacts of the proposal	<table 17=""></table>
		documenting the consequences to vegetation and threatened species and their habitat including evidence-based justifications	<table 17=""></table>
		reporting any limitations or assumptions, etc. made during the assessment	n/a
		identification of the threatened entities and their habitat likely to be affected	<table 17=""></table>
		Assessment of prescribed biodiversity impacts (as described in BAM Section 8.3) including:	_
		assessment of the nature, extent frequency, duration and timing of impacts on the habitat of threatened species or ecological communities associated with:	_
		karst, caves, crevices, cliffs, rocks and other features of geological significance	n/a
		□ human-made structures	n/a
		□ non-native vegetation	n/a

BDAR section	BAM ref.	BAM requirement	Page reference(s) in the BDAR
		□ connectivity of different areas of habitat of threatened species that facilitates the movement of those species across their range	n/a
		movement of threatened species that maintains their life cycle	n/a
		water quality, waterbodies and hydrological processes that sustain threatened species and threatened ecological communities	<8.3>
		assessment of the impacts of wind turbine strikes on protected animals	n/a
		$\hfill\square$ assessment of the impacts of vehicle strikes on threatened species of animals or on animals that are part of a TEC	n/a
		evaluate the consequences of prescribed impacts	n/a
		describe impacts that are uncertain	n/a
		document limitations to data, assumptions and predictions	n/a
		Maps and tables	
		Table showing change in vegetation integrity score for each vegetation zone as a result of identified impacts	<table 16=""></table>
		Data	
		N/A	_
Mitigation and management of impacts	Chapter 8, Sections 8.4 and 8.5	Information	
		Identification of measures to mitigate or manage impacts in accordance with the recommendations in BAM Sections 8.4 and 8.5 including:	_
		techniques, timing, frequency and responsibility	<table 18=""></table>
		identify measures for which there is risk of failure	
		evaluate the risk and consequence of any residual impacts	

BDAR section	BAM ref.	BAM requirement	Page reference(s) in the BDAR
		document any adaptive management strategy proposed	n/a
		Identification of measures for mitigating impacts related to:	_
		<ul> <li>displacement of resident fauna (as described in BAM Subsection 8.4.1(2.))</li> <li>indirect impacts on native vegetation and habitat (as described in BAM Subsection 8.4.1(3.))</li> <li>mitigating prescribed biodiversity impacts (as described in BAM Subsection 8.4.2)</li> </ul>	<8.4>
		Details of the adaptive management strategy proposed to monitor and respond to impacts on biodiversity values that are uncertain (BAM Section 8.5)	n/a
		Maps and tables	
		Table of measures to be implemented before, during and after construction to mitigate and manage impacts of the proposal, including action, outcome, timing and responsibility	<table 16=""></table>
		Data	
		N/A	-
Impact summary	Chapter 9	Information	
		Identification and assessment of impacts on TECs and threatened species that are at risk of a serious and irreversible impacts (SAII, in accordance with BAM Section 9.1) including:	-
		addressing all criteria in Subsection 9.1.1 for each TEC listed as at risk of an SAII present on the subject land	n/a
		for each TEC, report the extent of the TEC in NSW	n/a
		addressing all criteria in Subsection 9.1.2 for each threatened species at risk of an SAII present on the subject land	n/a
		for each threatened species, report the population size in NSW	n/a
		documenting assumptions made and/or limitations to information	n/a

BDAR section	BAM ref.	BAM requirement	Page reference(s) in the BDAR
		documenting all sources of data, information, references used or consulted	
		□ clearly justifying why any criteria could not be addressed	
		☑ Identification of impacts requiring offset in accordance with BAM Section 9.2	<table 20=""></table>
		Identification of impacts not requiring offset in accordance with BAM Subsection 9.2.1(3.)	<table 19=""></table>
		Identification of areas not requiring assessment in accordance with BAM Section 9.3	<9.2>
		Maps and tables	
		□ Map showing the extent of TECs at risk of an SAII within the subject land	n/a
		□ Map showing location of threatened species at risk of an SAII within the subject land	n/a
		Map showing location of:	_
		impacts requiring offset	<figure 10=""></figure>
		impacts not requiring offset	<figure 10=""></figure>
		areas not requiring assessment	<figure 10=""></figure>
		Data	
		Digital shape files of:	-
		extent of TECs at risk of an SAII within the subject land	n/a
		□ location of threatened species at risk of an SAII within the subject land	n/a
		boundary of impacts requiring offset	-
		boundary of impacts not requiring offset	-
		boundary of areas not requiring assessment	-
		Maps in jpeg format	-
Impact summary	Chapter 10	Information	

Biodiversity Development As	sessment Report, 2513 Getta Getta	a Road, North Star feedlot expansion
-----------------------------	-----------------------------------	--------------------------------------

BDAR section	BAM ref.	BAM requirement	Page reference(s) in the BDAR
		Ecosystem credits and species credits that measure the impact of the development on biodiversity values, including:	-
		<ul> <li>future vegetation integrity score for each vegetation zone within the subject land (Equation 25 and Equation 26 in BAM Appendix H)</li> <li>change in vegetation integrity score (BAM Subsection 8.1.1)</li> </ul>	<table 16=""></table>
		zone within the subject land (BAM Subsection 10.1.2)	
		☑ biodiversity risk weighting for each	<table 16=""></table>
		number of required species credits for each candidate threatened species that is directly impacted on by the proposal (BAM Subsection 10.1.3)	n/a
		Maps and tables	
		Table of PCTs requiring offset and the number of ecosystem credits required	<table 20=""></table>
		Table of threatened species requiring offset and the number of species credits required	n/a
		Data	
		Submitted proposal in the BAM Calculator	_
Biodiversity credit report	Chapter 10	Information	
		Description of credit classes for ecosystem credits and species credits at the development or clearing site or land to be biodiversity certified (BAM Section 10.2)	<table 28=""></table>
		BAM credit report in pdf format	<appendix c=""></appendix>
		Maps and tables	
		□ Table of credit class and matching credit profile	<table 21=""></table>
		Data	
		BAM credit report in pdf format	<appendix c=""></appendix>

# Appendix B: Vegetation survey data

Table 23	Vegetation survey data and location	۱S
----------	-------------------------------------	----

Plot 1	
Overview	
Location	2513 Getta Getta Road, North Star
Plot ID	Plot 1
PCT	PCT 429
Vegetation zone	429_low_DNG
TEC	No
IBRA region	Brigalow Belt South
Recorder	Tom Pollard
Date	18/12/2023
GPS start of transect	260366, 6795311
Midline bearing	150°

Composition and structure (400m <sup>2</sup> plot)									
Scientific name	Common name	Family	Cover (%)	Abundance	Growth form	Exotic	High threat weed? (yes/no)	NSW BC Act listing status	Commonwealth EPBC Act listing status
Tribulus micrococcus	Yellow Vine	Zygophyllaceae	0.1	1	FG (forb)	No	No	-	-
Chenopodium sp.	a Goosefoot	Chenopodiaceae	0.1	2	FG (forb)	No	No	-	-
Einadia trigonos	Fishweed	Chenopodiaceae	0.1	2	FG (forb)	No	No	-	-
Dactyloctenium radulans	Button Grass	Poaceae	30	-	GG (grass and grass-like)	No	No	-	-
Cynodon dactylon	Couch Grass	Poaceae	50	-	GG (grass and grass-like)	No	No	-	-
Eragrostis sp.	a Lovegrass	Poaceae	0.1	10	GG (grass and grass-like)	No	No	-	-
Cenchrus ciliaris	Buffel Grass	Poaceae	4	80		Yes	Yes	-	-
Eragrostis trichophora	-	Poaceae	1	20		Yes	No	-	-
Malva parviflora	Small-flowered Mallow	Malvaceae	0.1	5		Yes	No	-	-
Lepidium sp.	a Peppercress	Brassicaceae	0.1	1		Yes	No	-	-
Sonchus oleraceus	Milk Thistle	Asteraceae	0.1	1		Yes	No	-	-

Structure (400 m2 plot)					
BAM attribute	Sum values				
	Trees	0			
	Shrubs	0			
Count of notive vielance	Grasses and grass-like	3			
Count of native richness	Forbs	3			
	Ferns	0			
	Other	0			
	Trees	0			

Sum of cover of native vascular plans by growth form aroun	Shrubs	0
	Grasses and grass-like	80.1
	Forbs	0.3
	Ferns	0
	Other	0
High Threat Weed cover		4

Function (1000m <sup>2</sup> plot)						
Tree stem size classes (DBH cm)	presence/absence (and large tree count)					
large trees (>50cm)	absent					
30-49	absent					
20-29	absent					
10-19	absent					
5-9	absent					
<5 (regeneration)	absent					
Hollow tree count	0					
Length of logs (m) $\geq$ 10cm and $>$ 50cm	0					
Litter cover (%)	subplot 1	subplot 2	subplot 3	subplot 4	subplot 5	
Subplot score (% in each of 5 plots)	30	40	30	40		50
Average of the 5 subplots						38

## Plot 2

Overview	
Location	2513 Getta Getta Road, North Star
Plot ID	Plot 2
РСТ	PCT 429
Vegetation zone	429_low_DNG
TEC	No
IBRA region	Brigalow Belt South
Recorder	Tom Pollard
Date	18/12/2023
GPS start of transect	260300, 6795284
Midline bearing	233°

Composition and structure (400m <sup>2</sup> plot)									
Scientific name	Common name	Family	Cover (%)	Abundance	Growth form	Exotic	High threat weed? (yes/no)	NSW BC Act listing status	Commonwealth EPBC Act listing status
Chenopodium sp.	a Goosefoot	Chenopodiaceae	0.3	30	FG (forb)	No	No	-	-
Calotis lappulacea	Yellow Burr-daisy	Asteraceae	0.1	1	FG (forb)	No	No	-	-
Dactyloctenium radulans	Button Grass	Poaceae	40	-	GG (grass and grass-like)	No	No	-	-
Cynodon dactylon	Couch Grass	Poaceae	45	-	GG (grass and grass-like)	No	No	-	-

Eragrostis sp.	a Lovegrass	Poaceae	0.5	10	GG (grass and grass-like)	No	No	-	-
Lachnagrostis sp.	Blown Grass	Poaceae	0.1	1	GG (grass and grass-like)	No	No	-	-
Cenchrus ciliaris	Buffel Grass	Poaceae	5	50		Yes	Yes	-	-
Digitaria eriantha	Digit Grass	Poaceae	0.1	1		Yes	No	-	-
Lepidium sp.	a Peppercress	Brassicaceae	0.1	5		Yes	No	-	-
Sonchus oleraceus	Milk Thistle	Asteraceae	0.1	1		Yes	No	-	-
Eragrostis trichophora	-	Poaceae	0.5	10		Yes	No	-	-

Structure (400 m2 plot)		
BAM attribute		Sum values
	Trees	0
	Shrubs	0
Count of native richness	Grasses and grass-like	2
Count of nutive richness	Forbs	4
	Ferns	0
	Other	0
	Trees	0
	Shrubs	0
Sum of cover of native vascular plans by growth form	Grasses and grass-like	85.6
group	Forbs	0.4
	Ferns	0
	Other	0
High Threat Weed cover		5

Function (1000m <sup>2</sup> plot)						
Tree stem size classes (DBH cm)	presence/absence (and large tree count)					
large trees (>50cm)	absent					
30-49	absent					
20-29	absent					
10-19	absent					
5-9	absent					
<5 (regeneration)	absent	7				
Hollow tree count	0					
Length of logs (m) $\geq$ 10cm and >50cm	0					
Litter cover (%)	subplot 1	subplot 2	subplot 3	subplot 4	subplot 5	
Subplot score (% in each of 5 plots)	80	50	50	50		2
Average of the 5 subplots		•		•	•	5

## Plot 3

Overview	

Location	2513 Getta Getta Road, North Star
Plot ID	Plot 3
РСТ	PCT 429
Vegetation zone	429_low_DNG
TEC	No
IBRA region	Brigalow Belt South
Recorder	Tom Pollard
Date	18/12/2023
GPS start of transect	260229, 6795411
Midline bearing	110°

Composition and structure (400m <sup>2</sup> plot)	position and structure (400m <sup>2</sup> plot)								
Scientific name	Common name	Family	Cover (%)	Abundance	Growth form	Exotic	High threat weed? (yes/no)	NSW BC Act listing status	Commonwealth EPBC Act listing status
Boerhavia dominii	Tarvine	Nyctaginaceae	3	20	FG (forb)	No	No	-	-
Tribulus micrococcus	Yellow Vine	Zygophyllaceae	0.1	2	FG (forb)	No	No	-	-
Solanum euriale	Quena	Solanaceae	0.1	5	FG (forb)	No	No	-	-
Dactyloctenium radulans	Button Grass	Poaceae	0.1	20	GG (grass and grass-like)	No	No	-	-
Cynodon dactylon	Couch Grass	Poaceae	90	-	GG (grass and grass-like)	No	No	-	-
Malva parviflora	Small-flowered Mallow	Malvaceae	0.1	2		Yes	No	-	-
Sonchus oleraceus	Milk Thistle	Asteraceae	0.1	10		Yes	No	-	-
Eragrostis trichophora	-	Poaceae	0.1	1		Yes	No	-	-

Structure (400 m2 plot)		
BAM attribute		Sum values
	Trees	0
	Shrubs	0
Count of native viewass	Grasses and grass-like	2
Count of nutive richness	Forbs	3
	Ferns	0
	Other	0
	Trees	0
	Shrubs	0
Sum of cover of native vascular plans by growth form	Grasses and grass-like	90.1
group	Forbs	3.2
	Ferns	0
	Other	0
High Threat Weed cover		0

Function (1000m<sup>2</sup> plot)

Tree stem size classes (DBH cm)	presence/absence (and large tree count)				
large trees (>50cm)	absent				
30-49	absent				
20-29	absent				
10-19	absent				
5-9	absent				
<5 (regeneration)	absent				
Hollow tree count	0				
Length of logs (m) $\geq$ 10cm and >50cm	0				
Litter cover (%)	subplot 1	subplot 2	subplot 3	subplot 4	subplot 5
Subplot score (% in each of 5 plots)	50	60	40	40	25
Average of the 5 subplots					43

## Plot 4

Overview	
Location	2513 Getta Getta Road, North Star
Plot ID	Plot 4
РСТ	PCT 429
Vegetation zone	429_low_woodland
ТЕС	No
IBRA region	Brigalow Belt South
Recorder	Tom Pollard
Date	18/12/2023
GPS start of transect	260235, 6795711
Midline bearing	177°

Composition and structure (400m <sup>2</sup> plot)									
Scientific name	Common name	Family	Cover (%)	Abundance	Growth form	Exotic	High threat weed? (yes/no)	NSW BC Act listing status	Commonwealth EPBC Act listing status
Enchylaena tomentosa	Ruby Saltbush	Chenopodiaceae	0.5	50	FG (forb)	No	No	-	-
Sida hackettiana	Golden Rod	Malvaceae	3	50	FG (forb)	No	No	-	-
Calotis lappulaceae	Yellow Burr-daisy	Asteraceae	15	200	FG (forb)	No	No	-	-
Einadia trigonos	Fishweed	Chenopodiaceae	0.2	1	FG (forb)	No	No	-	-
Cullen tenax	Tough Scurf-pea	Fabaceae	0.1	10	FG (forb)	No	No	-	-
Wahlenbergia sp.	a Bluebell	Campanulaceae	0.1	20	FG (forb)	No	No	-	-
Tribulus micrococcus	Yellow Vine	Zygophyllaceae	0.1	1	FG (forb)	No	No	-	-
Eriochloa pseudoatrotriche	Early Spring Grass	Poaceae	2	100	GG (grass and grass-like)	No	No	-	-
Tragus australianus	Small Burr-grass	Poaceae	0.1	50	GG (grass and grass-like)	No	No	-	-
Dactyloctenium radulans	Button Grass	Poaceae	1	100	GG (grass and grass-like)	No	No	-	-
Cynodon dactylon	Couch Grass	Poaceae	15	-	GG (grass and grass-like)	No	No	-	-
Eragrostis sp.	a Lovegrass	Poaceae	0.5	50	GG (grass and grass-like)	No	No	-	-

Lachnagrostis sp.	Blown Grass	Poaceae	0.5	50	GG (grass and grass-like)	No	No	-	-
Sporobolus creber	Slender Rat's-tail Grass	Poaceae	1	50	GG (grass and grass-like)	No	No	-	-
Eragrostis brownii	Brown's Lovegrass	Poaceae	0.1	1	GG (grass and grass-like)	No	No	-	-
Parsonsia eucalyptophylla	Gargaloo	Apocynaceae	0.1	2	OG (other)	No	No	-	-
Glycine sp.	a Glycine	Fabaceae	0.1	5	OG (other)	No	No	-	-
Sclerolaena muricata	Black Rolypoly	Chenopodiaceae	0.1	1	SG (shrub)	No	No	-	-
Sclerolaena birchii	Galvanised Burr	Chenopodiaceae	0.2	5	SG (shrub)	No	No	-	-
Alstonia constricta	Quinine Tree	Apocynaceae	7	-	TG (tree)	No	No	-	-
Cenchrus ciliaris	Buffel Grass	Poaceae	0.5	20		Yes	Yes	-	-
Glandularia aristigera	Mayne's Pest	Verbenaceae	5	100		Yes	No	-	-
Digitaria eriantha	Digit Grass	Poaceae	0.2	2		Yes	No	-	-
Sonchus oleraceus	Milk Thistle	Asteraceae	0.1	2		Yes	No	-	-

Structure (400 m2 plot)		
BAM attribute		Sum values
	Trees	1
	Shrubs	2
Count of native richness	Grasses and grass-like	8
Count of native richness	Forbs	7
	Ferns	0
	Other	2
	Trees	7
	Shrubs	0.3
Sum of cover of native vascular plans by growth form	Grasses and grass-like	20.2
group	Forbs	19
	Ferns	0
	Other	0.2
High Threat Weed cover		0.5

Function (1000m <sup>2</sup> plot)				
Tree stem size classes (DBH cm)	presence/absence (and large tree count)			
large trees (>50cm)	absent			
30-49	absent			
20-29	absent			
10-19	absent			
5-9	absent			
<5 (regeneration)	present			
Hollow tree count	0			
Length of logs (m) $\geq$ 10cm and $>$ 50cm	0			
Litter cover (%)	subplot 1	subplot 2	subplot 2 subplot 3	subplot 2 subplot 3 subplot 4

Subplot score (% in each of 5 plots)	5	3	10	25	10
Average of the 5 subplots					10.6

## **Appendix C: Credit reports**



## **Proposal Details**

Assessment Id	Proposal Name	BAM data last updated *
00045202/BAAS18071/23/00045203	North Star Springfield Feedlot expansion BDAR	28/10/2024
Assessor Name	Assessor Number	BAM Data version *
Tom Pollard	BAAS18071	Current classification (live - default) (80)
Proponent Names	Report Created	BAM Case Status
	20/02/2025	Finalised
Assessment Revision	BOS entry trigger	Assessment Type
0	BOS Threshold: Area clearing threshold	Part 4 Developments (General)
Date Finalised * 20/02/2025 B	Disclaimer: BAM data last updated may indicate either co AM calculator database. BAM calculator database may no	omplete or partial update of the ot be completely aligned with Bionet.

## Potential Serious and Irreversible Impacts

Name of threatened ecological community	Listing status	Name of Plant Community Type/ID
Nil		
Species		
Nil		

### **Additional Information for Approval**

Assessment Id

Proposal Name

00045202/BAAS18071/23/00045203

North Star Springfield Feedlot expansion BDAR

Page 1 of 4



PCT Outside Ibra Added None added

PCTs With Customized Benchmarks

PCT
No Changes
Predicted Threatened Species Not On Site
Name
Calyptorhynchus lathami lathami / South-eastern Glossy Black-Cockatoo
Climacteris picumnus victoriae / Brown Treecreeper (eastern subspecies)
Lathamus discolor / Swift Parrot
Glossopsitta pusilla / Little Lorikeet
Grantiella picta / Painted Honeyeater
Macropus dorsalis / Black-striped Wallaby

Ecosystem Credit Summary (Number and class of biodiversity credits to be retired)

Assessment Id

Proposal Name

00045202/BAAS18071/23/00045203



Name of Plant Community Type/ID	Name of threatened ecological community	Area of impact	HBT Cr	No HBT Cr	Total credits to be retired
429-White Cypress Pine - Poplar Box - Silver-leaved Ironbark viney shrub woodland of the Brigalow Belt South Bioregion	Not a TEC	9.4	0	3	3

429-White Cypress Pine -	Like-for-like credit retir	ement options				
Poplar Box - Silver-leaved Ironbark viney shrub	Class	Trading group	Zone	HBT	Credits	IBRA region
woodland of the Brigalow Belt South Bioregion	North-west Slopes Dry Sclerophyll Woodlands This includes PCT's: 228, 429, 435, 517, 527, 529, 564, 588, 594, 595, 597, 598, 856, 1165, 1306, 1308, 1317, 1387, 1586, 1607, 3511, 3512, 3514, 3515, 3517, 3518, 3521, 3522, 3523, 3525, 3528, 3530, 3532, 4148, 4149, 4150	North-west Slopes Dry Sclerophyll Woodlands >=50% and <70%	429_low_woodl and	No	3	Northern Basalts, Castlereagh- Barwon, Inverell Basalts, Kaputar, Liverpool Plains, Nandewar Northern Complex, Northern Outwash and Peel. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.

Assessment Id

Proposal Name

00045202/BAAS18071/23/00045203

North Star Springfield Feedlot expansion BDAR



North-west Slopes Dry Sclerophyll Woodlands This includes PCT's: 228, 429, 435, 517, 527, 529, 564, 588, 594, 595, 597, 598, 856, 1165, 1306, 1308, 1317, 1387, 1586, 1607, 3511, 3512, 3514, 3515, 3517, 3518, 3521, 3522, 3523, 3525, 3528, 3530, 3532, 4148, 4149, 4150	North-west Slopes Dry Sclerophyll Woodlands >=50% and <70%	429_low_DNG	No	0	Northern Basalts, Castlereagh- Barwon, Inverell Basalts, Kaputar, Liverpool Plains, Nandewar Northern Complex, Northern Outwash and Peel. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.

Species Credit Summary No Species Credit Data

Credit Retirement Options

Like-for-like credit retirement options

Assessment Id

Proposal Name

00045202/BAAS18071/23/00045203

North Star Springfield Feedlot expansion BDAR

Page 4 of 4



## Proposal Details

Assessment Id	Proposal Name	BAM data last updated *
00045202/BAAS18071/23/00045203	North Star Springfield Feedlot expansion BDAR	28/10/2024
Assessor Name	Assessor Number	BAM Data version *
Tom Pollard	BAAS18071	Current classification (live -
Proponent Name(s)	Report Created	default) (80)
	20/02/2025	BAM Case Status
		Finalised
Assessment Revision	BOS entry trigger	Assessment Type
0	BOS Threshold: Area clearing threshold	Part 4 Developments (General)
Date Finalised	* Disclaimer: BAM data last undated may indicate either com	plete or partial update of the BAM
20/02/2025	calculator database. BAM calculator database may not be cor	mpletely aligned with Bionet.

## Potential Serious and Irreversible Impacts

Name of threatened ecological community	Listing status	Name of Plant Community Type/ID
Nil		
Species		
Nil		

## Additional Information for Approval

PCT Outside Ibra Added

None added



PCTs With Customized Benchmarks

PCT
No Changes
Predicted Threatened Species Not On Site
Name
Calyptorhynchus lathami lathami / South-eastern Glossy Black-Cockatoo
Climacteris picumnus victoriae / Brown Treecreeper (eastern subspecies)
Lathamus discolor / Swift Parrot
Glossopsitta pusilla / Little Lorikeet
Grantiella picta / Painted Honeyeater
Macropus dorsalis / Black-striped Wallaby

### Ecosystem Credit Summary (Number and class of biodiversity credits to be retired)

Name of Plant Community Type	e/ID	Name of threatened ecolo	gical commur	nity	Area of impact	HBT Cr	No HBT Cr	Total credits to be retired
429-White Cypress Pine - Popla Ironbark viney shrub woodland Bioregion	r Box - Silver-leaved of the Brigalow Belt South	Not a TEC			9.4	0	3	3.00
429-White Cypress Pine -	Like-for-like credit retir	ement options						
Poplar Box - Silver-leaved Ironbark viney shrub woodland of the Brigalow Belt South Bioregion	Class	Trading group	Zone	HBT	Credits	BRA regior	1	



North-west Slopes Dry Sclerophyll Woodlands This includes PCT's: 228, 429, 435, 517, 527, 529, 564, 588, 594, 595, 597, 598, 856, 1165, 1306, 308, 1317, 1387, 1586, 607, 3511, 3512, 3514, 8515, 3517, 3518, 3521, 8522, 3523, 3525, 3528, 8530, 3532, 4148, 4149, 4150	North-west Slopes Dry Sclerophyll Woodlands >=50% and <70%	429_low_w oodland	No	3	Northern Basalts, Castlereagh-Barwon, Inverell Basalts, Kaputar, Liverpool Plains, Nandewar Northern Complex, Northern Outwash and Peel. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.
North-west Slopes Dry Sclerophyll Woodlands This includes PCT's: 228, 429, 435, 517, 527, 529, 564, 588, 594, 595, 597, 598, 856, 1165, 1306, 1308, 1317, 1387, 1586, 1607, 3511, 3512, 3514, 3515, 3517, 3518, 3521, 3522, 3523, 3525, 3528, 3530, 3532, 4148, 4149, 4150	North-west Slopes Dry Sclerophyll Woodlands >=50% and <70%	429_low_D NG	No	0	Northern Basalts, Castlereagh-Barwon, Inverell Basalts, Kaputar, Liverpool Plains, Nandewar Northern Complex, Northern Outwash and Peel. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.
Variation options					
	<b>T</b> 1:	7	LIDT	Cradita	IPDA region

Assessment Id



	Dry Sclerophyll Forests (Shrub/grass sub- formation)	Tier 3 or higher threat status	429_low_w oodland	No 3	IBRA Region: Brigalow Belt South, or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.
	Dry Sclerophyll Forests (Shrub/grass sub- formation)	Tier 3 or higher threat status	429_low_D NG	No 0	IBRA Region: Brigalow Belt South, or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.

Species Credit Summary

No Species Credit Data

Credit Retirement Options Like-for-like options

Assessment Id