

Edify Energy Pty Ltd: Smoky Creek Solar Farm EPBC 2021/9030 Offset Management Plan



earthtrade

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Declaration

I declare that to the best of my knowledge, all the information contained in, or accompanying this document is complete, current and correct. I am duly authorised to sign this declaration on behalf of the proponent/approval holder. I am aware that:

- a. *section 490 of the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) makes it an offence for an approval holder to provide information in response to an approval condition where the person is reckless as to whether the information is false or misleading.*
- b. *section 491 of the EPBC Act makes it an offence for a person to provide information or documents to specified persons who are known by the person to be performing a duty or carrying out a function under the EPBC Act or the Environment Protection and Biodiversity Conservation Regulations 2000 (Cth) where the person knows the information or document is false or misleading.*
- c. *the above offences are punishable on conviction by imprisonment, a fine or both.*

Signed: *Adam Smith*

Full name: Adam Smith

Organisation: Edify Energy Pty Ltd ACN: 606 684 995

EPBC Referral Number: EPBC 2021/9030

EPBC Offset Management Plan

Date: 29 Sept 2025

Summary

The Smoky Creek Solar Power Station Project (the **Project**) includes a solar farm and battery energy storage system located within the Banana Shire Council local government area in Queensland. The Project will feed into the Powerlink Queensland Calvale to Stanwell 275kV transmission lines, providing green, clean power to over 206,000 homes.

The Project is located in Central Queensland, at 460 Dodsons Road, Smoky Creek, 75 kilometres (**km**) south of Rockhampton and 40km north of Biloela (see *Figure 1*), and will be approximately 1,800 hectares (**ha**) in area (see *Figure 2*).

The proposed action of the Project has been approved with conditions by the Australian Government Department of Climate Change, Energy, the Environment and Water (**DCCEEW**) (DCCEEW 2023) under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (**EPBC Act**).¹ The controlling provisions of the approval decision are listed threatened species and communities (section 18 and section 18A of the EPBC Act).

The EPBC Act approval conditions include the requirement for the Project proponent to prepare an Offset Management Plan (**OMP**) for the approval of the Minister. This document is the OMP for the Project that has been prepared to meet all offset obligations for matters of national environmental significance (**MNES**) proposed to be impacted by the Project. This OMP describes how the offsets for significant residual impacts to MNES for the Project will be managed.

One threatened ecological community (**TEC**), comprising the single MNES that will be impacted by the Project, is the endangered Brigalow (*Acacia harpophylla* dominant and co-dominant) ecological community (**brigalow TEC**). An overview of the impact to this MNES and the resultant offset requirements are summarised in *Table 1*.

An offset property has been identified to supply the required offset for the Project. This property is located 4 km south-west of Dululu and approximately 70 km from Rockhampton. The vegetation in the offset area comprises sections of remnant and regrowth vegetation of similar communities to those in the impact area.

This OMP demonstrates that the offset area is suitable to meet all the requirements of the EPBC Act Environmental Offsets Policy (DSEWPAC 2012). This OMP has been prepared to meet all offset obligations. As the proponent of the Project, Edify Energy Pty Ltd commits to the implementation of this OMP.

Table 1: Summarised project impact versus proposed offset area values

MNES	EPBC status	Total impact area	Impact site quality (- /10)	Impact quantum	Total offset area (ha)	Offset start quality (- /10)	Quality without offset (- /10)	Quality with offset (- /10)	Offset quantum and % of liability provided
Acacia harpophylla Brigalow TEC	END*	5.0	5.12	2.50	19.67	5	4	7	161.99%

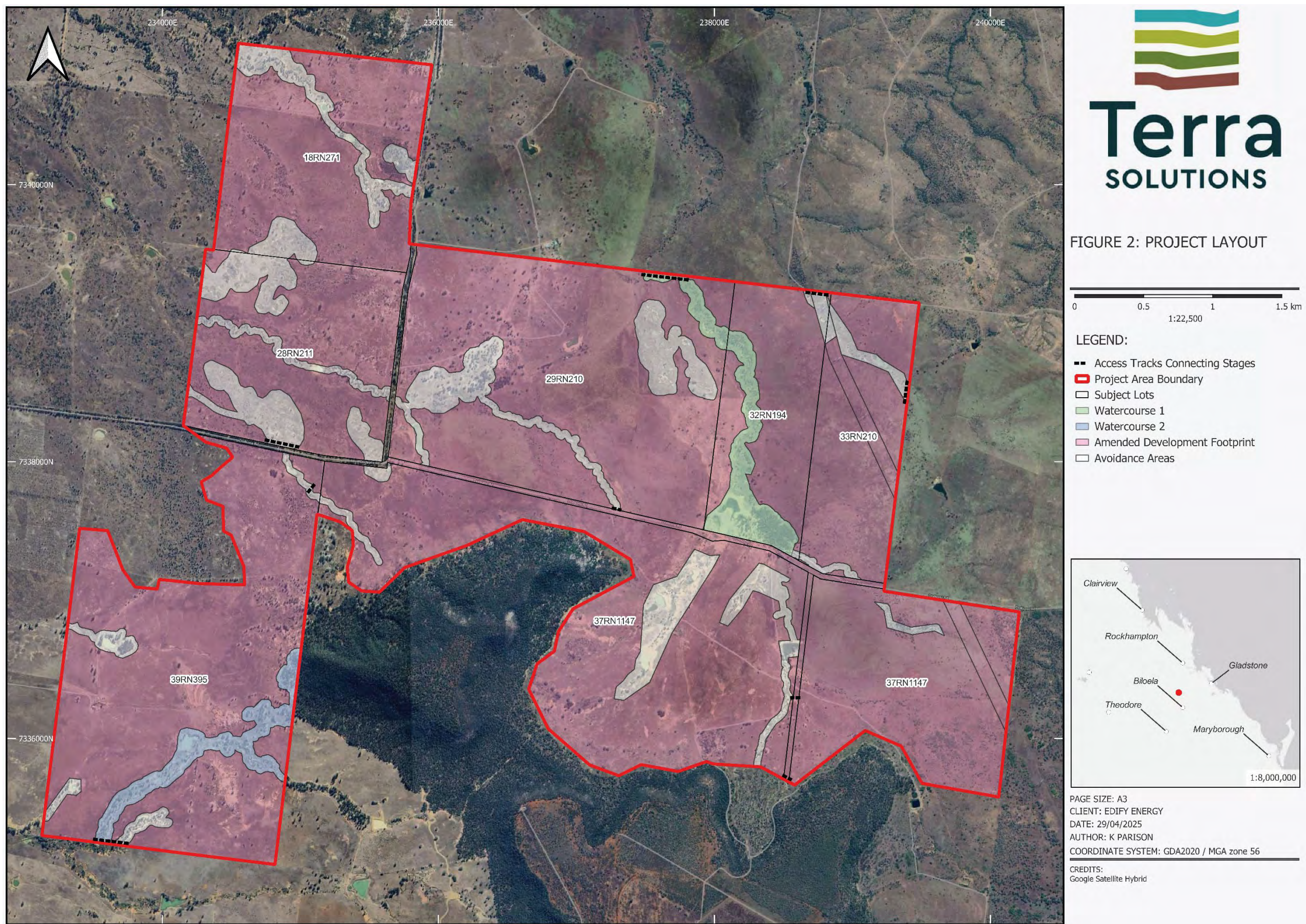
* **END** = endangered

¹ EPBC Approvals register, at <https://epbcpublicportal.awe.gov.au/all-referrals/project-referral-summary/project-decision/?id=867ba33b-bf04-ee11-8f6e-0022481867a5>

Figure 1: Regional location of the Project



Figure 2: Project layout



1 Introduction

1.1 Purpose and objectives of this management plan

The purpose of this OMP is to address the requirements of the EPBC approval (2021/9030), relating to MNES offset requirements and implementing the offset to achieve a conservation outcome. The requirements of the approval conditions relating to offsets and the section of the OMP where addressed, are provided in *Table 2*.

The environmental outcomes of this OMP are specific improvements in ecological values in habitat for the matter impacted by the Project. These improvements are defined in detail in *Section 7* of this document (Offset completion criteria and performance targets).

Table 2: EPBC approval conditions for offsets addressed in this document

Requirement	OMP section or comment
Offset Management Plan	
7. To compensate for the clearance of Brigalow TEC, up to the limit specified in condition 2, the approval holder must, prior to any clearance of any Brigalow TEC, submit to the department an Offset Management Plan in writing for approval by the Minister. The approval holder must not commence clearing any Brigalow TEC unless the Offset Management Plan has been approved in writing by the Minister. The approval holder must commence implementing the approved Offset Management Plan prior to the clearance of any Brigalow TEC and continue to implement the approved Offset Management Plan at least until the expiry of this approval. The Offset Management Plan must meet the requirements of the Environmental Offsets Policy and the Environmental Management Plan Guidelines to the satisfaction of the Minister. The Offset Management Plan must include:	<i>This document</i>
a) Detailed information on the residual impacts to Brigalow TEC that will be compensated for by the offset. This must include the area(s) of habitat for Brigalow TEC and its condition and quality at all locations impacted by the Action which the offset is to address.	<i>Section 3.1</i>
b) A reference to the EPBC Act approval conditions to which the Offset Management Plan refers.	<i>Table 2</i>
c) Detailed information and a shapefile specifying the location, area and boundaries of the proposed offset site.	<i>Shapefiles accompany this document</i>
d) Detailed baseline information on the area(s) of habitat, its condition, and the presence of Brigalow TEC at the proposed offset site.	<i>Table 7 Appendix B</i>
e) Commitments to achievable improved ecological benefits at the proposed offset site and the timeframes in which they will be achieved.	<i>Section 6 and Table 11</i>
f) A table summarising all commitments to achieve the proposed ecological benefits for Brigalow TEC at the proposed offset site, and a reference to where each commitment is detailed in the Offset Management Plan.	<i>Table 11</i>
g) Reporting and review mechanisms to inform the department annually regarding compliance with the management and environmental outcome commitments, and attainment and maintenance of the ecological benefits specified in the Offset Management Plan.	<i>Section 9</i>

Requirement	OMP section or comment
h) An assessment of risks to achieving the ecological benefit(s) and what risk management measures and/or strategies will be applied to address these.	<i>Section 5</i>
i) A monitoring program, which must specify:	<i>Section 7</i>
(i) measurable performance indicators and the timeframes for their achievement to gauge attainment of the ecological benefits for Brigalow TEC	
(ii) trigger values for corrective actions, and	<i>Section 6</i>
(iii) the proposed timing (including season/time of day/frequency) methods and effort, and an explanation of how these will be effective for this purpose, of monitoring to detect trigger values, changes in the performance indicators and to gather evidence that effectively demonstrates actual progress towards, attainment of and maintenance of the ecological benefits for Brigalow TEC.	<i>Section 6</i> <i>Section 7</i> <i>Section 9</i>
j) Corrective actions to be implemented to ensure that the proposed ecological benefits for Brigalow TEC are achieved or maintained if trigger values are reached or performance indicators not achieved in the specified timeframes.	<i>Section 6</i>
k) Statements and commitments which are consistent to relevant referenced plans or conditions of approval (including state/territory approval conditions), and	<i>Table 8 and Table 11</i>
l) How the proposed offset site will be protected, and ecological benefits maintained, at least until the expiry of the approval.	<i>Section 10</i>
8. To compensate for the residual significant impacts of the Action on Brigalow TEC, the approval holder must not clear any Brigalow TEC unless the offset site(s) specified in the approved Offset Management Plan is secured.	<i>Noted</i>
Administrative conditions relevant to the OMP	
15. The approval holder must submit all plans required by these conditions electronically to the department.	<i>Section 12</i>
16. Unless otherwise agreed to in writing by the Minister, the approval holder must publish each plan on the website within 15 business days of the date: b) the plan is approved by the Minister in writing, if the plan requires the approval of the Minister.	<i>Section 12</i>
17. The approval holder must keep all published plans required by these conditions on the website until the expiry date of this approval.	<i>Section 12</i>
18. The approval holder is required to exclude or redact sensitive ecological data from plans published on the website or otherwise provided to a member of the public. If sensitive ecological data is excluded or redacted from a plan, the approval holder must notify the department in writing what exclusions and redactions have been made in the version published on the website.	<i>Section 12</i>
21. The approval holder must maintain accurate and complete compliance records.	<i>Section 9</i>
22. If the department makes a request in writing, the approval holder must provide electronic copies of compliance records to the department within the timeframe specified in the request.	<i>Section 9</i>
25. The approval holder must prepare a compliance report for each 12-month period following the date of the commencement of the action, or as otherwise agreed to in writing by the Minister.	<i>Section 9</i>

Requirement	OMP section or comment
Reporting non-compliance	
30. The approval holder must notify the department electronically, within 2 business days of becoming aware of any incident and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a plan.	<i>Section 11</i>
31. The approval holder must specify in the notification: a) Any condition or commitment made in a plan which has been or may have been breached. b) A short description of the incident and/or potential non-compliance and/or actual non-compliance. c) The location (including co-ordinates), date and time of the incident and/or potential non-compliance and/or actual non-compliance.	<i>Section 11</i>
32. The approval holder must provide to the department in writing, within 12 business days of becoming aware of any incident and/or potential non-compliance and/or actual non-compliance, the details of that incident and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a plan. The approval holder must specify: a) Any corrective action or investigation which the approval holder has already taken. b) The potential impacts of the incident and/or non-compliance. c) The method and timing of any corrective action that will be undertaken by the approval holder.	<i>Section 11</i>

1.2 Commitments made in the OMP

This section summarises the commitments made throughout this OMP to achieve ecological benefit(s) for the relevant protected matters. These ecological benefits will be achieved through the integrated implementation of many elements of this OMP. Additional commitments are also made in alignment with the general conditions of the approval, including the commitment not to commence clearing any brigalow TEC until this OMP has been approved by the Minister. *Table 3* below lists each of these commitments and provides references to the sections in this OMP where these commitments are detailed.

Table 3: Commitments made in this OMP

Commitment	Relevant approval condition	OMP section or comment
The approval holder, Edify Energy, will prepare and submit an Offset Management Plan (OMP) to the Minister for approval.	7)	<i>This document</i>
The approval holder, Edify Energy, will not commence clearing any Brigalow TEC unless the Offset Management Plan has been approved in writing by the Minister.	7)	<i>Section 1.2</i>
Within 3 months of Project commencement, the approval holder, Edify Energy, will commence implementing the approved OMP. This includes the implementation of the monitoring and reporting schedule.	7)	<i>Section 6</i>
The approval holder, Edify Energy, will irrevocably submit an application for the legal security of the offset area specified in the approved OMP within 3 months of Project commencement. The OMP will be attached to the land title of the relevant offset area.	7)	<i>Section 10</i>

Commitment	Relevant approval condition	OMP section or comment
The approval holder, Edify Energy, will notify the Minister that the legal security for the offset area has been registered within 10 business days of the registration. (It is noted that the period taken for the legal security registration to be processed is subject to the regulatory timeframes of the relevant state government agency).	7)	Section 10
The approval holder, Edify Energy, will submit this plan to the Department electronically.	15)	Section 12
The approval holder, Edify Energy, will publish this plan on the website within 15 business days of the date the plan is approved by the Minister in writing.	16)	Section 12
The approval holder, Edify Energy, will ensure that the most recent approved version of this plan remains accessible to the public on the website of the approval holder until the expiry date of the approval.	17)	Section 12
The approval holder, Edify Energy, will exclude or redact sensitive ecological data from plans published on the website or provided to a member of the public.	18)	Section 12
The approval holder, Edify Energy, will maintain accurate and complete compliance records. If the Department makes a request in writing, the approval holder will provide electronic copies of compliance records to the Department within the timeframe specified in the request.	21) 22)	Section 9
The approval holder, Edify Energy, will prepare a compliance report for each 12-month period following the date of the commencement of the action, or as otherwise agreed to in writing by the Minister.	26)	Section 9
The approval holder, Edify Energy, will notify the department electronically, within 2 business days of becoming aware of any incident and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in this OMP. The approval holder, Edify Energy, will specify in the notification: a) Any condition or commitment made in this OMP which has been or may have been breached. b) A short description of the incident and/or potential non-compliance and/or actual non-compliance. c) The location (including co-ordinates), date and time of the incident and/or potential non-compliance and/or actual non-compliance.	30) 31)	Section 11
The approval holder, Edify Energy, will provide to the department in writing, within 12 business days of becoming aware of any incident and/or potential non-compliance and/or actual non-compliance, the details of that incident and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a plan. The approval holder will specify: a) Any corrective action or investigation which the approval holder, Edify Energy, has already taken. b) The potential impacts of the incident and/or non-compliance. c) The method and timing of any corrective action that will be undertaken by the approval holder, Edify Energy.	32)	Section 11

1.3 Area for offset acquittal

The Project proponent has identified and selected a property to acquit the potential offset requirements associated with EPBC approval 2021/9030. Within the offset property, an area has been selected to acquit offset requirements specifically for the brigalow TEC.

The selected property is considered suitable to provide the values required to address the EOP principles. Consideration was also given to future property planning and any potential future use for the property to avoid the potential for conflicting land use with the offset area. The property is Lot 96 RN201, is approximately 267 ha in area, and located 4 km south-west of Dululu in Central Queensland.

Land within the offset property is used for cattle grazing. The property is predominantly cleared and contains degraded remnant and regrowth vegetation, with many areas subjected to historical and current disturbance in the form of timber harvesting, heavy grazing and inappropriate fire regimes.

1.4 Plan structure

The OMP is divided into sections that provide the following:

- How the offset meets the requirements of the EPBC Act policy framework
- Impacted matters requiring offsets
- Offset property and offset area descriptions
- Risk analysis
- Offset management measures
- Completion criteria and performance targets
- Monitoring and reporting
- Legally binding mechanism
- Adaptive management and plan review.

2 EPBC Act Environmental Offsets Policy and framework

This section describes how the proposed offset meets the relevant requirements of the EPBC Act Environmental Offsets Policy (October 2012) (**EOP**), plans and guidelines.

2.1 Policy principles

The EPBC Act EOP sets out eight key overarching principles to determine the suitability of offsets. *Table 4* outlines each of the policy principles and how it has been considered in the OMP, with a reference to the relevant OMP section.

Table 4: EPBC Act Environmental Offset Policy principles

Policy principle	Project offsets
Suitable offsets must deliver an overall conservation outcome that improves or maintains the viability of the protected matters.	The offset will deliver a conservation outcome by acquitting 100% of the project's required offsets for the brigalow TEC. Calculations have been undertaken based on ecological reports that included flora surveys and habitat quality assessments undertaken on both the impact and offset areas informing inputs to the Offset Assessment

Policy principle	Project offsets
	Guide. The offset area was selected as it contains suitable brigalow vegetation that can be managed to provide conservation gains for this MNES. The proposed offset area will be managed to mitigate the risks, to increase the extent and condition of the habitat, and improve the viability of the TEC within the proposed offset area, as per the offset area management measures. A declared area under the <i>Vegetation Management Act 1999</i> (Qld) (VM Act) will ensure legal protection of the area.
Suitable offsets must be built around direct offsets but may include other compensatory measures.	100% of the Project's MNES offset obligations will be acquitted by the proposed direct land-based offset.
Suitable offsets must be in proportion to the level of statutory protection that applies to the protected matter.	The brigalow TEC is listed as endangered under the EPBC Act. The status of the TEC has been taken into account by the offset assessment guide that has been used to calculate the offset area requirements.
Suitable offsets must be of a size and scale proportionate to the residual impacts on the protected matter.	The extent of the offset has been calculated using ecological reports that include both flora surveys and habitat quality assessments, for both the impact and offset sites to inform inputs into the habitat quality spreadsheets and then the offset assessment guide. The inputs to the offset assessment guides for each of the impacted protected matters are detailed in <i>Section 6</i>.
Suitable offsets must effectively account for and manage the risks of the offset not succeeding.	The risks associated with the offset have been assessed (<i>Table 10</i>) and mitigation and appropriate management actions proposed in the offset area management measures shown in <i>Table 11</i> . In addition, uncertainty, and therefore risk, associated with averted loss and net gain in habitat quality were addressed by applying the offset assessment guide.
Suitable offsets must be additional to what is already required, determined by law or planning regulations, or agreed to under other schemes or programs.	Vegetation clearing in regulated vegetation areas as a native forest practice, broadscale clearing in vegetation that is not regulated, and grazing on the offset area are activities that are not currently prohibited by legal mechanisms at either the local, state or Australian government legislative level. The area is zoned rural and has been used for timber harvesting and cattle grazing previously. The current regulated vegetation will be secured via a declared area that has its head of power under the VM Act. See <i>Section 10</i> for further detail.
Suitable offsets must be efficient, timely, transparent, scientifically robust and reasonable	The proposed offsets will be efficient and timely as the offset will be established and implementation commenced within 3 months of the commencement of the Project. The offsets' scale and suitability are transparent, and the offsets are based on the terrestrial ecology report prepared by suitably qualified ecologists for the impact and offset sites (<i>Attachment 1</i>). They have been prepared using the EPBC Act Offset Assessment Guide inputs and calculators.
Suitable offsets must have transparent governance arrangements including being able to be readily measured,	The offset area was surveyed during March 2024, providing the baseline habitat quality assessment and these scores compared against the relevant BioCondition benchmarks for attributes relevant to the protected matter. Habitat quality assessments were conducted in accordance with the DCCEEW Modified Habitat Quality

Policy principle	Project offsets
monitored, audited and enforced.	Assessment technique, which is an unpublished method that provides guidance on habitat quality determination for MNES and is based on the <i>Guide to determining terrestrial habitat quality (version 1.3)</i> (DESI 2020). This method was used to collect species-specific information to contribute to site condition and site context as well as habitat condition data in accordance with the EPBC Act Offsets Assessment Guide. This method involved collecting spatial data; and conducting in situ vegetation surveys, assessing site condition, spatial context as well as the targeted TEC habitat criteria. These habitat assessment measurements will be conducted in accordance with this plan during its implementation phase. Monitoring and reporting are detailed in the offset area management measures outlined in <i>Table 11</i>, and the monitoring schedule and reporting schedule are shown in <i>Table 14</i> and <i>Table 15</i>. The offset will be protected from clearing and secured via a declared area that has its head of power under the VM Act. Refer to <i>Section 10</i> for further detail.

2.2 Addressing relevant EPBC plans and advice

The EOP states that an offset should address key priority actions for the impacted MNES in any approved recovery plans, threat abatement plans, conservation advice, ecological character description or approved Commonwealth Management Plan. *Table 5* summarises how this plan addresses the relevant Conservation Advice, Recovery Plans and Threat Abatement Plans, on the offset site.

Table 5: Conservation advice, recovery plans and threat abatement plans addressed in the OMP

Document	Key threats	Section addressed in document
<i>Approved Conservation Advice for the Brigalow (Acacia harpophylla dominant and co-dominant) ecological community</i> (2013) Department of the Environment, Canberra	<u>Clearing</u> The brigalow TEC was listed as endangered on the basis of extensive clearing. This has altered the ecological community's typical landscape context, with most remnants now occurring as fragments within substantially modified landscapes, or on small clay pans or the toe-slopes of jump-ups and escarpments.	Refer to <i>Table 11</i>: Forestry and native vegetation clearing will not be permitted under the plan. No forestry or timber harvesting activities will be authorised to be undertaken during the period of the declared area. Forestry and native timber harvesting practices in the offset is considered a potential threat to the quality of the vegetation community and habitat due to a reduction in cover and fragmentation of habitat.
	<u>Fire</u> The low density of herbage in most types of brigalow vegetation suggests that fire has been historically rare in the brigalow TEC. It becomes a serious threat to remnant brigalow where fuel characteristics have been changed (e.g. by the presence of high biomass introduced grass pasture species such as buffel grass. Generally, the most appropriate fire regime for brigalow stands is fire-exclusion (Butler, 2007). It is possible that grazing can be used to manage grass fuel loads. It may also be possible in some cases to develop techniques with cool fires that reduce fuel loads without killing brigalow.	Refer to <i>Table 11</i>. Fire is not permitted in the brigalow TEC offset area. Appropriate fire management in areas surrounding the offset area will be undertaken to minimise the risk of wildfire spreading into the offset area. This fire management will be undertaken in accordance with the regional ecosystem fire management guidelines (Queensland Herbarium 2024).
	<u>Weeds</u> Pest plants can alter the structure and function of brigalow ecosystems and affect their suitability as habitat for native species. Introduced grasses, such as buffel grass, Rhodes grass and green panic grass, pose the greatest threat by drawing fires into the brigalow ecological community and increasing fire severity (Butler, 2007). Particularly vulnerable are fragmented remnants (such as those adjacent to roadsides), patchy regrowth and patches in low rainfall areas.	Refer to <i>Table 11</i>: Pest plants will be reduced to less than 10% of ground cover. Weed control will be undertaken throughout the offset areas and then periodically, as required, to treat the weeds at the optimum time in their life cycles. The practices will control and minimise the spread of existing weed species.
	<u>Pest animals</u> Feral pigs are probably the most widespread and problematic pest animal in the ecological community, although goats, cane toads, cats and foxes are also serious threats (Butler, 2007). All	Feral animals – will be monitored and controlled as described in <i>Table 11</i>. The plan will minimise the presence of feral animals and control of existing populations of feral animals (feral cats,

Document	Key threats	Section addressed in document
	are responsible for key threatening processes as listed under the EPBC Act.	dogs and pigs) within the offset areas in accordance with the <i>Biosecurity Act 2014</i> (Qld).
	<u>Inappropriate grazing regimes</u> Trampling and grazing by large herbivores has a number of impacts. Trampling compresses soil, can reduce the amount of leaf litter and woody debris, and alters the composition and density of herbs and shrubs in the understorey of the brigalow ecological community.	Refer to <i>Table 11</i> : Grazing is not permitted during the wet season. Stock will be grazed in the offset areas for fuel reduction purposes during September to January, or until the wet season starts.
	<u>Climate change</u> The broad environmental tolerance of <i>Acacia harpophylla</i> and its associated species gives them some capacity to cope with climate change (Butler, 2007). However, the rate of change is expected to be higher than previously experienced and future climate may differ from that which the brigalow ecological community was subject to in the past. Furthermore, the landscapes within which the brigalow ecological community faces climate change are radically different from those within which it endured preceding changes and this may compromise adaptability.	The offset site was selected for its potential to provide an increase to the habitat, connectivity and other ecological values within the surrounding area. The area is currently composed of degraded tracts of regulated and regrowth vegetation. Protecting these areas from native timber harvesting and fire will add significant value to the area by improving the condition of the TEC. Additionally, the offset will contribute to landscape connectivity and context by improving the existing regulated vegetation adjacent to and surrounding the offset areas.
<i>Threat Abatement Plan for predation, habitat degradation, competition and disease transmission by feral pigs (Sus scrofa)</i> (2017) Department of the Environment and Energy, Canberra	Predation by feral pigs	Refer to <i>Table 11</i>. Major damage to the environment/habitat occurs when large numbers of animals congregate in the area. Feral animals will be monitored and controlled as described in <i>Table 11</i>. The plan will minimise the presence of feral animals and control of existing populations of feral animals (feral cats, dogs and pigs) within the offset areas in accordance with the <i>Biosecurity Act 2014</i> (Qld). Monthly inspections will be conducted to record the presence of wallow holes, tracks and visual incidents in the offset area. Upon being notified or becoming aware of the presence of large numbers of feral animals in the offset area, the Landholder is to implement feral animal control measures within one month.

3 Matters requiring offsets

The EPBC Act approval conditions for the Project include the requirement to offset impacts to the brigalow TEC. Approval condition 2) states:

- 2) *To avoid and mitigate harm to protected matters, the approval holder must not clear:*
- a) more than 5 hectares (ha) of Brigalow TEC, comprising no more than:*
 - i) 3 ha in watercourse 1.*
 - ii) 2 ha in watercourse 2.*

During the EPBC Act approval process it was not possible to determine the extent and location of potential impacts to brigalow TEC, as the impact location of vehicle and cable crossings would not be known until the detailed design phase. While the final location of the impact is yet to be determined, this OMP has been prepared based on the maximum impact as stated in approval condition 2) above. Depending on final Project design, this maximum area may not be impacted; however, the Project proponent is electing to secure offsets based on this maximum area.

A habitat quality assessment of the impact areas associated with Watercourse 1 and Watercourse 2 was carried out by Terra Solutions in August 2024. The findings of this assessment are detailed in the report titled *Smoky Creek Solar Power Station Brigalow TEC Assessment* (Terra Solutions 2025) which is provided at *Attachment 1*.

The following sections provide details of the field survey methodology and results.

3.1 Ecological assessment methodology

3.1.1 BioCondition assessment

Watercourse 1 and Watercourse 2 were assessed using the BioCondition methodology (Eyre et al. 2015) giving consideration to the brigalow TEC threshold criteria provided in the listing advice for the brigalow TEC (DOE 2013). BioCondition benchmarks (Queensland Herbarium 2023) were available for the brigalow regional ecosystems (**REs**) associated with the watercourses and were used to assess quality and score vegetation along each watercourse.

BioCondition assessments were undertaken at 6 representative locations across the 2 Project area watercourses using the methodology prescribed in Eyre et al. (2015) to determine variation in quality across the existing brigalow TEC. Sites were selected during an initial desktop assessment and based on obtaining representative areas within vegetation of differing density (as an assumed proxy for quality) in the aerial imagery.

Site locations were confirmed in the field based on community representativeness. Sites were not permanently established as ongoing monitoring is not required; however site location (i.e. latitude longitude) at the start and end of each transect were captured using GPS.

At each site BioCondition plots were set out by establishing a 100 metre (**m**) transect and 50 m wide plot along the contour. The start and end points of each plot were marked using GPS and representative photographs of the plot taken in each aspect (i.e. north, east, south, west) from the centre (50 m mark) of the plot. Each plot was divided into sub-plots, and the following attributes were recorded.

- 100 m transect:
 - Tree canopy cover

- Shrub canopy cover.
- 100 m by 50 m plot:
 - Total number of large eucalypt and non-eucalypt trees
 - Height of ecologically dominant layer and other canopy/sub-canopy/emergent layers
 - Tree species richness
 - Proportion of the dominant canopy species with evidence of recruitment.
- 50 m by 10 m plot:
 - Species richness of shrubs, grass, forbs and other native species
 - Weed cover.
- Five 1 m by 1 m quadrats:
 - Percentage cover of native perennial grass
 - Percentage cover of organic litter.

Data was entered into a BioCondition scoring sheet and compared to representative benchmark data for the REs for each assessment unit. These scores were then used to determine an overall condition score for each assessment unit.

3.1.2 Habitat quality assessment

BioCondition scores were converted to habitat scores out of 10 as per the *Guide to determining terrestrial habitat quality* (DES 2020). The full extent of the mapped brigalow TEC areas were then assessed via aerial imagery and assigned a habitat quality score based on the density of vegetation in comparison with assessed areas. The BioCondition scoring for each site are provided in the report titled *Smoky Creek Solar Power Station Brigalow TEC Assessment* which is provided at *Attachment 1* of this OMP document. The summarised habitat quality scores for each of the assessment sites are shown in *Table 6*. The location of the sites is illustrated in *Figure 3* and *Figure 4*.

Table 6: Brigalow TEC impact assessment

Assessment site RE	WC1BC4 11.9.5	WC1BC5 11.9.5	WC1BC6 11.9.5	WC2BC1 11.9.1	WC2BC2 11.9.1	WC2BC3 11.9.1
Site condition score (-/7)	4.81	4.81	3.85	5.12	4.42	4.20
Site context score (-/3)	0.60	0.60	0.60	0.60	0.60	0.60
Habitat quality score (-/10):	5.41	5.41	4.45	5.72	5.02	4.80
AU total site condition score			4.49			4.58
AU total site context score			0.60			0.60
AU total HQS			5.09			5.18
AU area within impact area (ha)			3.00			2.00
Total impact area for this MNES (ha)			5.00			5.00
Area weighting			0.60			0.40
Weighted HQS:			3.05			2.07
Total:						5.12

3.1.3 Offset requirement

While the final location of the impact is yet to be determined, this OMP has been prepared based on the maximum allowable impact area of 5.0 ha, as is stated in approval condition 2. Depending on final Project design, this maximum area may not be impacted; however, the Project proponent is electing to secure offsets based on this maximum area. Accordingly, for the purposes of this OMP, the significant residual impact of the Project to brigalow TEC is taken to be 5.0 ha, and the resultant required offset area has been calculated based on an impact area of 5.0 ha.

Figure 3: Brigalow TEC assessment sites at Watercourse 1

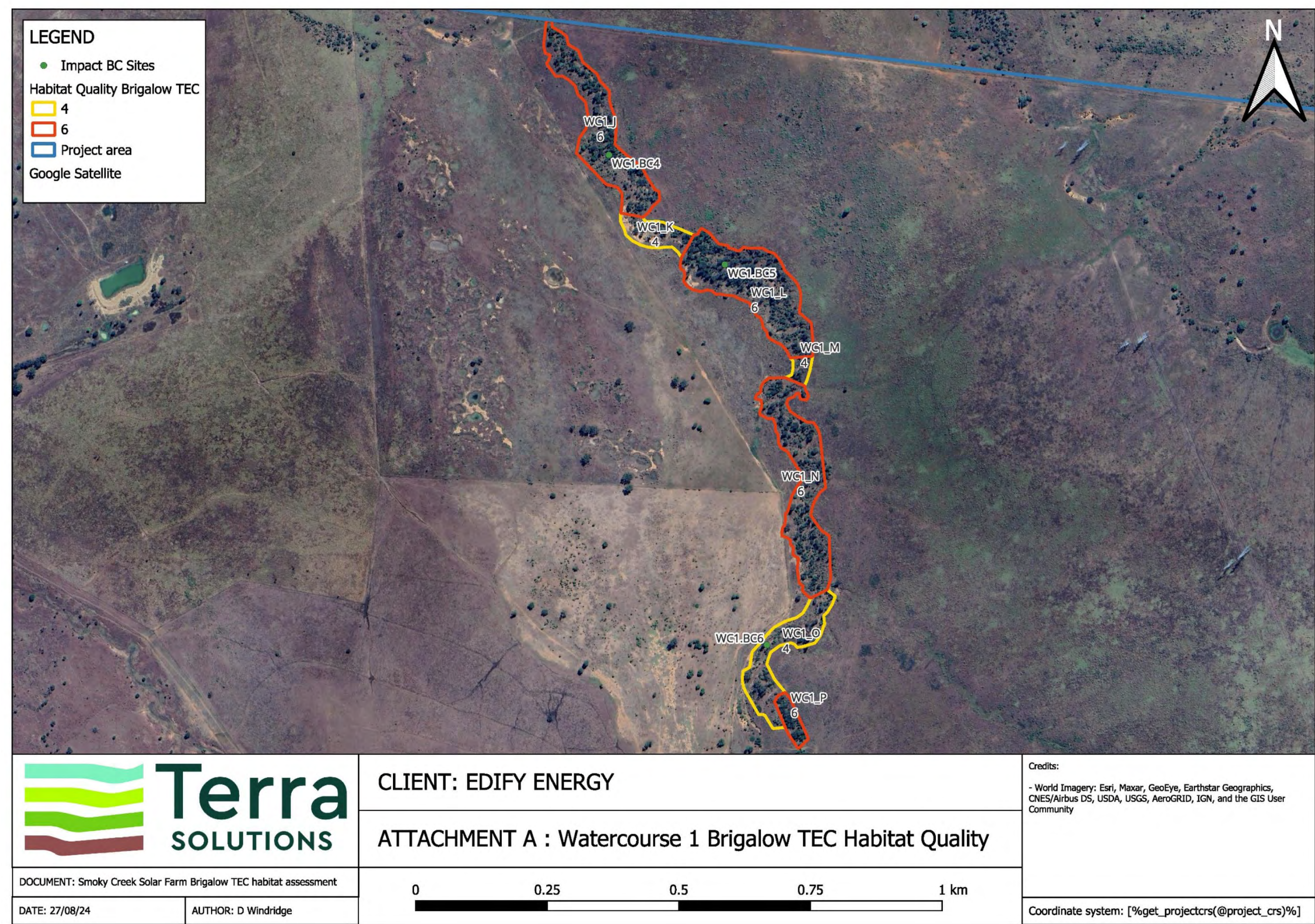
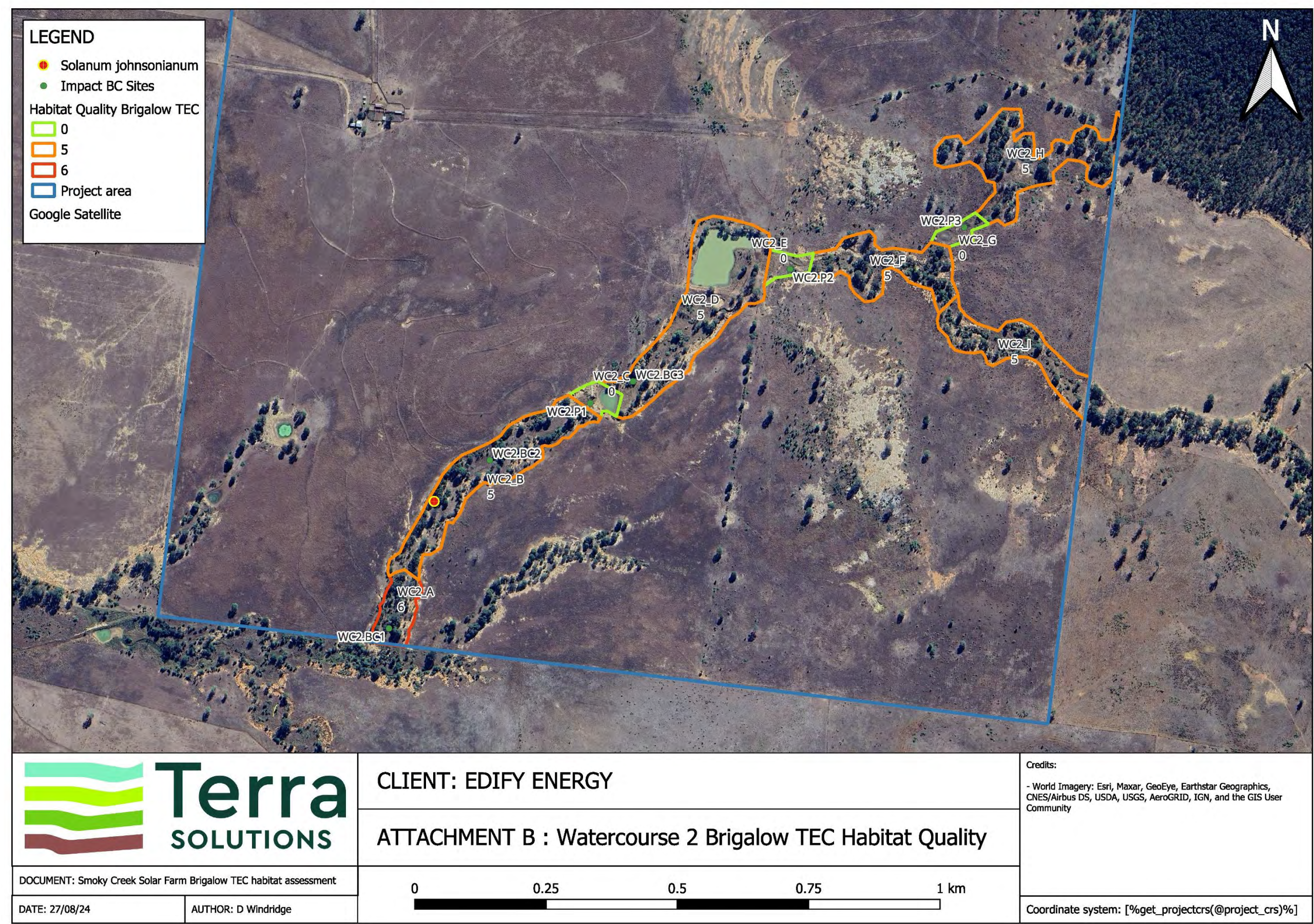


Figure 4: Brigalow TEC assessment sites at Watercourse 2



4 Offset property

4.1 Overview of the offset property

The selected offset property is Lot 96 RN201, of approximately 267 ha in area, and located 4 km south-west of Dululu in Central Queensland.

This property was selected as it is one of the closest locations to the Project site that has standing brigalow TEC vegetation on it. There is very little remnant or regrowth vegetation in the district that meets the brigalow TEC criteria, and what does remain in the district is typically very degraded. Due to their proximity to larger population centres and the coast, most rural properties in this district are generally small in scale and highly developed, which has resulted in extensively cleared and modified landscapes.

Land within the selected offset property is used for cattle grazing. The property is predominantly cleared and contains degraded remnant and regrowth vegetation, with many areas subjected to historical and current disturbance in the form of timber harvesting, heavy grazing and inappropriate fire regimes.

REs present on the property include RE 11.9.1 – *Acacia harpophylla-Eucalyptus cambageana* woodland to open forest on fine-grained sedimentary rocks; and RE 11.3.1 – *Acacia harpophylla* and/or *Casuarina cristata* open forest on alluvial plains.

4.2 Field survey of the offset area

Terra Solutions conducted field survey work at the offset property on 18 March 2024. The findings of the survey work are provided in their report titled *Smoky Creek Solar Power Station Brigalow TEC Assessment* (Terra Solutions, 2025). A copy of this report is provided at *Attachment 1* of this OMP.

Vegetation communities present were assessed by Terra Solutions ecologists to be consistent with RE 11.9.1. Each of the sites was assessed against the threshold criteria for the brigalow TEC prior to assessment and BioCondition assessments were undertaken in accordance with the BioCondition Assessment Manual (Eyre et al. 2015). Site vegetation attributes were scored against the BioCondition benchmarks for RE 11.9.1 available from the Queensland Herbarium (2023).

At each site BioCondition plots were set out by establishing a 100 metre (m) transect and 50 m wide plot along the contour. The start and end points of each plot were marked using GPS. Each plot was divided into sub-plots, and the following attributes were recorded.

- 100 m transect:
 - Tree canopy cover
 - Shrub canopy cover.
- 100 m by 50 m plot:
 - Total number of large eucalypt and non-eucalypt trees
 - Height of ecologically dominant layer and other canopy/sub-canopy/emergent layers
 - Tree species richness
 - Proportion of the dominant canopy species with evidence of recruitment.
- 50 m by 10 m plot:
 - Species richness of shrubs, grass, forbs and other native species

- Weed cover.
- Five 1 m by 1 m quadrats:
 - Percentage cover of native perennial grass
 - Percentage cover of organic litter.

Data was entered into a BioCondition scoring sheet and compared to representative benchmark data for the REs for each assessment unit. These scores were then used to determine an overall condition score for each assessment unit.

4.2.1 Brigalow TEC assessment

To meet the definition of the brigalow TEC a vegetation community must meet the following threshold criteria:

- Key diagnostic characteristics:
 - The presence of *Acacia harpophylla* as one of the most abundant tree species in the patch. *A. harpophylla* is either dominant in the tree layer, or co-dominant with other species (notably *Casuarina cristata*, other species of *Acacia*, or species of *Eucalyptus*), **AND**
 - In Queensland - the patch is in one of 3 Queensland bioregions (including outliers), being the Brigalow Belt, Southeast Queensland or Mulga Lands bioregions, and it meets the description of one of 16 REs determined at the time of the national listing of the Brigalow ecological community under the EPBC Act. The 16 REs in the Brigalow Belt bioregion are, as described by the Queensland Herbarium (2013), REs 11.3.1, 11.4.3, 11.4.7, 11.4.8, 11.4.9, 11.4.10, 11.5.16, 11.9.1, 11.9.5, 11.9.6, 11.11.14 and 11.12.21, **OR**
 - The vegetation in the patch is brigalow regrowth with species composition and structural elements broadly typical of one of the identified Queensland REs or NSW vegetation communities (although species density may be reduced). This can be assumed to be the case where it has been at least 15 years since it was last comprehensively cleared (not just thinned); unless direct evidence proves otherwise.
- Condition thresholds: A patch must meet the following condition thresholds to be considered the brigalow TEC:
 - The patch is 0.5 ha or more in size, **AND**
 - Exotic perennial plants comprise less than 50% of the total vegetation cover of the patch, as assessed over a minimum sample area of 0.5 ha (100 m by 50 m), that is representative of the patch.

Terra Solutions assessed the vegetation community in the offset area and found it to be consistent with RE 11.9.1, and that it met the threshold criteria for the brigalow TEC.

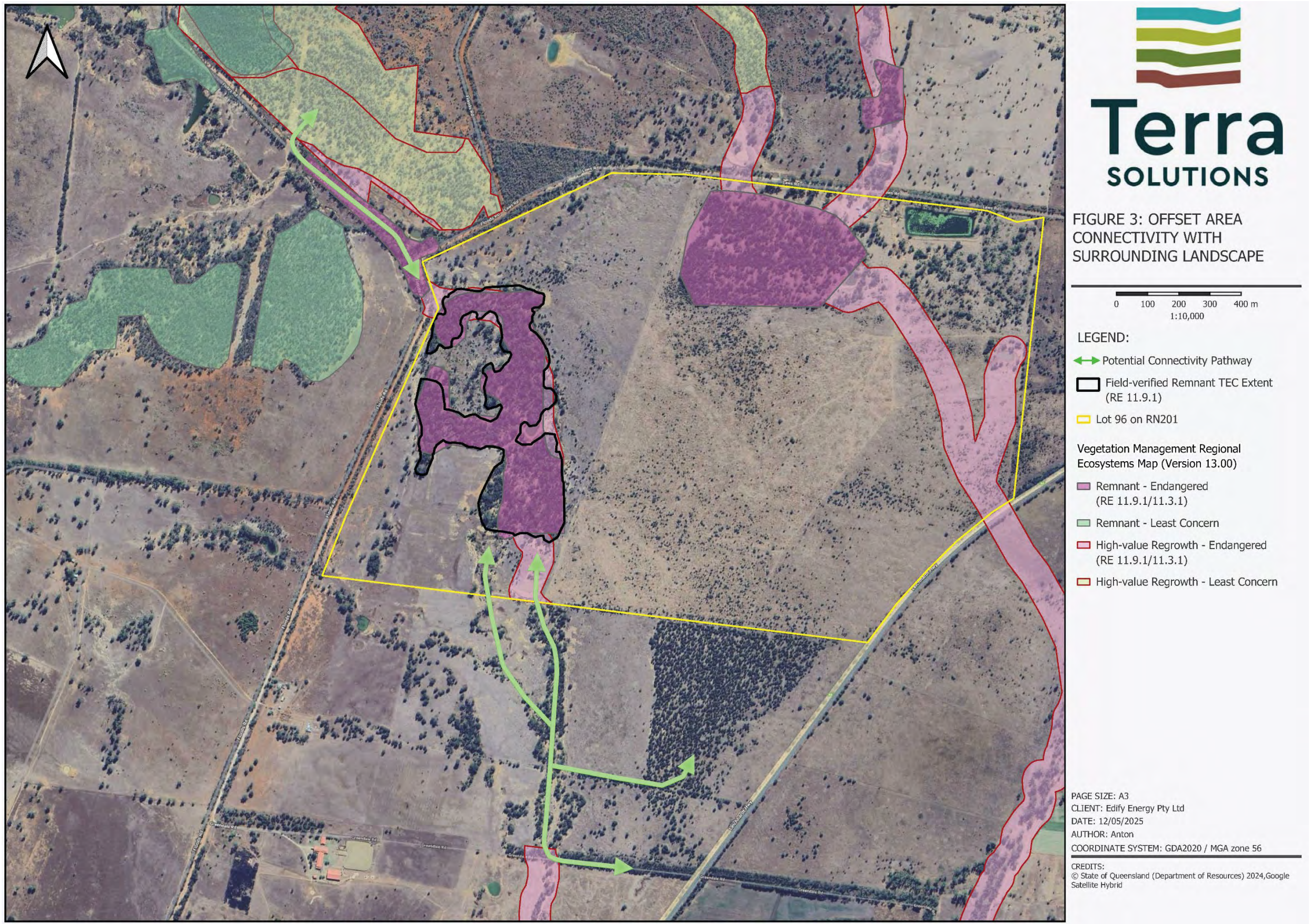
4.3 Connectivity

The existing patch of RE 11.9.1/11.3.1 is well defined in relation to the surrounding non-remnant areas with mapped regrowth areas appearing to be close to achieving remnant status. *Acacia harpophylla* saplings have been recently cleared in the surrounding non-remnant area, presumably to maintain grazing quality in the area. Remnant vegetation mapped as 11.9.3/11.3.1 to the northwest of the offset area is associated with a creek/drainage line but does not appear to be accurately mapped, as *A. harpophylla* is absent from the canopy layer. Species present in this narrow strip included *Eucalyptus cambageana*, *E.melanophloia* and *E.populnea* in the canopy layer, with an understorey of *Melaleuca linariifolia* along a shallow drainage line. *Geijera*

parviflora, *Alphitonia excelsa*, *Santalum lanceolata* were present in association. This drainage line provides connectivity to nearby patches of remnant habitat and the vegetated verge of Floods Road (which was noted to not contain *A. harpophylla*). Two sparsely vegetated drainage lines on the southern boundary also provide marginal connectivity.

It is likely that the offset area will have limited but valuable connectivity to the surrounding landscape, primarily via the vegetated drainage lines due to the ongoing land management practices in adjacent non-remnant areas. With regard to the context of the offset area patch within the surrounding landscape, approximately 16% of the surrounding area (1 km radius) contains remnant or regrowth vegetation. The potential connectivity of the offset area to the surrounding landscape is shown in *Figure 5*.

Figure 5: Potential connectivity of the offset area to the surrounding landscape



4.3.1 Edge effects

Edge effects around the perimeter of the offset area will be minimised by the construction of a cattle exclusion fence to restrict access by livestock during grazing exclusion periods. As is demonstrated in the offset start data in *Appendix B2*, non-native grass cover, and the lack of native grass cover and forbs, are the attributes that most impact the BioCondition score. The new exclusion fencing and appropriate grazing regime will assist in mitigating these impacts.

4.4 Brigalow TEC – offset site attributes

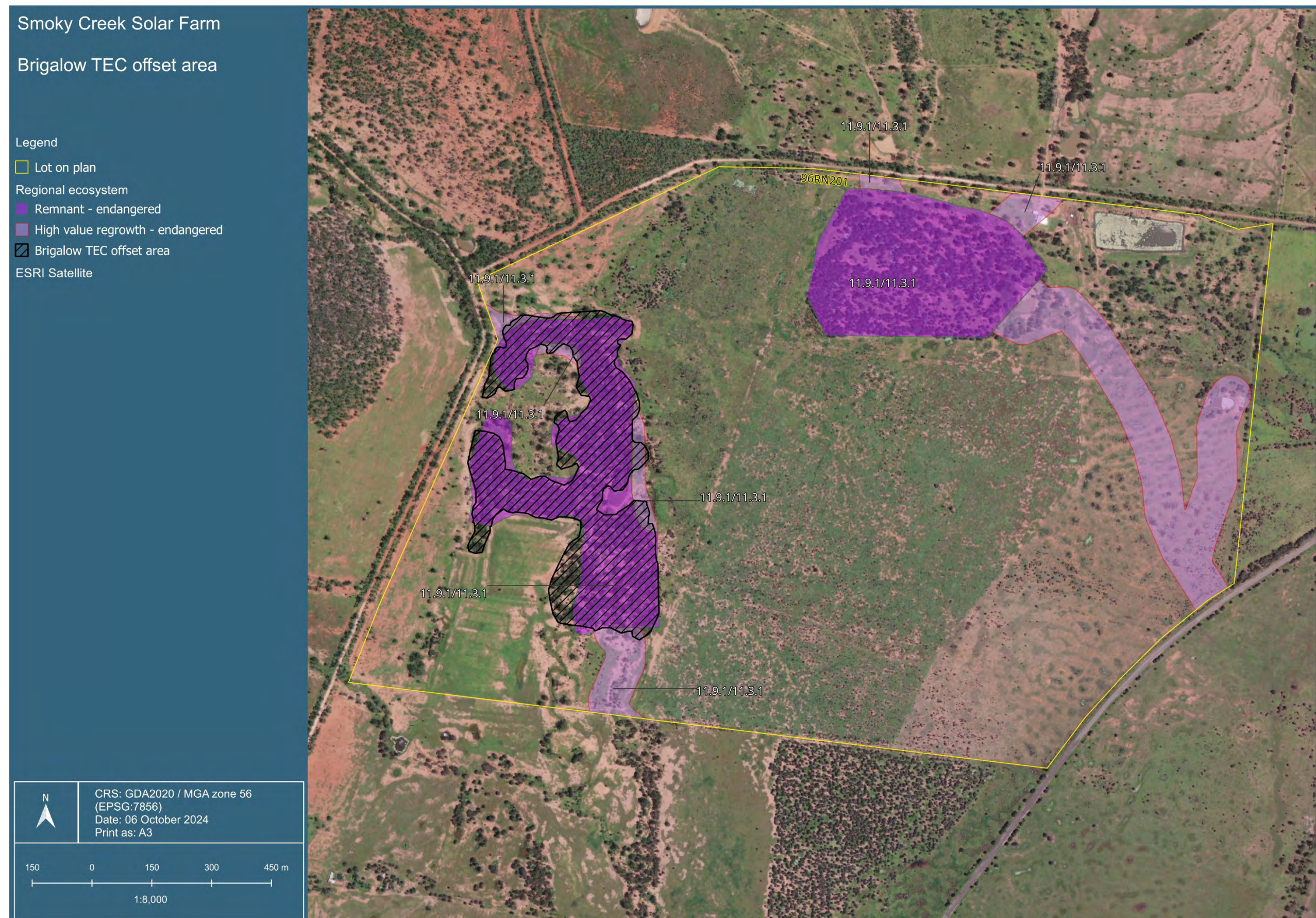
The offset area comprises a blend of 2 regional ecosystems that are listed in the Conservation Advice and are described below. The contribution of each of the REs and the habitat quality scores for each of the assessment sites are shown in *Table 7* and the areas of each RE within the proposed offset area is illustrated in *Figure 6*.

- RE 11.9.1 *Acacia harpophylla-Eucalyptus cambageana* woodland to open forest on fine-grained sedimentary rocks
- RE 11.3.1 *Acacia harpophylla* and/or *Casuarina cristata* open forest on alluvial plains

Table 7: Brigalow TEC offset assessment

Assessment site RE	AU1 11.9.1/ 11.3.1	AU2 11.9.1/ 11.3.1	AU3 11.9.1/ 11.3.1
Site condition score (-/7)	5.04	4.20	4.34
Site context score (-/3)	0.60	0.60	0.60
Habitat quality score (-/10):	5.64	4.80	4.94
AU total site condition score			4.49
AU total site context score			0.60
AU total HQS			5.09
AU area within impact area (ha)			19.57
Total impact area for this MNES (ha)			19.57
Area weighting			1.00
Weighted HQS:			5.09
Total:			5.09

Figure 6: Brigalow TEC offset area



4.5 Key threats to the offset and priority management actions

In accordance with the EOP, the proposed offset will be managed to address priority actions for the impacted MNES, as identified in Australian Government conservation advice, recovery plans and threat abatement plans. The key threats to the brigalow TEC have been identified in *Table 4* in *Section 2.2* of this OMP, and are listed below:

- clearing and fragmentation
- fire
- weeds
- pest animals
- inappropriate grazing regimes.

A set of priority management actions required to address these key threats has been developed and are detailed in *Table 8*, along with descriptions of the conservation gains and ecological benefit that will result from the implementation of these management actions. BioCondition attributes that are relevant to measuring the success of these management actions are also shown.

These management measures are discussed in further detail in *Section 6*, which also provides details of the timing of management actions, their performance criteria, and triggers for adaptive management and corrective actions.

Table 8: Priority management actions for brigalow TEC and the resulting conservation gains

Threat	Management action	Conservation gains resulting from the management actions	Relevant BioCondition attributes
Clearing	No clearing of the brigalow offset area will be permitted, and the area will be protected from clearing as it will be a declared area under the VM Act. Any form of forestry practice will not be permitted under this OMP.	In general terms, clearing, fragmentation and degradation of habitat comprise the single biggest threat to biodiversity values across the spectrum of native flora and fauna species, and ecological communities. Clearing, fragmentation and degradation of habitat are identified as the primary threat to biodiversity values across almost all conservation advice, listing advice, and threat abatement plan documents issued under the EPBC Act, and in fact sheets and species profiles for matters of state environmental significance as developed by the Queensland Government. The offset area will be managed so that no form of clearing will be permitted. As the restoration of these areas progresses, the quality of existing ecosystems will return towards benchmark levels. In turn, this will reestablish habitat connectivity for flora and fauna at a larger scale, thereby reversing the effects of fragmentation and degradation. This conservation outcome is supported by the other management actions described below, that will support and underpin a broader scale of environmental uplift across the rehabilitation areas.	All attributes
Inappropriate fire regimes	Exclusion of fire from the brigalow offset area will add significant value to the area by improving the condition and extent of the vegetation. Appropriate fire management of surrounding areas will reduce the risk of wildfire in the brigalow offset area.	The brigalow-based RE 11.3.1/11.9.1 requires protection from fire. Brigalow and associated acacias are soft-seeded so do not require fire for germination. Suckering is the main means of reproduction, as brigalow does not flower every year, and seed production is rare. Fire can also cause suckering, although very hot fires may also cause severe damage to roots, greatly alter the structure of brigalow vegetation, and prevent regeneration (Queensland Government, 2014). Fires in brigalow become more frequent and intense when exotic grasses invade or verge on remnant patches. More open stands of brigalow, such as patchy brigalow regrowth or brigalow woodlands in low rainfall areas, are more susceptible to grass invasion because of increased light. The spread of exotic grasses, e.g. buffel grass, into brigalow patches can also be promoted by thinning trees, disturbing soil, and moving livestock and vehicles. Thus the control of grass fuel loads is an integral part of fire management in brigalow. Appropriate grazing regimes, herbicide control, low severity fires and even hand-pulling can be used to reduce grass fuel loads, and in this way reduce the number and frequency of wildfires. Fire management of surrounding areas is important so that wildfires will be limited in extent, and frequent fires at the edge of these brigalow REs keep fuel loads low (Queensland Herbarium, 2024). As a management practice for the brigalow TEC offset, the exclusion of fire will assist in the restoration of the vegetation towards benchmark levels.	All attributes
Invasive plant species	Pest plants will be reduced to less than 10% of ground cover. Weed control will be undertaken throughout the offset areas and then periodically, as required, to treat the weeds at the optimum time in their life cycles. The practices will control and minimise the spread of existing weed species.	Nationally, exotic species account for about 10-15% of flora (Groves, 2002). Weeds are known to compete with native species for space, light, water and nutrients, affecting the structure and function of land-based and aquatic ecosystems, and impacting negatively on native fauna and flora. 19 of 20 studies on weed impact in Australia reviewed by Adair and Groves (1998) demonstrated a decline in either species richness, canopy cover or frequency of native species. Weeds can also increase the biomass of ecosystems leading to more intense bushfires, changing the composition and structure of native vegetation (Invasive Plants and Animal Committee, 2016). Control and removal of invasive introduced grasses and other weeds will result in long term positive ecosystem change – by increasing species richness, abundance and recruitment, and significantly reducing the risk of intense wildfire. Under these conditions there is high confidence that the quality of existing ecosystems will be raised to benchmark levels. An additional benefit of the intended weed management is the reestablishment of habitat connectivity for flora and fauna that are impeded by invasive species (Godfree et al. 2017). Appropriate weed control techniques will be utilised to minimise the risk of potential damage to native vegetation. This will be achieved through the avoidance of any broadscale applications of herbicides, and the utilisation of targeted methods that include: • Spot spraying • Removal by hand • Cut and paint techniques. Furthermore, in the case of the brigalow TEC, introduced pasture species such as buffel grass can also alter the composition of native species, and increase biomass and the subsequent risk of intensive and damaging fire. The control and removal of invasive introduced grasses and other weeds will result in long term positive ecosystem change – by increasing species richness, abundance and recruitment, and significantly reducing the risk of intense wildfire.	• non-native plant cover • native perennial grass cover • native plant species richness (grasses) • native plant species richness (forbs)
Pest animals	Existing populations of feral cats, foxes and pigs will be controlled within the offset areas in accordance with the <i>Biosecurity Act 2014</i> (Qld).	Pest animals have varied impacts upon the brigalow TEC through predation and competition with native animals, grazing of native plants and soil disturbance through burrowing and diggings. Target prey species for feral cats and foxes include granivorous native bird species, small native mammals, and potentially lizards and snakes. Feral pigs, however, are more likely to occur in brigalow vegetation, and can cause great damage to soil structure and plants around wetlands and	• non-native plant cover • native perennial grass cover • native plant species richness (grasses)

Threat	Management action	Conservation gains resulting from the management actions	Relevant BioCondition attributes
	Monthly inspections to record the presence of wallow holes, tracks and visual incidents, in the offset area will be undertaken. On being notified or becoming aware of the presence of large numbers, for example, approximately 12 feral animals or multiple tracks in the offset area at any one time, the Landholder is to implement feral animal control measures within one month.	natural drainage features in the landscape. Accordingly, the monitoring of and control of feral pigs at the offset property will be prioritised. Habitat changes due to feral pigs, wild dogs and feral cats include: destruction of plants, sometimes threatening the survival of specific plant species through reduced or failed recruitment of new plants; changing the composition of plant communities; alteration of soil structure through digging and rooting; increased invasion and spread of weeds through spreading seeds via faeces or in fur, or creating suitable habitat through soil enrichment with urine and faeces or ground disturbance; reduced water quality through disturbance of riparian zones and bodily wastes; and creation of habitat suitable for plant disease vectors (DoEE, 2017). There are a range of control methods available for feral pigs including trapping, aerial and ground shooting, poisoning, and fencing. The preferred control method is ground shooting or trapping, with appropriate disposal methods. Poisoning is regarded as presenting a potential risk to native animals and livestock (Sharp, 2012), so this method will not be used. Other pest animal control activities will target species such as foxes, deer, wild dogs and feral cats. All pest animal control techniques are based on the model codes of practice for the humane control of each species. The reduction in presence of feral pest animal species through the implementation of coordinated pest animal control programs will lead to an ecologically beneficial outcome for the TEC.	• native plant species richness (forbs) • native plant species richness (shrubs) • shrub canopy cover
Inappropriate grazing regimes	High intensity grazing will not be permitted during the wet season; rainfall will be measured, and ground cover levels will be monitored and managed throughout the wet season to determine optimum grazing periods to reduce levels of non-native grasses. Stock will be also grazed in the offset areas when appropriate for fuel reduction purposes during September to January, or until the wet season starts.	Inappropriate grazing in brigalow-based woodlands can lead to a number of detrimental environmental outcomes; trampling by large herbivores compresses soil, can reduce the amount of leaf litter and woody debris, and alters the composition and density of herbs and shrubs in the understorey (DoE, 2013). It can also lead to increased levels of erosion, and the incursion of invasive weeds, including introduced pasture species, which in turn can alter the effects of wildfire in these areas. Grazing can also lead to degradation of the ecological community as more palatable species are preferentially grazed and unpalatable species become increasingly dominant. Heavy grazing can reduce grass cover and diversity of native grass species, and can facilitate the establishment of weed species. By implementing tactical grazing management practices, these threats are reduced. Additionally, non-native grasses can also spread rapidly into remnant native vegetation that is otherwise undisturbed except for grazing and occasional burning (Fairfax and Fensham, 2000). Non-native grasses can spread quickly under favourable seasonal conditions. Buffel grass, for example, can seed within 3 weeks of a rain event (20mm+), and seed numerous times over the course of a summer wet season (Biosecurity SA, 2019). Grazing of livestock in conservation reserves can be an effective means to control buffel grass, when the conservation gains achieved outweigh any negative impacts. This is most likely to be the case when buffel is widespread and abundant within a fire-sensitive ecosystem (Melzer, 2015). In this case, the purpose of the grazing is for conservation purposes rather than commercial purposes, and decision-making about grazing periods is made with the conservation outcome as the foremost concern. This decision-making is aided by accurate recording of rainfall and monitoring seasonal conditions where buffel grass is likely to repeatedly and rapidly seed, and the measurement of dry matter yields to estimate potential fuel loads. The management of total grazing pressure requires consideration to be given to both domestic and non-domestic stock, to prevent excessive grazing. Tactical grazing of domestic livestock can be managed in a relatively straightforward fashion – this involves adjusting stock numbers in accordance with changes in seasonal and climatic conditions and plant growth (DEH, 2004). The key principle underpinning tactical grazing is the need for grazing to be managed in a way that recognises the critical importance of perennial plants. These species must be able to complete all life cycle stages to ensure the persistence of plant populations. Decisions are made, based on plant condition, to alter stock numbers or destock. Managing grazing pressure from wild stock (including native herbivores such as kangaroos) is more challenging than for domestic stock (DEH, 2004). Management of wild stock generally involves removal or destruction of the animals. Moving wild stock to another part of the landscape is not an option, and fencing is not usually feasible for control of many macropod species. For those species that are highly mobile or have large home ranges, there are benefits in participating in regionally coordinated management activities as well as the management actions in this OMP. These control operations should be timed to take advantage of natural declines in abundance due to poor seasonal conditions or disease outbreaks. Additionally, in brigalow vegetation, grazing is also a useful tool in managing grass fuel loads to reduce the risk of intensive fire. A conservative and tactical approach to grazing management will result in a beneficial conservation outcome for the brigalow TEC.	• non-native plant cover • native perennial grass cover • native plant species richness (grasses) • native plant species richness (forbs) • native plant species richness (shrubs) • shrub canopy cover

4.6 Offset assessment guide inputs

Inputs for DCCEE's offset assessment guide (**OAG, the calculator**) for the brigalow TEC were derived from the survey results described in *Section 4.2* above.

Time over which loss is averted

The time over which loss is averted is the foreseeable timeframe (in years) over which changes in the level of risk to the proposed offset site are expected to reduce. This is set at 20 years, which is the maximum allowable under the OAG. However, the legally binding mechanism will be in place for the duration of the approval, which is expected to be longer than 20 years due to the nature of the project.

Time until ecological benefit

The proposed time until ecological benefit has been set at 20 years for the brigalow TEC. This has been selected to enable the maximum time for the improvement in the number of larger trees and understorey species, and also for a realistic methodology for reducing non-native ground cover in the area to be established and implemented across the offset area. Despite the status of non-native grasses as a highly valued pasture species, it is regarded as a serious weed as it is associated with the loss of native species and altered fire regimes (Jackson, 2004).

Risk of loss without the offset

The risk of loss being proposed is based on the risk of loss of 1.55% over 20 years for the Banana Shire Council region (as outlined in the National Environmental Science Programme's Guidance for Deriving 'Risk of Loss' Estimates When Evaluating Biodiversity Offset Proposals under the EPBC Act, April 2017).

Risk of loss with the offset

The offset will be secured by being declared as an area of high conservation value under section 19F of the VM Act. The declared area will remain in place as the legally securing mechanism for the offset area. The declared area and approved OMP will ensure the offset completion criteria are attained, and then maintained for the period of the EPBC Act approval. Statutory protection of the offset area is maintained under the VM Act and EPBC Act (or subsequent legislation). This statutory protection mitigates the risk of development applications, broadscale clearing, and zoning changes (currently zoned rural). *Section 10* provides further details about the legally binding mechanism.

Confidence in result

The OAG requires an estimation of the projected improvements in habitat quality that can be achieved over 20 years (as the maximum term for averted loss) through management, along with an indication of the level of confidence in these projections. The time to ecological benefit is set at 20 years for remnant, non-remnant, and advanced regrowth communities, with a confidence level of 85% that the goals for the brigalow TEC offset area habitat quality will be achieved.

A period of 20 years for regrowth and non-remnant communities, particularly for the brigalow TEC, is required to realise the results of management actions that will improve habitat quality – of these actions, protection from fire, removal of invasive weeds and implementation of conservative and sustainable grazing practices will encourage recruitment and abundance of the brigalow species and the associated shrub and ground cover layers. This is predicted to raise the quality of the remnant and advanced regrowth ecosystems close to benchmark levels.

5 Analysis of risks to achieving management objectives and offset completion criteria

Potential risks to achieving the management objectives and outcomes have been considered in the plan (*Table 10*). They have been assessed against the risk matrix (*Table 9*) that was supplied by the Department. The risk matrix has been used to assess the risk that the plan's objectives will not be met and identify the sources of those risks and strategies for managing them.

The risk assessment:

- identified events that will, may, or are likely to impact the attainment of the completion criteria
- assessed the likelihood and consequences of those events, and characterises residual risk levels, taking into consideration the mitigation of the risk by implementing the management actions
- identified the level of uncertainty in mitigating the risk with the management actions, trigger criteria and corrective actions until the risk is reduced to an acceptable level.

The management actions and corrective actions are described in full detail in *Section 6*.

Table 9: Risk matrix

RISK MATRIX						
Qualitative measure of likelihood (how likely is it that this event/circumstances will occur after management activities are implemented)						
Highly likely		Is expected to occur in most circumstances				
Likely		Will probably occur during the life of the project				
Possible		Might occur during the life of the project				
Unlikely		Could occur but considered unlikely or doubtful				
Rare		May occur in exceptional circumstances				
Qualitative measure of consequences (what will be the consequence/result if the issue does occur)						
Minor		Minor incident of environmental damage that can be reversed <i>(e.g. short-term delays to achieving plan objectives, implementing low-cost, well-characterised corrective actions)</i>				
Moderate		Isolated but substantial instances of environmental damage that could be reversed with intensive efforts <i>(e.g. short-term delays to achieving plan objectives, implementing well-characterised, high-cost/effort corrective actions)</i>				
High		Substantial instances of environmental damage that could be reversed with intensive efforts <i>(e.g. medium-long term delays to achieving objectives, implementing uncertain, high-cost/effort corrective actions)</i>				
Major		Major loss of environmental amenity and real danger of continuing <i>(e.g. plan objectives are unlikely to be achieved, with significant legislative, technical, ecological and/or administrative barriers to attainment that have no evidenced mitigation strategies)</i>				
Critical		Severe widespread loss of environmental amenity and irrecoverable environmental damage <i>(e.g. plan objectives are unable to be achieved, with no evidenced mitigation strategies)</i>				
		Consequence				
Likelihood		Minor	Moderate	High	Major	Critical
	Highly Likely	Medium	High	High	Severe	Severe
	Likely	Low	Medium	High	High	Severe
	Possible	Low	Medium	Medium	High	Severe
	Unlikely	Low	Low	Medium	High	High
	Rare	Low	Low	Low	Medium	High

Table 10: Risk assessment for the terrestrial offset sites

Note: The risk ranking codes relate to the risk matrix as follows: L = Likelihood C = Consequence R = Risk

Risk	Threats	Initial risk ranking			Management measures	Management measures/actions	Residual risk ranking		
		L	C	R			L	C	R
Force majeure events									
Mining of the offset site	No current permits cover the proposed offsets site. Open cut mining may produce full clearing of the offset site.	Rare	Critical	High	Offset area management	No current permits cover the offset site. The legal security over the site makes it known that the area is an offset. No available legal mechanism would render mining impossible on the offset site, however the declared area under the VM Act would significantly increase offset obligations upon any person proposing to impact the offset site.	Rare	Critical	High
Drought	The threat posed by drought is a decrease in dry matter yield and groundcover, an increase in the likelihood of unplanned fire due to the dry conditions that could be started by lightning strike during storms and an increase in weed cover when rainfall was received. There would also be lower levels of growth expected.	Likely	Moderate	Medium	Offset area management Grazing management	Cattle will be excluded from the offset area during times of drought, and at all times when dry matter yield (DMY) is measured at <700 kg/ha. In Queensland, properties can be declared as drought-affected on an individual basis or within a given area or shire, based on the following criteria: - the property being affected by a 1 in 10–15 year rainfall deficiency for the previous 12 months - pasture availability and water availability on the property indicating drought conditions - stocking rates for the property being acceptable for the type and class of land - the property having taken positive steps to respond to the drought (e.g. stocking rates have been reduced, drought feeding has already commenced) - no livestock other than the landowner’s is on the property. Limited mitigation measures can be implemented. Should the offset be deemed by the approval holder, Edify Energy, or the Department to be delayed due to drought, ² both parties will work together to determine an appropriate response.	Likely	Moderate	Medium
Cyclones/ severe tropical lows/ flooding	The most significant impact from tropical cyclones or tropical lows is typically flooding. Systems generally form between November and April.	Likely	Moderate	Medium	Offset area management	Limited mitigation measures can be implemented. The offset areas are in elevated parts of the landscape and the likelihood of extended flooding of the areas is extremely low. Wind damage to bigger trees would be expected to be the largest impact. However, cyclones and/or severe tropical lows are relatively infrequent (though likely to occur at some point during the life of the approval). Flooding is not expected to be of sufficient duration, and winds are not expected to be sufficiently severe, to cause substantial long-term harm to the site. Additionally, the increased availability of soil moisture following extreme weather events is expected to increase growth rates, likely assisting natural repair of any potential damage. Increased soil moisture may assist weed growth, so a meander survey across the entire site will occur as soon after the end of a cyclone and any associated flooding as is safe and reasonably practicable to detect any areas of increased weed density. Flooding may also contribute to erosion (see below).	Likely	Minor	Low
Degradation of habitat or vegetation loss through land clearing									
Degradation of habitat	The degradation of habitat due to the lack of environmental management of the offsets area including appropriate grazing regimes, invasive plant control, fire management, and/or infrastructure maintenance.	Possible	High	Medium	Offset area management Grazing management	Implementation of the management actions and adaptive management framework as outlined in the OMP.	Unlikely	Minor	Low

² Queensland Department of Primary Industries (2025). *Declaring and revoking a drought*. Available at <https://www.business.qld.gov.au/industries/farms-fishing-forestry/agriculture/disaster/drought/declarations/how>

Risk	Threats	Initial risk ranking			Management measures	Management measures/actions	Residual risk ranking		
		L	C	R			L	C	R
Erosion	Raindrops hit bare soil with enough force to break the soil aggregates. These fragments wash into soil pores and prevent water from infiltrating the soil. Water then accumulates on the surface and increases runoff which takes soil with it.	Highly likely	Minor	Medium	Offset area management Grazing management	The expected severity of erosion at this site may occur due to topography of the site. However, that risk can be further reduced. Dry matter yield of at least 1,250kg/ha will be maintained at all times and stock will be removed from the offset site before that minimum level would be breached.	Possible	Minor	Low
Timber harvesting/ collection	Unauthorised access to the offset area may result in timber harvesting/collection Such actions would delay the establishment of the TEC.	Unlikely	Moderate	Low	Offset area management Site access control	Complete the installation of signage at all vehicle access points identifying the areas as an environmental offset, within 3 months of Project commencement. Complete the installation of any new planned fences, within 12 months of Project commencement. All field monitoring (rapid and detailed) will report on any evidence of timber harvesting.	Rare	Moderate	Low
Unplanned clearing	The offset site occurs within a property that has been used for cattle production. It is possible for unplanned/illegal clearing for agriculture activities but considered improbable as the offset site will be mapped as Category A on the PMAV. Clearing can also occur by vehicles traversing the area off designated roads/tracks and/or illegal camping. This is also considered improbable, as the site is remote and access to the site will be restricted. The most plausible (though still unlikely) cause of unplanned/illegal clearing would be if aerial spraying on adjacent properties strayed across the offset boundary.	Unlikely	Major	High	Offset area management Site access control	Complete the installation of signage at all vehicle access points identifying the areas as an environmental offset, within 3 months of Project commencement. Complete the installation of any new fences, within 12 months of Project commencement. Within 3 months of Project commencement, register a declared area over the Offset Site, ensuring it is shown as Category A vegetation on the PMAV. All monitoring (rapid and detailed) will report on any evidence of clearing.	Rare	Major	Medium
Fire: the impact from uncontrolled fire would be a reduction in groundcover, thinning of the canopy and slowing of the offset site achieving the completion criteria									
Unplanned or non-controlled fire in offset area.	The impact from uncontrolled fire would be a reduction in dry matter yields and overall groundcover, thinning of the canopy, destruction of regrowth and emerging saplings and an overall slowing of the offset site achieving the completion criteria.	Likely	Moderate	Medium	Fire management	The brigalow offset site is comprised of remnant trees circa 12-22m in height. Fire management of vegetation surrounding the offset area will reduce the likelihood of wildfire in the brigalow offset area. Additionally, the risk of a 100% loss is low due to lower dry matter yields (fuel load) within the communities that are further managed with grazing.	Possible	Minor	Low
Increased fire risk due to high fuel loads	During periods when a low-level grazing regime has occurred and an average or above average wet season, there is an opportunity for fuel loads in the form of dry matter to accumulate to unacceptable levels. When this occurs and the high levels of fuel are present prior to summer, then the risk of wild and/or high-intensity fires is exacerbated.	Possible	High	Medium	Fire management	Graze to reduce dry matter yield (DMY) to an appropriate level. Fire is to be excluded from brigalow-based offset areas. For fire management of surrounding areas of vegetation, a cold fire is only to be used at 3 to 5-year intervals during the months of June, July, August and September, when wind speeds are less than 5km/h on the offset site. Planned burns will be done on a mosaic basis, with no more than 30% of the area in any year, and in keeping with the fire guidelines provided in the RE fire management guidelines.	Unlikely	Minor	Low
Invasive plants: introduction, establishment and spread of non-native weeds including restricted invasive plants listed under the Biosecurity Act 2014 (Qld)									
New infestations of invasive weed species in the offset area.	Infestation of previously unidentified invasive weeds within the offset area. If a weed infestation is unchecked, it may cause a significant deterioration in the offset site.	Possible	High	Medium	Invasive plants management listed under the <i>Biosecurity Act 2014</i> (Qld)	The offset sites are remote and access to the offset area will be limited, to reduce/prevent pathogen/propagule transmission vectors. All vehicles accessing the offset area are required to have undergone a weed inspection and vehicle hygiene check, confirming that they are weed free, before accessing the site. If a new weed infestation is identified, weed management measures will occur as per <i>Table 11</i> .	Unlikely	Minor	Low

Risk	Threats	Initial risk ranking			Management measures	Management measures/actions	Residual risk ranking		
		L	C	R			L	C	R
Expansion of existing infestations of declared weed species in the offset area	The extent of existing infestations of restricted invasive plants species expand or the species become more abundant within the area.	Highly likely	High	High	Invasive plants management listed under the <i>Biosecurity Act 2014</i> (Qld)	Access to the offset area will be restricted. Chemical and/or mechanical control of all restricted invasive plants in accordance with the control measures outlined in the Biosecurity Queensland Fact Sheets or other sources of information.	Unlikely	Minor	Low

6 Offset management measures

The offset area management measures include, but are not limited to, management actions required on the offset site to abate those threats identified to the brigalow TEC. The offset area management measures provide for the management, reporting, and the monitoring program (*Table 14*) that will be undertaken for the period of EPBC Act approval. Protection of the offset area will be maintained under the *Vegetation Management Act 1999* (Qld) (**VM Act**) as a Category A area of vegetation (vegetation subject to a restoration order or an offset).

The management actions include:

- Limiting vegetation clearing to only those areas required for maintaining fencing and fire control lines
- Prohibiting alternate land use and activities during the period of the declared area (e.g. timber harvesting, cropping)
- Restricting unauthorised access
- Excluding domestic livestock from the offset area except for the infrequent grazing associated with fuel reduction in dry periods
- Controlling feral animals
- Managing fire
- Controlling weeds
- Thinning of thickened areas

The management schedule shown in *Table 11* describes the actions to be undertaken on the offset site, the parties who are responsible for carrying them out, how the management actions will be monitored and reported, and the triggers for corrective actions and their timing. The implementation of these actions will commence no later than 3 months after Project commencement.

Regular offset area reports will be prepared by the proponent as listed in *Table 14* and *Table 15* (Refer to *Section 9*. These will report against each of the management actions shown in *Table 11*. These management actions enable the offset site to improve to achieve the scores in *Appendix A*, thus attaining and maintaining the completion criteria required of the offset. The reports will provide transparency regarding how the site management actions are being implemented, and where relevant, identify any force majeure events impacting the offset site, and any non-compliance with the management plan.

Table 11: Offset management actions, triggers and corrective actions

The management actions shown in this table are consistent with the risks identified in the listing advice, conservation advices, and threat abatement plans relevant to each matter.

Threat to offset values	Management objective	Performance criteria	Management actions	Responsible party	Monitoring	Trigger for adaptive management and corrective action(s)	Corrective action and timing
<i>Degradation of habitat</i>	Achieve the completion criteria and habitat quality improvements for offset values, which include the habitat quality scores in this OMP	Increase the habitat quality scores for each offset value at each habitat quality assessment site based on the results of baseline and subsequent monitoring events to achieve the scores in the completion criteria	Implementation of the management actions and adaptive management framework as outlined in this OMP.	The approval holder (Edify Energy) and the offset provider (landholder).	Monitoring of offset value habitat quality scores must be undertaken in accordance with <i>Section 9</i> . The results of monitoring events will be compared against the habitat quality scores in the interim performance targets and completion criteria to determine the progress of the offset area and recorded as part of reporting (see <i>Section 9</i>).	Habitat quality scores for interim performance targets are not achieved for one or more offset values by: - Year 5 - Year 10 - Year 15 - Year 20	Step 1: Investigate cause of trigger: - Within one month after detection of the trigger, complete an investigation into the reasons why the interim performance targets or the completion criteria were not achieved within the specified timeframes. - Within 2 months after detection of the trigger, complete a re-evaluation of the suitability of the relevant management measures in the OMP. The re-evaluation must identify appropriate corrective actions. Step 2: Implementation of corrective action/s The appropriate corrective actions identified under Step 1 will be implemented as soon as practicable, and in any case within 8 months after detection of the trigger. They may include (though are not limited to): - Third party review of the OMP to provide input on the effectiveness of the management actions. - Increasing the frequency and intensity of pest animal and weed control measures or revising the type of measures to be implemented. - For offset values that have not achieved interim performance targets by year 20, for those offset values, the approval holder, Edify Energy, must obtain advice from senior ecologists and land managers with the aim of identifying appropriate additional management interventions
<i>Habitat or vegetation loss through land clearing</i>	Maintain the extent of offset value habitat within the offset area	No unapproved and/or intentional clearing of vegetation within the offset area, except for clearing that is required for fencing, access, firebreaks and public safety.	Protection of the offset area via a declared area under Section 19E and 19F of the VM Act, as described in <i>Section 10</i> . The approval holder, Edify Energy, will irrevocably submit an application for the legal security of the offset area specified in the approved OMP within 3 months of Project commencement.	The approval holder (Edify Energy) and the offset provider (landholder).	Reporting to the Australian Government consistent with any and all EPBC Act approval(s).	Any activities in contravention of the declared area management plan.	Step 1: Investigate cause of trigger (e.g. unauthorised access) - As soon as practicable, and in any case within one month of detection of the trigger, identify appropriate corrective actions. Step 2: Implementation of corrective action/s - As soon as practicable, and in any case within 2 months of detection of the trigger, the appropriate corrective actions must be implemented. These may include (though are not limited to) additional fencing and/or signage and security for the offset area.
			Comply with the restrictions on clearing established throughout this OMP. Construction and maintenance of access tracks, fencing and firebreaks will be undertaken in	The approval holder (Edify Energy) and the offset provider (landholder).	Quarterly inspections will monitor and document if there is evidence of recent forestry or timber harvesting activities. Quarterly inspections will monitor and document vegetation clearing that has	Detection of prohibited forestry operations, native timber harvesting or clearing outside of established access tracks, fire control lines and fence	Step 1: Upon being notified or becoming aware of prohibited forestry operations, native timber harvesting or clearing outside of existing infrastructure, the approval holder, Edify Energy, is to assess how unauthorised persons accessed the site, review existing access restrictions, and

Threat to offset values	Management objective	Performance criteria	Management actions	Responsible party	Monitoring	Trigger for adaptive management and corrective action(s)	Corrective action and timing
			accordance with the requirements of <i>Table 10</i> . If vegetation clearing is required for fencing, access, firebreaks or public safety it must be undertaken in accordance with best practice management methods and any applicable legislative requirements.		occurred for fire break, access road or fence line maintenance.	lines (existing infrastructure).	inspect signage and offset area fencing within one fortnight of detection of the clearing. Step 2: All actions required to prevent recurrence of the prohibited clearing must be completed within one month of detection of the clearing.
<i>Degradation of habitat by overgrazing</i>	Ensure that any livestock grazing for fire management and weed control maintains and enhances the ground cover attributes for brigalow TEC and does not result in the degradation of habitat and vegetation	Increase the richness and average % cover of native perennial grasses and forbs at each habitat quality assessment site based on the results of baseline (see <i>Appendix B2</i>) and subsequent monitoring events	Stock will be grazed only when required to reduce DMY. Cattle may be introduced when DMY is greater than 700 kg/ha and the soil is dry. Cattle must be removed when DMY is <700kg kg/ha.	The approval holder (Edify Energy) and the offset provider (landholder).	Habitat quality assessments must be undertaken in accordance with <i>Section 9</i> . These must include assessment of percentage cover of native perennial grasses, including the richness and composition of native grass species. DMY measurements must be in accordance with the Brigalow Belt pasture photo standards. ³ These measurements are to be undertaken monthly when cattle are grazing in the offset area/s.	Detection of stock grazing outside of authorised periods. Decrease in the richness and average ground layer cover at one or more habitat quality assessment sites based on the results of baseline and subsequent monitoring events.	Upon being notified or becoming aware of prohibited stock grazing in the offset area, the landholder must remove the stock from the area (if present) and assess the adequacy of fencing within 10 days. The landholder must undertake fence maintenance and repairs to resecure the offset area within 10 days.
<i>Introduction, establishment and spread of non-native weeds including restricted invasive plants listed under the Biosecurity Act 2014 (Qld)</i>	Manage restricted invasive plant species to reduce degradation of brigalow TEC habitat	Weed cover must not exceed 10% cover of the offset area by Year 20. No new restricted invasive plants listed under the <i>Biosecurity Act 2014</i> (Qld) are identified at any monitoring site (based on subsequent monitoring events).	The primary weed control method for exotic grasses will be grazing by cattle and then maintaining DMY and overall ground cover, which will be undertaken during the dry season (that is, from April to end of October each year). Weed control will be undertaken as early as practicable within the natural regeneration process throughout the offset areas and then periodically as required to treat the weeds at the optimum time in their life cycles to control and minimise the spread of the existing weed species. The reduction in exotic grass abundance enables an increase in the richness and abundance of native perennial grasses	The offset provider (landholder).	Monitoring of this management action must be undertaken by the Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder at least four times annually. Weed cover is to be monitored and at the same time as the DMY measurements. Quarterly inspections will observe and record the presence of weeds and success of previously applied weed control measures. The inspection will include before and after photos of the weed control area. Quarterly inspections will be conducted by the Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder to record the DMY in the offset area.	Pest plants dominate isolated area and or occur in an area greater than 10% of the offset area. A new declared pest weed species is identified at one or more monitoring sites, or opportunistically during any site inspection or other monitoring.	Step 1: Investigate cause of trigger Step 2: Implementation of corrective action(s) Upon being notified or becoming aware of pest plants dominating isolated areas and or occupying greater than 10% of the offset area, the landholder must implement pest control measures within one month. These measures may include, and are not limited to: - foliar spraying - basal bark spraying - stem injection - cut stump - cut and swab - stem scraper - wick applicators.

³ Available at <https://futurebeef.com.au/resources/brigalow-belt-pasture-photo-standards/>

Threat to offset values	Management objective	Performance criteria	Management actions	Responsible party	Monitoring	Trigger for adaptive management and corrective action(s)	Corrective action and timing
<i>Increased population of feral animals in the offset area.</i> <i>Wild cat, pig and dog populations are prevalent and highly transient, and therefore the scale of impact is potentially large. Major damage to the environment/habitat occurs when large numbers of animals congregate in the area.</i>	Minimise the introduction of pest animals and control of existing populations of pest animals (wild dogs, pigs, feral cats and foxes) within the offset areas in accordance with the <i>Biosecurity Act 2014</i> (Qld).	Detection of 12 or more wild pigs or dogs during any inspection.	Implement control actions for pest animals in accordance with <i>Table 10</i> . Participate fully in, and cooperate with, any and all regional pest control programs, unless those would otherwise contravene a part of this OMP.	The approval holder (Edify Energy) and the offset provider (landholder).	Undertake monitoring for pest animals in accordance with <i>Section 9</i> .	Any observed or suspected substantial decline in habitat quality detected during periodic full BioCondition assessments, or during quarterly site inspections (including site meander survey). Any observed evidence of feral animal presence (that is an indicator of feral animals required to be recorded as part of the feral animal monitoring requirements by the landholder detailed in <i>Table 10</i>.)	- Upon being notified or becoming aware of pest animal populations exceeding the threshold, the Pastoral Manager must implement all necessary or appropriate control measures needed to reduce pest animal populations to below trigger thresholds. The land manager is to have completed implementation of all necessary or appropriate pest control measures within one month. - The Pastoral Manager or Landholder may approach neighbouring landowners to discuss the increased pest animal presence and an integrated control program may be developed. If an integrated control program is considered appropriate, the land manager will make best endeavours to reach agreement with neighbouring landowners to implement such a program. - If impacts from the pest animal populations have not naturally remediated within 6 months of completion of implementation of the control measures, the land manager must undertake and complete all works required to remediate those impacts.
<i>Degradation of habitat by feral pigs</i>	Minimise degradation of brigalow TEC habitat by feral pigs.	Reduction in mean feral pig abundance from the first year of management.	Implement control actions for feral pigs in accordance with <i>Section 6</i> . Participate fully in, and cooperate with, any and all regional pest control programs, unless those would otherwise contravene a part of this OMP.	The approval holder (Edify Energy) and the offset provider (landholder).	Monitoring of this management action will be undertaken by the Pastoral Manager, Landholder or suitably qualified person appointed by the Landholder at least four times annually. Quarterly inspections will involve traversing the offset area with streams, low lying areas and vehicle access tracks being noted to record the presence of wallow holes, tracks and visual incidents in the offset area. If detected, these areas will be GPS-recorded and photographed and rechecked at the next quarterly inspection.	An increase in mean feral pig abundance from first year and subsequent monitoring events.	
<i>Fire</i> <i>The impact from uncontrolled fire would be a reduction in groundcover, thinning of the canopy and slowing of the offset site achieving the</i>	No evidence of unplanned and uncontrolled fire in the offset area	Uncontrolled fire does not occur in the offset area. Planned and controlled ecological burns in any eucalypt-based woodland surrounding the offset areas are restricted to <25% of the area in any 12-month period.	Implement fire management in accordance with requirements in this OMP. If one or more bushfires are current in the region and considered potentially threatening to the site, coordinate with all relevant fire authorities to determine the appropriate method of protecting the site (if the relevant fire authorities advise against seeking to protect the site from a specific fire, the approval	The approval holder (Edify Energy) and the offset provider (landholder).	Monitoring of this management action must be undertaken by the Pastoral Manager, Landholder or suitable qualified person appointed by the approval holder, Edify Energy, at least four times annually. Quarterly inspections will monitor and document if there is evidence of wildfire, prohibited burning or force majeure events.	Destruction of, or significant damage to, regrowth or fallen timber. The occurrence of deliberately lit fires.	Step 1: Investigate cause of trigger - Within one month of detection of the trigger, complete an investigation into the reasons why the fire management measures have resulted in a decrease in habitat quality scores. That investigation must review adherence to the fire management measures and must identify appropriate corrective actions. Step 2: Implementation of corrective action/s - Corrective action: upon being notified or becoming aware of a prohibited fire in the offset area, the landholder is to reassess and

Threat to offset values	Management objective	Performance criteria	Management actions	Responsible party	Monitoring	Trigger for adaptive management and corrective action(s)	Corrective action and timing
completion criteria. Due to the scale of the mapping products, site specific data is not available. Anecdotal evidence from the landholder indicates that unplanned fire is rare.			holder, Edify Energy, may comply with that advice without needing approval or agreement from DCCEEW). The approval holder, Edify Energy, or the offset provider (landholder), will maintain firebreaks along all external boundaries of the offset area. Fire control lines must be inspected quarterly. Maintenance must be undertaken as required and at least once every 2 years. Please note: if fire damages the offset areas, that constitutes an incident for the purposes of <i>Section 6.2</i>. Fire is to be excluded from brigalow-based offset areas. Planned burns in any areas surrounding the offset area will be done on a mosaic basis, with no more than 30% of the area in any year, and in keeping with the fire guidelines provided in the RE fire management guidelines. Reduction of non-native grasses will reduce the fuel load and therefore the risk of uncontrolled hot fires.⁴		Quarterly inspections will monitor and document if a prescribed low-intensity ecological burn has occurred, and recorded in the Annual report with the written advice from an ecologist or other suitably qualified person (e.g. Fire Warden) Weed cover must be monitored by the same methodology and at the same time as the DMY and weed control undertaken post a fire event to ensure weed cover (weeds of national significance) is <10%. Dry matter yield measurements must be in accordance with the Brigalow Belt pasture photo standards. The approval holder, Edify Energy, and the land manager will keep themselves informed of any bushfires in the region.		implement new access protocols for any lessees etc., signage and general access within one fortnight. - Corrective action: subsequent to any occurrence of fire in the offset area, the Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder must: - inspect and repair, and widen if necessary, all firebreaks; and - reassess fuel load reduction practices; and - exclude grazing until the DMY is above 1,250 kg/ha
Offset fails to achieve the interim performance targets and completion criteria within the anticipated 5, 10, 15 and/or 20-year timeframes, respectively	Achieve the interim performance targets and completion scores in <i>Section 9</i> at years 5, 10, 15 and 20 years, respectively.	The interim performance targets are achieved by year 5, 10 and 15. The completion criteria are achieved by year 20.	All management actions outlined in this OMP will be implemented to ensure that the interim performance targets and completion criteria are achieved.	The approval holder (Edify Energy) and the offset provider (landholder).	Monitoring of the offset area must be undertaken in accordance with <i>Section 9</i>. The results of monitoring events will be compared against the interim performance targets and completion criteria to determine the progress of the offset area and recorded as part of reporting.	Interim performance targets are not achieved by year 5, 10 or 15. Completion criteria are not achieved by year 20.	Step 1: Investigate cause of trigger - Within one month of detection of the trigger, complete an investigation into the reasons why the interim performance targets or the completion criteria were not achieved within the specified timeframes. This investigation must re-evaluate the suitability of the relevant management measures in the OMP and must identify appropriate corrective actions. Step 2: Implementation of corrective action/s As soon as practicable, and in any case within 8 months of detection of the trigger, complete implementation of the corrective actions identified under Step 1. These may include (though are not limited to): - Increasing the frequency and intensity of pest animal and weed control measures or revising the type of measures to be implemented.

⁴ Jackson, J. (2004) PhD thesis UQ). *Impacts and Management of Cenchrus ciliaris (Buffel Grass) as an Invasive Species in Northern Queensland*. See also: Marshall, N. & van Klinken R.D. (2009) *Quantifying costs and benefits of buffel grass*, Land & Water Australia, Canberra. See also: Melzer, R.I. (2015) When is stock grazing an appropriate 'tool' for reducing 'Cenchrus ciliaris' (Buffel grass) on conservation reserves? *Proceedings of the Royal Society of Queensland*, 120, 53-68.

Threat to offset values	Management objective	Performance criteria	Management actions	Responsible party	Monitoring	Trigger for adaptive management and corrective action(s)	Corrective action and timing
							Modifying the fire management measures, to better support enhancement of offset values. If the investigation under Step 1 recommends changes to the management regime, then as soon as possible, and in any case within 6 months of detection of the trigger, implement a revised OMP incorporating those recommended changes.
Site access	Unauthorised persons, vehicles, and/or stock are prevented from accessing the site, and authorised stock are prevented from incurring during exclusion times	Public access to the offset area is prohibited. Access is restricted to those authorised persons required to undertake actions described in this management plan, including the landholder, and approval holder staff and their contractors and assigns. The offset area is not to be utilised for any purpose including recreational activities, or any other activities that deter from achieving the outcomes of this plan. No evidence of unauthorised persons, vehicles, and/or stock is detected on site at any point. Fences and signage are erected at all necessary points and kept in good repair throughout the life of the EPBC Act approval.	Fences will be maintained around to prevent unauthorised access and to control stock presence. Signs will be erected at all entrances and potential access points to the site stating that access to the site is forbidden. All signs will be erected within 3 months of Project commencement. Any new planned fences will be erected within 12 months of Project commencement.	The approval holder (Edify Energy) will construct any new fencing around the offset area. Ongoing fencing maintenance will be undertaken by the offset provider (landholder).	Monitoring of this management action must be undertaken by the Pastoral Manager, Landholder or suitable qualified person within 3 months of the offset area being legally secured and during quarterly inspections. Quarterly inspections will monitor and document evidence of unauthorised access to the offset area. Quarterly inspections will monitor and document if signage is fit for purpose.	Evidence of unauthorised persons, vehicles, and/or stock is detected at any point. Evidence of stock is detected at any point during exclusion times. Damage is detected to any fence or sign.	For evidence of unauthorised persons, vehicles, and/or stock; or evidence of stock in an exclusion area: Step 1: determine access method - Upon being notified or becoming aware of prohibited access to the offset area, the Landholder must reassess access protocols for any lessees etc., signage and general access within one fortnight. Step 2: Implementation of corrective action/s - Damage to signage must be repaired within one fortnight of noting the damage. - If there are areas that have been negatively impacted, the regeneration of those areas will be added to the monitoring sites at <i>Table 16</i> and monitored during the quarterly inspections. - Signage must be repaired and maintained as required by the Pastoral Manager, Landholder or suitable qualified person appointed by the approval holder, Edify Energy.

6.1 Responsible parties

As approval holder, Edify Energy is accountable for implementing the plan. Completing the actions will be ensured through the annual reporting requirements (*Section 9*). Edify Energy will coordinate reporting, reviewing, inspections, auditing and any adaptive management changes to the plan. A person within Edify Energy (e.g. Environment Manager or equivalent) will be assigned the responsibility of managing offset requirements for the company.

Edify Energy will maintain accurate records substantiating all activities related to the management of the offset area, and the monitoring of the offset site, as described in *Section 9*. These records will be made available to the Department on request.

The offset property landholder will undertake the offset management actions and day to day management of the site, including fencing, managing fire breaks, weed management, feral animal management and grazing management. The offset property landholder will also undertake the landholder reporting as per *Table 15*.

Edify Energy will engage suitably qualified persons to undertake the BioCondition assessments, ecological studies and surveys, prepare reports and undertake inspections, as required.

6.2 Emergency procedures

Incidents identified at any of the offset sites will be reported by the landholder to Edify Energy. The level of severity will dictate the necessary actions through the company's formal incident management system. General incidents, for example, wild dog incursion, will be managed by the landholder and responses to incidents adversely impacting habitat quality on the offset site, or brigalow TEC directly, will be coordinated by Edify Energy, to ensure remediation or enhanced management measures (*Table 11*) are implemented to address the incident as soon as reasonably possible.

Edify Energy will notify DCCEE (within the timeframe stipulated by the Project approval conditions) after becoming aware of any incident, non-compliance with conditions, or non-compliance with any of the commitments made in this OMP (see also *Section 11*).

7 Offset completion criteria and performance targets

Offset completion criteria have been determined for the brigalow TEC offset based on an understanding of the specific habitat, connectivity and other ecological values for the TEC. These criteria were initially derived from detailed ecology survey information of both the impact and offset sites, as detailed in *Section 3.1* and *Section 4*.

The targeted habitat quality meets guidelines published by ANZMEC (2000),⁵ stating completion criteria should be:

1. Specific enough to reflect the unique set of environmental, social and economic circumstances.
2. Flexible enough to adapt to changing circumstances without compromising objectives.

⁵ *Strategic Framework for Mine Closure*. (2000). Australian and New Zealand Minerals and Energy Council and Minerals Council of Australia. Canberra, ACT.

3. Include environmental indicators suitable for demonstrating that rehabilitation trends are heading in the right direction.
4. Undergo periodic review resulting in modification if required due to changed circumstances or improved knowledge.
5. Based on targeted research which results in more informed decisions.

Over the course of the management period a set number of interim completion criteria have been proposed for the offset to track the trajectory of habitat quality improvement towards the desired final completion criteria (*Table 12*). The timing for these interim targets corresponds with the 5 yearly surveys and detailed ecological condition monitoring in years 5, 10, 15 and 20.

Interim targets were derived for the brigalow TEC by identifying the attributes expected to increase over the period of the approval. The values were determined by differentiating between specific attributes, of which the majority were longer term targets (e.g. species richness, tree canopy cover, number of large trees) and those where an initial benefit could be realised early (e.g. recruitment of woody species, non-native plant cover).

The completion of management actions identified in *Table 11* will enable the offset site to improve and achieve the scores required, thus meeting and maintaining the completion criteria required of the offset. The BioCondition attributes that will provide the improvement in the scores are:

- non-native plant cover
- native perennial grass cover
- native plant species richness (grasses)
- native plant species richness (forbs)
- native plant species richness (shrubs)
- shrub canopy cover.

The non-native plant cover BioCondition scores zero in the baseline assessment, with coverages ranging between 500-700% of the RE benchmark. The further impact of this is that non-native perennial grass cover, and native plant species richness (grasses and forbs) also scored low in the baseline assessment. Therefore, the key management action is the reduction of non-native plant cover, enabling the recovery of native grasses and forbs. The uplift of 2 points in the overall 'offset with' score are as a result of the scoring increase of these BioCondition attributes, as demonstrated in *Appendix B4* (also see *Table 8* (Invasive plants)).

The annual reports (see *Section 9*) will provide transparency regarding how the site management actions are being implemented, and where relevant, identify any force majeure events impacting the offset site, and any non-compliance with the management plan.

Table 12: Interim targets and completion criteria

Protected matter	EPBC Status	Total impact area	Habitat quality score	Assessment Units	Number of assessment sites	Offset area (ha)	Regional ecosystems	Habitat start quality score	Habitat quality score Year 5	Habitat quality score Year 10	Habitat quality score Year 15	Habitat finish quality score
<i>Brigalow TEC</i>	<i>Endangered</i>	5.0	4.91	AU1	3	19.57	11.9.1	5	5.5–6.0	6.0–6.5	6.5–7.0	7.0

8 Offset site management and protection additional to those that currently exist

Securing the offset area will add additional protection for biodiversity values from clearing⁶ and provide additional management of weeds and pest animals that are additional to the general requirements for biosecurity.

The offset area is not protected from timber harvesting, the inappropriate use of hot fires or the under-sowing of exotic pasture species by either the VM Act or the EPBC Act due to exemptions within the legislative frameworks for the continuing use of the land. Remnant vegetation areas are protected from broadscale clearing under the VM Act; however, the clearing of regrowth is permitted (see the offsets map at *Figure 6*). Maintaining the existing condition of regulated vegetation and land for habitat values is not addressed under the VM Act.

The *Biosecurity Act 2014* (Qld) (the **Biosecurity Act**) imposes a 'general biosecurity obligation' on all Queenslanders to manage biosecurity risks that are under their control and that they know about or could reasonably be expected to know about.⁷ In practical terms, this means that:

- If you are a livestock owner, you are expected to stay informed about pests and diseases that could affect or be carried by your animals, as well as weeds and pest animals that could be on your property. You are also expected to manage them appropriately.
- If you are a landowner, you are expected to stay informed about the weeds and pest animals (such as wild dogs) that could be on your property. You are also expected to manage them appropriately.

The Biosecurity Act assigns the pests identified in the offset areas as Restricted Matters in Categories 1-7 and requires the following management as shown below in *Table 13: Biosecurity Act 2014 (Qld) obligations*.

Table 13: Biosecurity Act 2014 (Qld) obligations

Category	What is required	Examples
1	Must advise an authorised officer within 24 hours of becoming aware	Electric ant/ Little Fire ant, Red imported fire ant
2	Must advise an authorised officer within 24 hours of becoming aware	Noxious fish, including alligator gar and black pacu
3	Must not distribute, be traded or released into the environment	Most invasive weeds, pest animals, noxious fish
4	Must not move	Certain weeds, pest animals, noxious fish such as feral pigs, feral deer, rabbits, Hudson pear and jumping cholla cactus
5	Must not possess or keep	Rabbits, carp, bunny ears cactus
6	Must not feed (except if undertaking a control program)	Feral deer, wild dogs, rabbits, foxes, noxious fish
7	Must, as soon as practicable, kill the restricted matter	Noxious fish, including tilapia, gambusia, carp

⁶ *Vegetation Management Act 1999* (Schedule definitions)

⁷ See <https://www.daf.qld.gov.au/business-priorities/biosecurity/policy-legislation-regulation/biosecurity-act-2014/general-biosecurity-obligation>

The obligations in the OMP are additional to these general obligations, in that control is required once thresholds as detailed in *Table 11* are met, which initiates the respective controlling actions. For example, there is a requirement to control wild pigs if numbers in excess of 12 are observed in any one property inspection; this is above and beyond the requirements of the Biosecurity Act, as is the reduction of weed species to 10% of the offset area over the life of the management plan.

The offset property is located within the Banana Shire Council local government area. The Council's *Banana Shire Council Biosecurity Plan 2019-24* states that private landholders' responsibilities are "for the management of invasive species on their private property".⁸

Within the *Banana Shire Planning Scheme 2021*⁹, the offset property is zoned as Rural. There are no additional obligations or commitments for the landholder that exceed the Queensland Government legal requirements under the VM Act for regulated vegetation.

9 Monitoring and reporting

The monitoring methods (*Table 14*) will enable comparative changes in vegetation condition against baseline data collected on the offset site, as well as attainment and maintenance of the offset completion criteria (see *Section 7*). Furthermore, the monitoring will measure changes resulting from the management actions and variability due to climatic conditions. This will inform the nature and frequency of management actions required and if trigger levels are breached, the use of corrective actions to bring the offset back into compliance.

Note that the methodologies listed, and the RE benchmarks used in the establishment of the baseline data, will be used consistently throughout the reporting period to enable the comparison of data.

Edify Energy, its successors or assigns, will, as per the approval conditions of the Project (when determined), provide an Annual Compliance Report each year following the date of the commencement of the action for the period of the approval. Offset Area Reports describing the progress of the offset area over the relevant 12-month period will be part of those reports until the end of the EPBC approval. The monitoring methodology and schedule is outlined in *Table 14*. The reporting schedule is provided in *Table 15*. The location of the monitoring sites is shown at *Figure 7*. The coordinates of the monitoring sites are shown in *Table 16*.

The Offset Area Reports will contain records substantiating all activities relevant to the implementation and management of the offsets. If the Department makes a request in writing, Edify Energy will provide electronic records of compliance records within the timeframe specified.

The landholder or a suitably qualified person appointed by the landholder will undertake quarterly inspections of the offset area to observe and record dry matter, pest plants, accessibility (i.e. condition of fencing), evidence of fire and evidence of pest animal incursion. The inspection records will serve as the primary data source for the annual Offset Area Report.

⁸ *Banana Shire Council Biosecurity Plan 2019-24*, p.9. Available at:

<https://www.banana.qld.gov.au/downloads/file/5621/banana-shire-council-biosecurity-plan-2019-2024>

⁹ *Banana Shire Planning Scheme 2021*. Available at <https://www.banana.qld.gov.au/downloads/download/477/banana-shire-planning-scheme-2021-document>

Dry matter is to be assessed as per the Brigalow Belt pasture photo standards (alluvial).¹⁰ The pasture photo standards were developed by FutureBeef as a means of measuring dry matter yield across different types of vegetation and landzones. FutureBeef is a collaborative project for the northern Australia beef industry that is made up of partners across 3 state government departments, being the Queensland Department of Primary Industries, the Northern Territory Department of Agriculture and Fisheries, and the Western Australian Department of Primary Industries and Regional Development, as well as Meat & Livestock Australia, which is the declared industry marketing body and the industry research body under section 39(1) of the *Primary Industries Levies and Charges Disbursement Act 2024*.

The plates below illustrate typical dry matter yields across the offset REs in a remnant state, and a typical pasture photo standard.

Plate 1: Remnant RE 11.3.1



RE 11.3.1 *Acacia harpophylla* and/or *Casuarina cristata* open forest on alluvial plains

Source: Department of Environment, Tourism, Science and Innovation. Regional Ecosystem Technical Descriptions.¹¹

¹⁰ <https://futurebeef.com.au/knowledge-centre/brigalow-belt-pasture-photo-standards>

¹¹ Available at <https://www.publications.qld.gov.au/dataset/re-technical-descriptions/resource/f7788fa4-b8d5-4f83-a6c5-80d9cd03cffd>

Plate 2: Remnant RE 11.9.1



RE 11.9.1

Acacia harpophylla-*Eucalyptus cambageana* woodland to open forest on fine-grained sedimentary rocks

Source: Department of Environment, Tourism, Science and Innovation. *Regional Ecosystem Technical Descriptions*.¹²

Plate 3: Brigalow Belt pasture photo standard (alluvial) – 700 kg DMY/ha



¹² Available at <https://www.publications.qld.gov.au/dataset/re-technical-descriptions/resource/3cc00ba4-9729-497c-bd01-c419c397cc4f>

Table 14: Monitoring schedule and methodology to be used

Monitoring	Attributes monitored	Timing	Method	Location/s
Surveys undertaken by ecologists every 5 years				
Ecological condition and relevant habitat features using BioCondition assessments	Recruitment of woody perennial species in EDL	In September, each 5 years after the commencement of the Project	Field observations, vegetation assessment as per the <i>BioCondition: A Condition Assessment Framework for Terrestrial Biodiversity in Queensland Assessment Manual</i> (version 2.2) (Eyre et al., 2015)	At sites as shown in <i>Table 16</i> and <i>Figure 7</i> .
	Native plant species richness – trees		Data for each of the ecological condition attributes monitored must be collected at each site (final site locations are to be established) and reported on and presented in a sequential manner (including previous data collected) to quantify change from the baseline condition. This will record the change in each attribute measured and hence the condition of the habitat, thus enabling a statistical comparison to previous years' data and tracking towards attainment of the offset interim and final completion criteria. Scoring is to be consistent with the <i>Guide to Determining Terrestrial Habitat Quality Version 1.3</i> (Department of Environment and Science, 2020). Technical descriptions for each RE are provided at <i>Appendix C</i> of this OMP. Regional ecosystem benchmarks are based on version 3.4 (Queensland Herbarium, April 2023), and are provided within <i>Appendix B</i> of this OMP.	
	Native plant species richness – shrubs			
	Native plant species richness - grasses			
	Native plant species richness – forbs			
	Tree canopy height			
	Tree canopy cover			
	Shrub canopy cover			
	Native perennial grass cover			
	Organic litter			
	Large trees			
	Coarse woody debris			
	Non-native plant cover			
Quality and availability of food and foraging habitat				
Quality and availability of shelter				
Note that the methodologies listed, and the RE benchmarks used in the establishment of the baseline data, will be used consistently throughout the reporting period to enable the comparison of data.				
Quarterly landholder/approval holder records and monitoring (report to approval holder – end of September, December, March and June each year)				
Forestry operations, native timber harvesting and general vegetation impacts	Any incidence of native plant destruction	Monitored quarterly and reported annually in Offset Area Report until the offset completion criteria are achieved.	Forestry operations, native timber harvesting and general vegetation impacts	Across the offset area

Monitoring	Attributes monitored	Timing	Method	Location/s
Unauthorised impacts to vegetation from activities such as illegal access/ camping	Vegetation, woody debris, grass cover, weed cover, feral animal damage and presence	Monitored quarterly and reported annually until the offset completion criteria are achieved.	Landholder or person appointed by the Landholder must undertake quarterly inspections of the offset area to observe and record grass cover levels, weeds, accessibility (i.e. condition of fencing), and evidence of fire, erosion, and feral animal incursion. The inspection records must be provided to the approval holder, Edify Energy, and serve as the primary data source for the Offset Area Report. Grass cover assessment must be undertaken as per the DMY measurements in accordance with the Brigalow Belt pasture photo standards. This is in addition to BioCondition assessments.	Across the offset area
Grazing	Cattle stocking rates and cattle movements, rainfall, grass cover, dry matter yield	Monitored monthly during grazing periods (dry season or as otherwise authorised) and reported annually until the offset completion criteria are achieved.		
Unplanned fire	Occurrence, control measures implemented, timing and result of the control measures.	Monitored quarterly and reported annually until the offset completion criteria are achieved.		
Weeds	Occurrence, control measures implemented, timing and the result of the control measures.	Monitored quarterly and reported annually until the offset completion criteria are achieved	Weed cover must be monitored by the same methodology and at the same time as the grass cover measurements. This is in addition to BioCondition assessments.	Across the offset area
Pest animals	Occurrence, control measures implemented, timing, number and type of animal/s and the result of the control measures.	Monitored quarterly and reported annually until the offset completion criteria are achieved	Quarterly inspections will involve traversing the offset area along streams, low lying areas and vehicle access tracks, to record the presence of wallow holes, tracks and any visual incidents. If detected, these locations must be recorded using GPS and photographed and rechecked at the next quarterly inspection.	Across the offset area

Table 15: Reporting schedule

Report Details to DCCEEW	Reporting period	Submission due date
Annual reporting		
Annual Offset Area Report, which contributes to the Annual Compliance Report detailing photo points (including coordinates), implementation of management actions, any triggers for corrective actions and implementation of those corrective actions, if implemented, and offset condition outcomes, including habitat quality scores achieved for preceding reporting period. Note: the reports and results from detailed ecology survey (BioCondition assessments), conducted in accordance with <i>Table 14</i> will be provided as an Appendix to the subsequent Annual Offset Area Report.	Annual Offset Area Report each 12-month period from the date of commencement of the action until the offset completion criteria are achieved, and then every 5 years until the end of the approval	Annually, as per the conditions of approval.
Compliance report detailing compliance with approval conditions under the EPBC Act, including compliance with the offset conditions, as detailed in the OMP.		
Reporting non-compliance		
Notification to DCCEEW of any incident and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in this OMP.	—	Within 2 business days of becoming aware of the incident.
Written report to DCCEEW providing details of any incident and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in this OMP.	—	Within 12 business days of becoming aware of the incident.

Table 16: Monitoring sites

Regional ecosystem	Survey site number	Start location: latitude	Start location: longitude	End location: latitude	End location: longitude
11.9.1/11.3.1	SCO_BC1	-23.8584	150.2140	-23.8590	150.2139
11.9.1/11.3.1	SCO_BC2	-23.8588	150.2167	-23.8580	150.2165
11.9.1/11.3.1	SCO_BC3	-23.8613	150.2166	-23.8603	150.2166

Coordinates system: CRS: WGS84

Figure 7: Monitoring sites



10 Legally binding mechanism

The offset will be secured by being declared as an area of high conservation value under section 19F of the VM Act. Once this has been registered on the title, the offset area will be mapped as a category A area on the property map of assessable vegetation (**PMAV**). An area mapped as category A on a PMAV is described as an 'area subject to compliance notices, offsets and voluntary declarations'.

A title search for the subject lot of the offset property is provided at *Schedule 1.1*. The request for a declared area form, and the declared area management plan form are provided at *Schedule 1.2* and *1.3*. Both of these forms are requirements of the Queensland Department of Resources so that the legally binding mechanism may be lodged on the title of the property.

The approval holder, Edify Energy, will apply for the legally securing mechanism for the environmental offset within 3 months of Project commencement. It is noted that the period taken for the legal security registration to be processed is subject to the regulatory timeframes of the relevant state government agency. The approved OMP will then be attached to the legal mechanism used to legally secure the environmental offset. The approval holder will notify the Department within 10 business days of the mechanism to legally secure the environmental offset having been executed.

Management and monitoring of the offset area will be undertaken in accordance with commitments in the approved OMP.

The declared area will remain in place as the legally securing mechanism for the offset area. The declared area and approved OMP will ensure the offset completion criteria are attained, and then maintained for the period of the EPBC Act approval. Statutory protection of the offset area is maintained under the VM Act, NC Act and EPBC Act (or subsequent legislation).

11 Adaptive management and plan review

This plan has been prepared to be implemented until the offset completion criteria have been achieved, or when the approval for the action ceases. Management measures will be reported in the Offset Area reports, and adapted, where required, if triggers are reached and corrective actions are implemented (see *Table 11*). If management measures need substantial adjustment, Edify Energy will review this plan in consultation with the Department.

Edify Energy will notify the Department electronically, within 2 business days of becoming aware of any incident and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in this OMP. Edify Energy will specify in the notification:

- a) Any condition or commitment made in this OMP which has been or may have been breached.
- b) A short description of the incident and/or potential non-compliance and/or actual non-compliance.
- c) The location (including co-ordinates), date and time of the incident and/or potential non-compliance and/or actual non-compliance.

Edify Energy will provide to the Department the details of any incident or non-compliance with the conditions or commitments made in this OMP as soon as practical and no later than 12 business days after becoming aware of the incident or non-compliance, specifying:

- a) Any corrective action or investigation which the approval holder, Edify Energy, has already taken.
- b) The potential impacts of the incident and/or non-compliance.
- c) The method and timing of any corrective action that will be undertaken by the approval holder.

If Edify Energy wishes to carry out any activity otherwise than in accordance with this OMP, Edify Energy will submit to the Department for the Minister's written approval a revised version of the OMP. The varied activity will not commence until the Minister has approved the varied OMP in writing. If the Minister approves the revised OMP, that OMP will be implemented in place of the OMP originally approved.

12 Conclusion

This Offset Management Plan has been prepared to address all the requirements of the *Environment Protection and Biodiversity Conservation Act 1999*.

This OMP will be submitted to the Department electronically. This OMP will be published on Edify Energy's website within 15 business days of the OMP being approved by the Minister. The OMP will remain on the website and accessible to the public for the duration of the EPBC Act approval. Edify Energy will exclude or redact sensitive ecological data from plans published on the website or otherwise provided to a member of the public. If sensitive ecological data is excluded or redacted from a plan, Edify Energy will notify the department in writing what exclusions and redactions have been made in the version published on the website.

The offset site will successfully deliver offsets for the Project's residual significant impacts to brigalow TEC.

This offset for the Project will be implemented consistent with the EPBC Act *Environmental Offset Policy* and the approval conditions for the project. The approval holder, Edify Energy, commits to the implementation of this plan.

The approval holder also commits to registering a legally binding conservation mechanism to provide long-term protection to the offset area, and advise DCCEE within 10 business days that the offset has been legally secured.

List of abbreviations

Abbreviation	Description
AU	Assessment unit
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DES	Department of Environment and Science (Qld) (former)
DEWHA	Department of the Environment, Water, Heritage and the Arts (Australian) (former)
DMY	Dry matter yield
DOE	Department of Environment (Australian) (former)
DOEE	Department of the Environment and Energy (Australian) (former)
DOR	Department of Resources (Qld)
DSEWPAC	Department of Sustainability, Environment, Water, Population and Communities (Australian) (former)
EA	Environmental authority
EIS	Environmental impact statement
EOP	Environmental Offsets Policy (October 2012) (EPBC Act)
EPBC Act	<i>Environment Protection & Biodiversity Conservation Act 1999</i> (Cth)
ha	hectares
HQS	Habitat quality scoring
HVR	High-value regrowth
km	kilometres
m	metres
MNES	Matters of national environmental significance
OMP	Offset Management Plan
OS	Offset strategy
PMAV	Property map of assessable vegetation
Project	Smoky Creek Solar Power Station Project
RE	Regional ecosystem
TEC	Threatened ecological community
VM Act	<i>Vegetation Management Act 1999</i> (Qld)

Glossary

Term	Definition
Approval holder	The person to whom an EPBC Act approval is granted
Approved conservation advice/s	A conservation advice approved by the Minister under section 266B(2) of the EPBC Act.
Brigalow TEC	Brigalow TEC means the EPBC Act listed threatened ecological community Brigalow (<i>Acacia harpophylla</i> dominant and co-dominant)
Business day	A day that is not a Saturday, a Sunday or a public holiday in Queensland.
Category A vegetation	Under Queensland vegetation management legislation, Category A vegetation is an area which is: • a declared area • an offset area, an exchange area, an area that has been subject to unlawful clearing or an enforcement notice, an area subject to clearing as a result of a clearing offence • an area that the chief executive determines to be Category A. Category A areas are colour-coded red on the regulated vegetation management map. See <i>Vegetation Management Act 1999</i> (Qld), s20AL.
Category X vegetation	Under Queensland vegetation management legislation, all areas other than Category A, B, C and R areas are Category X areas. Some Category X areas are also identified on a PMAV as 'locked in'. Category X areas are also known as 'exempt areas' because activity in Category X areas is not regulated by the <i>Vegetation Management Act 1999</i>. Category X areas are colour-coded white on the regulated vegetation management map (see <i>Vegetation Management Act 1999</i> (Qld) s20A.).
Compliance records	All documentation or other material in whatever form required to demonstrate compliance with the conditions of approval (including compliance with commitments made in plans) in the approval holder's possession, or that are within the approval holder's power to obtain lawfully.
Compliance report/s	A written report of compliance with, and fulfilment of, the conditions attached to the approval.
Control of grazing	Grazing specifically for the purposes of weed and fire management for one period per year (of no more than 2 weeks) prior to the annual fire season of the Bowen Basin and not occurring during the wet season of the Bowen Basin.
Department	The Australian Government agency responsible for administering the <i>Environment Protection and Biodiversity Conservation Act 1999</i> .
Habitat quality scores	A score out of ten, based on BioCondition assessment plus an assessment of habitat quality. A method of evaluating habitat quality within a particular community based on key indicators including site condition, site context and species habitat index (if necessary). The method produces a score out of 10, where the maximum score of 10 represents a fully intact system. Scores of 4, 5 and 6 may indicate good quality regrowth or medium value habitat.
Incident	Any event which has the potential to, or does, harm any protected matter.

Term	Definition
Minister	The Australian Government Minister administering the EPBC Act, including any delegate thereof.
Offset calculator	The <i>Offset Assessment Guide</i> spreadsheet tool as provided by DCCEEW.
Plan/s	Any of the documents required to be submitted to the Department, implemented by the approval holder and/or published on its website in accordance with the approval conditions.
Property map of assessable vegetation	A map certified by the chief-executive as a PMAV for an area and showing the vegetation category areas for the area (e.g. Category C area, Category X area) See <i>Vegetation Management Act 1999</i> (Qld), section 20AK.
Regional ecosystem	Regional ecosystems are vegetation communities in a bioregion that are consistently associated with a particular combination of geology, landform and soil (Sattler and Williams 1999, <i>Vegetation Management Act 1999</i>).
Regrowth vegetation	Vegetation that is not remnant vegetation.
Regulated vegetation	Vegetation that: • is an endangered regional ecosystem, an of concern regional ecosystem, or a least concern regional ecosystem, and • forms the predominant canopy of the vegetation covering more than 50% of the undisturbed predominant capacity; averaging more than 70% of the vegetation's undisturbed height; and • composed of species characteristic of the vegetation's undisturbed predominant canopy.
Secure, or secured	To provide enduring conservation protection on the title of land under an enduring protection mechanism, such as voluntary declaration under the <i>Vegetation Management Act 1999</i> (Qld) or another enduring protection mechanism agreed to in writing by the department, to provide protection for the site against development incompatible with conservation.
Sensitive ecological data	Data as defined in the Sensitive Ecological Data – Access and Management Policy V1.0, Commonwealth of Australia 2016.
Shapefile	Location and attribute information about the Action provided in an Esri shapefile format containing: a) '.shp', '.shx', '.dbf' files, b) a '.prj' file which specifies the projection or geographic coordinate system used, and c) an '.xml' metadata file that describes the shapefile for discovery and identification purposes.
Site habitat quality	A score on a scale of 0 to 10 representing a site's utility for each listed threatened species, where zero ('0') represents a site of no value to the species, and '10' represents ideal habitat. Unless agreed otherwise by the Department, site quality must be comprised of 3 points for site condition, 3 points for site context, and 4 points for species stocking rate. These scores must be derived in accordance with the <i>Queensland Guide to determining terrestrial habitat quality: A toolkit for assessing land-based offsets under the Queensland Environmental Offsets Policy</i> (Version 1.3, 2020).
Site specific assessment/s	A baseline investigation which explains the scientific basis on which the description and location of impact/s and associated users, performance indicators, trigger values and limits have been derived, or not derived.
Suitably qualified person	A person who has professional qualifications, training, skills and/or experience related to the nominated subject matter and can give

Term	Definition
	authoritative independent assessment, advice and analysis on performance relative to the subject matter using the relevant protocols, standards, methods and/or literature.
Watercourse 1	The watercourse and surrounding area identified within the Action area at Attachment A of the EPBC Approval by the green shaded zone designated 'Watercourse 1'.
Watercourse 2	The watercourse and surrounding area identified within the Action area at Attachment A of the EPBC Approval by the blue shaded zone designated 'Watercourse 2'.
Website	A set of related web pages located under a single domain name attributed to the approval holder and available to the public.

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Schedule 1: Legally binding mechanism

Schedule 1.1: Title search – Lot 96 RN201



Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Current Title Search

Title Reference:	30381223	Search Date:	27/09/2024 08:17
Date Title Created:	12/12/1972	Request No:	49476778
Creating Dealing:			

ESTATE AND LAND

Estate in Fee Simple
LOT 96 CROWN PLAN RN201
Local Government: BANANA

REGISTERED OWNER

Dealing No: 717428969 04/08/2016
VIVIAN BRIAN HUNT

EASEMENTS, ENCUMBRANCES AND INTERESTS

- Rights and interests reserved to the Crown by Deed of Grant No. 30381223 (POR 96)
- MORTGAGE No 717428972 04/08/2016 at 14:28
RURAL BANK LIMITED A.B.N. 74 083 938 416

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

Schedule 1.2: Request for declared area – Lot 96 RN201



Queensland
Government

Department of Resources
ABN 59 020 847 551

Request for a declared area

ss19E-19L Vegetation Management Act 1999

Use this form to request an area of land to be declared an area of high nature conservation value or an area vulnerable to land degradation. For guidance on declared areas see the Guide to declared areas at www.qld.gov.au (search 'vegetation management').

To apply for an area to be legally secured as an exchange area, complete the Application to legally secure an exchange area at www.qld.gov.au (search 'vegetation management'). For guidance on legally securing an exchange area see the General guide to accepted development vegetation clearing codes at www.qld.gov.au (search 'vegetation management').

1. Owner's (applicant's) details

Owner, of land includes -

- (a) for freehold land - all registered owners; or
- (b) for a lease, license or permit under the *Land Act 1994* – all lessees, licensees or permittees; or
- (c) for indigenous land - the holder of title to the land; or
- (d) for any tenure under any other Act - the holder of the tenure.

First name: Middle name: Surname:

Company name:

If a corporation then enter one of the following: ☒ ACN ☐ ARBN

Main phone: Other phone:

Email:

Address line 1:

Address line 2:

Town/Suburb: State: Postcode:

Preferred method of contact ☒ Phone ☐ Email ☐ Letter

The nominated contact person does not need to be the owner. All verbal and written correspondence (including the issue of notices) will be sent to the nominated contact person.

Name of nominated contact person (if applicable):

Company name:

If a corporation then enter one of the following: ☐ ACN ☐ ARBN

Main phone: Other phone:

Email address:

Address line 1:

Address line 2:

Town/Suburb: State: Postcode:

Preferred method of contact ☐ Phone ☐ Email ☐ Letter

I accept that I will act as the nominated contact person on behalf of the owner(s) referred to in Section 1.

Signature of nominated contact person

Date:

2. Property description

This is the property on which the declared area is proposed. The declared area management plan should indicate the specific location of the proposed declared area on the property.

Extra pages may be attached to list additional lots.

Lot number	Plan number	Area in hectares	Tenure
96	RN201	269	Freehold

3. Registered interest holder consent

A registered interest is one registered under the *Land Act 1994* or the *Land Title Act 1994*.

Registered interests include but are not limited to mortgages, leases, subleases, covenants, profit a prendres, easements and building management statements.

A declaration may not be made unless the holder of a registered interest (other than the owner) in the proposed declaration area has consented in writing to the making of the declaration.

Note: Registered interest holder consent is not required to lodge this request for a declared area but is required prior to the making of a declaration.

Acknowledgement and waiver by all registered interest holders.

READ BEFORE SIGNING THIS SECTION

By signing this section, those signing are taken to:

- acknowledge that a declaration resulting from this request may have legal and financial implications for your interest in the property, and you agree that in no event shall the Department of Resources be liable for any special, indirect or consequential damages or any damages whatsoever rising out of or in connection with this request or any subsequent declaration in accordance with this request.
- consent to the making of a declaration as proposed in this request and supporting material.

Extra pages may be attached to list additional lots and/or registered interest holders and provide their consent to the making of the declaration.

Parcel (Lot & plan)	Type of registered interest	Registered interest holder's name	Contact details	Signature
Lot 96 RN201	Mortgage	Rural Bank Limited	PO Box 3660 Rundle Mall SA 5000	

4. Type of declaration	
Specify the type of declaration that is requested, and the relevant criteria for the declaration. One or more of the criteria may be applicable to the area being sought for declaration. Note: The owner must provide an explanation of how the declared area meets the criteria selected in this section. This explanation must be provided in the documents accompanying the request.	
☒ Area of high nature conservation value ☐ A wildlife refugium ☐ A centre of endemism ☒ An area containing a vegetation clump or corridor that contributes to the maintenance of biodiversity ☐ An area that makes a significant contribution to the conservation of biodiversity ☐ An area that contributes to the conservation value of a wetland, lake or spring ☐ Another area that contributes to the conservation of the environment	
OR ☐ An area vulnerable to land degradation ☐ Soil erosion ☐ Rising water tables ☐ The expression of salinity, whether inside or outside the area ☐ Mass movement by gravity of soil or rock ☐ Stream bank instability ☐ A process that results in declining water quality	
4.1 Purpose of request	
☐ Environmental Offset (Vegetation Management)	☐ Carbon Offset
☐ Environmental Offset (Queensland Government - Other)	☐ Better Environmental Outcome (BEO)
☒ Environmental Offset (Commonwealth)	☐ Other Conservation Purpose
☐ Environmental Offset (Local Government)	☐ Enforceable Undertaking
<i>Note: if the purpose of the declaration is to legally secure an exchange area, complete the Application to legally secure an exchange area at www.qld.gov.au (search 'vegetation management').</i>	
4.2 Associated development approval	
<i>If the declaration is linked to a development approval under the Planning Act (for example, if it required to meet a project condition to legally secure an offset area), please provide details of the development approval below:</i>	
Development approval reference number:	
<i>If the declaration is linked to an approval under another Act please provide details of the approval below:</i>	
Other Approval reference number:	EPBC 2021/9030
Responsible agency:	Dept Climate Change, Energy, the Environment and Water
5. Management plan	
A management plan must be provided with this request for a declared area. The management plan must contain all the components identified in this section. The management plan is to refer to the area identified in Section 2 of this form. The management plan may also include any other information the applicant considers will assist in the determination of the request. For more information on the management plan, consult the Guide to declared areas, available on www.qld.gov.au (search 'vegetation management').	

Management plan checklist

- ☒ Property owner's contact details and signature
- ☒ Includes description of the area subject to the declared area
- ☒ Includes map showing the location and extent of the declared area (or enough information for chief executive to map the stated area):
 - ☐ A map that defines the boundaries of the proposed declared area and a description of the boundaries of the area referenced by Map Grid of Australia 2020 (MGA2020) coordinates and zone references for the area
 - ☐ A map showing the proposed declared area with five or more GPS points that correspond to identifiable fixed features; and the Map Grid of Australia 2020 (MGA2020) coordinates and zone references for each point, acquired by GPS or similar system of satellites that receives and processing information; and a description of the feature that each point represents
 - ☒ A dataset, which can be used in a Geographic Information System showing the proposed declared area
- ☒ States the owner's management intent, and management outcomes proposed by the owner, for the conservation of the high nature conservation value of the area or the prevention of land degradation in the area
- ☒ States the activities the owner intends to carry out, or refrain from carrying out, to achieve the stated management outcomes
- ☒ States the restrictions, if any, to be imposed on the use of, or access to, the area by other persons to achieve the stated management outcomes
- ☒ If the declared area is to legally secure an environmental offset and the Department of Resources is not the administering agency, includes confirmation that the administering agency has / has not approved the declared area management plan that complies with the VMA.

A declared area management plan template / guidance is available at www.qld.gov.au (search 'vegetation management').

6. Signature of owner (applicant) and all registered owners

Where the owner is a company, execution by the company must be provided in accordance with the requirements of the **Corporations Act 2001 (Commonwealth)**, section 127.

A company:

- may execute a document without using a common seal if the document is signed by two (2) directors of the company or a director and a company secretary; or for a proprietary company that has a sole director who is also the sole company secretary - that director; or
- with a company seal may execute a document if the seal is fixed to the document and the fixing of the seal is witnessed by two (2) directors of the company or a director and a company secretary; or for a proprietary company that has a sole director who is also the sole company secretary - that director.

READ BEFORE SIGNING THIS SECTION

Acknowledgement and waiver by the owner (applicant) and all registered owners.

Before consent to or lodging this request for a declared area, it is recommended that all registered owners of the property seek their own independent legal and financial advice regarding the effect of this request, and the legal and financial impacts of any subsequent declaration.

By signing this section, those signing are taken to:

- acknowledge that the declared area resulting from this request may have legal and financial implications for your interest in the property, and you agree that in no event shall the Department of Resources be liable for any damages whatsoever rising out of or in connection with this request or any subsequent declaration; and
- consent to the lodgment of the request; and
- agree that all information entered and provided in this request, including any maps, lists or other documents additionally supplied, is correct and accurate; and
- authorise the nominated contact person to act as such on your behalf; and
- authorise all verbal correspondence relating to this request to be to the nominated contact person; and
- authorise all written correspondence (including the issuing of notices) relating to this request to be sent to the postal address for the nominated contact person; and
- request that the chief executive agree to make a declaration as proposed in this request.

If there are more owners, extra pages containing the additional signature(s) may be attached.

Lot	Plan number	Owner's name	If a corporation record one of the following:		Owner's signature	Date	Company seal (if applicable)
96	RN201	Vivian Brian Hunt					

Privacy statement: The Department of Resources is collecting the information in this form and any attachments to process your request that the chief executive declare a stated area of land under the *Vegetation Management Act 1999*. The consideration of your request may involve consultation, and if so, details of your request and any attachments may be disclosed to third parties. These details will not otherwise be disclosed outside the Department of Resources unless required or authorized by law.

Office use only		
Name:	Position:	Date received:
Signature	Date:	

Schedule 1.3: Declared Area Management Plan – Lot 96 RN201



Queensland
Government

Department of Resources
ABN 59 020 847 551

Declared area management plan

Vegetation Management Act 1999

Complete the following management plan for an area to be declared as an area of high nature conservation value or an area vulnerable to land degradation.

For guidance on declared areas see the Guide to declared areas at www.qld.gov.au. For guidance on legally securing an exchange area see the General guide to accepted development vegetation clearing codes at www.qld.gov.au (search 'vegetation management').

Note: Examples of information to include in this management plan are intended as guidance only. The level of detail or scope of the management plan will depend on the purpose of the declaration and the particular circumstances of the area being secured.

1. Owner's details

First name:	Vivian	Middle name:	Brian	Surname:	Hunt
Company name:					
If a corporation then enter one of the following: ☒ ACN ☐ ARBN					
Main phone:	0419 168 360	Other phone:			
Address line 1:	0 Floods Road				
Address line 2:					
Town/Suburb:	Dululu	State:	QLD	Postcode:	4702
Email address:	vivhunt@bigpond.com				
Preferred method of contact ☒ Phone ☐ Email ☐ Letter					
Local government area:	Banana Shire				
<i>Office use only:</i>					
eLVAS case number:					
Notification number:					

2. Property description

This is the property on which the declared area is proposed. The declared area management plan should indicate the specific location of the proposed declared area on the property.

Extra pages may be attached to list additional lots.

Lot number	Plan number	Declared area in hectares	Tenure
96	RN201	20	Freehold

3. Description of declared area

Include enough information to allow the chief executive to map the boundary of the stated area, including a description of the area subject to the declared area and a map showing the location and extent of the area.

Please refer to the document titled "Edify Energy Pty Ltd: Smoky Creek Solar Farm EPBC 2021/9030 Offset Management Plan" (OMP), and accompanying shapefiles.

A map may be attached to this plan and submitted with the request for a declared area. Please provide spatial data in the format of a .kml or .shp file of your proposed area so that the exact extent can be used for the assessment.

4. Purpose of the declaration

The purpose of this declaration is to legally secure:

- ☒ an area of high nature conservation value
☐ an area vulnerable to land degradation
under sections 19E-19L of the *Vegetation Management Act 1999* (VMA)

5. Registered interest holders consent

A registered interest is one registered under the *Land Act 1994* or the *Land Title Act 1994*.

Registered interests include mortgages, leases, subleases, covenants, profit a prendres, easements and building management statements.

A declaration may not be made unless the holder of a registered interest (other than the owner) in the proposed declaration area has consented in writing to the making of the declaration.

READ BEFORE SIGNING THIS SECTION

Acknowledgement and waiver by all registered interest holders.

By signing this section, those signing are taken to:

- acknowledge that a declared area resulting from a request for a declared area may have legal and financial implications for your interest in the property, and you agree that in no event shall the Department of Resources be liable for any special, indirect or consequential damages or any damages whatsoever rising out of or in connection with a request for a declared area or any subsequent declaration of the area in accordance with the request for a declared area.
- consent to the making of a declared area as proposed in the request for a declared area.

Extra pages may be attached to list additional lots and/or registered interest holders and provide their consent to the making of the declaration

Parcel (Lot & plan)	Type of registered interest	Registered interest holder's name	Contact details	Signature
Lot 96 RP201	Mortgage	Rural Bank Ltd	PO Box 3660 Rundle Mall SA 5000	

Principles for drafting management plan: In the sections below you will need to outline how you will achieve the management outcomes, including details on what actions will be taken to achieve this and how you will mitigate any impacts and manage any potential risks that may hinder the specified outcome.

6. Management intent

Please refer to Section 6 of the OMP.

Examples:

1. *The management intent for the area is the conservation of the native vegetation in the area. Conservation of the native vegetation will prevent the loss of biodiversity and maintain ecological processes.*
2. *The management intent for an area vulnerable to land degradation is to rehabilitate a degraded, unstable watercourse in an area subject to stream bank instability.*

7. Management outcome

Please refer to Section 7 of the OMP

Principles for drafting management outcomes: *The management outcomes for the area should be achievable, measurable and related to the to the conservation value or land degradation issue associated with the area.*

Examples:

1. *The management outcome for the area is that it achieves the definition of remnant vegetation.*
2. *The management outcome for the area is to establish (insert number) habitat trees and to have restored and enhanced (insert hectares) of natural area within (insert number) of years.*

Note for exchange areas: If the declaration is to legally secure an exchange area, the management objective must be either of the following:

- i. If the exchange area is located in a category X area, category C area or category R area—to return the exchange area to remnant vegetation (a category B area on the regulated vegetation management map) as soon as possible and within 20 years
- ii. If the exchange area is located in a category B area—to achieve the nominated substantial conservation outcome or address the nominated significant land degradation issue as soon as possible

8. Activities and restrictions

Please refer to Section 6 of the OMP.

Example: To achieve the management outcome, the landholder will comply with the following activities and restrictions:

1. *Clearing of native vegetation will not occur unless in accordance with an exemption listed in Schedule 21 of the Planning Regulation 2017 or a development approval under the Planning Act 2016.*
2. *All reasonable measures will be taken to maintain and enhance the structure and function of the regional ecosystem. For example, minimizing the introduction, establishment and spread of non-native plants. Where non-native plants already occur in the area, all reasonable measures will be taken to control the non-native plants.*
3. *Burning will only occur in accordance with the fire guideline/s specified in the Regional ecosystem description database (available at www.qld.gov.au) for the regional ecosystem/s in the declared area.*
4. *Pest animals and pest plants considered an invasive biosecurity matter under the Biosecurity Act 2014 will be controlled.*
5. *Livestock will be managed to ensure the growth of native vegetation and biodiversity is not impeded.*

Note for exchange areas: If the declaration is to legally secure an exchange area, this section of the management plan must include:

- Description of the works / management actions that will be undertaken to achieve the management objective, including the methods, timing, frequency, intended benefits etc.
- The conservation outcomes that will be achieved by the works / management actions
- Description of the management actions that will be undertaken to ensure that the effects of the works do not result in land degradation
- Details of who is responsible for all works and management actions, and the estimated length of time the area/s will be managed

9. Term

A management plan for a declared area has effect until the earlier of the following happens:

- the plan ends under its terms; or
- the declaration of the area as a declared area ends under section 19L of the VMA

Please refer to Section 7 of the OMP.

Ending a declaration

Under section 19L of the VMA the chief executive may, by written notice given to the owner of the land the subject of a declaration, end the declaration if the chief executive considers:

- the declaration is not in the interests of the State, having regard to the public interest; or
- the management outcomes mentioned in section 19E(3)(c) of the VMA for the management plan relevant to the declaration have been achieved.

The chief executive may, by notice given to the owner of land declared as an area of high conservation value, end the declaration if:

- the area is, on or after the commencement of subsection 19L(2) of the VMA, a legally secured offset area; and
- a prescribed activity is, under an authority under another Act, to be carried out in or on the area; and
- the holder of the authority has entered into an agreed delivery arrangement in relation to an environmental offset for impacts to the area.

Note: If the landholder considers the management outcomes have been achieved, they may submit a request to end a declaration to the Department of Resources. The Department of Resources will assess whether the management outcomes have been met before removing the declaration. If the declaration is to legally secure an environmental offset and the Department of Resources is not the administering agency, the department should also be satisfied that the administering agency agrees the management outcomes have been met and agrees to the ending of the declaration in order for the department to end the declaration.

Once the declaration has ended this plan will cease to have effect and the department will remove the declaration notice from the title of the land. The landholder should submit a 20C PMAV application with the request to remove the declaration to replace the PMAV currently over the declared area and map the appropriate category of vegetation for the area (for example, category B).

10. Monitoring and record keeping

Please refer to Section 9 of the OMP.

Monitoring and record keeping should be undertaken to track the state of the declared area and progress towards achieving the management outcomes specified in this plan. The following information should also be provided:

- Monitoring and auditing processes including adaptive management approaches to rectify negative results from the monitoring and auditing processes
- Record keeping process for retaining appropriate records for monitoring and auditing processes.

Note: Providing the information above complies with the ADVCC requirements for legally securing an exchange area.

To apply for an area to be legally secured as an exchange area, complete the application to legally secure an exchange area at www.qld.gov.au (search 'vegetation management'). For guidance on legally securing an exchange area see the General guide to accepted development vegetation clearing codes at www.qld.gov.au (search 'vegetation management').

11. Additional information

The management plan may also include any other information the applicant considers will assist in the determination of the request. Additional information can be provided below or as an attachment to this plan.

Please refer to the accompanying OMP.

12. Administering agency approval

If you are using a declared area to legally secure an environmental offset and the Department of Resources is not the administering agency, has the administering agency approved this management plan?

- ☒ Yes – Please include a copy of this approval with the request
- ☐ No – Please provide contact information for the administering agency and details of the offset delivery progress

Note: this management plan complies with the requirements for a declared area under the VMA, it does not fulfil the requirements of an offset management plan.

13. Signature of owner (applicant) and all registered owners

If there is more than one owner of the land on which the declared area is proposed, each owner must complete and sign this management plan. The owner of the land is the party/s registered on title as the registered owner.

Where the owner is a company, execution by the company must be provided in accordance with the requirements of the **Corporations Act 2001 (Commonwealth)**, section 127.

A company:

- may execute a document without using a common seal if the document is signed by two (2) directors of the company or a director and a company secretary; or for a proprietary company that has a sole director who is also the sole company secretary - that director; or
- with a company seal may execute a document if the seal is fixed to the document and the fixing of the seal is witnessed by two (2) directors of the company or a director and a company secretary; or for a proprietary company that has a sole director who is also the sole company secretary - that director.

If there are more owners, extra pages containing the additional signature(s) may be attached.

Lot	Plan number	Owner's name	If a corporation record one of the following:		Owner's signature	Date	Company seal (if applicable)
96	RN201	Vivian Brian Hunt					

Department of Resources (office use only)

Name		Position		Signature		Date	
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Appendix A: Offset Assessment Guide output

Offsets Assessment Guide

For use in determining offsets under the Environment Protection and Biodiversity Conservation Act 1999

2 October 2012

This guide relies on Macros being enabled in your browser.

Matter of National Environmental Significance

Name	Brigalow
EPBC Act status	Endangered
Annual probability of extinction	1.2%
Based on IUCN category definitions	

Key to Cell Colours

User input required

Drop-down list

Calculated output

Not applicable to attribute

Impact calculator

Protected matter attributes	Attribute relevant to case?	Description	Quantum of impact	Units	Information source
Ecological communities					
Area of community	Yes	Remnant Brigalow	Area	5	Hectares
			Quality	5	Scale 0-10
			Total quantum of impact	2.50	Adjusted hectares
Threatened species habitat					
Area of habitat	No		Area		
			Quality		
			Total quantum of impact	0.00	
Threatened species					
Protected matter attributes	Attribute relevant to case?	Description	Quantum of impact	Units	Information source
Number of features e.g. Nest hollows, habitat trees	No				
Condition of habitat Change in habitat condition, but no change in extent	No				
Birth rate e.g. Change in nest success	No				
Mortality rate e.g. Change in number of roadkills per year	No				
Number of individuals e.g. Individual plants/animals	No				

Offset calculator

Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horizon (years)	Start area and quality	Future area and quality without offset	Future area and quality with offset	Raw gain	Confidence in result (%)	Adjusted gain	Net present value (adjusted hectares)	% of impact offset	Minimum (90%) direct offset requirement met?	Cost (\$ total)	Information source						
Ecological Communities																						
Area of community	Yes	2.50	Adjusted hectares	Remnant Brigalow	Risk related time horizon (max. 20 years)	20	Start area (hectares)	10.67	Risk of loss (%) without offset	2%	Risk of loss (%) with offset	0%	0.30	95%	0.29	0.23	4.05	161.99%	Yes			
					Future area without offset (adjusted hectares)	19.4	Future area with offset (adjusted hectares)	19.7														
					Time until ecological benefit	20	Start quality (scale of 0-10)	5	Future quality without offset (scale of 0-10)	4	Future quality with offset (scale of 0-10)	3	3.00	85%	2.55	2.01						
Threatened species habitat																						
Area of habitat	No				Time over which loss is averaged (max. 20 years)		Start area (hectares)		Risk of loss (%) without offset		Risk of loss (%) with offset											
					Future area without offset (adjusted hectares)	0.0	Future area with offset (adjusted hectares)	0.0														
					Time until ecological benefit		Start quality (scale of 0-10)		Future quality without offset (scale of 0-10)		Future quality with offset (scale of 0-10)											
Threatened species																						
Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horizon (years)	Start value	Future value without offset	Future value with offset	Raw gain	Confidence in result (%)	Adjusted gain	Net present value	% of impact offset	Minimum (90%) direct offset requirement met?	Cost (\$ total)	Information source						
Number of features e.g. Nest hollows, habitat trees	No																					
Condition of habitat Change in habitat condition, but no change in extent	No																					
Birth rate e.g. Change in nest success	No																					
Mortality rate e.g. Change in number of roadkills per year	No																					
Number of individuals e.g. Individual plants/animals	No																					

Summary

Protected matter attributes	Quantum of impact	Net present value of offset	% of impact offset	Direct offset adequate?	Cost (\$)		
					Direct offset (\$)	Other compensatory measures (\$)	Total (\$)
Birth rate	0				\$0.00		\$0.00
Mortality rate	0				\$0.00		\$0.00
Number of individuals	0				\$0.00		\$0.00
Number of features	0				\$0.00		\$0.00
Condition of habitat	0				\$0.00		\$0.00
Area of habitat	0				\$0.00		\$0.00
Area of community	2.5	4.05	161.99%	Yes	\$0.00	N/A	\$0.00
					\$0.00	\$0.00	\$0.00

26 September 2025

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Appendix B: Detailed habitat quality assessment tables

Appendix B1: Impact assessment table for brigalow TEC

Assessment table for impact to TEC	Assessment unit:	Bench- mark (BM)	WC1			BM	WC1			BM	WC1			BM	WC2			BM	WC2			BM	WC2		
	Property:		Smoky Creek				Smoky Creek				Smoky Creek				Smoky Creek				Smoky Creek						
	Assessment site no:		WC1.BC4				WC1.BC5				WC1.BC6				WC2.BC1				WC2.BC2				WC2.BC3		
	Regional ecosystem:		11.9.5	11.9.5			11.9.5	11.9.5			11.9.5	11.9.5			11.9.1	11.9.1			11.9.1	11.9.1					
Ecological condition indicator			Value	% BM	Score		Value	% BM	Score		Value	% BM	Score		Value	% BM	Score		Value	% BM	Score		Value	% BM	Score
Recruitment of woody perennial species (%)		100	100	100%	5	100	100	100%	5	100	100	100%	5	100	100	100%	5	100	100	100%	5	100	100	100%	5
Native plant species richness (No.): Trees		4	10	250%	5	4	10	250%	5	4	6	150%	5	3	6	200%	5	3	5	167%	5	3	4	133%	5
Shrubs		5	10	200%	5	5	8	160%	5	5	6	120%	5	6	3	50%	2.5	6	8	133%	5	6	3	50%	2.5
Grasses		7	1	14%	0	7	0	0%	0	7	1	14%	0	8	3	43%	2.5	8	0	0%	0	8	1	14%	0
Forbs		13	5	38%	2.5	13	11	85%	2.5	13	2	15%	0	10	9	90%	5	10	6	60%	2.5	10	11	110%	5
Tree canopy height (m): average of emergent, canopy and sub-canopy layer		14	10	71%	5	14	13.5	96%	5	14	12	86%	5	16	10	63%	3	16	8	50%	3	16	8	50%	3
Tree sub-canopy height		7	4	57%	3	7	8	114%	5	7	6	86%	5	10	4	40%	3	10	5	50%	3	10	5	50%	3
Average score					4.0				5.0				5.0				3.0				3.0				3.0
Tree canopy cover (%): average of emergent, canopy and sub-canopy layer		37	27.2	74%	5	37	9.2	25%	2.5	37	15.2	41%	2	36	53	147%	5	36	57.1	159%	5	36	19.6	54%	5
Tree sub-canopy cover		20	0.9	5%	0	20	15.4	77%	2.5	20	8.3	42%	2	25	8.8	35%	2	25	14.3	57%	5	25	1.5	6%	0
Average score					2.5				2.5				2.0				3.5				5.0				2.5
Shrub canopy cover (%):		15	0.2	1%	0	15	30.4	203%	3	15	2.8	19%	3	16	14.6	91%	5	16	0	0%	0	16	17	106%	5
Native perennial grass cover (%):		27	3	11%	1	27	0	0%	0	27	6	22%	1	22	0	0%	0	22	0	0%	0	22	0	0%	0
Organic litter (%):		31	32.8	106%	5	31	35.6	115%	5	31	40.8	132%	5	31	43.8	141%	5	31	85	274%	5	31	19	61%	5
Large trees/ha (euc./non-euc. combined)		16	16	100%	15	16	16	100%	15	16	6	38%	5	17	30	176%	15	17	42	247%	15	17	10	59%	10
Coarse woody debris (m/ha)		827	976	118%	5	827	1720	208%	2	827	780	94%	5	612	70	11%	2	612	0	0%	0	612	35	6%	0
Non-native plant cover (%):		0	0.2	20%	5	0	0.25	25%	3	0	0.25	25%	3	0	0.12	12%	5	0	0.1	10%	5	0	0.15	15%	5
Site condition score (-/80)					55.0				55.0				44.0				58.5				50.5				48.0
Size of patch (fragmented) (-/10)					2				2				2				2				2				2
Connectedness (fragmented) (-/5)					0				0				0				0				0				0
Context (fragmented) (-/5)					2				2				2				2				2				2
Site context score (-/20)					4.0				4.0				4.0				4.0				4.0				4.0
Assessment unit totals																									
AU site condition score (-/7):													4.49												4.58
AU site context score (-/3):													0.60												0.60
AU habitat quality score (-/10):													5.09												5.18
AU area within impact area:													3.00												2.00
Total impact area for this MNES:													5.00												5.00
Area weighting:													0.60												0.40
AU weighted HQS:													3.05												2.07
Total HQS all AUs:																								5.12	

Appendix B2: Offset assessment table for brigalow TEC – start quality

Assessment table for TEC offset	Assessment unit:	Bench- mark (BM)	AU1			BM	AU1			BM	AU1		
	Property:		Dululu				Dululu				Dululu		
	Assessment site no:		SCO_BC1				SCO_BC2				SCO_BC3		
	Regional ecosystem:		11.9.1	11.9.1			11.9.1	11.9.1			11.9.1	11.9.1	
Ecological condition indicator		Value	% BM	Score		Value	% BM	Score		Value	% BM	Score	
Recruitment of woody perennial species (%)	100	100	100%	5	100	100	100%	5	100	50	50%	3	
Native plant species richness (No.): Trees	3	6	200%	5	3	6	200%	5	3	3	100%	5	
Shrubs	6	8	133%	5	6	9	150%	5	6	3	50%	2.5	
Grasses	7	3	43%	2.5	7	4	57%	2.5	7	4	57%	2.5	
Forbs	10	8	80%	2.5	10	1	10%	0	10	0	0%	0	
Tree canopy height (m): average of emergent, canopy and sub-canopy layer	16	15	94%	5	16	17	106%	5	16	12	75%	5	
Tree sub-canopy height	10	4.5	45%	3	10	5.5	55%	3	10	5.5	55%	3	
Average score				4.0				4.0				4.0	
Tree canopy cover (%): average of emergent, canopy and sub-canopy layer	36	49.4	137%	5	36	55.2	153%	5	36	24.2	67%	5	
Tree sub-canopy cover	25	10.9	44%	2	25	34.5	138%	5	25	28.7	115%	5	
Average score				3.5				5.0				5.0	
Shrub canopy cover (%):	16	19	119%	5	16	34.5	216%	3	16	24.1	151%	5	
Native perennial grass cover (%):	22	1	5%	0	22	5.6	25%	1	22	2	9%	0	
Organic litter (%):	31	49.6	160%	5	31	46.8	151%	5	31	24	77%	5	
Large trees/ha (euc./non-euc. combined)	17	76	447%	15	17	12	71%	10	17	24	141%	15	
Coarse woody debris (m/ha)	612	762	125%	5	612	270	44%	2	612	95	16%	2	
Non-native plant cover (%):	0	5	500%	0	0	7	700%	0	0	7	700%	0	
Site condition score (-/80)				57.5				47.5				49.0	
Size of patch (fragmented) (-/10)				2				2				2	
Connectedness (fragmented) (-/5)				0				0				0	
Context (fragmented) (-/5)				2				2				2	
Site context score (-/20)				4.0				4.0				4.0	
Assessment unit totals													
AU site condition score (-/7):												4.49	
AU site context score (-/3):												0.60	
AU habitat quality score (-/10):												5.09	
AU area within offset area:												19.67	
Total offset area for this MNES:												19.67	
Area weighting:												1.00	
AU weighted HQS:												5.09	
Total HQS all AUs:												5.09	

Appendix B3: Offset assessment table for brigalow TEC – future quality without offset

Assessment table for TEC offset	Assessment unit:	Bench- mark (BM)	AU1			BM	AU1			BM	AU1			
	Property:		Dululu				Dululu				Dululu			
	Assessment site no:		SCO_BC1				SCO_BC2				SCO_BC3			
	Regional ecosystem:		11.9.1	11.9.1			11.9.1	11.9.1			11.9.1	11.9.1		
Ecological condition indicator			Value	% BM	Score		Value	% BM	Score		Value	% BM	Score	
Recruitment of woody perennial species (%)		100			5	100			5	100			3	
Native plant species richness (No.): Trees		3			2.5	3			2.5	3			2.5	
Shrubs		6			2.5	6			2.5	6			2.5	
Grasses		7			2.5	7			2.5	7			2.5	
Forbs		10			2.5	10			0	10			0	
Tree canopy height (m): average of emergent, canopy and sub-canopy layer		16			5	16			5	16			5	
Tree sub-canopy height		10			3	10			3	10			3	
Average score					4.0				4.0				4.0	
Tree canopy cover (%): average of emergent, canopy and sub-canopy layer		36			5	36			5	36			5	
Tree sub-canopy cover		25			2	25			2	25			2	
Average score					3.5				3.5				3.5	
Shrub canopy cover (%):		16			3	16			3	16			3	
Native perennial grass cover (%):		22			0	22			0	22			0	
Organic litter (%):		31			5	31			5	31			5	
Large trees/ha (euc./non-euc. combined)		17			15	17			10	17			15	
Coarse woody debris (m/ha)		612			3	612			2	612			2	
Non-native plant cover (%):		0			0	0			0	0			0	
Site condition score (-/80)					48.5				40.0				43.0	
Size of patch (fragmented) (-/10)					2				2				2	
Connectedness (fragmented) (-/5)					0				0				0	
Context (fragmented) (-/5)					2				2				2	
Site context score (-/20)					4.0				4.0				4.0	
Assessment unit totals														
AU site condition score (-/7):														3.84
AU site context score (-/3):														0.60
AU habitat quality score (-/10):														4.44
AU area within offset area:														19.67
Total offset area for this MNES:														19.67
Area weighting:														1.00
AU weighted HQS:														4.44
Total HQS all AUs:														4.44

Appendix B4: Offset assessment table for brigalow TEC – future quality with offset

Assessment table for TEC offset	Assessment unit:	Bench- mark (BM)	AU1			BM	AU1			BM	AU1			
	Property:		Dululu				Dululu				Dululu			
	Assessment site no:		SCO_BC1				SCO_BC2				SCO_BC3			
	Regional ecosystem:		11.9.1				11.9.1				11.9.1			
Ecological condition indicator			Value	% BM	Score		Value	% BM	Score		Value	% BM	Score	
Recruitment of woody perennial species (%)		100			5	100			5	100			5	
Native plant species richness (No.): Trees		3			5	3			5	3			5	
Shrubs		6			5	6			5	6			5	
Grasses		7			2.5	7			2.5	7			2.5	
Forbs		10			2.5	10			2.5	10			2.5	
Tree canopy height (m): average of emergent, canopy and sub-canopy layer		16			5	16			5	16			5	
Tree sub-canopy height		10			5	10			5	10			5	
Average score					5.0				5.0				5.0	
Tree canopy cover (%): average of emergent, canopy and sub-canopy layer		36			5	36			5	36			5	
Tree sub-canopy cover		25			5	25			5	25			5	
Average score					55.0				5.0				5.0	
Shrub canopy cover (%):		16			5	16			5	16			5	
Native perennial grass cover (%):		22			3	22			3	22			3	
Organic litter (%):		31			5	31			5	31			5	
Large trees/ha (euc./non-euc. combined)		17			15	17			15	17			15	
Coarse woody debris (m/ha)		612			5	612			5	612			5	
Non-native plant cover (%):		0			5	0			5	0			5	
Site condition score (-/80)					68.0				68.0				68.0	
Size of patch (fragmented) (-/10)					2				2				2	
Connectedness (fragmented) (-/5)					0				0				0	
Context (fragmented) (-/5)					2				2				2	
Site context score (-/20)					4.0				4.0				4.0	
Assessment unit totals														
AU site condition score (-/7):														5.95
AU site context score (-/3):														0.60
AU habitat quality score (-/10):														6.55
AU area within offset area:														19.67
Total offset area for this MNES:														19.67
Area weighting:														1.00
AU weighted HQS:														6.55
Total HQS all AUs:														6.55

Appendix C: Regional ecosystem technical descriptions

Appendix C1: RE 11.3.1

Technical Description

Regional ecosystem: 11.3.1

Acacia harpophylla and/or Casuarina cristata open forest on alluvial plains



Don Butler

Pre-clearing area (ha), remnant area (ha) and per cent remaining: 778,179 79,646 10%

Species recorded: Total: 139; woody: 41; ground: 109; Avg. spp./site: 21.6; std dev.: 5.2, 7 site(s)

Basal area: Avg./site: 13.3 m²/ha, range: 8.0 - 22 m²/ha, std. deviation: 4 m²/ha, 13 site(s)

Structural formation: Open-forest: 46%; woodland: 31%; open-woodland: 23%, 13 site(s)

Representative_sites 16837, 16912, 17083, 17181, 17227, 17235, 17244, 17304, 17593, 19242, 19245, 19252, 58114.

Stratum: Emergent

Height avg. = 15.0m, 1 site

Crown cover avg. = 10.0%, 1 site

Frequent species (cover, frequency): *Eucalyptus coolabah* (10, 8%)

Stratum: Tree 1

Height avg. = 15.1m, range 10-22m, 13 sites

Crown cover avg. = 32.7%, range 7.0-65.0%, 13 sites

Dominant species (relative cover, frequency): *Acacia harpophylla* (75, 85%), *Eucalyptus coolabah* (37, 23%), *Casuarina cristata* (30, 38%), *Terminalia oblongata* subsp. *oblongata* (18, 23%)

Frequent species (cover, frequency): *Acacia harpophylla* (26, 85%), *Casuarina cristata* (11, 38%), *Eucalyptus coolabah* (10, 23%), *Terminalia oblongata* subsp. *oblongata* (2, 23%), *Eucalyptus cambageana* (20, 15%), *Brachychiton rupestris* (1, 8%), *Eucalyptus populnea* (8%), *Lysiphylum carronii* (5, 8%), *Lysiphylum hookeri* (8%), *Melaleuca bracteata* (2, 8%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (*) after the name. indet. after listed name = indeterminate species or genus

1/03/2018

Technical Description

Regional ecosystem: 11.3.1

Stratum: Tree 2

Height avg. = 7.8m, range 4-12m, 8 sites

Crown cover avg. = 18.3%, range 5.0-30.0%, 8 sites

Dominant species (relative cover, frequency): *Acacia harpophylla* (80, 23%), *Lysiphyllum carronii* (48, 23%)

Frequent species (cover, frequency): *Acacia harpophylla* (14, 23%), *Lysiphyllum carronii* (4, 23%), *Casuarina cristata* (3, 15%), *Geijera parviflora* (13, 15%), *Lysiphyllum hookeri* (6, 15%), *Acacia salicina* (5, 8%), *Alectryon diversifolius* (1, 8%), *Alectryon oleifolius* subsp. *elongatus* (8%), *Brachychiton rupestris* (1, 8%), *Bridelia leichhardtii* (1, 8%), *Capparis lasiantha* (1, 8%), *Denhamia oleaster* (8%), *Diospyros humilis* (8%), *Elattostachys xylocarpa* (1, 8%), *Eremophila mitchellii* (5, 8%), *Melaleuca bracteata* (5, 8%), *Notelaea microcarpa* (5, 8%), *Opuntia tomentosa** (8%), *Planchonella cotinifolia* var. *pubescens* (1, 8%), *Psyrax odorata* (8%), *Psyrax odorata* forma *buxifolia* (8%), *Santalum lanceolatum* (8%), *Terminalia oblongata* subsp. *oblongata* (10, 8%)

Stratum: Tree 3

Height avg. = 4.0m, range 3-5m, 2 sites

Crown cover avg. = 6.5%, range 1.0-12.0%, 2 sites

Frequent species (cover, frequency): *Acacia harpophylla* (3, 8%), *Alectryon diversifolius* (2, 8%), *Capparis lasiantha* (8%), *Diospyros humilis* (2, 8%), *Elattostachys xylocarpa* (8%), *Eremophila mitchellii* (21, 8%), *Exocarpos latifolius* (1, 8%), *Pittosporum spinescens* (3, 8%)

Stratum: Shrub 1

Height avg. = 1.9m, range 1-6m, 11 sites

Crown cover avg. = 13.3%, range 1.0-40.0%, 12 sites

Dominant species (relative cover, frequency): *Geijera parviflora* (67, 23%), *Acacia harpophylla* (31, 46%), *Carissa ovata* (28, 46%), *Alectryon diversifolius* (22, 62%), *Lysiphyllum hookeri* (18, 23%)

Frequent species (cover, frequency): *Alectryon diversifolius* (2, 62%), *Acacia harpophylla* (2, 46%), *Carissa ovata* (8, 46%), *Terminalia oblongata* subsp. *oblongata* (1, 31%), *Geijera parviflora* (14, 23%), *Lysiphyllum hookeri* (1, 23%), *Apophyllum anomalum* (1, 15%), *Casuarina cristata* (1, 15%), *Diospyros humilis* (4, 15%), *Eremophila deserti* (3, 15%), *Eremophila mitchellii* (4, 15%), *Lysiphyllum carronii* (1, 15%), *Acacia salicina* (1, 8%), *Alectryon oleifolius* subsp. *elongatus* (1, 8%), *Alphitonia excelsa* (1, 8%), *Atalaya hemiglaucula* (8%), *Brachychiton rupestris* (1, 8%), *Breynia oblongifolia* (1, 8%), *Capparis lasiantha* (1, 8%), *Citrus glauca* (8%), *Clematicissus opaca* (8%), *Ehretia membranifolia* (8%), *Eremophila bignoniiflora* (8%), *Eremophila maculata* (1, 8%), *Geijera salicifolia* (1, 8%), *Opuntia tomentosa** (8%), *Pittosporum spinescens* (8%), *Psyrax odorata* (1, 8%), *Sida cordifolia** (20, 8%)

Stratum: Shrub 2

Height avg. = 1.5m, 1 site

Crown cover avg. = 5.0%, 1 site

Frequent species (cover, frequency): *Lysiphyllum hookeri* (1, 8%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (*) after the name. indet. after listed name = indeterminate species or genus

1/03/2018

Technical Description

Regional ecosystem: 11.3.1

Stratum: Ground

Height avg. = 0.4m, range 0.2-0.6m, 7 sites

PFC avg. = 25.4%, range 3-60%, 7 sites

Dominant species (relative cover, frequency): *Paspalidium caespitosum* (36, 43%), *Sclerolaena tetracuspis* (23, 43%), *Carissa ovata* (20, 43%), *Alectryon diversifolius* (19, 43%), *Parthenium hysterophorus** (10, 43%)

Frequent species (cover, frequency): GRAMINOIDS: *Cyperus indet.* (57%), *Paspalidium caespitosum* (13, 43%), *Sporobolus caroli* (1, 43%), *Echinochloa colona** (29%), *Enteropogon acicularis* (29%), *Paspalidium jubiflorum* (1, 29%), *Ancistrachne uncinulata* (14%), *Aristida gracilipes* (15, 14%), *Cenchrus ciliaris** (14%), *Dinebra decipiens* (14%), *Dinebra decipiens* var. *decipiens* (10, 14%), *Eleocharis pallens* (1, 14%), *Enneapogon indet.* (14%), *Enteropogon ramosus* (2, 14%), *Eragrostis leptostachya* (14%), *Eriochloa procera* (2, 14%), *Eriochloa pseudoacrotricha* (14%), *Heteropogon contortus* (14%), *Iseilema vaginiflorum* (1, 14%), *Megathyrsus maximus** (14%), *Panicum indet.* (14%), *Panicum queenslandicum* (14%), *Paspalidium globoideum* (14%), *Paspalidium indet.* (14%), *Sporobolus creber* (2, 14%), *Sporobolus disjunctus* (1, 14%), *Sporobolus elongatus* (14%)

FORBS: *Capparis lasiantha* (57%), *Abutilon oxycarpum* (43%), *Alectryon diversifolius* (4, 43%), *Carissa ovata* (1, 43%), *Parthenium hysterophorus** (1, 43%), *Sclerolaena tetracuspis* (7, 43%), *Abutilon oxycarpum* var. *oxycarpum* (29%), *Brunoniella australis* (29%), *Salsola australis* (2, 29%), *Abutilon guineense** (14%), *Acacia harpophylla* (1, 14%), *Alternanthera denticulata* (14%), *Alternanthera nodiflora* (14%), *Amaranthus macrocarpus* (14%), *Asteraceae indet.* (1, 14%), *Boerhavia burbridgeana* (14%), *Boerhavia indet.* (14%), *Bryophyllum delagoense** (14%), *Cayratia indet.* (1, 14%), *Clematicissus opaca* (14%), *Commelina ensifolia* (14%), *Commelina lanceolata* (14%), *Cynanchum viminalis* (3, 14%), *Duma florulenta* (1, 14%), *Einadia nutans* subsp. *linifolia* (14%), *Einadia nutans* subsp. *nutans* (14%), *Enchylaena tomentosa* var. *tomentosa* (14%), *Geijera parviflora* (14%), *Goodenia indet.* (14%), *Heliotropium indicum** (14%), *Heliotropium ovalifolium* (14%), *Jasminum didymum* subsp. *racemosum* (14%), *Lysiphylum carronii* (14%), *Malvaceae indet.* (14%), *Melhania oblongifolia* (14%), *Oxalis indet.* (14%), *Parsonsia indet.* (14%), *Pittosporum spinescens* (14%), *Plectranthus graveolens* (14%), *Portulaca oleracea** (14%), *Rhagodia spinescens* (14%), *Rorippa eustylis* (14%), *Rostellularia adscendens* (14%), *Sclerolaena muricata* var. *muricata* (14%), *Senecio tuberculatus* (14%), *Sesbania cannabina* (14%), *Sida indet.* (14%), *Sida spinosa** (14%), *Solanum stelligerum* (14%), *Terminalia oblongata* subsp. *oblongata* (14%), *Verbena litoralis** (14%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (*) after the name. indet. after listed name = indeterminate species of genus

1/03/2018

Appendix C2: RE 11.9.1

Technical Description

Regional ecosystem: 11.9.1

Acacia harpophylla-Eucalyptus cambageana woodland to open forest on fine-grained sedimentary rocks



Pre-clearing area (ha), remnant area (ha) and per cent remaining: 565,070 54,293 10%

Species_recorded: Total: 131; woody: 50; ground: 95; Avg. spp./site: 30.0; std dev.: 10.2, 4 site(s)

Basal area: Avg./site: 21.5 m²/ha, range: 10.5 - 47 m²/ha, std. deviation: 12 m²/ha, 9 site(s)

Structural formation: Woodland: 44%; open-forest: 33%; low woodland: 11%; low open-forest: 11%, 9 site(s)

Representative_sites 16620, 16834, 16847, 16976, 17027, 17487, 17543, 17544, 17573.

Stratum: Emergent

Height avg. = 17.3m, range 14-20m, 3 sites

Crown cover avg. = 5.0%, range 2.0-10.0%, 3 sites

Dominant species (relative cover, frequency): *Eucalyptus cambageana* (83, 33%)

Frequent species (cover, frequency): *Eucalyptus cambageana* (4, 33%), *Acacia harpophylla* (1, 11%)

Stratum: Tree 1

Height avg. = 16.0m, range 8-25m, 9 sites

Crown cover avg. = 41.2%, range 15.0-60.0%, 9 sites

Dominant species (relative cover, frequency): *Eucalyptus cambageana* (61, 78%), *Acacia harpophylla* (49, 56%)

Frequent species (cover, frequency): *Eucalyptus cambageana* (25, 78%), *Acacia harpophylla* (22, 56%), *Brachychiton rupestris* (11%), *Cadellia pentastylis* (44, 11%), *Casuarina cristata* (15, 11%), *Fremophila mitchellii* (3, 11%), *Eucalyptus thozetiana* (15, 11%), *Notelaea microcarpa* (1, 11%)

Stratum: Tree 2

Height avg. = 11.0m, range 8-18m, 4 sites

Crown cover avg. = 26.0%, range 10.0-50.0%, 5 sites

Dominant species (relative cover, frequency): *Acacia harpophylla* (82, 56%), *Eucalyptus cambageana* (15, 22%)

Frequent species (cover, frequency): *Acacia harpophylla* (23, 56%), *Eucalyptus cambageana* (4, 22%), *Acacia shirleyi* (2, 11%), *Casuarina cristata* (1, 11%), *Clematicissus opaca* (2, 11%), *Fremophila mitchellii* (1, 11%), *Geijera parviflora* (3, 11%), *Opuntia stricta** (11%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (*) after the name. indet. after listed name = indeterminate species or genus

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Technical Description

Regional ecosystem: 11.9.1

Stratum: Tree 3

Height avg. = 3.7m, range 3-4m, 3 sites

Crown cover avg. = 6.3%, range 3.0-8.0%, 3 sites

Dominant species (relative cover, frequency): *Eremophila mitchellii* (67, 22%), *Erythroxylum* sp. (Splityard Creek L. Pedley 5360) (40, 22%), *Acacia harpophylla* (23, 22%)

Frequent species (cover, frequency): *Acacia harpophylla* (1, 22%), *Eremophila mitchellii* (5, 22%), *Erythroxylum* sp. (Splityard Creek L. Pedley 5360) (2, 22%), *Alectryon diversifolius* (1, 11%), *Psyrax oleifolia* (2, 11%)

Stratum: Shrub 1

Height avg. = 2.7m, range 1.2-4m, 6 sites

Crown cover avg. = 12.3%, range 2.0-20.0%, 7 sites

Dominant species (relative cover, frequency): *Eremophila mitchellii* (48, 33%), *Geijera parviflora* (32, 56%), *Pittosporum spinescens* (30, 22%), *Alectryon diversifolius* (12, 22%), *Acacia harpophylla* (3, 22%)

Frequent species (cover, frequency): *Ancistrachne uncinata* (11%), *Cenchrus ciliaris** (2, 11%), *Dinebra decipiens* (11%), *Enneapogon gracilis* (11%), *Enneapogon intermedius* (11%), *Enneapogon polyphyllus* (11%), *Enteropogon acicularis* (40, 11%), *Enteropogon unispicus* (1, 11%), *Eragrostis* indet. (11%), *Eragrostis megalosperma* (11%), *Paspalidium gracile* (15, 11%), *Geijera parviflora* (5, 56%), *Eremophila mitchellii* (7, 33%), *Acacia harpophylla* (3, 22%), *Alectryon diversifolius* (1, 22%), *Pittosporum spinescens* (5, 22%), *Abutilon oxycarpum* (11%), *Alphitonia excelsa* (1, 11%), *Atalaya hemiglaucula* (1, 11%), *Boerhavia dominii* (11%), *Capparis mitchellii* (2, 11%), *Carissa ovata* (4, 11%), *Clematicissus opaca* (2, 11%), *Cynanchum viminale* subsp. *brunonianum* (1, 11%), *Dianella* indet. (11%), *Diospyros humilis* (10, 11%), *Erythroxylum australe* (8, 11%), *Euphorbia tannensis* subsp. *eremophila* (11%), *Maireana microcarpa* (11%), *Parsonsia lanceolata* (11%), *Phyllanthus similis* (11%), *Pittosporum* indet. (4, 11%), *Psyrax oleifolia* (11%), *Sida* indet. (11%)

Stratum: Shrub 2

Height avg. = 1.1m, range 0.5-1.5m, 4 sites

Crown cover avg. = 17.6%, range 2.0-50.0%, 5 sites

Dominant species (relative cover, frequency): *Carissa ovata* (64, 33%)

Frequent species (cover, frequency): *Carissa ovata* (18, 33%), *Acacia shirleyi* (1, 11%), *Acalypha eremorum* (45, 11%), *Alectryon diversifolius* (11%), *Capparis lasiantha* (11%), *Croton insularis* (1, 11%), *Eucalyptus thozetiana* (1, 11%), *Hibiscus sturtii* var. *sturtii* (11%), *Petalostigma pubescens* (1, 11%), *Sclerolaena birchii* (11%)

Stratum: Ground

Height avg. = 0.3m, range 0.25-0.5m, 4 sites

PFC avg. = 29.0%, range 8-55%, 4 sites

Dominant species (relative cover, frequency): *Sporobolus scabridus* (100, 25%), *Echinochloa colona** (37, 25%), *Paspalidium caespitosum* (24, 75%), *Carissa ovata* (20, 25%), *Cenchrus* indet. (13, 25%)

Frequent species (cover, frequency): GRAMINOIDS: *Ancistrachne uncinata* (1, 75%), *Cenchrus ciliaris** (2, 75%), *Paspalidium caespitosum* (3, 75%), *Cymbopogon refractus* (1, 50%), *Cyperus gracilis* (1, 50%), *Aristida gracilipes* (25%), *Aristida jerichoensis* var. *subspiculifera* (25%), *Aristida personata* (2, 25%), *Astrebula* indet. (25%), *Bothriochloa decipiens* var. *decipiens* (25%), *Cenchrus* indet. (2, 25%), *Chloris gayana** (25%), *Chloris virgata** (6, 25%), *Dactyloctenium radulans* (25%), *Digitaria* indet. (25%), *Echinochloa colona** (20, 25%), *Enneapogon polyphyllus* (1, 25%), *Enteropogon ramosus* (6, 25%), *Eragrostis brownii* (1, 25%), *Eragrostis lacunaria* (1, 25%), *Heteropogon contortus* (25%), *Melinis repens** (25%), *Paspalidium jubiflorum* (2, 25%), *Setaria palmifolia** (25%), *Sporobolus caroli* (4, 25%), *Sporobolus* indet. (1, 25%), *Sporobolus scabridus* (25%), *Tragus australianus* (25%), *Urochloa mosambicensis** (25%)
FORBS: *Enchylaena tomentosa* (75%), *Capparis lasiantha* (1, 50%), *Marsdenia viridiflora* (1, 50%), *Opuntia stricta** (50%), *Solanum ellipticum* (1, 50%), *Abutilon* indet. (25%), *Abutilon oxycarpum* (25%), *Achyranthes aspera* (25%), *Alternanthera* indet. (25%), *Apocynaceae* indet. (25%), *Atalaya hemiglaucula* (1, 25%), *Brunonia australis* (25%), *Capparis* indet. (25%), *Carissa ovata* (3, 25%), *Einadia hastata* (25%), *Euphorbia* indet. (25%), *Ficus rubiginosa* (25%), *Herissantia crispa* (25%), *Hibiscus sturtii* (25%), *Lamiaceae* indet. (25%), *Maireana microphylla* (2, 25%), *Malvastrum americanum* var. *americanum** (25%), *Ocimum* indet. (25%), *Oxalis* indet. (1, 25%), *Parsonsia* indet. (25%), *Parthenium hysterophorus** (25%), *Pseuderanthemum variable* (1, 25%), *Sclerolaena muricata* (25%), *Sida fibulifera* (25%), *Sida* sp. (Musselbrook M.B. Thomas + MRS437) (1, 25%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum, (only comprehensive sites used for ground stratum).

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species % (of comprehensive sites) are listed as either graminoid or forb.

Naturalised species have an asterisk (*) after the name. indet. after listed name = indeterminate species or genus

1/03/2018

Attachment 1: Ecological survey report

Smoky Creek Solar Power Station Brigalow TEC Assessment (Terra Solutions 2025)

IRef: 202104-2
28 April 2025

Patrick Dale
Edify Energy
Level 3, 201 Charlotte Street
BRISBANE QLD 4000

Dear Patrick,

RE: Smoky Creek Solar Power Station Brigalow TEC Assessment

Regarding the above-mentioned project, we provide the following summary which combines the previously sent letters pertaining to the TEC Impact Assessment¹ and implementation of the Smoky Creek Biodiversity Offset². The data provided for each component is summarised as per their respective project scopes.

1.1 Project Summary

Edify Energy obtained EPBC Act approval for the Smoky Creek Solar Power Station (EPBC ref 2021/9030) on 27 September 2023. Conditions of the approval included the requirement to offset impacts to the Brigalow (*Acacia harpophylla* dominant and co-dominant) Threatened Ecological Community (TEC). Relevant conditions of the approval state the following:

2) To avoid and mitigate harm to protected matters, the approval holder must not clear:

a) more than 5 hectares (ha) of Brigalow TEC, comprising no more than:

- i) 3 ha in watercourse 1.
- ii) 2 ha in water course 2.

7) To compensate for the clearance of Brigalow TEC, up to the limit specified in condition 2, the approval holder must, prior to any clearance of any Brigalow TEC, submit to the department an Offset Management Plan in writing for approval by the Minister. The approval holder must not commence clearing any Brigalow TEC unless the Offset Management Plan has been approved in writing by the Minister. The approval holder must commence implementing the approved Offset Management Plan prior to the clearance of any Brigalow TEC and continue to implement the approved Offset Management Plan at least until the expiry of this approval. The Offset Management Plan must meet the requirements of the Environmental Offsets Policy and the Environmental Management Plan Guidelines to the satisfaction of the Minister.

8) To compensate for the residual significant impacts of the Action on Brigalow TEC, the approval holder must not clear any Brigalow TEC unless the offset site(s) specified in the approved Offset Management Plan is secured.

During the EPBC Act approval process it was not possible to determine the extent and location of potential impacts to Brigalow TEC, as the impact location of vehicle and cable crossings would not be known until the detailed design phase.

While the final location of the impact is yet to be determined, Edify Energy have requested a quality assessment of the existing Brigalow TEC associated with Watercourse 1 and Watercourse 2 (Attachment E of the EPBC Approval) to inform both the 'total quantum of impact', offset requirements, and project design considerations and options.

¹ Terra Solutions, 'RE: Smoky Creek Solar Power Station Brigalow TEC Assessment - Addressed to Patrick Dale of Edify Energy', Letter, 2 October 2024.

² Terra Solutions, 'RE: Implementation of Edify Energy Biodiversity Offset for Smoky Creek Solar Power Station - Addressed to Patrick Dale of Edify Energy', Letter, 27 March 2024.

1.2 Scope of Works

The scope of the Smoky Creek Solar Power Station Brigalow TEC Assessment was the following:

- Assess potential TECs against key diagnostic characteristics
- Assess all mapped Brigalow TEC within Watercourse 1 and Watercourse 2 to determine the BioCondition 'quality' variations throughout Smoky SPS' site.
- Provide BioCondition data for the Brigalow TEC for use in the EPBC environmental offset calculator.
- Provide shapefiles to illustrate variation in BioCondition quality to inform the project design, and
- Apply a 4.99 ha impact area and conservatively adopt the highest BioCondition 'quality' scoring [0-10] of the Brigalow TEC noted on the site to ascertain the 'total quantum of impact'.

The scope of the Dululu BioCondition offset establishment and assessment was the following:

- Assess potential TECs against key diagnostic characteristics
- Assess all mapped Brigalow TEC within the proposed offset area to determine the BioCondition 'quality' variations throughout.
- Supplementary assessment of the proposed offset area to describe connectivity with the surrounding landscape/

1.3 TEC Assessment Methodology

To determine potential offset requirements for project impacts to Brigalow TEC in accordance with the EPBC Act, and the suitability of the proposed offset, TECs were assessed against their key diagnostic criteria. The communities were also assessed against the relevant BioCondition Benchmarks to determine their quality and condition. BioCondition Benchmarks³ were available for the Brigalow Regional Ecosystems (REs) associated with the watercourses and used to assess quality and score vegetation along each watercourse.

TEC status and biocondition assessments were undertaken by Terra Solutions at the proposed offset site on 18 March 2024 and at the Smoky Creek impact area on 13 – 15 August 2024.

1.3.1 Key Diagnostic Characteristics

The 'Approved Conservation Advice for the Brigalow (*Acacia harpophylla* dominant and co-dominant) ecological community'⁴ identifies the following key diagnostic characteristics for the TEC.

- 1) The presence of *Acacia harpophylla* as one of the most abundant tree species in the patch. *A. harpophylla* is either dominant in the tree layer, or co-dominant with other species (notably *Casuarina cristata*, other species of *Acacia*, or species of *Eucalyptus*)

AND

- 2a) In Queensland – the patch is in one of the following Qld bioregions (including outliers) and it meets the description of one of 16 Qld REs determined at the time of the national listing of the Brigalow ecological community under the EPBC Act. The 16 REs are, as described by the Queensland Herbarium (2013):

- In the Qld Brigalow Belt Bioregion – REs 11.3.1, 11.4.3, 11.4.7, 11.4.8, 11.4.9, 11.4.10, 11.5.16, 11.9.1, 11.9.5, 11.9.6, 11.11.14 and 11.12.21,
- In the Qld Southeast Queensland Bioregion – REs 12.8.23, 12.9-10.6 and 12.12.26; or,
- In the Qld Mulga Lands Bioregion – RE 6.4.2

³ Teresa J. Eyre et al., 'BioCondition: A Condition Assessment Framework for Terrestrial Biodiversity in Queensland. Assessment Manual. Version 2.2' (Brisbane, QLD: Queensland Herbarium Science Delivery Division, Department of Science, Information Technology, Innovation and the Arts, 2015), https://www.qld.gov.au/__data/assets/pdf_file/0029/68726/biocondition-assessment-manual.pdf.

⁴ Department of the Environment, 'Approved Conservation Advice for the Brigalow (*Acacia harpophylla* Dominant and Co-Dominant) Ecological Community' (Canberra: Department of Environment, 2013), <https://www.environment.gov.au/biodiversity/threatened/communities/pubs/028-conservation-advice.pdf>.

OR

2c) The vegetation in the patch is brigalow regrowth with species composition and structural elements broadly typical of one of the identified QLD REs or NSW vegetation communities (although species density may be reduced). This can be assumed to be the case where it has been at least 15 years since it was last comprehensively cleared (not just thinned); unless direct evidence proves otherwise.

Condition Thresholds

A patch must meet the following condition thresholds to be considered the Brigalow ecological community:

3) The patch is 0.5 ha or more in size;

AND

4) Exotic perennial plants comprise less than 50% of the total vegetation cover of the patch, as assessed over a minimum sample area of 0.5 ha (100 m by 50 m), that is representative of the patch.

1.3.2 BioCondition Assessments

BioCondition was assessed at the proposed Smoky Creek Solar Power Station impact area and its proposed offset at Dululu.

1.3.2.1 Impact Area Site Selection

Assessments of TECs in the impact area were undertaken at six representative locations across the two project area watercourses using the methodology prescribed in the *BioCondition Assessment Manual V2.2*⁵ to determine variation in quality across the existing Brigalow TEC. Sites were selected during an initial desktop assessment and based on obtaining representative areas within vegetation of differing density (as an assumed proxy for quality) in the aerial imagery.

1.3.2.2 Offset Area Site Selection

Monitoring sites were selected considering the size and representativeness of the vegetation community and accessibility.

The sites were installed at the locations indicated in Table 2 using 60cm star pickets to mark the start and end of each transect. Star pickets were approximately 40cm tall once installed and an orange safety cap was secured to the top of the picket using tie wire to reduce the risk of injury. Caps were labelled with the site name and the position recorded using the Fulcrum® mapping and data collection application.

Table 1: Monitoring locations using CRS: WGS84 / EPSG:4326 (Fulcrum default)

Site Name	Start		Middle		End	
	Latitude	Longitude	Latitude	Longitude	Latitude	Longitude
SCO_BC1	-23.8584	150.2140	-23.8590	150.2139	-23.859	150.2139
SCO_BC2	-23.8588	150.2167	-23.8583	150.2166	-23.858	150.2165
SCO_BC3	-23.8613	150.2166	-23.8608	150.2166	-23.8603	150.2166

BioCondition Plots

Site locations were confirmed in the field based on community representativeness. Sites were not permanently established as ongoing monitoring is not required, however site location (i.e. latitude longitude) at the start and end

⁵ Eyre et al., 'BioCondition: A Condition Assessment Framework for Terrestrial Biodiversity in Queensland. Assessment Manual. Version 2.2'.

of the transect were captured using GPS.

At each site BioCondition plots were set out by establishing a 100 m transect and 50 m wide plot along the contour as shown in Figure 1. The start and end points of each plot were marked using GPS and representative photographs of the plot taken in each aspect (i.e. north, east, south, west) from the centre (50 m mark) of the plot. Each plot was divided into sub-plots, as illustrated by the plot layout diagram provided as Figure 1, and the following attributes are recorded.

- 100 m transect:
 - Tree canopy cover.
 - Shrub canopy cover.
- 100 m by 50 m plot:
 - Total number of large eucalypt and non-eucalypt trees.
 - Height of ecologically dominant layer and other canopy/sub-canopy/emergent layers.
 - Tree species richness.
 - Proportion of the dominant canopy species with evidence of recruitment.
- 50 m by 10 m plot:
 - Species richness of shrubs, grass, forbs and other native species.
 - Weed cover.
- Five 1 m by 1 m quadrats:
 - Percent cover of native perennial grass.
 - Percent cover of organic litter.

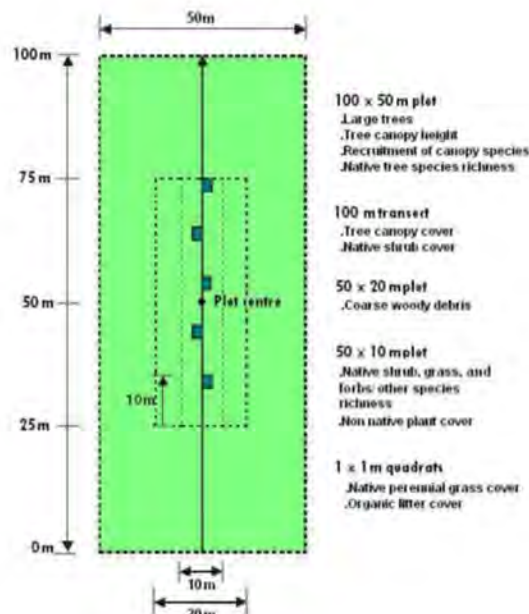


Figure 1: BioCondition Field Site Area & Layout

Data Collection & Condition Scoring

The data was collected using field data collection application Fulcrum® using customisable collection fields developed by Terra Solutions. Data was entered into a BioCondition scoring sheet and compared to representative benchmark data for the regional ecosystems for each assessment unit. These scores were then used to determine an overall condition score for each assessment unit.

The Queensland Herbarium has published benchmark data that are best-on-offer examples for REs. Benchmark data may be used to set completion criteria for rehabilitation sites and determine the condition score for impact sites. BioCondition benchmarks are available for the mapped *Acacia harpophylla* dominant communities within the Brigalow Belt bioregion. The BioCondition benchmarks used for assessment were determined by ecologists in the field, based on community verification.

Photo Point Assessment

Areas identified as low vegetation density and potentially suitable for construction of crossings in the impact area without causing impact to Brigalow TEC were visually assessed in the field and photos taken to capture the current condition (Attachment C).

Habitat Quality Assessment

BioCondition scores were converted to habitat scores out of 10 as per the *Guide to determining terrestrial habitat quality methodology*⁶. The full extent of the mapped Brigalow TEC areas were then assessed via aerial imagery and assigned a habitat quality score based on the density of vegetation in comparison with assessed areas.

Survey Timing

Preferably, BioCondition assessments for the region of the project should be carried out in the late wet season, May to June in accordance with the Biocondition Monitoring Manual which states that:

The best time for assessment is at the end of the summer rainfall growing season, when plant diversity is greatest. For the majority of Queensland, this is often from late March to late May, but is dependent on local seasonal conditions. South of the Tropic of Capricorn, site assessment should be generally conducted in May or June following the wetter summer months. An exception would be sampling in spring following an unseasonably wet winter, when many plant species are flowering.

As Edify require out of season assessments to progress the project, consideration was given to attributes which may obtain higher values, such as ground layer cover and species richness. As a minimum, and where possible, dry matter was identified to cover type and species identified to genus and/or simple numbers of different 'species' with or without formal identification.

Mapping & Data

Results of the field assessments and BioCondition scores were used to prepare Brigalow TEC quality mapping (Attachments A and B) and 'total quantum of impact' calculations for the potential impact TEC's.

1.4 Results – TEC Impact Assessment

1.4.1 Impact Area Watercourses 1 & 2

Watercourses 1 and 2 were assessed at six locations to determine the variation in habitat quality along the watercourses and inform a worst-case quantum of impact for future offset requirements. Areas not directly assessed using BioCondition plots were assigned habitat quality values based on vegetation density and assessed via aerial imagery. Photographs were taken at three sites where vegetation density was low enough to be considered locally non-remnant and provided for reference purposes. Watercourses 1 and 2 were remapped by habitat quality score to

⁶ DESI, 'Guide to Determining Terrestrial Habitat Quality - Methods for Assessing Habitat Quality under the Queensland Environmental Offsets Policy - Version 1.3' (Brisbane: Department of Environment, Science and Innovation, February 2020), https://environment.des.qld.gov.au/__data/assets/pdf_file/0017/102833/habitat-quality-assessment-guide-v1-3.pdf.

inform future project detailed design. The results of the assessments are provided in Images for these areas are provided in Attachment C.

Table 2 and mapped habitat quality areas provided in Attachment A and B. Data for each of the sites is provided in Attachment D.

Within Watercourse 1, the highest quality habitat score recorded (or inferred) was 6 at WC1_J, WC1_L, WC1_N and WC1_P. Vegetation with this habitat score was found to occupy a total area of 7.995 ha. A lower quality habitat score of 4 was recorded (or inferred) for areas WC1_K, WC1_M and WC1_O and mapped over an area of 2.163 ha.

Within Watercourse 2, the highest habitat quality score of 6 was recorded in area WC2_A (0.885 ha), at the southernmost extent. The remainder of the Watercourse 2 vegetation achieved a habitat score of 5 (14.871 ha) except for three areas (which were visually assessed as having habitat values of 0, WC2_C, WC2_E and WC2_G. The total area of these low-quality habitat areas is 1.1 ha. Images for these areas are provided in Attachment C.

Table 2: Brigalow TEC BioCondition & Habitat Scores for Watercourses 1 & 2

AREA NAME	RE PRESENT	VEGETATION PRESENT	ASSESSMENT TYPE	ASSESSMENT SITE	BIOCONDITION SCORE	HABITAT QUALITY SCORE	AREA (HA)
Watercourse 1							
WC1_J	11.9.5	Brigalow woodland	BioCond	WC1.BC4	57	6	2.346
WC1_L	11.9.5	Brigalow woodland	BioCond	WC1.BC5	57	6	2.809
WC1_N	11.9.5	Brigalow woodland	Inferred	WC1.BC4_AI	n/a	6	2.538
WC1_P	11.9.5	Brigalow woodland	Inferred	WC1.BC5_AI	n/a	6	0.302
						Total	7.995
WC1_K	11.9.5	Brigalow woodland	Inferred	WC1.BC6_AI	n/a	4	0.59
WC1_M	11.9.5	Brigalow woodland	Inferred	WC1.BC6_AI	n/a	4	0.172
WC1_O	11.9.5	Brigalow woodland	BioCond	WC1.BC6	46	4	1.401
						Total	2.163
Watercourse 2							
WC2_C	Non-remnant	Non-remnant	Photo Point	WC2.P1	0	0	0.402
WC2_E	Non-remnant	Non-remnant	Photo Point	WC2.P2	0	0	0.362
WC2_G	Non-remnant	Non-remnant	Photo Point	WC2.P3	0	0	0.332
						Total	1.096
WC2_B	11.9.1	Brigalow	BioCond	WC2.BC2	54.5	5	3.237

AREA NAME	RE PRESENT	VEGETATION PRESENT	ASSESSMENT TYPE	ASSESSMENT SITE	BIOCONDITION SCORE	HABITAT QUALITY SCORE	AREA (HA)
woodland							
WC2_D	11.9.1	Brigalow woodland	BioCond	WC2.BC3	52	5	4.402
WC2_F	11.9.1	Brigalow woodland	Inferred	WC2.BC2_AI	n/a	5	2.102
WC2_H	11.9.1	Brigalow woodland	Inferred	WC2_BC2_AI	n/a	5	3.184
WC2_I	11.9.1	Brigalow woodland	Inferred	WC2.BC3_AI	n/a	5	1.946
Total							14.871
WC2_A	11.9.1	Brigalow woodland	BioCond	WC2.BC1	62.5	6	0.885
Total							0.885

1.4.2 Total Quantum Impact

As the highest habitat quality scores for Watercourse 1 and Watercourse 2 was 6, the 'Total Quantum Impact' for the up to 5-hectare impact area is 3.0 ha, comprising the following:

- Watercourse 1 – 3 ha impact: total quantum impact 1.8 ha, and
- Watercourse 2 – 2 ha impact: total quantum impact 1.2 ha.

1.5 Results – Offset Installation

1.5.1 Decision on Offset Area Option

Terra Solutions ecologists met with the Lot 96 RN201 landholder Viv Hunt on the morning of 18 March 2024. Mr Hunt was provided with options for the location of a 20 Ha offset for potential impacts to Brigalow (*Acacia harpophylla* dominant and co-dominant) Threatened Ecological Community (TEC) from the proposed Smoky Creek Solar Power Station (Table 1, Figure 1). After some discussion about the grazing potential of the two larger areas, Mr Hunt expressed that Area A had better grazing potential than Areas B, C and D (Figure 1), and that the latter contained significantly more large fallen woody debris than the former, making the management of cattle in this area more challenging. It was therefore Mr Hunt's preference that the offset site would be located within Areas B, C and D (Option B in Table 1).

Table 3: Offset location options to achieve 20 Ha area

Area Name	Status	RE	Area (Ha)	Option A	Option B	Option C	Option D
Area A1	Remnant	11.9.1/11.3.1	17.41	17.41		17.41	17.41
Area A2	Re-growth	11.9.1/11.3.1	2.40	2.40			
Area A3	Re-growth	11.9.1/11.3.1	0.31	0.31			
Area B1	Remnant	11.9.1/11.3.1	2.13		2.13	2.13	2.13
Area B2	Re-growth	11.9.1/11.3.1	0.65		0.65	0.65	
Area B3	Re-growth	11.9.1/11.3.1	0.34		0.34	0.34	
Area C	Remnant	11.9.1/11.3.1	5.75		5.75		

Area D	Remnant	11.9.1/11.3.1	10.80	10.80		
Total Ha			20.12	19.67	20.53	19.54



Figure 2 Option areas of Remnant and regrowth Brigalow TEC for potential offsets.

1.5.2 Site access

Vehicle access to the area was provided by the Landholder through an access gate on the western boundary of the property (see Attachment E). No tracks were readily visible, however traversing the paddocks to each of the monitoring locations was unimpeded as cattle grazing has maintained a low ground cover, and obstacles were easily identified and avoided. However, it is noted that there are several cactus species present on the property which may puncture tyres. A road follows the western cadastral boundary, and the proposed offset area is readily accessible on foot via an access gate, if necessary (see Attachment E).

1.5.3 Offset Area Connectivity

A supplementary assessment of the Dululu offset area was undertaken to provide detail regarding the connectivity of the offset area to surrounding vegetation.

The existing patch of Regional Ecosystem (RE) 11.9.1/11.3.1 is well defined in relation to the surrounding non-remnant areas with mapped regrowth areas appearing to be close to achieving remnant status. *Acacia harpophylla* saplings have been recently cleared in the surrounding non-remnant area, presumably to maintain grazing quality in the area. Remnant vegetation mapped as 11.9.3/11.3.1 to the northwest of the offset area is associated with a creek/drainage line but does not appear to be accurately mapped, as *A. harpophylla* is absent from the canopy layer. Species present in this narrow strip included *Eucalyptus cambageana*, *E. melanophloia* and *E. populnea* in the canopy layer, with an understory of *Melaleuca linariifolia* along a shallow drainage line. *Geijera parviflora*, *Alphitonia excelsa*, *Santalum lanceolata* were present in association. This drainage line provides connectivity to nearby patches of remnant habitat and the vegetated verge of Floods Road (which was noted to not contain *A. harpophylla*). Two sparsely vegetated drainage lines on the southern boundary also provide marginal connectivity.



It is likely that the offset area will have limited but valuable connectivity to the surrounding landscape, primarily via the vegetated drainage lines due to the ongoing land management practices in adjacent non-remnant areas. With regard to the context of the offset area patch within the surrounding landscape, approximately 16% of the surrounding area (1 km radius) contains remnant or regrowth vegetation.



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FIGURE 3: OFFSET AREA
CONNECTIVITY WITH
SURROUNDING LANDSCAPE

0 100 200 300 400 m
1:10,000

LEGEND:

↔ Potential Connectivity Pathway

□ Field-verified Remnant TEC Extent
(RE 11.9.1)

□ Lot 96 on RN201

Vegetation Management Regional
Ecosystems Map (Version 13.00)

■ Remnant - Endangered
(RE 11.9.1/11.3.1)

■ Remnant - Least Concern

■ High-value Regrowth - Endangered
(RE 11.9.1/11.3.1)

■ High-value Regrowth - Least Concern

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CLIENT: Edify Energy Pty Ltd
DATE: 12/05/2025
AUTHOR: Anton
COORDINATE SYSTEM: GDA2020 / MGA zone 56

CREDITS:
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Satellite Hybrid

1.5.4 BioCondition Assessment and Data

Vegetation communities present were assessed by Terra Solutions ecologists to be consistent with Regional Ecosystem (RE) 11.9.1. Each site was assessed against the threshold criteria for the Brigalow TEC prior to assessment and BioCondition assessments undertaken in accordance with the *BioCondition Assessment Manual version 2.2*⁷. Site vegetation attributes were scored against the BioCondition Benchmarks for RE 11.9.1 provided by the Queensland Herbarium⁸. Site scores, raw site data and photos have been provided as an attachment to an email.

We trust this information is sufficient for your purposes at this stage of the offset process, however, should you require any further details or clarification, please do not hesitate to contact me by telephone.

Yours Sincerely,



Anton Fitzgerald

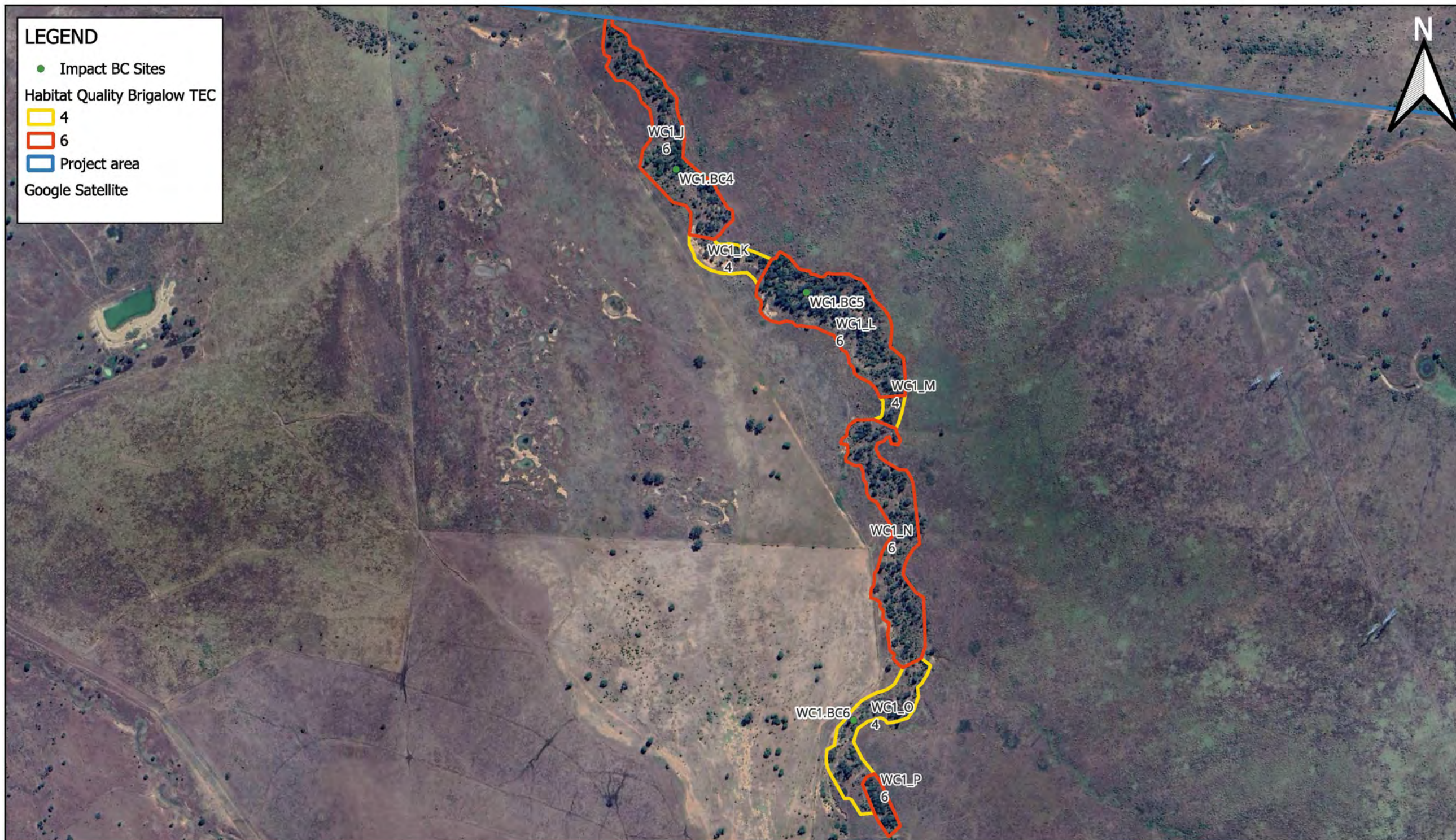
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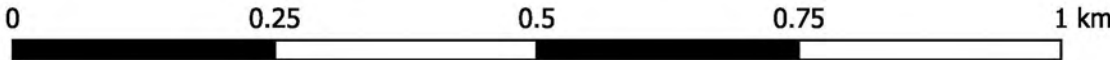
⁷ Eyre, T.J., Kelly, A.L., Neldner, V.J., Wilson, B.A., Ferguson, D.J., Laidlaw, M.J. and Franks, A.J. (2015). BioCondition: A Condition Assessment Framework for Terrestrial Biodiversity in Queensland. Assessment Manual. Version 2.2. Queensland Herbarium, Department of Science, Information Technology, Innovation and Arts, Brisbane

⁸ Queensland Herbarium (2023) BioCondition Benchmark Database. Version 3.4 (April 2023) (DES: Brisbane).

Attachment A

Watercourse 1 Brigalow TEC Habitat Quality

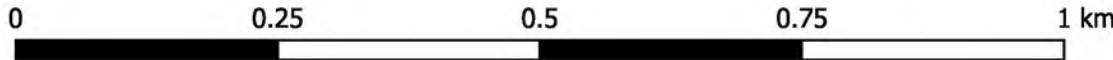


		CLIENT: EDIFY ENERGY		Credits: - World Imagery: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
		ATTACHMENT A : Watercourse 1 Brigalow TEC Habitat Quality		
DOCUMENT: Smoky Creek Solar Farm Brigalow TEC habitat assessment				Coordinate system: [%get_projectcrs(@project_crs)%]
DATE: 27/08/24	AUTHOR: D Windridge			

Attachment B

Watercourse 2 Brigalow TEC Habitat Quality



		CLIENT: EDIFY ENERGY		Credits: - World Imagery: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
		ATTACHMENT B : Watercourse 2 Brigalow TEC Habitat Quality		
DOCUMENT: Smoky Creek Solar Farm Brigalow TEC habitat assessment				Coordinate system: [%get_projectcrs(@project_crs)%]
DATE: 27/08/24	AUTHOR: D Windridge			

Attachment C

Low Habitat Quality Areas

Site: WC2.P1



North



East



West



South



Across vegetation with adjacent dam

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Site: WC2.P1



North



East



West



South

Site:WC2.P1



North



East



West



South



Across vegetation with adjacent dam

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Attachment D

BioCondition Site Data & Scoring

BioCondition Attributes			Measurement		Weighted Score		
			Site WC2.BC1	Benchmark RE 11.9.1			
Recruitment of dominant canopy species			100	100	5		
Native plant species richness		Tree	6	3	5		
		Shrub	3	6	2.5		
		Grass	3	8	2.5		
		Forbs and others	9	10	5		
Trees	Emergent	Median height (m)	12	na	na		
		Cover (%)	2.7	na			
	Canopy	Median height (m)	10	16			
		Cover (%)	53	36			
	Sub-canopy	Median height (m)	4	10			
		Cover (%)	8.8	25			
	Median Height					3	
	Cover					3.5	
	Large trees	Large eucalypt threshold DBH (cm)		57		57	15
		Number of large eucalypts per hectare		0		4	
Large non-eucalypt threshold DBH (cm)		32	24				
Number of large non-eucalypts per hectare		30	13				
Total large trees per hectare		30	17				
Shrubs	Native shrub cover (%)		14.6	16	5		
Ground cover	Native perennial grass cover (%)		0	22	0		
	Organic litter cover (%)		43.8	31	5		
Coarse woody debris	Total length per hectare (m)		70	612	2		
Non-native plant cover (%)			12	0	5		
Total weighted site-based attributes score				58.50			
Landscape attributes (Fragmented)	Patch size (15.3 ha) (/10)			2.00			
	Connectivity (/5)			0.00			
	Landscape Context (/5)			2.00			
Landscape attributes score				4.00			
Total BioCondition Landscape (score/100)				62.50			

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BIOCONDITION ATTRIBUTES			MEASUREMENT		WEIGHTED SCORE
			Site WC2.BC2	Benchmark RE 11.9.1	
Recruitment of dominant canopy species			100	100	5
Native plant species richness		Tree	5	3	5
		Shrub	8	6	5
		Grass	0	8	0
		Forbs and others	6	10	2.5
Trees	Emergent	Median height (m)	13	na	na
		Cover (%)	9.1	na	
	Canopy	Median height (m)	8	16	
		Cover (%)	57.1	36	
	Sub-canopy	Median height (m)	5	10	
		Cover (%)	14.3	25	
	Median Height				3
	Cover				5
Large trees	Large eucalypt threshold DBH (cm)		57	57	15
	Number of large eucalypts per hectare		4	4	
		Large non-eucalypt threshold DBH (cm)	24	24	
		Number of large non-eucalypts per hectare	38	13	
		Total large trees per hectare	42	17	
Shrubs	Native shrub cover (%)		14.6	0	16
Ground cover	Native perennial grass cover (%)		0	0	22
	Organic litter cover (%)		43.8	85	31
Coarse woody debris	Total length per hectare (m)		70	0	612
Non-native plant cover (%)			12	0	10
Total weighted site-based attributes score				50.50	
Landscape attributes (Fragmented)	Patch size (15.3 ha) (/10)			2.00	
	Connectivity (/5)			0.00	
	Landscape Context (/5)			2.00	
Landscape attributes score				4.00	
Total BioCondition Landscape (score/100)				54.50	

BIOCONDITION ATTRIBUTES			MEASUREMENT		WEIGHTED SCORE	
			Site WC2.BC3	Benchmark RE 11.9.1		
Recruitment of dominant canopy species			100	100	5	
Native plant species richness		Tree	4	3	5	
		Shrub	3	5	2.5	
		Grass	1	8	0	
		Forbs and others	11	10	5	
Trees	Emergent	Median height (m)	na	na	na	
		Cover (%)	na	na		
	Canopy	Median height (m)	8	16		
		Cover (%)	19.6	36		
	Sub-canopy	Median height (m)	5	10		
		Cover (%)	1.5	25		
	Median Height				3	
	Cover				2.5	
	Large trees	Large eucalypt threshold DBH (cm)		na	na	10
		Number of large eucalypts per hectare		na	na	
Large non-eucalypt threshold DBH (cm)		32	24			
Number of large non-eucalypts per hectare		5	13			
Total large trees per hectare		10	17			
Shrubs	Native shrub cover (%)		17	16	5	
Ground cover	Native perennial grass cover (%)		0	22	0	
	Organic litter cover (%)		19	31	5	
Coarse woody debris	Total length per hectare (m)		35	612	0	
Non-native plant cover (%)			15	0	5	
Total weighted site-based attributes score				48.00		
Landscape attributes (Fragmented)	Patch size (15.3 ha) (/10)			2.00		
	Connectivity (/5)			0.00		
	Landscape Context (/5)			2.00		
Landscape attributes score				4.00		
Total BioCondition Landscape (score/100)				52.00		

BioCondition Attributes			Measurement		Weighted Score	
			Site WC1.BC4	Benchmark RE 11.9.5		
Recruitment of dominant canopy species			100	100	5	
Native plant species richness		Tree	10	4	5	
		Shrub	10	5	5	
		Grass	1	7	0	
		Forbs and others	5	13	2.5	
		TreesEmergent	Median height (m)	na	na	na
			Cover (%)	na	na	
	Canopy	Median height (m)	10	14		
		Cover (%)	27.2	37		
	Sub-canopy	Median height (m)	4	7		
		Cover (%)	0.9	20		
		Median Height			4	
		Cover			2.5	
	Large trees	Large eucalypt threshold DBH (cm)	na	na	15	
		Number of large eucalypts per hectare	na	na		
		Large non-eucalypt threshold DBH (cm)	32	32		
		Number of large non-eucalypts per hectare	16	16		
		Total large trees per hectare	16	16		
Shrubs	Native shrub cover (%)		0.2	15	0	
Ground cover	Native perennial grass cover (%)		3	27	1	
	Organic litter cover (%)		32.8	31	5	
Coarse woody debris	Total length per hectare (m)		976	827	5	
Non-native plant cover (%)			20	0	5	
Total weighted site-based attributes score				55.00		
Landscape attributes (Fragmented)	Patch size (15.3 ha) (/10)			2.00		
	Connectivity (/5)			0.00		
	Landscape Context (/5)			2.00		
Landscape attributes score				2.00		
Total BioCondition Landscape (score/100)				57.00		

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BIOCONDITION ATTRIBUTES			MEASUREMENT		WEIGHTED SCORE	
			Site WC1.BC5	Benchmark RE 11.9.5		
Recruitment of dominant canopy species			100	100	5	
Native plant species richness		Tree	10	4	5	
		Shrub	8	5	5	
		Grass	0	7	0	
Trees		Forbs and others	11	13	2.5	
		Emergent	Median height (m)	na	na	na
			Cover (%)	na	na	
		Canopy	Median height (m)	13.5	14	
			Cover (%)	9.2	37	
		Sub-canopy	Median height (m)	8	7	
			Cover (%)	15.4	20	
		Median Height				5
		Cover				2.5
		Large trees	Large eucalypt threshold DBH (cm)		na	na
Number of large eucalypts per hectare			na	na		
Large non-eucalypt threshold DBH (cm)			32	32		
Number of large non-eucalypts per hectare			16	16		
Total large trees per hectare			16	16		
Shrubs	Native shrub cover (%)		30.4	15	5	
Ground cover	Native perennial grass cover (%)		0	27	0	
	Organic litter cover (%)		35.6	31	5	
Coarse woody debris	Total length per hectare (m)		1720	827	2	
Non-native plant cover (%)			25	0	3	
Total weighted site-based attributes score				55.00		
Landscape attributes (Fragmented)	Patch size (15.3 ha) (/10)			2.00		
	Connectivity (/5)			0.00		
	Landscape Context (/5)			2.00		
Landscape attributes score				2.00		
Total BioCondition Landscape (score/100)				57.00		

BIOCONDITION ATTRIBUTES			MEASUREMENT		WEIGHTED SCORE	
			Site WC2.BC6	Benchmark RE 11.9.1		
Recruitment of dominant canopy species			100	100	5	
Native plant species richness	Tree		6	4	5	
	Shrub		6	5	5	
	Grass		1	7	0	
	Forbs and others		2	13	0	
Trees	Emergent	Median height (m)		na	na	
		Cover (%)		na		
	Canopy	Median height (m)	12	14		
		Cover (%)	15.2	37		
	Sub-canopy	Median height (m)	6	7		
		Cover (%)	8.3	20		
	Median Height				5	
	Cover				51	
	Large trees	Large eucalypt threshold DBH (cm)		Na	Na	15
		Number of large eucalypts per hectare		Na	na	
Large non-eucalypt threshold DBH (cm)		32	32			
Number of large non-eucalypts per hectare		6	16			
Total large trees per hectare		6	16			
Shrubs	Native shrub cover (%)		2.8	15	3	
Ground cover	Native perennial grass cover (%)		6	27	1	
	Organic litter cover (%)		40.8	31	5	
Coarse woody debris	Total length per hectare (m)		780	827	5	
Non-native plant cover (%)			25	0	3	
Total weighted site-based attributes score				44.00		
Landscape attributes (Fragmented)	Patch size (15.3 ha) (/10)			2.00		
	Connectivity (/5)			0.00		
	Landscape Context (/5)			2.00		
Landscape attributes score				2.00		
Total BioCondition Landscape (score/100)				46.00		

Attachment E

Offset Area Assessment Sites

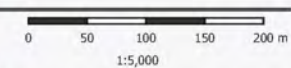
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OFFSET ASSESSMENT LOCATIONS



LEGEND:

- ▲ Biocondition site start, middle and end. Star pickets are located at the start and end.
- Potential offset

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DATE: 26/03/2024
AUTHOR: Anton
COORDINATE SYSTEM: GDA94 / MGA zone 56
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