Bowen Basin Coal Pty Ltd:
Lake Vermont Meadowbrook Project
EPBC 2019/8485
DRAFT Offset Area Management Plan




earthtrade

Date: 10 October 2024

Prepared for: Bowen Basin Coal Pty Ltd

Our Reference: 20222444E

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Table of contents

Index of figures

Index of tables

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:

Full name: Ben Armitage

Organisation: Bowen Basin Coal Pty Ltd ABN: 22 065 321 440

EPBC Referral Number: EPBC 2019/8485

EPBC Offset Area Management Plan (DRAFT)

Date: 09/10/2023

Executive summary

The Lake Vermont Meadowbrook Project (the **Project**) involves the continuation and extension of the Lake Vermont Mine and incorporates the approved Lake Vermont Mine, including existing/approved operations within mining tenements at the Lake Vermont Mine.

The project is located approximately 25 kilometres (**km**) north-east of Dysart in Central Queensland (*Figure 1*). Access to the proposed Project is via the Golden Mile Road that runs eastward from Dysart and intersects with the Lake Vermont Coal Mine access road.

The Project represents an extension of mining activities at the existing Lake Vermont Mine and involves underground longwall mining and open cut mining activities and the development of supporting infrastructure. The existing Lake Vermont Mine operates within Mining Lease (**ML**) 70331, ML 70477 and ML 70528 (*Figure 2*) in accordance with Environmental Authority (**EA**) Permit No. EPML00659513.

The proposed action of the Project has been assessed as a controlled action by the Australian Government (DoEE, 2019).[1] The project will require assessment and approval under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (**EPBC Act**) before it can proceed.

An Offset Strategy (**OS**) for the Project was prepared and submitted to the Department of Climate Change, Energy, the Environment and Water (**DCCEEW**) in February 2023.[2] Significant Project impacts to MNES assessed according to the Commonwealth 'Significant Impact Guidelines 1.1' were identified in AARC (2022). The OS identified the proposed offset site, and also described the proposed offset outcomes and environmental gain from the proposed offset. The OS detailed the survey methods and results for both the impact and offset areas. On that basis, the OS demonstrated that the proposed offsets will be adequate to compensate for the project's environmental impacts and meet the requirements of the EPBC Act Environmental Offsets Policy (**EOP**).

The EPBC Act approval conditions will include the requirement for the Project proponent to prepare an Offset Area Management Plan (**OAMP**) for the approval of the Minister. This document is the OAMP for the Project that has been prepared to meet all offset obligations and for MNES proposed to be impacted by the Project.

Project activities causing significant impacts to offset matters will be staged according to the Project schedule. Offset delivery is proposed to be staged in 4 key stages. Project stage 1 will include direct vegetation clearance and habitat disturbance while Stages 2 and 3 represent underground mining activities which will result in subsidence ponding-related impacts. Stage 4 of the Project is the mining of the proposed open cut pit. This OAMP describes how the offsets for residual impacts to MNES for Stages 1 to 3 of the Project will be managed.

Impacts to MNES requiring offsets include 2 threatened ecological communities (**TEC**s), being the endangered Brigalow (*Acacia harpophylla* dominant and co-dominant) ecological community (**brigalow TEC**), and the endangered Poplar Box Grassy Woodland on Alluvial Plains community (**poplar box TEC**), and to habitat for the ornamental snake (*Denisonia maculata*), greater glider (*Petauroides volans*), koala (*Phascolarctos cinereus*) and squatter pigeon (southern) (*Geophaps*

[1] EPBC Approvals register, at http://epbcnotices.environment.gov.au/_entity/annotation/6a57137b-9d11-ea11-8aa6-005056842ad1/a71d58ad-4cba-48b6-8dab-f3091fc31cd5?t=1646170413641

[2] *MNES Biodiversity Offsets Strategy EPBC 2019/8485 Lake Vermont Meadowbrook Project*, (Version C, February 2023) Earthtrade, Brisbane.

scripta scripta). The ornamental snake and squatter pigeon is listed as vulnerable under the EPBC Act. The greater glider EPBC Act listing was upgraded to endangered in July 2022 and koala EPBC listing upgraded in February 2022; however, the Project assessment and approval process is subject to the threatened species listing at the time of the controlled action decision (22 November 2019). An overview of the impacts to each MNES and the resultant offset requirements are summarised in *Table 1*.

The offset will be located on the same property as the Project, being Lot 102 SP310393, located approximately 25km north-east of Dysart in Central Queensland. The vegetation in the offset area comprises large sections of remnant and regrowth vegetation of similar communities to those in the impact area.

This OAMP demonstrates that the offset area is suitable to meet all the EOP requirements and the anticipated future approval conditions. This OAMP has been prepared to meet all offset obligations as detailed in the OS. As the proponent of the Project, Bowen Basin Coal Pty Ltd (**BB Coal**) commits to the implementation of this OAMP.

Table 1: Summarised stage 1 – 3 project impacts versus proposed offset area values

MNES	EPBC status	Impact area Stage 1 (ha)	Impact Area Stage 2 (ha)	Impact Area Stage 3 (ha)	Total Impact area Stages 1-3 (ha)	Impact site quality (/10)	Impact quantum	Offset Area Stage 1	Offset Area Stage 2	Offset Area Stage 3	Total Offset area Stages 1-3 (ha)	Offset start quality (- /10)	Quality without offset (- /10)	Quality with offset (- /10)	Offset quantum and % of liability provided
Acacia harpophylla Brigalow TEC	END	0.6	6.9	0.1	7.6	5.01	3.8	1.82	20.88	0.30	23.0	5.45	5.45	7	102.33%
Eucalyptus populnea Poplar Box TEC	END	0.0	0.0	44.4	44.4	7.14	31.08	0.00	0.00	291.70	291.70	6.53	5.97	8	151.37%
Denisonia maculata Ornamental snake	VUL	41.1	4.6	0.3	46.0	4.10	18.40	105.48	10.08	0.65	116.21	4.35	4.03	7	117.73
Petauroides volans Greater glider	VUL[1]	4.5	0.0	89.1	93.6	4.96	46.80	17.55	0.00	347.45	365.00	5.69	5.69	7	100.56%
Phascolarctos cinereus Koala	VUL[1]	4.8	8.2	89.1	102.1	5.89	61.2	22.61	38.59	418.80	480.00	5.78	5.78	7	101.13%
Geophaps scripta scripta Squatter pigeon (southern)	VUL	*6.4	-	-	6.4	5.59	3.84	34.90	-	-	34.90	5.69	5.69	7	117.19%

Note: Delivery of Stage 4 offsets (Project open cut) are not part of this OAMP

** Squatter pigeon impact area is comprised of 0.5 ha of foraging habitat, 5.6 ha of breeding habitat, and 0.3 ha of climate-dependent breeding habitat*

Figure 1: Regional location of the Project

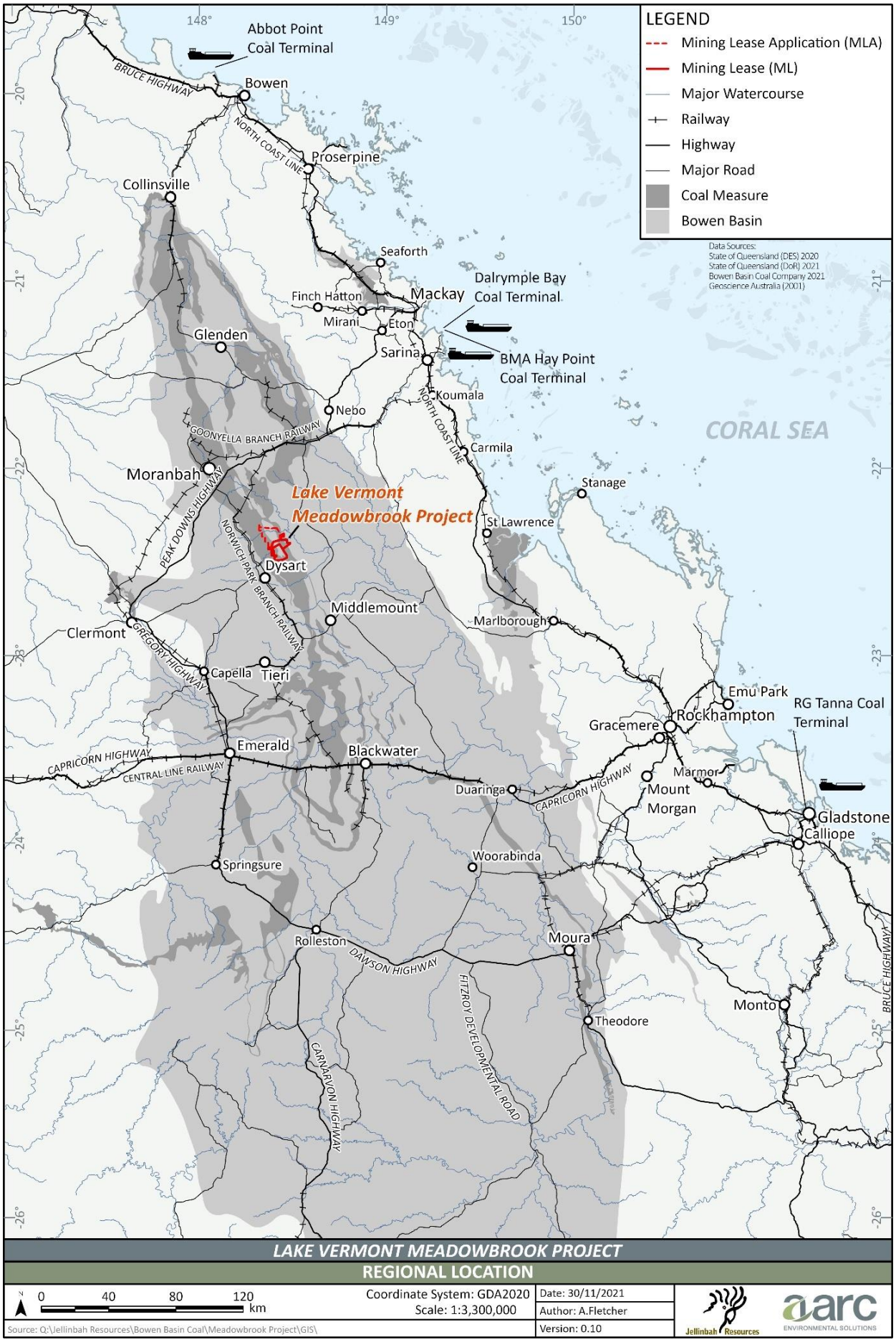
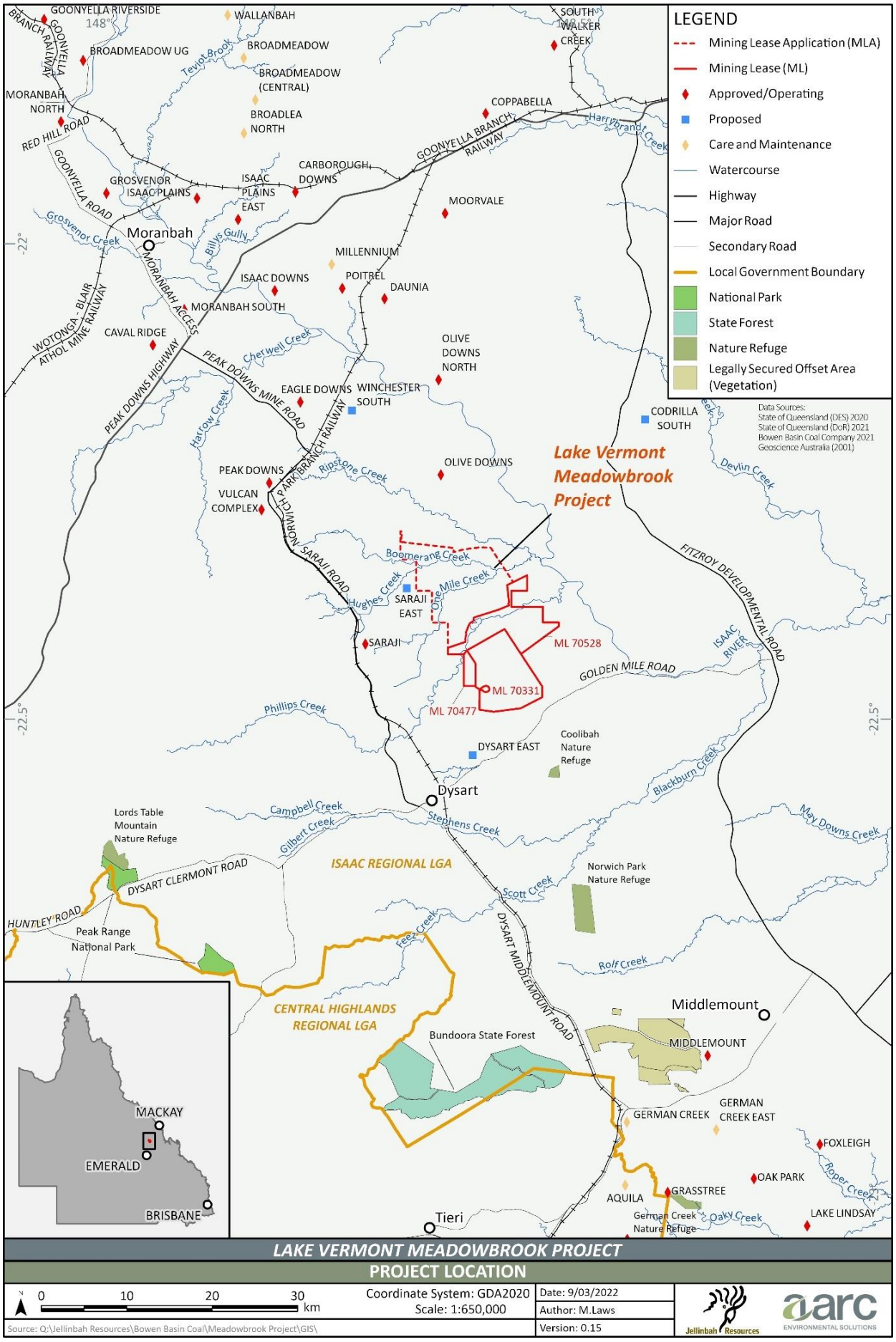


Figure 2: Project location



1 Introduction

1.1 Purpose and objectives of this management plan

The purpose of this OAMP is to address the requirements of the EPBC Act relating to MNES offset requirements and offset delivery.

In April 2020, the Queensland Government issued the terms of reference (**ToR**) for an environmental impact statement (**EIS**) to be prepared by Bowen Basin Coal Pty Ltd, as the proponent of the Project, under the requirements of the *Environmental Protection Act 1994* (Qld).[3] Appendix 3 of the ToR details those matters related to MNES; one of which is that the Project proponent is to prepare a draft OAMP for the offsets for MNES for inclusion with the EIS.

The ToR requirements related specifically to the OAMP are listed in *Table 2*. Many of the requirements of the ToR related to the OAMP have already been addressed in full detail in the OS. Accordingly, references are provided in *Table 2* to the relevant section of the OAMP or section of the OS that addresses each requirement.

The environmental outcomes of this OAMP are specific improvements in ecological values in habitat for each of the matters impacted by the Project. These improvements are defined in detail in *Section 5* of this document (Offset completion criteria and performance targets).

Table 2: Terms of reference relevant to the MNES OAMP

Requirement	OAMP or OS section or comment
A draft Offset Area Management Plan (OAMP) which includes information to demonstrate how the environmental offset/s compensate for residual significant impacts of the project on relevant MNES, and/or their habitat:	
• in accordance with the principles of the Offsets Policy and	*OS Section 2.8*
• all requirements of the Offsets Assessment Guide.	*OS Section 13 and Appendix B*
The draft OAMP must include:	
• a description of the offset area/s, including location, size, condition, environmental values present and surrounding land uses	*OAMP Section 2*
• baseline data and other supporting evidence, including the ecological field data, that documents the presence of the relevant MNES, and the quality of their habitat within the offset area/s	*OS Section 8, Appendix B and Attachment 1*
• an assessment of the site habitat quality for the offset area/s using an appropriate methodology, with justification and supporting evidence, (e.g. using the *Queensland Guide to determining terrestrial habitat quality: A toolkit for assessing land based offsets under the Queensland Environmental Offsets Policy* [Version 1.2, April 2017], or subsequent revision	*OS Section 5 and Section 8*
• details of how the offset area/s will provide connectivity with other habitats and biodiversity corridors and/or will contribute to a larger strategic offset for the relevant listed threatened species and communities	*OS Section 8.2*
• maps and shapefiles to clearly define the location and boundaries	*OAMP Figures 4 to 9*

[3] *Terms of reference for an environmental impact statement under the* Environmental Protection Act 1994 *Lake Vermont Meadowbrook Project proposed by Bowen Basin Coal Pty Ltd.* (April 2020) Queensland Government, Brisbane.

Requirement	OAMP or OS section or comment
of the offset area/s, accompanied by the offset attributes (e.g. physical address of the offset area/s, coordinates of the boundary points in decimal degrees, the listed threatened species and communities that the environmental offset/s compensates for, and the size of the environmental offset/s in hectares)	*Shapefiles accompany this OAMP*
• specific offset completion criteria derived from the site habitat quality to demonstrate the improvement in the quality of habitat in the offset area/s over a 20-year period	*OAMP Section 5*
• details of the management actions, and timeframes for implementation, to be carried out to meet the offset completion criteria	*OAMP Section 4*
• interim milestones that set targets at 5-yearly intervals for progress towards achieving the offset completion criteria	*OAMP Section 5*
• details of the nature, timing and frequency of monitoring to inform progress against achieving the 5-yearly interim milestones (the frequency of monitoring must be sufficient to track progress towards each set of milestones, and sufficient to determine whether the offset area/s are likely to achieve those milestones in adequate time to implement all necessary corrective actions)	*OAMP Section 7*
• proposed timing for the submission of monitoring reports which provide evidence demonstrating whether the interim milestones have been achieved	*OAMP Section 7*
• timing for the implementation of corrective actions if monitoring activities indicate the interim milestones have not been achieved	*OAMP Section 4 and Section 7*
• risk analysis and a risk management and mitigation strategy for all risks to the successful implementation of the OAMP and timely achievement of the offset completion criteria, including a rating of all initial and post-mitigation residual risks in accordance with a risk assessment matrix	*OAMP Section 3*
• if proposed for listed threatened species and communities, evidence of how the management actions and corrective actions take into account relevant approved conservation advices and are consistent with relevant recovery plans and threat abatement plans; and	*OS Section 4*
• details of the legal mechanism for legally securing the proposed offset area/s, such that legal security remains in force over the offset area/s for at least 20 years to provide enduring protection for the offset area/s against development incompatible with conservation.	*OAMP Section 8*
The draft OAMP must be prepared by a suitably qualified person and in accordance with DCCEEW's *Environmental Management Plan Guidelines 2014*).	*This OAMP has been prepared by Earthtrade and in accordance with the DCCEEW guidelines*
The draft OAMP must provide evidence, derived from field surveys and vegetation assessments, to demonstrate that an EPBC Act protected matter (e.g. listed threatened species or ecological community) is or can be present in the proposed offset area/s. Field surveys must be undertaken in accordance with Commonwealth guidelines, State guidelines and/or best practice survey methodologies.	*OS Section 5 and Section 8*
Supporting evidence must be included in the draft OAMP to justify how proposed management action/s are additional to the existing requirements of the landholder in managing their land (e.g. weed and pest management requirements under the *Queensland Biosecurity Act 1994*,	*OAMP Section 6*

Requirement	OAMP or OS section or comment
existing grazing regimes, etc.) as required by the EPBC Act Offsets Policy.	
The draft OAMP must include robust scientific evidence (e.g. published research, pilot studies, previously successful projects/programs, etc.) to demonstrate the success of proposed measures to create, revegetate, regenerate and/or improve habitat (e.g. tree planting, nest boxes, artificial hollows, etc.) in the proposed offset area/s for a listed threatened species or ecological community, or listed migratory species.	*OAMP Section 4*
Where the proposed offset area/s supports an environmental offset for multiple MNES, proposed management action/s for one protected matter must not be detrimental (i.e. have an impact) to other protected matters.	*OAMP Section 4*
Where an offset is proposed, with a completed Offsets Assessment Guide calculation, all inputs must be supported by robust scientific evidence and/or supporting evidence (e.g. historical grazing regimes, satellite imagery, statements from landholders, etc.).	*The Risk of Loss has been calculated as per the Guidance for deriving 'Risk of Loss' estimates when evaluating biodiversity offset proposals under the EPBC Act, April 2017; Appendix 1, Isaac Local Government Area*

1.2 Commitments made in the OAMP

This section summarises the commitments made throughout this OAMP 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 OAMP. Additional commitments are also made in alignment with the general conditions of the approval. *Table 3* below lists each of these commitments and provides references to the sections in this OAMP where these commitments are detailed.

Table 3: Commitments made in this OAMP

Commitment	OMP section or comment
The approval holder commits to the implementation of this plan.	*See Executive summary and Section 10*
The approval holder commits to undertaking the management actions as described in *Table 12*.	*See Section 4*
The approval holder will engage suitably qualified persons to undertake the biocondition assessments, ecological studies and surveys, prepare reports and undertake inspections, as required.	*See Section 4 and Section 7*
The approval holder will notify the Department (within the timeframe stipulated by the Project approval conditions) of any incident, non-compliance with conditions, or non-compliance with any of the commitments made in this OAMP	*See Section 4.2 and Section 9*
The approval holder will provide an annual compliance report to the Department describing the progress of the offset area over the relevant 12-month period.	*See Section 7*
The approval holder commits to registering a legally binding conservation mechanism to provide long-term protection to the offset area prior to commencement of the Project.	*See Section 8 and Section 10*

Commitment	OMP section or comment
The approval holder will notify the Department within 5 days of the mechanism to legally secure the offset having been executed.	*Section 8*
The approval holder will provide to the Department the details of any incident or non-compliance with the conditions or commitments made in this OAMP within the timeframe stipulated by the Project approval conditions after becoming aware of the incident or non-compliance.	*Section 9*
If the approval holder wishes to carry out any activity otherwise than in accordance with this OAMP, the approval holder will submit to the Department for the Minister's written approval a revised version of the OAMP. The varied activity will not commence until the Minister has approved the varied OAMP in writing. If the Minister approves the revised OAMP, that OAMP will be implemented in place of the OAMP originally approved.	*Section 9*
If the Minister requests that the approval holder make specified revisions to the OAMP, the approval holder will develop and submit the revised OAMP for the Minister's written approval. The approval holder will implement the revised OAMP. Unless the Minister has approved the revised OAMP, then the approval holder will continue to implement the OAMP originally approved.	*Section 9*
This OAMP will be published on BB Coal's website within 1 month of the OAMP being approved by the Minister. The OAMP will remain on the website and accessible to the public for the duration of the EPBC Act approval.	*Section 10*

1.3 Plan structure

The OAMP is divided into 7 sections that provide the following:

- 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 Offset property

2.1 Overview of the offset property

The offset is located on 'Meadowbrook' Lot 102 SP310393 which has a total area of 14,531 hectares (**ha**). The property is zoned as rural use and, apart from open cut mining in the south of the property, is largely used for cattle grazing (*Figure 3*). The property has been extensively cleared and over-sown with buffel grass previously, and this management cycle continues to date.

The topography of the offset area is generally flat to gently undulating, with elevations ranging between 160 m and 190 m AHD and is representative of the surrounding region.

The following land zones (and associated soil types) occur within the offset area:

- Land Zone 3: Recent Quaternary alluvial systems, including closed depressions, paleo-estuarine deposits currently under freshwater influence, inland lakes, and associated wave-built lunettes (Wilson and Taylor 2012). Land Zone 3 excludes colluvial deposits such as talus slopes and pediments. This Land Zone includes a diverse range of soils predominantly Vertosols and Sodosols. Land Zone 3 also occurs with Dermosols, Kurosols, Chromosols, Kandosols, Tenosols, Rudosols and Hydrosols; and Organosols in high rainfall areas.
- Land Zone 4: Tertiary-early Quaternary clay deposits, usually forming level to gently undulating plains not related to recent Quaternary alluvial systems. This land zone mainly occurs with Vertosols with gilgai microrelief. Land Zone 4 also includes thin sandy or loamy surfaced Sodosols and Chromosols with the same paleo-clay subsoil deposits.
- Land Zone 5: Tertiary-early Quaternary loamy and sandy plains and plateaus (Wilson and Taylor 2012). Land Zone 5 consists of extensive, uniform near level or gently undulating plains with sandy or loamy soils and includes dissected remnants of these surfaces. Soils are usually Tenosols and Kandosols, also minor deep sandy surfaced Sodosols and Chromosols (Wilson and Taylor 2012).

Water resources are restricted to empirical water holes and flows within Boomerang Creek, Hughes Creek, One Mile Creek and within several farm dams.

The 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 pressures with the offset site.

The property is suitable for locating the offsets for a number of reasons:

- The delivery of the offset will be adjacent to the impact site (*Figure 3*).
- The offset area is located within a corridor of regional significance (Phillips Creek) and have vegetation connectivity to the state significant corridor of the Isaac River (*Figure 3*).
- The relevant field-verified biodiversity values are present on the offset property (*Figure 3*).
- The property management objectives align with the offset management objectives
- There is potential for the future location of other offsets on the same property for other projects, thus creating larger areas of biodiversity offsets and achieving a better environmental outcome.

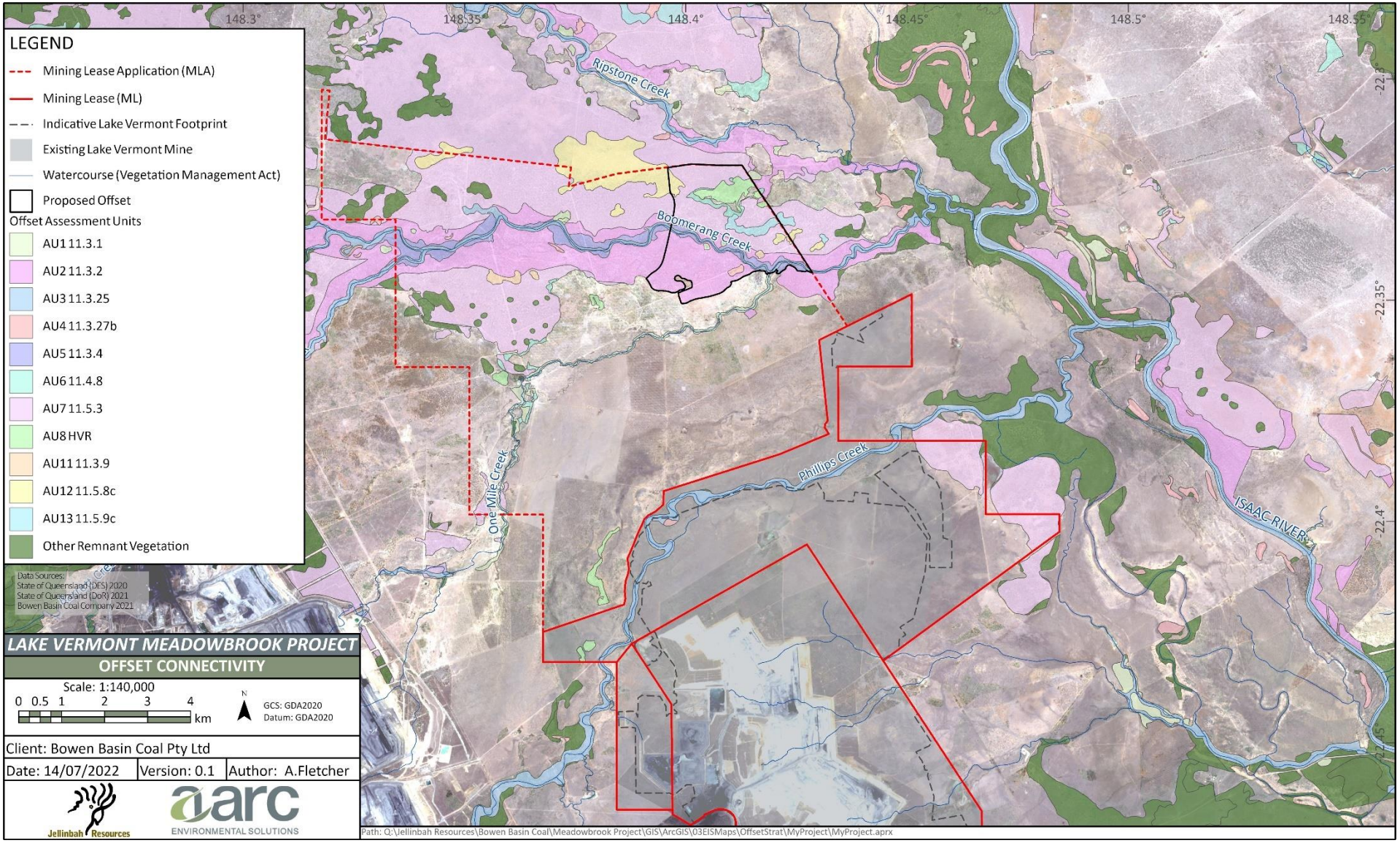
Full details of the survey methods and results for the offset areas were provided in Section 5 of the OS (Earthtrade 2022). The results of the habitat quality assessments of the various assessment units (**AU**s) that occur within the offset areas are summarised within Section 8 and Section 10, and

detailed in Appendix B of the OS. The original field data sheets are provided within the ecology report for the offset area (see Attachment 1 of the OS). Inputs for DCCEEW's Offset Assessment Guide (**OAG**) were derived from these results and have been provided in Appendix C of the OS.

2.2 Connectivity

Riparian corridors associated with Boomerang Creek, Hughes Creek, One Mile Creek and Phillips Creek provide east–west fauna movement opportunities through the landscape. The riparian vegetation along these streams is mapped as regionally significant (Boomerang Creek, Hughes Creek, One Mile Creek, Phillips Creek) and connected to state significant riparian vegetation along the Isaac River (*Figure 3)*. The riparian corridors associated with these streams provide species with opportunities for movement and dispersal, in particular the koala and greater glider.

Figure 3: Biodiversity and riparian corridors and the offset site



2.3 Brigalow TEC – offset site attributes

The offset area comprises 2 regional ecosystems that are listed in the Conservation Advice and are described below. The contribution of each of the REs is in *Table 4*: Brigalow TEC at the offset site and the areas of each RE within the proposed offset area is shown in *Figure 4.* Note that the RE 11.4.8 is high-value regrowth with an age of circa 8-10 years and will return to remnant status within the offset period of 20 years.

- RE 11.3.1 *Acacia harpophylla* and/or *Casuarina cristata* open forest on alluvial plains
- RE 11.4.8 *Eucalyptus cambageana* woodland to open forest with *Acacia harpophylla* or *A. argyrodendron* on Cainozoic clay plains.

Table 4: Brigalow TEC at the offset site

RE	Assessment unit	Map unit	Area of offset (ha)
11.3.1	AU1	VC1a	3.90
HVR (11.4.8)	AU8	HVR	19.10
		Total:	**23.00**
Offset area by stages			
		S1	1.82
		S2	20.88
		S3	0.30
		Total:	**23.00**

2.4 Poplar box TEC – offset site attributes

The entire offset area for the Poplar Box TEC consists of RE 11.3.2 and described as *Eucalyptus populnea* woodland on alluvial plains. The contribution of this RE is in *Table 5* and is shown in *Figure 5*. The offset area has been subject to timber harvesting, ground and shrub layers manipulation for grazing and the over-sowing of exotic pastures.

Table 5: Poplar box TEC at the offset site

RE	Assessment unit	Map unit	Area of offset (ha)
11.3.2	AU2		291.70
		Total:	**291.70**
Offset area by stages			
		S1	-
		S2	-
		S3	291.70
		Total:	**291.70**

Figure 4: Brigalow TEC offset area

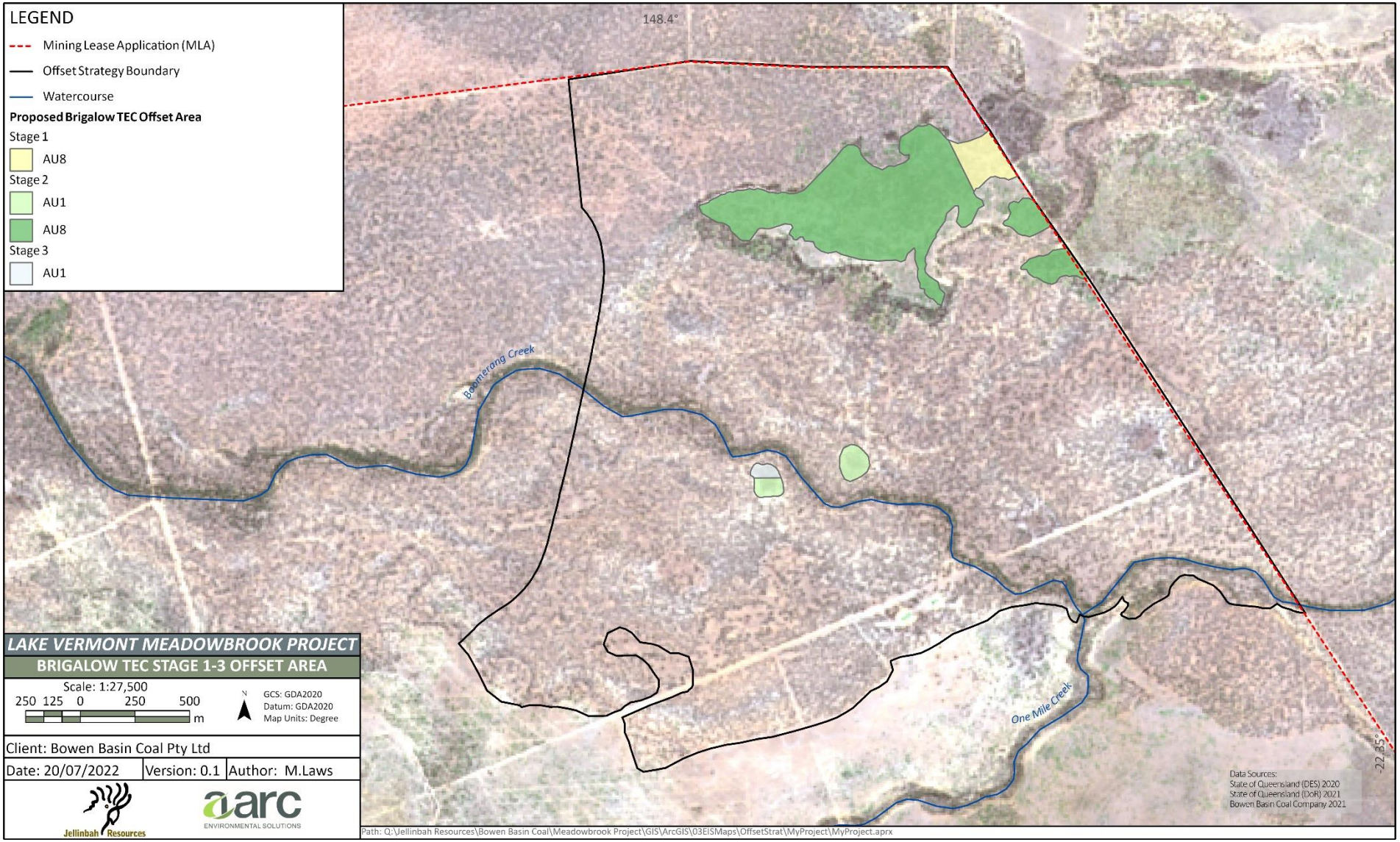
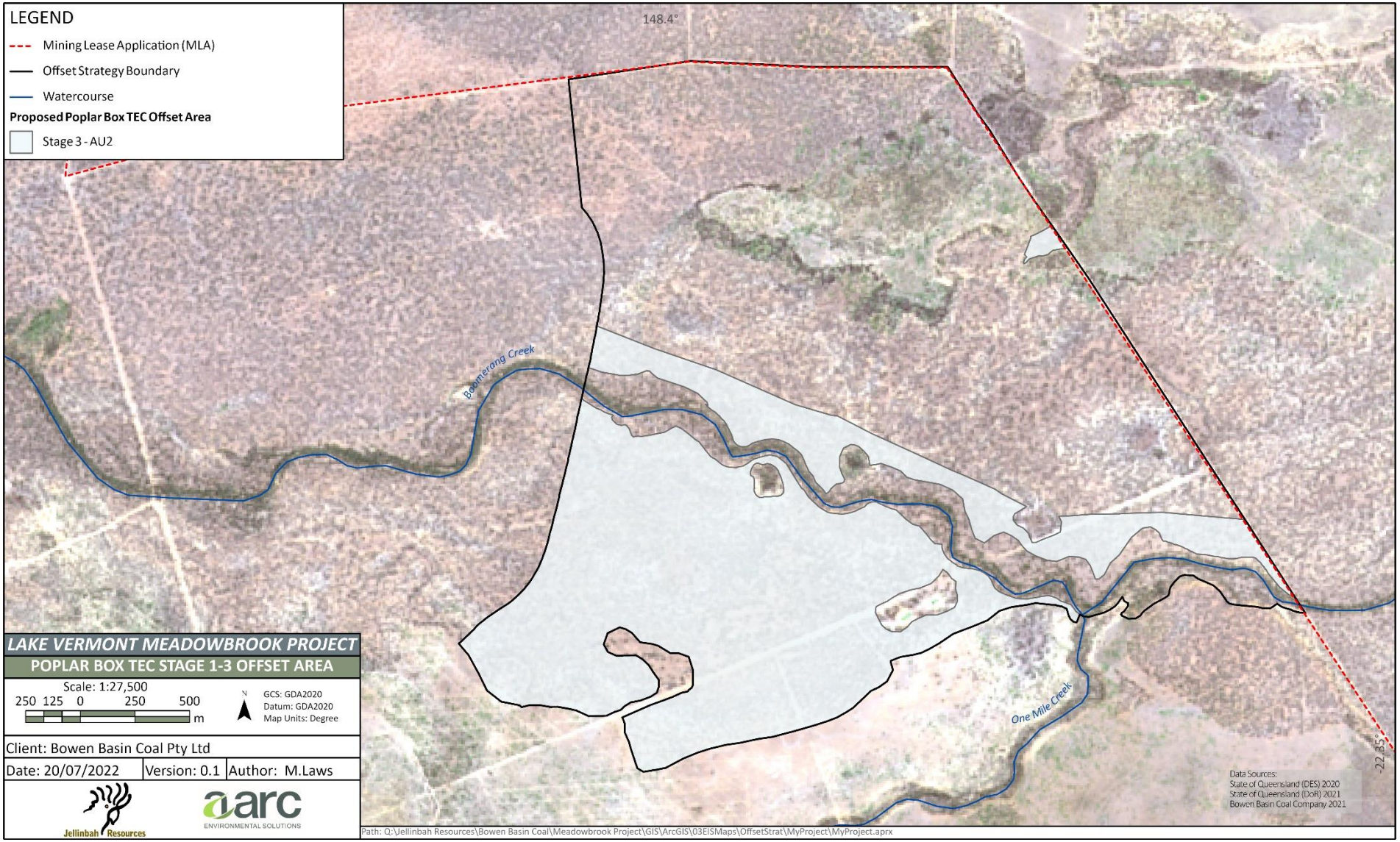


Figure 5: Poplar box TEC offset area



2.5 Ornamental snake - offset site attributes

The offset area for the ornamental snake has been centred on the brigalow TEC areas which support gilgai, and wetland and riparian corridor along Hughes Creek which is a stream order 5. The vegetation along the creek (REs 11.3.25, 11.3.27f and 11.3.1) often hosts ornamental snake due to the proximity to water and hence the primary food source (frogs), and the accumulation of logs and other woody debris on the ground which is used for habitat. The accumulation of woody debris will improve habitat quality over time. The contribution of each of the REs to the proposed offset area is in *Table 6* and the areas of each RE within the proposed offset area is shown in *Figure 6****Error! Reference source not found.***.

Table 6: Ornamental snake habitat at the offset site

RE	Assessment Unit	Map unit	Area of offset (ha)
11.3.1	1	VC1a	3.90
11.3.25	3	VC3a	36.49
11.4.8	6	VC1b	20.30
HVR 11.4.8	8	VC1d	55.52
		Total:	**116.21**
Offset area by stages			
		S1	105.48
		S2	10.08
		S3	0.65
		Total:	**116.21**

2.6 Greater glider – offset site attributes

The offset area for the greater glider is centred on Hughes Creek as the availability of water encourages greater tree growth and all of the REs selected are dominated by eucalypt species that are prone to developing hollows. Poplar box is noted for its tendency for large hollows in the Conservation Advice for the poplar box TEC. The contribution of each of the REs to the proposed offset area is in *Table 7* and the areas of each RE within the proposed offset area is shown in *Figure 7****Error! Reference source not found.***.

Table 7: Greater glider habitat at the offset site

RE	Assessment Unit	Map unit	Area of offset (ha)
11.3.2	2	VC2a	288.33
11.3.25	3	VC3a	29.09
11.3.27b	4	VC4a	5.76
11.3.4	5	VC2c	38.83
11.3.9	11	VC2d	2.99
		Total:	**365.00**
Offset area by stages			
		S1	17.55
		S2	-
		S3	347.45
		Total:	**365.00**

Figure 6: Ornamental snake offset area

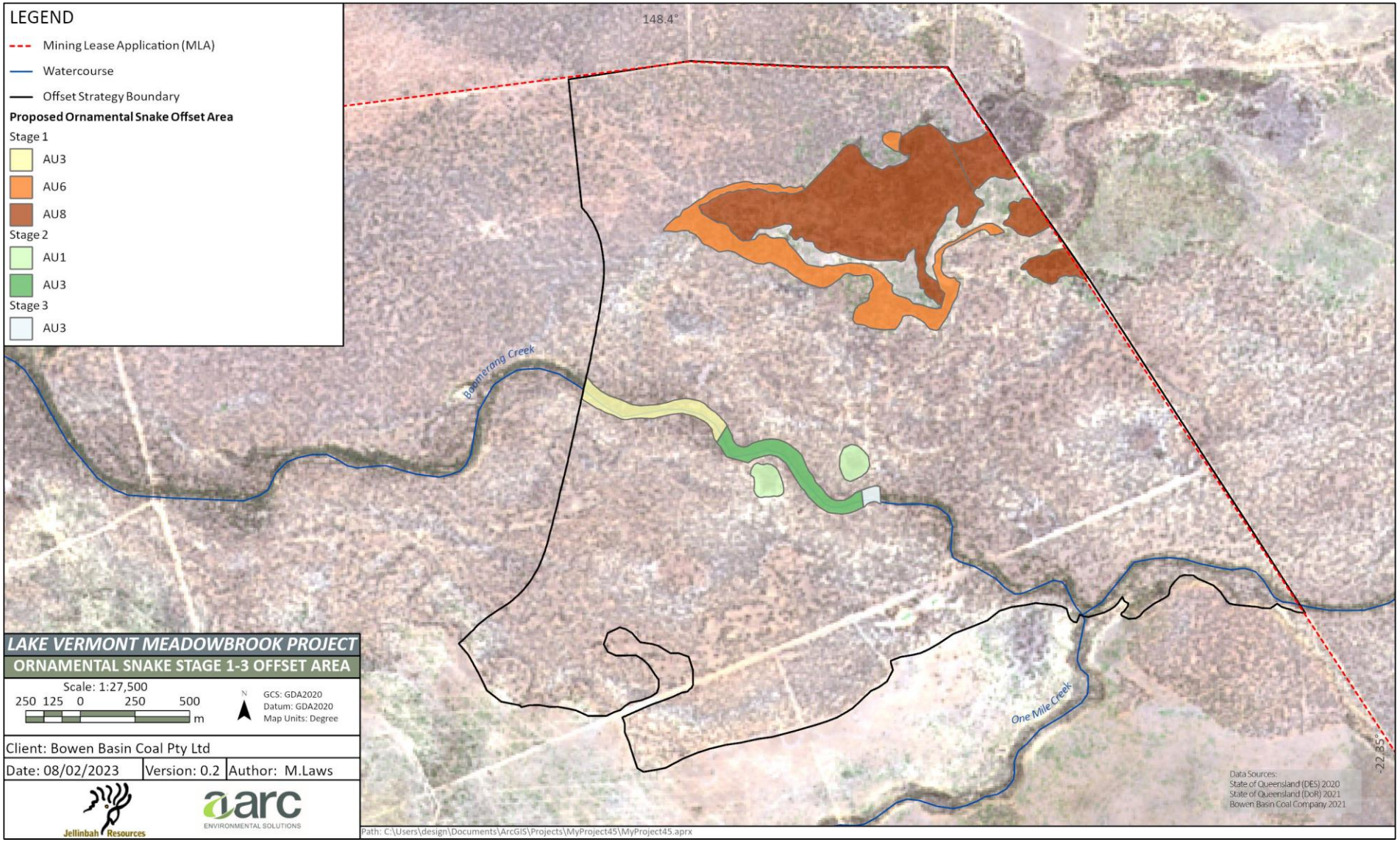
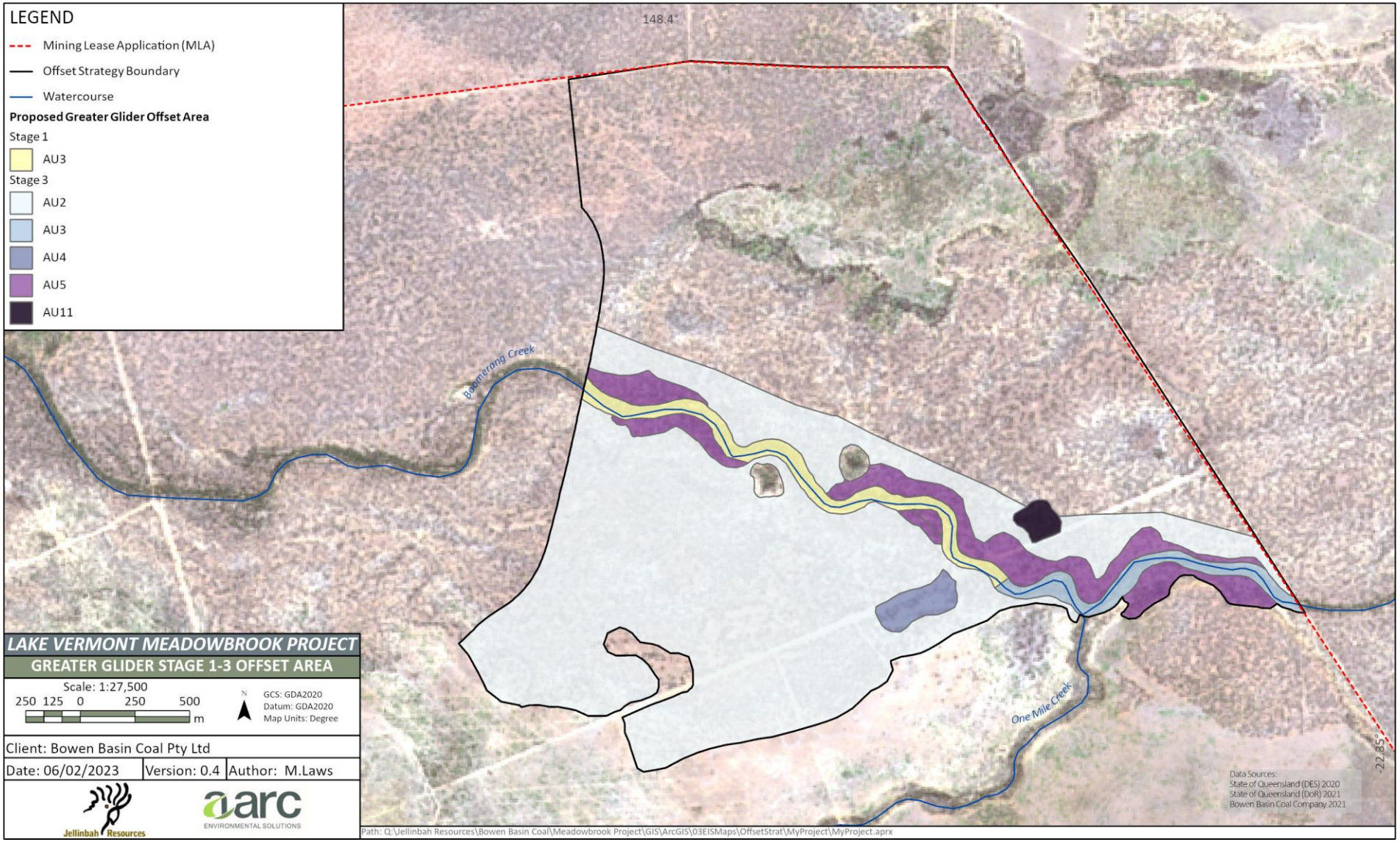


Figure 7: Greater glider offset area



2.7 Koala – offset site attributes

The koala offset area is also centred on Hughes Creek for the higher moisture trees due to the availability of water, the large eucalypt trees that provide additional shelter, especially in extended hot and dry seasons, and for the availability of preferred feed species. The large, contiguous area of eucalypt-dominated species in all of the REs selected contributes to the value of the site to the species. The contribution of each of the REs to the proposed offset area is in *Table 8* and the areas of each RE within the proposed offset area is shown in *Figure 8*.

Table 8: Koala habitat at the offset site

RE	Assessment Unit	Map unit	Area of offset (ha)
11.3.2	2	VC2a	289.90
11.3.25	3	VC3a	29.09
11.3.27b	4	VC4a	5.76
11.3.4	5	VC2c	38.83
11.3.9	7	VC2d	2.99
11.5.3	11	VC2e	113.43
		Total:	**480.00**
Offset area by stages			
		S1	22.61
		S2	38.59
		S3	418.80
		Total:	**480.00**

2.8 Squatter pigeon – offset site attributes

The offset area for the squatter pigeon is centred on Hughes Creek for the availability of permanent water. The REs selected are on sandy soils, which provides preferred nesting conditions for the squatter pigeon. Both REs support habitat for a diverse range of fauna, particularly birds (Venz et al. 2002, cited in Queensland Herbarium 2024).

The contribution of each of the REs to the proposed offset area is in *Table 9* and the areas of each RE within the proposed offset area is shown in *Figure 9*.

Table 9: Squatter pigeon habitat at the offset site

RE	Assessment Unit	Map unit	Area of offset (ha)
11.3.25	3	VC3a	29.09
11.3.27b	4	VC4a	5.81
		Total:	**34.90**
Offset area by stages			
		S1	34.90
		S2	-
		S3	-
		Total:	**34.90**

Figure 8: Koala offset area

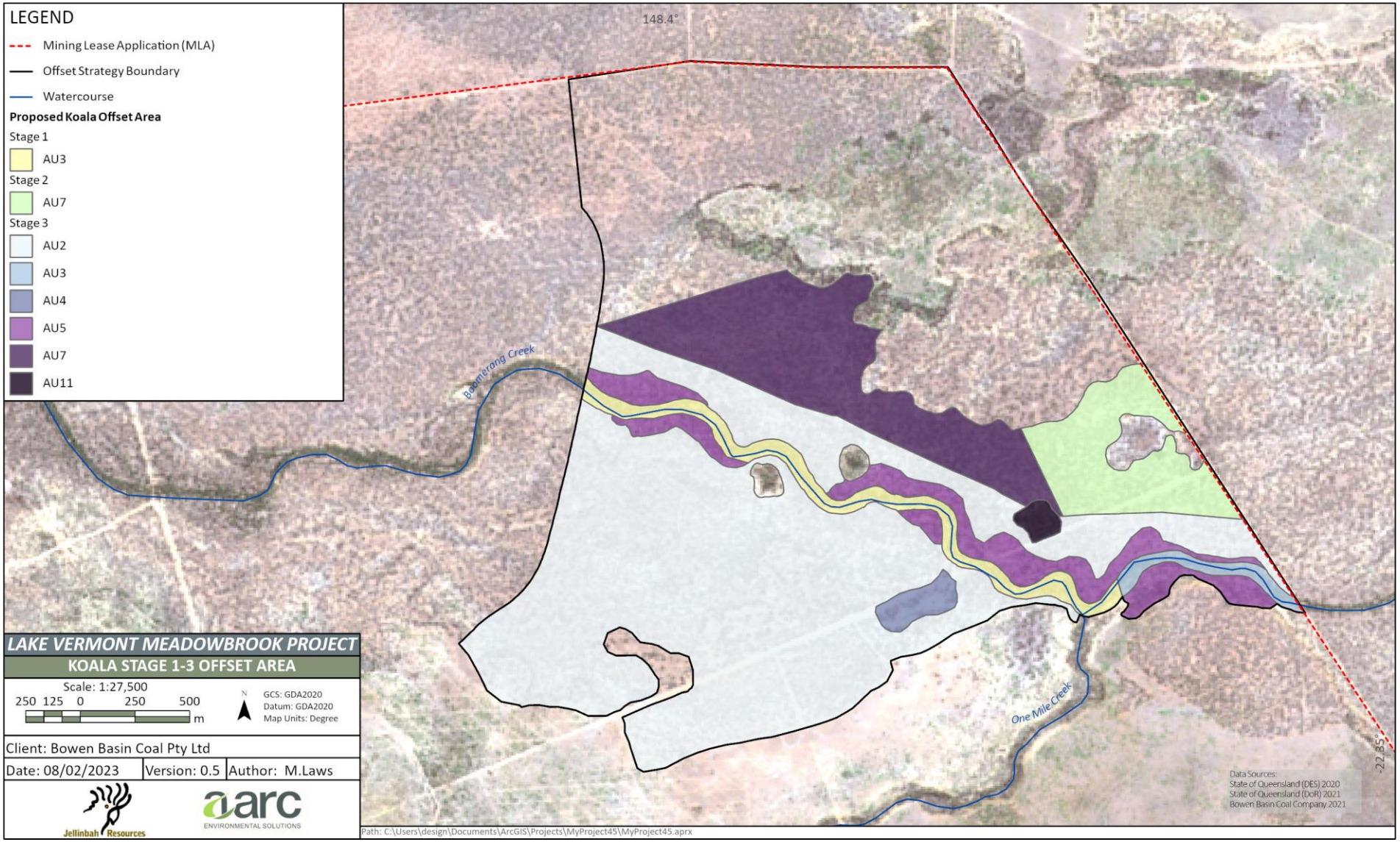
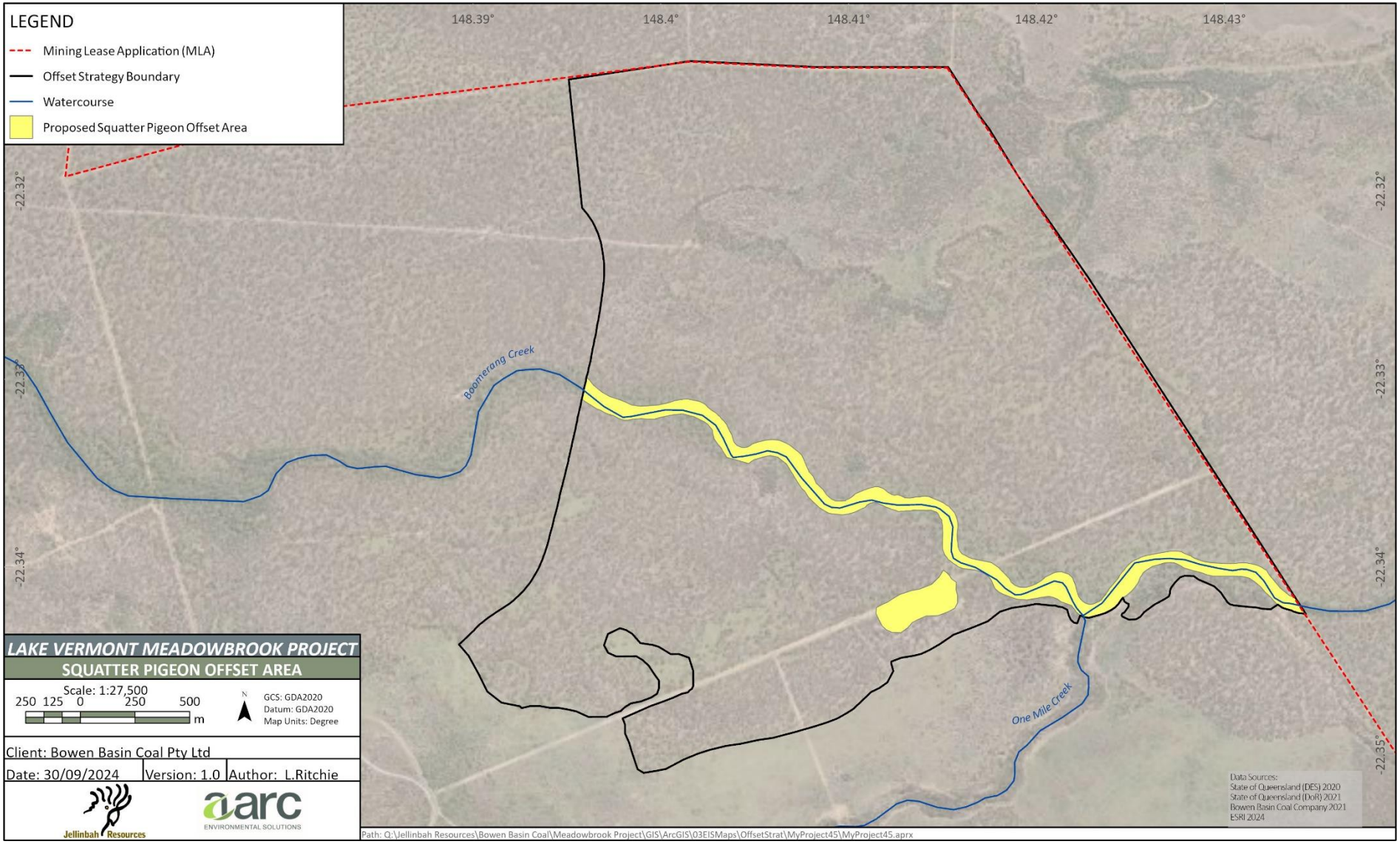


Figure 9: Squatter pigeon offset area



3 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 11)*. They have been assessed against the risk matrix (*Table 10*) 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 and 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 4*.

Table 10: 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 (*e.g. short-term delays to achieving plan objectives, implementing low-cost, well-characterised corrective actions*)
Moderate	Isolated but substantial instances of environmental damage that could be reversed with intensive efforts (*e.g. short-term delays to achieving plan objectives, implementing well-characterised, high-cost/effort corrective actions*)
High	Substantial instances of environmental damage that could be reversed with intensive efforts (*e.g. medium-long term delays to achieving objectives, implementing uncertain, high-cost/effort corrective actions*)
Major	Major loss of environmental amenity and real danger of continuing (*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*)
Critical	Severe widespread loss of environmental amenity and irrecoverable environmental damage (*e.g. plan objectives are unable to be achieved, with no evidenced mitigation strategies*)

		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 11: 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 and no resource base exists within this location, in the Life of Mine plan. Open cut mining may produce full clearing of the offset site.	Rare	Critical	High	Offset area management	No current permits cover the offset site and no resource base exists within this location, in the Life of Mine plan. 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 *Vegetation Management Act 1999* (Qld) 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. Limited mitigation measures can be implemented. Should the offset be deemed by the approval holder or the Department to be delayed due to drought, 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). However, 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 OAMP	Unlikely	Minor	Low
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. At least dry matter yield of 1200kg/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 accesses identifying the areas as an environmental offset, within six months of Project commencement. Complete the installation of any new planned fences, within twelve months of Project commencement. All field monitoring (rapid and detailed) will report on any evidence of timber harvesting.	Rare	Moderate	Low

Risk	Threats	Initial risk ranking			Management measures	Management measures/actions	Residual risk ranking		
		L	C	R			L	C	R
Unplanned clearing	The offset site occurs within Meadowbrook, 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 accesses identifying the areas as an environmental offset, within six months of Project commencement. Complete the installation of any new fences, within twelve months of Project commencement. Within six 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 offset site is comprised of remnant eucalypt species circa 12-22m in height. These communities are adapted to fire and 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 to <1,200kg/ha. Reduction of non-native grasses will reduce the fuel load and therefore the risk of uncontrolled hot fires. On the offset area, a cold fire to be used during the months of June, July, August and September when wind speeds are less than 5km/h on the offset site.	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 *Biosecurity Act 2014* (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 *Table 12.*	Unlikely	Minor	Low
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 *Biosecurity Act 2014* (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

4 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 2 TECs and the 4 fauna species. The offset area management measures provide for the management, reporting, and the monitoring program (*Table 15*) 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 describes the actions to be undertaken on the offset site (*Table 12*).

Regular offset area reports will be prepared by the proponent as listed in *Table 15* and *Table 16* (Refer to *Section 7)*. These will report against each of the management actions shown in *Table 12.* 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 12: Terrestrial offsets - 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	Monitoring	Trigger for adaptive management and corrective action(s)	Corrective action and timing
Degradation of habitat	Achieve the completion criteria and habitat quality improvements for offset values, which include the habitat quality scores in this OAMP	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 OAMP.	Monitoring of offset value habitat quality scores will be undertaken in accordance with *Section 7*. 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 *Section 7*).	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 two months after detection of the trigger, complete a re-evaluation of the suitability of the relevant management measures in the OAMP. 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 eight months after detection of the trigger. They may include (though are not limited to): • Third party review of the OAMP 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 will obtain advice from senior ecologists and land managers with the aim of identifying appropriate additional management interventions
Habitat or vegetation loss through land clearing	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 *Section 8* to be registered within six months of Project commencement.	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 two 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 OAMP. Construction and maintenance of access tracks, fencing and firebreaks will be undertaken in accordance with the requirements of *Table 11.* If vegetation clearing is required for fencing, access, firebreaks or public safety it must be undertaken in accordance with best practice	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 occurred for fire break, access road or fence line maintenance.	Detection of prohibited forestry operations, native timber harvesting or clearing outside of existing infrastructure and fence lines (existing infrastructure).	• Step 1: Upon being notified or becoming aware of prohibited forestry operations, native timber harvesting or clearing outside of existing infrastructure, the approval holder is to assess how unauthorised persons accessed the site, review existing access restrictions, and 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 will be completed within one month of detection of the clearing.

Threat to offset values	Management objective	Performance criteria	Management actions	Monitoring	Trigger for adaptive management and corrective action(s)	Corrective action and timing
			management methods and any applicable legislative requirements. Thinning via chemical and/or mechanical means, including brushcutter, chainsaw and individual tractor. Ecological thinning may be carried out in RE 11.3.2 and 11.5.3, but only on and in accordance with the advice of a Principal Ecologist with suitable experience in Central Queensland.[4]		Trigger for thinning is a minimum density of 750 ***immature trees***/ha in RE 11.3.2 and RE 11.5.3	• Thin immature trees to >300 stems/ha. All of the following must be retained: ○ A full range of plant sizes and species typical of the RE in the area distributed in a pattern that is as natural as possible ○ All mature trees and habitat trees ○ At least 300 immature trees/ha, that are species characteristic of RE11.3.2 and 11.5.3 ○ At least 10% of target low shrub species
Degradation of habitat by overgrazing	Ensure that any livestock grazing for fire management and weed control maintains and enhances the ground cover attributes for MNES and does not result in the degradation of habitat and vegetation	Increase the richness and average % cover of native perennial grasses at each habitat quality assessment site based on the results of baseline and subsequent monitoring events	Stock will be grazed only when required to reduce dry matter yield (**DMY**) (i.e.: when DMY exceeds 1,200kg/ha), and only during the dry season. The dry season is normally between April and December; however, if unseasonal rainfall should occur, then grazing is to be allowed. Grazing will not be permitted in the squatter pigeon offset area during the squatter pigeon breeding season.	Habitat quality assessments will be undertaken in accordance with *Section 7*. These will include assessment of percentage cover of native perennial grasses Dry matter yield measurements must be in accordance with the Brigalow Belt pasture photo standards.[5] These measurements are to be undertaken monthly when cattle are grazing in the offset area/s	Detection of stock grazing outside of the dry season, or during the exclusion period. 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 Pastoral Manager is to remove the stock from the area (if present) and assess the adequacy of fencing within 10 days. The Pastoral Manager is to undertake fence maintenance and repairs to resecure the offset area within 10 days.
Introduction, establishment and spread of non-native weeds including restricted invasive plants listed under the Biosecurity Act 2014 *(Qld)*	Manage restricted invasive plant species to reduce degradation of MNES habitat	Weed cover must not exceed 10% cover of the offset area by Year 20. No new restricted invasive plants listed under the *Biosecurity Act 2014* (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	Monitoring of this management action will 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. Exotic grasses make up more than 50% of the groundcover layer in RE 11.3.2	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 Pastoral Manager is to 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. In RE 11.3.2 (Poplar Box TEC) use Long term Rotational Grazing and the latest research available on Buffel Grass management to reduce the abundance of exotic pasture grasses to below 50%

[4] When too many immature native trees are present, this decreases the ability of the trees to reach full height and width. See section 5 of *Natural Values Health Checks A guide to undertaking health checks for key natural values Version 1.6* (July 2019). Ecological Assessment Unit, Queensland Parks and Wildlife Service & Partnerships, DES. Brisbane. See also: Dwyer, J.M., Fensham, R., and Buckley, Y.M. Restoration thinning accelerates structural development and carbon sequestration in an endangered Australian ecosystem. (2010). In *Journal of Applied Ecology*, 47, pp.681-691.

[5] Available at https://futurebeef.com.au/resources/brigalow-belt-pasture-photo-standards/

Threat to offset values	Management objective	Performance criteria	Management actions	Monitoring	Trigger for adaptive management and corrective action(s)	Corrective action and timing
Increased population of feral animals in the offset area. *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.*	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 *Biosecurity Act 2014* (Qld).	Detection of twelve or more wild pigs or dogs during any inspection.	Implement control actions for pest animals in accordance with *Table 11*. Participate fully in, and cooperate with, any and all regional pest control programs, unless those would otherwise contravene a part of this OAMP.	Undertake monitoring for pest animals in accordance with *Section 7*.	Any observed or suspected substantial decline in ornamental snake, koala or greater glider or squatter pigeon abundance 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 *Table 11*.)	• Upon being notified or becoming aware of pest animal populations exceeding the threshold, the Pastoral Manager is to 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 six months of completion of implementation of the control measures, the land manager is to undertake and complete all works required to remediate those impacts.
Degradation of habitat by feral pigs	Minimise degradation of MNES 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 *Section 4*. Participate fully in, and cooperate with, any and all regional pest control programs, unless those would otherwise contravene a part of this OAMP.	Monitoring of this management action will be undertaken by the Pastoral Manager, Landholder or suitable 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.	
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.*	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 are restricted to <25% of the offset area in any 12-month period.	Implement fire management in accordance with requirements in this OAMP. 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 holder may comply with that advice without needing approval or agreement from DCCEEW).	Monitoring of this management action will be undertaken by the Pastoral Manager, Landholder or suitable qualified person appointed by the approval holder at least four times annually. Quarterly inspections will monitor and document if there is evidence of wildfire, prohibited burning or force majeure events. Quarterly inspections will monitor and document if a prescribed low-intensity ecological burn has occurred, and	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 implement new access

Threat to offset values	Management objective	Performance criteria	Management actions	Monitoring	Trigger for adaptive management and corrective action(s)	Corrective action and timing
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.			The approval holder 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 two years. Please note: if fire damages the offset areas, that constitutes an incident for the purposes of *Section 4.2*. In the offset area, 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. Reduction of non-native grasses will reduce the fuel load and therefore the risk of uncontrolled hot fires.[6]	recorded in the Annual report with the written advice from an ecologist or other suitably qualified person (e.g. Fire Warden) Weed cover is to 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 and the land manager will keep themselves informed of any bushfires in the region.		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 will: 1. inspect and repair, and widen if necessary, all firebreaks; and 2. reassess fuel load reduction practices; and 3. exclude grazing until the DMY is
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 *Section 9* 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 in this OAMP will be implemented to ensure that the interim performance targets and completion criteria are achieved.	Monitoring of the offset area will be undertaken in accordance with *Section 7*. 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 OAMP and must identify appropriate corrective actions. Step 2: Implementation of corrective action/s As soon as practicable, and in any case within eight 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. • 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 six months of detection of the trigger, implement a revised OAMP incorporating those recommended changes.

[6] 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	Monitoring	Trigger for adaptive management and corrective action(s)	Corrective action and timing
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 and any new planned fences will be erected within six months of the Project commencement.	Monitoring of this management action will 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 is to reassess access protocols for any lessees etc., signage and general access within one fortnight. • Damage to signage will 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 *Table 17* and monitored during the quarterly inspections. • Signage will be repaired and maintained as required by the Pastoral Manager, Landholder or suitable qualified person appointed by the approval holder.

4.1 Responsible parties

As approval holder, BB Coal is accountable for implementing the plan. Completing the actions will be ensured through the annual reporting requirements (*Section 7*). BB Coal will coordinate reporting, reviewing, inspections, auditing and any adaptive management changes to the plan. A person within BB Coal (e.g. Environmental Superintendent or equivalent) will be assigned the responsibility of managing offset requirements for the company.

In keeping with approval condition 13, BB Coal 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 7*. These records will be made available to the Department on request.

BB Coal 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. BB Coal will also undertake the landholder reporting as per *Table 16*.

BB Coal will engage suitably qualified persons to undertake the biocondition assessments, ecological studies and surveys, prepare reports and undertake inspections, as required.

4.2 Emergency procedures

Incidents identified at any of the offset sites will be reported by the lessee to BB Coal. 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 BB Coal and responses to incidents adversely impacting habitat quality on the offset site, or MNES directly, will be coordinated by BB Coal, to ensure remediation or enhanced management measures (*Table 12*) are implemented to address the incident as soon as reasonably possible.

BB Coal will notify DCCEEW (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 OAMP (see also *Section 9*).

5 Offset completion criteria and performance targets

Offset completion criteria have been determined for each species based on an understanding of the specific habitat, connectivity and other ecological values for the koala, ornamental snake and greater glider (southern). These criteria were initially derived from detailed ecology survey information of both the impact and offset sites, as detailed in Section 9.6 of the OS.

The targeted habitat quality meets guidelines published by ANZMEC (2000),[7] 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.

[7] *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 each species to track the trajectory of habitat quality improvement towards the desired final completion criteria (*Table 13*). The timing for these interim targets corresponds with the 5 yearly targeted species surveys and detailed ecological condition monitoring in years 5, 10, 15 and 20.

Interim targets were derived for each species 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 12* will enable the offset site to improve and achieve the scores required, thus meeting and maintaining the completion criteria required of the offset. The annual reports (see *Section 7*) 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 13: Interim targets and completion criteria

Protected matter	EPBC Status	Total impact area Stages 1-3 (ha)	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
Brigalow TEC	*Endangered*	7.6	5.01	1, 6	4	23.0	11.3.1 11.4.8	5.45	5.5-6.0	6.0-6.5	6.5-7.0	7
Poplar Box TEC	*Endangered*	44.4	7.14	2	3	291.7	11.3.2	6.53	6.5-7.0	7.0-7.5	7.5-8.0	8
Ornamental snake	*Vulnerable*	46.0	4.10	1, 3, 6, 8	10	116.21	11.3.1, 11.3.25, 11.4.8, HVR (11.4.8)	4.35	5.5-6.0	6.0-6.5	6.5-7.0	7
Greater glider	*Endangered*	93.58	4.96	2, 3, 4, 5, 11	9	365.0	11.3.2, 11.3.25, 11.3.27b, 11.3.4, 11.3.9	5.69	5.5-6.0	6.0-6.5	6.5-7.0	7
Koala	*Endangered*	102.1	5.89	2, 3, 4, 5, 7, 11	11	480.00	11.3.2, 11.3.25, 11.3.27b, 11.3.4, 11.3.9, 11.5.3,	5.78	5.8-6.0	6.0-6.5	6.5-7.0	7
Squatter pigeon	*Vulnerable*	6.4	5.59	3,4	2	34.9	11.3.25, 11.3.27b	5.69	5.5-6.0	6.0-6.5	6.5-7.0	7

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

Securing the offset area will add additional protection for biodiversity values from clearing[8] 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 maps at *Figure 4* to *Figure 9*. 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.[9] 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 14*: Biosecurity Act 2014 (Qld) obligations.

Table 14:* 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

[8] *Vegetation Management Act 1999* (Schedule definitions)
[9] See https://www.daf.qld.gov.au/business-priorities/biosecurity/policy-legislation-regulation/biosecurity-act-2014/general-biosecurity-obligation

The obligations in the OAMP are additional to these general obligations, in that control is required once thresholds as detailed in *Table 12* 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 Isaac Regional Council local government area. The Council's *Isaac Region Biosecurity Plan 2020-23* states only that landholders' responsibilities are "taking all practical steps towards best practice management of pest species, as defined by the *Biosecurity Act 2014* or under Isaac Regional Council local laws, on land that they occupy." [10]

7 Monitoring and reporting

The monitoring methods (*Table 15*) 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 5*). 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.

The survey methodology from the original survey work undertaken in 2022 is described in *Schedule 2*.

BB Coal, 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 completion criteria are achieved or the end of the EPBC approval, whichever comes first. The monitoring methodology and schedule is outlined in *Table 15*. The reporting schedule is provided in *Table 16*. The location of the monitoring sites is shown at *Figure 10.* The coordinates of the monitoring sites are shown in *Table 17.*

The Offset Area Reports will contain records substantiating all activities relevant to the implementation and management of the offsets.

Commonwealth threatened species survey guidelines used to inform the requirements of the terrestrial flora and fauna surveys will include:

- Survey guidelines for Australia's threatened reptiles (SEWPaC, 2011)
- Survey guidelines for Australia's threatened mammals (SEWPaC 2011)
- Survey guidelines for Australia's threatened birds (DEWHA, 2010)

[10] *Isaac Region Biosecurity Plan 2020-23,* p.12. Available at: https://www.isaac.qld.gov.au/downloads/file/2042/draft-isaac-region-biosecurity-plan

- EPBC Act referral guidelines for the vulnerable Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) (DotE 2014)
- Draft Referral guidelines for the nationally listed Brigalow Belt reptiles (SEWPaC 2011)
- SPRAT databases for relevant EPBC Act listed species and communities

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.

Grass and weed cover measurement is to be undertaken as per the Level 1 methodology described in the *Land Manager's Monitoring Guide* (DERM, 2010).

Dry matter is to be assessed as per the Brigalow Belt pasture photo standards.[11]

[11] https://futurebeef.com.au/knowledge-centre/brigalow-belt-pasture-photo-standards

Table 15: Monitoring schedule and methodology to be used

Monitoring	Attributes monitored	Timing	Method	Location/s
Surveys undertaken by ecologists every 5 years				
Targeted habitat quality assessments of habitat	Nature and quality of habitat attributes for koala, greater glider (southern) and ornamental snake. Presence of koala, squatter pigeon (southern) and ornamental snake in the offset area, including estimated numbers and location of sightings.	In September, each five years after the commencement of each Stage of the Project	*EPBC Act referral guidelines for the vulnerable Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)* (DoE 2014). *Survey guidelines for Australia's threatened mammals* (SEWPaC 2011). *Draft Referral guidelines for the nationally listed Brigalow Belt reptiles* (SEWPaC 2011).	Across the offset area
Ecological condition and relevant habitat features using BioCondition assessments	Recruitment of woody perennial species in EDL	In September, each five years after the commencement of each Stage of the Project	Field observations, vegetation assessment as per the *BioCondition: A Condition Assessment Framework for Terrestrial Biodiversity in Queensland Assessment Manual* (Eyre et al., 2015) Data for each of the ecological condition attributes monitored will 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 *Guide to Determining Terrestrial Habitat Quality Version 1.3* (Department of Environment and Science, 2020).	At sites as shown in *Table 17* and *Figure 10.*
	Native plant species richness – trees			
	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			

Monitoring	Attributes monitored	Timing	Method	Location/s
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. Refer to Schedule 2 for a description of the methodology.				
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
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 will 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 will be provided to the approval holder and serve as the primary data source for the Offset Area Report. Grass cover assessment is to 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 Grass cover	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 is to 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 will be GPS'd and photographed and rechecked at the next quarterly inspection. Any evidence of predation on koalas must be reported immediately to the approval holder and corrective actions implemented.	Across the offset area

Table 16: Reporting schedule

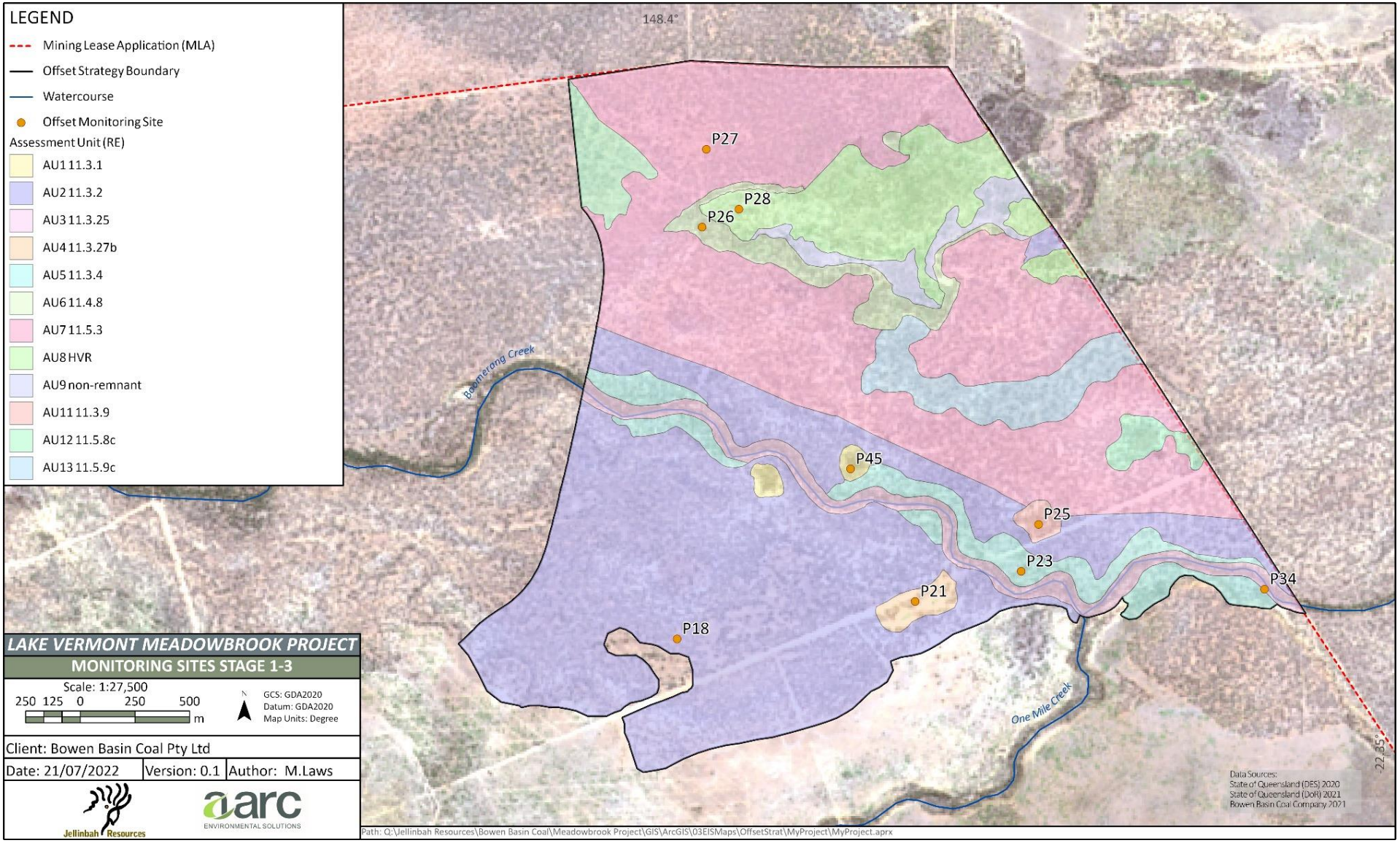
Report Details to DCCEEW	Reporting period	Submission due date
Annual Offset Area Report, which contributes to the Annual Compliance Report detailing photo points (including coordinates), implementation of management actions, any triggers for corrective actions and implementation of those corrective actions, if implemented, and offset condition outcomes, including habitat quality scores, condition of koala habitat and results of koala surveys, achieved for preceding reporting period. Note: the reports and results from detailed ecology survey (biocondition assessments) and monitoring events, such as koala surveys and koala habitat monitoring, conducted in accordance with *Table 15* will be provided as an Appendix to the subsequent Annual Offset Area Report.	Annual Offset Area Report - from the date of commencement of the Project to the following 30 September for the first report	31 November in the year after the date of approval of the OAMP for the first report
	1 October – 30 September annually until the offset completion criteria are achieved and then every 5 years until the end of the approval.	31 November each year as required
Compliance report detailing compliance with approval conditions under the EPBC Act, including compliance with the offset conditions, as detailed in the OAMP.	1 October – 30 September annually following commencement of the Project.	31 November every year for the duration of the approval

Table 17: Monitoring sites

Regional ecosystem	**Survey site number** (to be consistent with the baseline data collected for the duration of the OAMP)	**Ha in the offset area**	**Location - easting**	**Location - northing**
11.3.1 (AU1)	P45	3.92	148.408437	-22.337342
11.3.2 (AU2)	P18	291.7	148.4007405	-22.34488649
11.3.25 (AU3)	P34	29.1	148.426813	-22.34268246
11.3.27b (AU4)	P21	5.8	148.4112975	-22.34322695
11.3.4 (AU5)	P23	38.8	148.4160075	-22.34188396
11.4.8 (AU6)	P26	20.3	148.4018475	-22.32660451
11.5.3 (AU7)	P27	269.1	148.4020315	-22.32315296
HVR (AU8)	P28	55.6	148.4034735	-22.32581049
11.3.9 (AU11)	P25	3.0	148.4167825	-22.33980295

Coordinates system: GDA_1994_MGA_Zone_55

Figure 10: Monitoring sites



8 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 will legally secure the environmental offset within 2 years of the date that the OAMP is approved by the Minister. The approved OAMP must be attached to the legal mechanism used to legally secure the environmental offset. The approval holder will notify the Department within 5 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 OAMP.

The declared area will remain in place as the legally securing mechanism for the offset area. The declared area and approved OAMP 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).

9 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 12*). If management measures need substantial adjustment, BB Coal will review this plan in consultation with the Department.

BB Coal will provide to the Department the details of any incident or non-compliance with the conditions or commitments made in this OAMP within the timeframe stipulated by the Project approval conditions after becoming aware of the incident or non-compliance, specifying:

a) the condition that the approval holder has potentially breached
b) the nature of the non-compliance
c) when and how the approval holder became aware of the non-compliance
d) how the non-compliance will affect the approved action
e) how the non-compliance will affect the anticipated impacts of the approved action, in particular how the non-compliance will affect the impacts on the MNES
f) the measures the approval holder will take to address the impacts of the non-compliance on the MNES and rectify the non-compliance
g) the time by when the approval holder will rectify the non-compliance.

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

If the Minister requests that BB Coal make specified revisions to the OAMP, BB Coal will develop and submit the revised OAMP for the Minister's written approval. BB Coal will implement the revised OAMP. Unless the Minister has approved the revised OAMP, then BB Coal will continue to implement the OAMP originally approved.

10 Conclusion

This Offset Area Management Plan has been prepared to address all the requirements of the *Environment Protection and Biodiversity Conservation Act 1999*. This OAMP will be published on BB Coal's website within 1 month of the OAMP being approved by the Minister. The OAMP will remain on the website and accessible to the public for the duration of the EPBC Act approval.

The offset site will successfully deliver offsets for the Project's residual significant impacts to brigalow TEC, poplar box TEC, ornamental snake habitat, greater glider habitat, and habitat for the koala and squatter pigeon.

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 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 for each Stage, prior to commencing that Stage, and advise DCCEEW within 5 business days that the offset for the respective Stage has been legally secured.

List of abbreviations

Abbreviation	Description
AU	Assessment unit
BB Coal	Bowen Basin Coal Pty Ltd
DAWE	Department of Agriculture, Water and the Environment (former)
DCCEEW	Department of Climate Change, Energy, the Environment and Water
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)
EA	Environmental authority
EIS	Environmental impact statement
EOP	Environmental Offsets Policy (October 2012) (EPBC Act)
EPBC Act	*Environment Protection & Biodiversity Conservation Act 1999* (Cth)
EVNT	Endangered, vulnerable or near-threatened (species)
ha	hectares
HQS	Habitat quality scoring
HVR	High-value regrowth
km	kilometres
m	metres
ML	Mining lease
MNES	Matters of national environmental significance
NC Act	*Nature Conservation Act 1992* (Qld)
OAG	Offset Assessment Guide (DCCEEW)
OAMP	Offset Management Plan
OS	Offset strategy
PMAV	Property map of assessable vegetation
Project	Lake Vermont Meadowbrook Project
RE	Regional ecosystem
SEWPaC	Department of Sustainability, Environment, Water, Population and Communities (Australian) (former)
TEC	Threatened ecological community
THQ	Terrestrial habitat quality
ToR	Terms of reference
VM Act	*Vegetation Management Act 1999* (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.
Business day	A day that is not a Saturday, a Sunday or a public holiday in the state or territory of the action.
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 *Vegetation Management Act 1999* (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 *Vegetation Management Act 1999*. Category X areas are colour-coded white on the regulated vegetation management map (see *Vegetation Management Act 1999* (Qld) s20A.).
Compliance report/s	Written reports: a) providing accurate and complete details of compliance, incidents, and non-compliance with the conditions and plans; b) consistent with the Department's Annual Compliance Report Guidelines (2014) (or subsequent published revision); c) include a shapefile of any impact of any protected matters, or their habitat, undertaken within the relevant 12 month period; and d) identifying the version/s of the plans prepared and in existence in relation to the conditions of this approval during the relevant 12 month period.
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.
Critical koala habitat	Areas of vegetation found on the project site containing tree species known to be utilised for food or shelter and which are consistent with the following Queensland REs: • 11.3.25 *Eucalyptus tereticornis* or *Eucalyptus camaldulensis* woodland fringing drainage lines; • 11.5.3: *Eucalyptus populnea* +/- *Eucalyptus melanophloia* +/- *Corymbia clarksoniana* on Cainozoic sand plains and/or remnant surfaces; • 11.5.2: *Eucalyptus crebra*, *Corymbia spp*., with *Eucalyptus moluccana* on lower slopes of Cainozoic sand plains and/or remnant surfaces; and

Term	Definition
	• 11.5.2a: *Allocasuarina luehmannii* low tree layer with or without emergent woodland.
Department	The Australian Government Department administering the *Environment Protection and Biodiversity Conservation Act 1999*.
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.
Koala habitat	Areas of vegetation containing tree species known to be utilised for food or shelter.
Minister	The Minister administering the *Environment Protection and Biodiversity Conservation Act 1999*.
Offset calculator	The *Offset Assessment Guide* 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 *Vegetation Management Act 1999* (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, *Vegetation Management Act 1999*).
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.
Riparian zone	The area within a minimum of 100 metres of the defining bank of any watercourse (as defined under the Queensland *Water Act 2000*).
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 Queensland *Guide to determining terrestrial habitat quality: A toolkit for assessing land-based offsets under the Queensland Environmental Offsets Policy* (Version 1.2, April 2017), or subsequent published revision.
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.

Term	Definition
Suitably qualified ecologist	An individual with tertiary qualifications and/or a minimum of three years demonstrated experience relevant to the task in question and have expertise in the ecology of koalas.
Suitably qualified person	A person who has professional qualifications, training, skills and/or experience related to the nominated subject matter and can give authoritative independent assessment, advice and analysis on performance relative to the subject matter using the relevant protocols, standards, methods and/or literature.
Target low shrub species	Is a ***low shrub*** species which comprises more than 50 per cent of the ***ground cover*** in the area covered by a notification made under the vegetation clearing code. See *Accepted development vegetation clearing code Managing regulated regrowth vegetation*; Department of Natural Resources and Mines. Effective 7 February 2020
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 102 SP310393

Titles QUEENSLAND

Current Title Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**51211558**	**Search Date:**	20/07/2022 14:00
Date Title Created:	20/02/2020	**Request No:**	41732244
Previous Title:	30590071, 50957996		

ESTATE AND LAND

Estate in Fee Simple

LOT 102 SURVEY PLAN 310393
Local Government: ISAAC

REGISTERED OWNER

Dealing No: 719898763 13/02/2020

BOWEN BASIN COAL PTY LTD A.C.N. 065 321 440

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 30590071 (Lot 10 on CP CNS93)
Deed of Grant No. 40021420 (Lot 4 on CP CNS382)
2. EASEMENT IN GROSS No 711194186 19/11/2007 at 15:31
burdening the land
EUNGELLA WATER PIPELINE PTY LTD A.C.N. 070 999 236
over
EASEMENT F ON SP206112
3. EASEMENT No 715929930 01/08/2014 at 16:03
burdening the land to
LOT 3 ON SP260662
OVER EASEMENT H ON SP260662
4. EASEMENT No 715929932 01/08/2014 at 16:04
burdening the land to
LOTS 1 AND 3 ON SP260662
OVER EASEMENT H ON SP260662

ADMINISTRATIVE ADVICES

Dealing	Type	Lodgement Date	Status
709626310	VEG NOTICE VEGETATION MANAGEMENT ACT 1999	25/05/2006 14:03	CURRENT
713621358	VEG NOTICE VEGETATION MANAGEMENT ACT 1999	13/12/2010 10:27	CURRENT
717862952	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	27/02/2017 09:09	CURRENT
717862955	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	27/02/2017 09:10	CURRENT
717862967	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	27/02/2017 09:12	CURRENT
717862975	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	27/02/2017 09:12	CURRENT
717918536	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	24/03/2017 09:51	CURRENT
717918774	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	24/03/2017 10:24	CURRENT
717918789	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	24/03/2017 10:25	CURRENT
717918805	CON COM AGMT	24/03/2017 10:27	CURRENT

Requested by: D-ENQ TITLES QUEENSLAND

www.titlesqld.com.au
Page 1/2

ADMINISTRATIVE ADVICES (Continued)

Dealing	Type	Lodgement Date	Status
	MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014		
717918830	CON COM AGMT	24/03/2017 10:30	CURRENT
	MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014		
717918842	CON COM AGMT	24/03/2017 10:32	CURRENT
	MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014		

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 102 SP310393

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 (hyperlink).

To apply for an area to be legally secured as an exchange area, complete the application to legally secure an exchange area. For guidance on legally securing an exchange area see the General guide to accepted development vegetation clearing codes.

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:	BOWEN BASIN COAL PTY LTD				
If a corporation then enter one of the following: ◉ ACN ○ ABN ○ ARBN				065 321 440	
Main phone:	07 3877 6700	Other phone:			
Email:					
Address line 1:	Level 27, 12 Creek St				
Address line 2:					
Town/Suburb:	Brisbane	State:	QLD	Postcode:	4000
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 ○ ABN ○ 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
102	SP310393	14,531	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
102 SP310393	Easement	Eungella Water Pipeline P/L	c/o Sunwater Ltd	
			Level 9, 515 St Pauls Tce	
			Fortitude Valley QLD 4006	
			Ph: (07) 3120 0000	

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

◯ Vegetation Management Environmental Offset	◯ Better Environmental Outcome (BEO)
◯ Environmental Offset (Queensland)	◯ Other Conservation Purpose
◉ Environmental Offset (Commonwealth)	◯ Enforceable Undertaking
◯ Carbon Offset	

Note: if the purpose of the declaration is to legally secure an exchange area, complete the application to legally secure an exchange area

4.2 Associated development approval

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:

Development approval reference number:	

If the declaration is linked to an approval under another Act please provide details of the approval below:

Other Approval reference number:	EPBC 2019/8485
Responsible agency:	Dept of 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.

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.

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)*
102	SP310393	Bowen Basin Coal Pty Ltd	(•) ACN ( ) ARBN	065 321 440			
			( ) ACN ( ) ARBN				
			( ) ACN ( ) ARBN				
			( ) ACN ( ) ARBN				
			( ) ACN ( ) ARBN				
			( ) ACN ( ) ARBN				
			( ) ACN ( ) ARBN				
			( ) ACN ( ) ARBN				
			( ) ACN ( ) ARBN				
			( ) ACN ( ) ARBN				
			( ) ACN ( ) ARBN				
			( ) ACN ( ) ARBN				

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 102 SP310393

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 (hyperlink). For guidance on legally securing an exchange area see the General guide to accepted development vegetation clearing codes.

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:		Middle name:		Surname:	
Company name:	Bowen Basin Coal Pty Ltd				
If a corporation then enter one of the following:	(•) ACN	( ) ABN	( ) ARBN	065 321 440	
Main phone:	07 3877 6700	Other phone:			
Address line 1:	Level 27, 12 Creek St				
Address line 2:					
Town/Suburb:	Brisbane	State:	QLD	Postcode:	4000
Email address:					
Preferred method of contact	( ) Phone	( ) Email	(•) Letter		
Local government area:	Isaac Regional Council				
Office use only:					
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
102	SP310393		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.

Refer to Section 2 of the Offset Area Management Plan (OAMP)

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 .klm 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 conserve an area of:

(●) high nature conservation value

( ) vulnerable to land degradation

under section 19G(1)(b)(iii) 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
102 SP310393	Easement	Eungella Water Pipeline P/L	c/o Sunwater Ltd	
			Level 9, 515 St Pauls Tce	
			Fortitude Valley QLD 4006	
			Ph: (07) 3120 0000	

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

Refer to Section 4 of the OAMP

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

Refer to Section 4 and Section 5 of the OAMP

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

Refer to Section 4 of the OAMP

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

Refer to Section 5 of the OAMP

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

Refer to Section 7 of the OAMP

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. For guidance on legally securing an exchange area see the General guide to accepted development vegetation clearing codes.

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.

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)*
102	SP310393	Bowen Basin Coal Pty Ltd	◉ ACN ○ ARBN	065 321 440			
			○ ACN ○ ARBN				
			○ ACN ○ ARBN				
			○ ACN ○ ARBN				
			○ ACN ○ ARBN				
			○ ACN ○ ARBN				
			○ ACN ○ ARBN				
			○ ACN ○ ARBN				
			○ ACN ○ ARBN				

Department of Resources *(office use only)*

Name		Position		Signature		Date	

Schedule 2: Field survey methodology

Biocondition site-based attributes assessment

Habitat quality and vegetation condition data was collected at habitat quality plots in accordance with the *Guide to determining terrestrial habitat quality* (DES 2020). The site-based attributes of habitat quality plots were described according to the Queensland Herbarium *Biocondition Condition Assessment Framework for Terrestrial Biodiversity in Queensland Version 2.2*. (Eyre et al. 2015). Ecological condition for each habitat quality plot was derived according to DES (2020) with comparison against reference site biocondition benchmarks (DES 2019). The attribute scores contributed to the biocondition scores according to weightings described in Eyre et al. (2020). The attributes assessed at each plot were as follows:

- 100 m transect
    - Tree canopy cover
    - Tree sub-canopy cover
    - Native shrub cover
    - Photographs at each transect end
- 100 m x 50 m plot
    - Number of large eucalypt trees
    - Number of large non-eucalypt trees
    - Tree canopy height – median canopy height (m)
    - Recruitment of canopy species – proportion of dominant canopy species that are regenerating (%)
    - Native tree species richness – number of species present
- 50 m x 20 m plot
    - Coarse woody debris – length of all logs >10 cm diameter and 0.5 m in length
- 50 m x 10 m plot
    - Native shrub, grass and forbs/other species richness
    - Non-native plant cover – cover of exotic species as a component of the overall vegetation cover (%)
- 1 m x 1 m quadrats
    - Native perennial grass cover (%)
    - Organic litter cover (%)
    - Native forbs and other species (%)
    - Native shrubs (<1 m in height) (%)
    - Non-native grass (%)
    - Non-native forbs and shrubs (%)

Landscape context attributes assessment

Landscape scale attributes were assessed for each plot according to the *Biocondition Assessment Manual* (Eyre et al. 2015). The assessment addressed the size of patch, context and connectivity of the habitat quality plots and contributed to the biocondition score according to the weightings described in Eyre et al. (2015).

Species habitat attributes assessment

Species habitat attributes were derived from habitat assessments conducted within the Lake Vermont Meadowbrook Terrestrial Ecology Assessment (AARC 2022) and information within the relevant conservation advice.