



Calala Battery Energy Storage System

Biodiversity Management Plan

FINAL

Prepared for The Trustee for Equis Energy (Australia) Ngumi 4 Holding Trust

6 March 2026

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Document information

Report to:	The Trustee for Equis Energy (Australia) Ngumi 4 Holding Trust
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Biosis project no.:	41055
File name:	41055.Calala.BESS.BMP.FIN06.20260209
Citation:	Biosis 2026. Calala Battery Energy Storage System Biodiversity Management Plan for Equis Energy (Australia). Buzio R. and Corrigan B. Biosis Pty Ltd., Sydney, NSW. Project no. 41055

Document control

Version	Internal reviewer	Date issued
Draft version 01	Dr. Caragh Heenan Callan Wharfe	07/08/2024
Final version 01	Callan Wharfe	27/11/2024
Final version 02	Brendon True	03/04/2025
Final version 03	Brendon True	16/04/2025
Final version 04	Brendon True	13/05/2025
Final version 05	Brendon True	05/06/2025
Final version 06	Callan Wharfe	06/03/2026

Acknowledgements

Biosis acknowledges the contribution of the following people and organisations in undertaking this study:

- Equis Energy (Australia): Gerrit Prent and Elizabeth Zorondo.
- NSW Government Minister for Planning and Public Spaces for access to Development Consent (SSD 52786213).

Biosis staff involved in this project were:

- Brendon True, Senior Botanist – Major Projects (accredited assessor [BAAS18155] and author of the Calala BESS Biodiversity Development Assessment Report, and BDAR Addendum).
- Liarni Rayment, Graduate Ecologist (assistance with background research).
- Lauren Harley and Olivia Williams (mapping and GIS analysis).
- Dr Caragh Heenan, Senior Zoologist – Major Projects (Zoology) and Callan Wharfe, Principal Ecologist (quality assurance).



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Glossary

AC	Alternating Current
APVMA	Australian Pesticides and Veterinary Medicines Authority
BAM	NSW Biodiversity Assessment Method
BAM-C	The NSW Biodiversity Assessment Method Calculator
BC Act	NSW <i>Biodiversity Conservation Act 2016</i>
BCS	Biodiversity, Conservation and Science Division of NSW DCCEEW (former)
BDAR	Biodiversity Development Assessment Report
BESS	Battery Energy Storage System
Biosecurity Act	<i>Biosecurity Act 2015</i>
BMP	Biodiversity Management Plan
BMP area	The area which this Biodiversity Management Plan applies to, as defined in Figure 2.
BOS	NSW Biodiversity Offset Scheme
BSA	Biodiversity Stewardship Agreement
CEEC	Critically Endangered Ecological Community
CEMP	Construction Environmental Management Plan
CPHR	Conservation Programs, Heritage and Regulation Division of NSW DCCEW
DBH	Diameter at breast height
DC	Direct Current
Development footprint	Where construction activities will occur; comprises the BESS footprint, access road, easements and underground transmission line within the BMP area.
DNG	Derived Native Grassland
DP	Deposited Plan
DPE	NSW Department of Planning and Environment (former)
DPI	NSW Department of Primary Industries
DPIE	NSW Department of Planning, Industry and Environment (former)
EEC	Endangered Ecological Community
EMS	Environmental Management Strategy
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
Equis Energy	The Trustee for Equis Energy (Australia) Ngumi 4 Holding Trust (the Applicant)
GDE	Groundwater Dependent Ecosystems
GIS	Geographic Information System
HTW	High Threat Weed
IBRA	Interim Biogeographic Regionalisation for Australia

IPC	Independent Planning Commission
KFH	Key Fish Habitat
LEP	Local Environmental Plan
LGA	Local Government Area
LLS	Local Land Services
NPW Act	<i>National Parks and Wildlife Act 1974</i>
NSW	New South Wales
NSW DCCEEW	NSW Department of Climate Change, Energy, the Environment and Water (current)
OEH	NSW Office of Environment and Heritage (former)
PCT	Plant Community Type
Planning System SEPP	<i>State Environmental Planning Policy (Planning Systems) 2021</i>
SEPP	State Environmental Planning Policy
SSD	State Significant Development
TEC	Threatened Ecological Community
TFD	Total Fund Deposit
Veg-C	BioNet Vegetation Classification database
WoNS	Weed of National Significance

1 Introduction

1.1 Project background

Biosis Pty Ltd was commissioned by The Trustee for Equis Energy (Australia) Ngumi 4 Holding Trust (Equis Energy) to develop a Biodiversity Management Plan (BMP) for the Calala Battery Energy Storage System (BESS) and network connection (the project) at 474 Calala Lane (part Lot 17 DP 629969), Calala New South Wales (NSW) and connection (part Lot 16 DP 629969, part Lots 3 and 4 DP 244399, and part Lot 6 DP 219993) (as shown in Figure 1). The project will involve the construction and operation of a large-scale BESS with a capacity of up to 300 Megawatts and will provide up to 600 Megawatt hours of battery storage capacity, or up to 2 hours of storage duration. The BESS will connect to the nearby TransGrid Tamworth 330 Kilovolt substation via 1.9 kilometres of underground transmission line. Biosis understands that the development of the Calala BESS satisfied the definition of a State Significant Development (SSD) pursuant to Schedule 1 Clause 20 of the State Environmental Planning Policy (Planning Systems) 2021 (Planning Systems SEPP).

The project involves the construction and operation of the following components:

- Large-scale BESS including battery enclosures, inverters, Direct Current (DC) and Alternating Current (AC) combiner boxes, transformers, and auxiliary components.
 - 33/330 Kilovolt (kV) switchyard.
 - Underground transmission line connection between the BESS and the nearby TransGrid Tamworth 330 kV substation across Lots 16-17 DP 629969, Lots 3-4 DP244399, underneath Burgess Lane then connecting to the substation Lot 6 DP219993.
- Ancillary elements including:
 - Site access from Calala Lane and Burgmanns Lane.
 - Internal access roads and parking, control room and staff amenities, warehouse, stormwater and fire management infrastructure, utilities, signage, fencing, security systems, noise attenuation walls and landscaping.
 - Civil works areas within Tamworth substation land (Lot 6 DP219993).
 - Construction laydown, stockpile and parking within Tamworth substation land (Lot 6 DP219993).

The project was initially approved as outlined in the Development Consent (SSD 52786213) dated 28 June 2024, and has since been subject to a Modification Application under Section 4.55 (1A) of the *Environmental Planning & Assessment Act 1979* (EP&A Act 1979). Works associated with this modification include:

- Three vehicle turning bays along the transmission line corridor.
- Road and vehicle access off Burgmanns Lane.
- General minor works at the Tamworth Substation and BESS facility, including but not limited to:
 - Temporary construction laydown, site compound and vehicle parking within the Tamworth Substation land.
 - Minor increase to the size of the existing retarding basin capacity.
 - Minor increase in the overall length of the grassed landscape mound located to the northwest of the BESS.
 - Site boundary reduction.
 - Additional grassed landscaped mound located to the north of the BESS facility.

Minor correction to boundaries to align with a title re-establishment survey and align more closely with the development footprint

The project development footprint where construction and operation activities listed above will occur, is identified in Figure 2.

Conditions of Consent and EMS

In meeting the specific performance measures and criteria of this consent, Equis Energy commits to implement all reasonable and feasible measures to prevent, and if prevention is not reasonable and feasible, to minimise, any material harm to the environment that may result from the construction, commissioning, operation, upgrading, decommissioning or rehabilitation of the development. The development will be carried out generally in compliance with the consent and EIS.

An Environmental Management Strategy (EMS) has been prepared for the project *Environmental Management Strategy: Calala Battery Energy Storage System* (GHD 2025) in response to Condition C1 of the Development Consent (SSD 52786213) issued by the NSW Government Minister for Planning and Public Spaces under the *NSW Environmental Planning and Assessment Act 1979* (EP&A Act). The EMS provides the framework for environmental management of the site construction and operations. The EMS identifies and documents the key environmental risks and mitigation measures implemented to ensure that the environmental objectives and legal obligations are met throughout the project.

The EMS provides an overarching framework which the BMP sits beneath within the administrative hierarchy. The BMP is consistent with reporting, compliance and project commitments prescribed by the EMS, and is bound by reporting, compliance and review mechanisms contained therein. If there is inconsistency between the documents, administrative controls of the EMS supersede the BMP. Prescribed management actions, procedures, targets and monitoring actions of the BMP may not be reduced by the EMS.

The BMP has been prepared to comply with condition B16 of the Development Consent as well as in accordance with the *Code of Practice for injured, sick and orphaned protected fauna* (OEH 2011), Planning Systems SEPP and guidelines listed in Section 3.2. Condition B16 stipulates this BMP must be prepared in accordance with the BDAR. Table 1 indicates where each condition requirements under B16 (a-e) is addressed within this BMP.

Table 1 Details of consent condition B16

Condition B16 requirement	Section within this BMP
a) be prepared in accordance with the Biodiversity Development Assessment Report (dated 8 May 2024); Specifically, sections of the BDAR (Biosis 2024) which are addressed by this BMP include: - Mitigation and management actions listed in BDAR Table 7: - Displacement of resident fauna - Indirect impacts on native vegetation and habitat - Mitigating prescribed biodiversity impacts - Transport of weeds and pathogens to/from the site to/from adjacent vegetation - Section 8: Identification of impacts requiring offset: - Impacts to native vegetation and associated ecosystem credit liabilities as defined in BDAR Table 20.	This BMP Section 6.2 Section 3.3

Condition B16 requirement	Section within this BMP
Impacts to threatened species and their habitats and associated species credit liabilities as defined in BDAR Table 21.	
b) include a description of the measures and timeframes that would be implemented for: i) protecting vegetation and fauna habitat outside the approved disturbance areas; ii) minimising clearing and avoiding unnecessary disturbance of vegetation that is associated with the construction and operation of the development; iii) minimising the impacts to fauna on site and implementing fauna management protocols; iv) rehabilitating and revegetating temporary disturbance areas with native species that are appropriate to the sites ecology and conditions; v) maximising the salvage of vegetative and soil resources within the approved disturbance area for beneficial reuse in the enhancement or the rehabilitation of the site; and vi) controlling weeds, feral pests and pathogens;	Section 7.4, Section 7.5 and Section 8.1. Section 7 Section 7 Section 8, Appendix B and Appendix C. Section 7 and 8 Section 6.4, Section 8.2.4, and Appendix A.
c) include a program to monitor and report on the effectiveness of mitigation measures;	Section 9
d) include an incidental threatened species finds protocol to identify the avoid and/or minimise and/or offset options to be implemented if additional threatened species are discovered on site; and	Section 6.2.3
e) include details of who would be responsible for monitoring, reviewing and implementing the plan.	Section 7.1 and Section 9.

*** Condition C2 also requires the BMP be regularly reviewed and updated, further information on which is provided in Section 7.1 and Section 9**

Consultation

This BMP has been finalised following consultation with the Conservation Programs, Heritage and Regulation (CPHR) Division of the NSW Department of Climate Change, Energy, the Environment and Water (NSW DCCEEW). Comments were received from NSW DCCEEW Biodiversity, Conservation and Science (BCS) division (now CPHR) (ref DOC25/41375_10.02.2025). Comments were provided as Attachment A: CPHR recommendations and Attachment B: CPHR detailed comments. Equis Energy and Biosis have addressed each of the comments from Attachment B, as these include the recommendations from Attachment A. Confirmation was provided by CPHR (ref DOC25/372990_12.05.2025) that the revised BMP largely addressed the departments comments and granted approval with a request for minor amendments. Comments are provided in Table 2 below.

Table 2 CPHR and DPHI comments on Calala BESS BMP (version FIN.01.20241127, FIN.03.20250416 and FIN.04.20250513)

Ref	Comment	Equis Energy and Biosis response	Document location
Attachment B: CPHR detailed comments (ref DOC25/41375_10.02.2025 version FIN.01.20241127)			
1	Comment: The BMP must include quantitative performance measures and targets, completion criteria, monitoring and trigger points for corrective action. The Biodiversity Management Plan (BMP) does not contain quantitative completion or performance criteria to establish satisfactory progress of actions or a Trigger Action Response Plan (TARP) to identify where actions have failed to meet performance criteria. - CPHR provides the following standard advice to proponents for BMPs in relation to performance criteria, completion criteria and performance indicators: - Performance/completion criteria: Performance criteria are the standards against which performance is to be measured. They are intended to express the standard/target to be achieved during the applicable planning period. The standards or targets should be set using baseline data where possible. Performance is then measured in terms of progress towards the specified standard or target. Sometimes it is also appropriate to set annual targets for some management measures within a planning period, depending on the specific circumstances. Completion criteria should express the ultimate target, for instance at the end of a specific stage of the project and the end of life of the project. Where a specific matter is only relevant to the initial timeframe of the BMP, it is appropriate to equate performance criteria with completion criteria. - As far as possible, performance and completion criteria should relate to actual on- ground outcomes or states (e.g. reduction of 'pest species x' abundance to a specified acceptable threat level), rather than the implementation of a specific management measure. Performance indicators identify how achievement of performance criteria or targets will be measured. Performance	The BMP has been revised to improve clarity and directly tie proposed actions with measurable outcomes, clear targets and justifiable completion criteria across all elements. Where clear and unambiguous baseline data is not currently available, such as for weed density and distribution across management areas, a procedure has been developed to establish baseline data prior to construction commencing and implement a control program under a TARP detailed in Section 6.4 and Section 8.2.4. A summary of revised procedures, targets, criteria, figures and Vegetation Management Zones (VMZs) are listed to the right. Performance indicators have been revised for key activities such as weed management and restoration planting. Including the definition of baseline conditions and setting of targets relative to baseline. For example, restoration planting targets are defined as 80% survival of plantings or achievement of target species richness and foliage cover (relative to growth form i.e. forb, grass and grass like species) defined within the restoration planting procedure, and the underpinning rationale and benchmark values included in Appendix C.2: Table 25. Detailed responses to specific comments are provided below, including further information on improvements to key elements of the BMP.	Revised BMP area is shown on Figure 2. Summary of BMP actions, triggers, criteria and monitoring that apply to each VMZ provided in Table 11. Construction phase BMP actions are shown on Figure 3. Post-construction BMP actions are shown on Figure 4. Rehabilitation objectives and completion criteria are provided in Table 12. Revised Weed management procedure: Section 8.2.4 and Appendix A. Weed management objectives and completion criteria are provided in Table 14. Revised Restoration planting procedure: Section 8.2.6 and Appendix C. Restoration planting targets and completion criteria are provided in Table 16. Photos of baseline condition within vegetation types are provided in Table 5.

Ref	Comment	Equis Energy and Biosis response	Document location
	indicators/measures should be quantitative (e.g. number or percentage decline in the abundance of 'pest species x' in each management domain). CPHR strongly encourages proponents to ensure that all performance/completion criteria, and indicators also conform to the 'SMART' principles (specific, measurable, achievable, realistic, time-framed). Monitoring methods should be suitably targeted to the performance indicators and able to measure progress towards the performance criteria, completion criteria and triggers for corrective action. CPHR recommends that the BMP be amended to include targets and triggers that are quantitative, unambiguous and relate to performance or completion criteria.	The BMP structure has been revised to follow a stronger format of descriptive text supported by tables which clearly define objectives, boundaries, roles, actions, targets, monitoring and adaptive management frameworks for the various facets of this BMP. Outcomes are tied to clearly defined targets and completion criteria included in the relevant procedure and repeated in summary or monitoring tables where relevant.	Summary of BMP actions, triggers, criteria and monitoring that apply to each VMZ provided in Table 11. Rehabilitation objectives and completion criteria are provided in Table 12. Weed management objectives and completion criteria are provided in Table 14. Restoration planting targets and completion criteria are provided in Table 16.
1.1	Recommendation: Revise the BMP to include targets and triggers that are quantitative, unambiguous and relate to performance or completion criteria.	Performance and completion triggers have been developed and revised for BMP actions including erosion control, site rehabilitation / ground preparation prior to planting, weed management and restoration planting. Criteria are displayed clearly in tables within the relevant section as well as summary reporting and monitoring tables in Section 9. Roles and responsibilities for those implementing the BMP in meeting targets and responding to triggers are clarified in Section 7.1.	Summary of BMP actions, triggers, criteria and monitoring that apply to each VMZ provided in Table 11. Rehabilitation objectives and completion criteria are provided in Table 12. Weed management objectives and completion criteria are provided in Table 14.
1.2	Recommendation: Review the BMP to ensure all performance criteria, completion criteria and indicators for each domain: a) meet the 'SMART' principles. b) are drafted with consideration of current baseline conditions. c) are supported by suitable monitoring methods.	Baseline conditions for native vegetation have been defined by BAM or floristic plots collected within the BMP area (Biosis 2024) and provided in Appendix C.1. A procedure to confirm baseline data for the presence and abundance of priority weeds prior to the commencement of construction has been developed. In conjunction with targets of no new priority weeds establishing as a result of construction activities, and total cover of priority weeds within the BMP area to be reduced to, or maintained below 10 %.	Revised Weed management procedure: Section 8.2.4 and Appendix A. Revised restoration planting procedure Section 8.2.6 and Appendix C. Restoration planting targets and completion criteria are provided in Table 16.

Ref	Comment	Equis Energy and Biosis response	Document location
			Construction phase BMP actions are shown on Figure 3. Post-construction BMP actions are shown on Figure 4. Photos of baseline condition within vegetation types are provided in Table 5.
2	Comment: Clarification is required as to how areas of native vegetation outside the development footprint will be managed. Clarification of the objectives for the entire BMP area is required. Section 8 of the BMP outlines how areas that are being impacted by the development are to be managed. However, other than weed management, it is unclear if any management actions are proposed in areas of native vegetation outside the actual development footprint. Section 8.3 of the BMP states that: <i>"Monitoring surveys will assess the success of weed removal, tubestock success and growth and, natural regeneration in and around retained remnants of PCT 84 and PCT 599"</i> It appears that the planting of tubestock will only take place in areas disturbed along the transmission line and the access point off Calala Lane. A key objective of the BMP should be to maintain and increase the biodiversity values of the site. Section 8.1.8 of the BMP states that: <i>"Where appropriate measures should be implemented to improve habitat for fauna species that would use the small and fragmented patches of woodland as "stepping stones" to briefly shelter and/or forage in as they move through the landscape"</i> However, the BMP does not appear to include any actions that will assist in the regeneration of the derived native grassland (DNG) areas to a woodland condition. This would assist in improving habitat, allowing fauna to move across, and potentially reside on, the site.	The BMP boundary was previously defined as the BDAR assessment footprint and encompassed a wide area in order to assess indirect impacts and various transmission line connection options. Initially, to improve clarity on the location and relevance of disturbance from construction activities and ecology values to be managed in proximity to the development the BMP area has been refined to include the development footprint and appropriate buffers as shown on Figure 2. The revised BMP area encompasses all retained Equis Energy land previously assessed for the BDAR on which the BESS is located, and a 20 m buffer around Grassy Box Woodland CEEC vegetation within, or in proximity to the transmission line corridor which would benefit from management such as weed control (to be implemented in negotiation with the relevant landholder, primarily Transgrid in proximity to the substation). In this final version (FIN05) and in response to DPHI comments, the BMP boundary has been revised to reflect the site boundary as shown in Appendix 1 of the development consent. A review of constraints provided by existing and approved transmission lines in the context of increasing hazards in proximity to critical infrastructure do not support the planting of woody vegetation within most areas of remnant vegetation.	Revised BMP area and native vegetation outside the development footprint to be managed is shown on Figure 2.
2.1	Recommendation: Revise the BMP to address the long-term management of areas of native vegetation outside the development footprint.	Long term management of native vegetation outside the development footprint will be undertaken within Equis Energy controlled lands for the life of the project (25 years). Native	Revised BMP area and native vegetation outside the

Ref	Comment	Equis Energy and Biosis response	Document location
		vegetation outside the development footprint adjoining the transmission line is owned primarily by Transgrid or private landholders. A 20 m buffer for weed control has been applied to these areas, of which 5 m is guaranteed to be accessible in proximity to exclusion fencing to be erected along the boundary of the construction site. Equis Energy has limited powers to enforce actions on land tenure other than its own, but will implement weed management where appropriate within the development footprint and 5 m buffer, and where desirable (for instance where high densities of invasive priority weeds are present) within the 20 m buffer in negotiation with the relevant landholder. In this final version (FIN05) and in response to DPHI comments, the BMP boundary has been revised to reflect the site boundary as shown in Appendix 1 of the development consent. This approach will be implemented in good faith, however the extent to which actions can be implemented are subject to landholder agreement.	development footprint to be managed is shown on Figure 2. Land tenure is clarified in Section 1.2.
3	Comment: The time frame required for management actions must be increased to ensure that rehabilitation is effective. Section 8.1 of the BMP outlines that implementation of rehabilitation actions will be undertaken as two distinct phases, an establishment phase of approximately 18 months duration and a maintenance phase of approximately 24 months duration, or until objectives and performance of the plan are met. It is further stated that failed plantings will be replaced and weed control and management must be maintained for at least two years. CPHR is concerned that a maintenance phase of two years may not be sufficient time to ensure that the establishment of rehabilitated areas has been successful. The revegetation completion criteria is stated to be 85% survivorship for each species. It is unclear at what point this measure is to apply as monitoring is to cease after two years. Section 5.5 of the BMP states that:	Timeframes have been updated to more clearly reflect the project stage they refer to, with the active management phase for weed control and planting related to construction disturbance defined as 5 years (or until completion criteria are met). Or provide clear timing for ongoing actions for the life of the BESS project (defined as 25 years), where they apply to land controlled by Equis Energy. Restoration planting and weed control procedures have been revised to provide increased clarity on all aspects of implementation and metrics to be applied, including updated Vegetation Management Zones (VMZs). Monitoring will be undertaken for a period of 5 years, or until completion criteria are met for restoration planting actions. Weed control monitoring will be undertaken for a period of 5 years, or until completion criteria are met for primary works.	Revised Weed management procedure: Section 8.2.4 and Appendix A. Revised restoration planting procedure Section 8.2.6 and Appendix C. Construction phase BMP actions are shown on Figure 3. Post-construction BMP actions are shown on Figure 4.

Ref	Comment	Equis Energy and Biosis response	Document location
	<i>"all practical steps should be taken to control and reduce amount and extent of St Johns Wort from the BMP area prior to or during vegetation removal to reduce effort required in the rehabilitation and maintenance phases".</i> The BMP suggests that this may include a program of slashing and spot spraying. However, the BMP states that weed control will cease after two years. This is insufficient time to effectively control weeds. The management of weeds should be an on-going action.	Then continue for the life of the project at a frequency and intensity determined by the TARP.	
3.1	Recommendation: Revise the BMP to implement a program for monitoring revegetation that captures long-term survival.	Monitoring updated to include BAM or floristic plot monitoring tied to pre-construction baseline condition captured for the BDAR. Monitoring approach revised to include survivorship counts of restoration plantings and guide the number of species by growth form group to be planted. Completion criteria revised to the achievement of 80 % survival of plantings or the achievement of 80 % cover and abundance values relative to PCT benchmarks (as determined by BioNet Vegetation Classification Database (VIS) (NSW DCCEEW 2025a). Periodic monitoring will continue after the completion of the maintenance period at a frequency determined by the TARP for the life of the project (a period of 25 years).	Baseline vegetation condition provided by BAM and floristic plots is provided in Appendix C.1. Target cover and abundance scores for restoration plantings are provided in Appendix C.2. Periodic monitoring is described in Section 6.4, Section 8.1:Table 11, Section 8.2: Table 16 and Section 9:Table 19.
3.2	Recommendation: Revise the BMP to include a weed control program for the life of the project.	The weed control program has been revised to apply to Equis Energy controlled lands for the life of the project (a period of 25 years). The transmission line is located on Transgrid and privately owned land and will be managed for a period of 5 years (or until completion criteria are met). Periodic monitoring will continue at the completion of the maintenance period at a frequency defined by the TARP for the life of the project.	Revised Weed management procedure: Section 8.2.4 and Appendix A. Periodic monitoring is described in Section 6.4, Section 8.1:Table 11, Section 8.2:Table 14 and Section 9:Table 19.
CPHR final comments (ref DOC25/372990_12.05.2025 version FIN.03.20250416)			
4.1	CPHR note that the tenure of the land to which the BMP applies (incorrectly referred to as the BAM in Section 2.1 of the BMP) includes land outside the ownership of Equis Energy subject to existing land use commitments limiting potential management actions on that land.	Land tenure reference updated from 'BAM' to 'BMP' to correct use of incorrect acronym.	Section 1.1 consultation and Table 2 (this section). Section 1.2 The BMP area.

Ref	Comment	Equis Energy and Biosis response	Document location
		Equis commit to implementation of the BMP, which provides clear management actions and targets with respect to lands with a high or variable degree of control related to land tenure.	
4.2	CPHR commend the proponent for the thoroughness of the revised BMP. We are satisfied that the issues raised in our initial response dated 10 February 2025 have been largely addressed. However, we do note that the BMP states that maintenance work will continue for a period of five years from completion of revegetation works, or until outcomes outlined in Table 15 are achieved. We recommend that periodic monitoring be scheduled after the completion of the maintenance program to ensure that the condition of the restored areas are maintained and that new weed incursions do not occur.	Periodic monitoring has been included. Noting that weed monitoring is required annually, or, after year 10 if weed cover is low enough for a period of 3 years, monitoring can be reduced to every 2 years under the TARP.	Section 6.4 Trigger Action Response Plan (TARP). Section 9 Monitoring and reporting Table 19. Section 8.2.4 Weed Management TARP Table 13.
DPHI post approval review comments (ref SSD-52786213-PA-3_21.05.2025 version FIN.04.20250513)			
5.1	Obligation to minimise harm to the environment A1. In meeting the specific performance measures and criteria in this consent, all reasonable and feasible measures must be implemented to prevent, and if prevention is not reasonable and feasible, minimise, any material harm to the environment that may result from the construction, commissioning, operation, upgrading, decommissioning or rehabilitation of the development. Sufficient: (Yes/No/Partial): Partial Document reference and comment: Environmental management protocols and procedures are discussed in Section 6, 7 and 8. No reference to reasonable and feasible measures. Action required: Include a general commitment that all reasonable and feasible measures will be taken to minimise any material harm.	A statement of commitment that all reasonable and feasible measures will be taken to minimise any material harm has been included in Section 1.1, and 2.2. A commitment that all reasonable and feasible measures will be taken to liaise with external landholders to achieve the objectives of the BMP has been included in Section 1.2.	Section 1.1: Conditions of Consent. Section 1.2: Land tenure Section 2.2: Objectives
5.2	Terms of Consent A2. The development may only be carried out: <i>a) in compliance with the conditions of this consent;</i> <i>b) in accordance with all written directions of the Planning Secretary;</i> <i>c) generally in accordance with the EIS; and</i> <i>d) generally in accordance with the Development Layout in Appendix 1.</i>	A statement of commitment to carry out the development in compliance with the consent and EIS has been included in Section 1.1 of the BMP.	Section 1.1: Conditions of Consent (paragraph 1).

Ref	Comment	Equis Energy and Biosis response	Document location
	Sufficient: (Yes/No/Partial): Partial Document reference and comment: n/a. Action required: Include a general commitment that the development will be carried out generally in compliance with the consent and EIS.		
5.3	Schedule 3 - Environmental Conditions - General Land Management - Vegetation Buffer B11. Unless the Planning Secretary agrees otherwise, the Applicant must establish and maintain a vegetation buffer (landscape screening and mound) as described in the EIS and at the locations identified in Appendix 1. The landscape screening and mound must: a) <i>be established and planted prior to commencing operation;</i> b) <i>be comprised of species that are endemic to the area;</i> c) <i>be designed and maintained in accordance with RFS's Planning for Bushfire Protection 2019 (or equivalent); and</i> d) <i>be properly and actively maintained with appropriate weed management.</i> Sufficient: (Yes/No/Partial): Partial Document reference and comment: Can the required vegetation buffers and maintaining land capability (condition B11 and B12) be strengthened in section 8. Include a clear commitment that these conditions will be met. Action required: Include a clear commitment that these conditions will be met.	The vegetation buffer is committed to within the EMS, and as a Landscaping condition (B11) installation specifications are outside the scope of the BMP. The BMP does provide weed management and guidance on appropriate native species for the screen. Clarification and strengthened statements on management of vegetation within Cat-1 lands has been included in VMZ descriptions, and land capability commitments such as returning Cat-1 land to grazing conditions temporary disturbance rehabilitation and ground preparation procedures. A list of appropriate native trees and shrubs associated with PCTs 84 and 599 has been included in Appendix B to improve clarity on the definition of endemic species and meet condition B11. Species include those from PCT 84 which includes a wider range of soft leaved, or fire resistant species suited for visual screening and planting in proximity to infrastructure.	Section 8.1 VMZs: VMZ2 Section 8.2.1 Rehabilitation of temporary disturbance areas. Section 8.2.2 Ground preparation. Section 8.2.7 added Native planting species Appendix B: Trees and shrubs characteristic of PCT 84 and PCT 599 Table 22.
5.4	Land Management B12. The Applicant must maintain the agricultural land capability of the site, including: a) <i>establishing the ground cover of the site within 3 months following completion of any construction or upgrading;</i> b) <i>properly maintaining the ground cover with appropriate perennial species and weed management; and</i> c) <i>maintaining grazing within the development footprint, where practicable, unless the Secretary agrees otherwise in writing.</i> Sufficient: (Yes/No/Partial): Partial	Commitments already included in Section 8.2.1. Reinforced and included 3 month groundcover establishment and to Section 9 Table 19.	Section 8.2.1 Rehabilitation of temporary disturbance areas. Section 9 Monitoring and reporting Table 19.

Ref	Comment	Equis Energy and Biosis response	Document location
	Document reference and comment: Can the required vegetation buffers and maintaining land capability (condition B11 and B12) be strengthened in section 8. Include a clear commitment that these conditions will be met. Action required: Include a clear commitment that this condition will be met.		
5.5	Biodiversity: Vegetation Clearance B13. The Applicant must not clear any native vegetation or fauna habitat located outside the approved disturbance areas described in the EIS. Sufficient: (Yes/No/Partial): Partial Document reference and comment: Section 1.2 describes the BMP area. Definition of the site boundary should reflect the BMP. How will the area within the site be protected in the long term. Action required: Provide a clear description and commitment regarding the boundary to be cleared and what the BMP includes and what is excluded. Address how the landscaping requirements outside the lease boundary will be managed	The BMP boundary has been revised to reflect the site boundary as shown in Appendix 1 of the development consent.	Section 1.2 The BMP area. Section 8.1 VMZs Figure 1, Figure 2, Figure 3 and Figure 4.
5.6	Biodiversity Offsets B14. Prior to carrying out any development that could directly or indirectly impact the biodiversity values requiring offset, the Applicant must retire biodiversity credits as specified in Table 1 below, unless the Planning Secretary agrees otherwise. The retirement of these credits must be carried out in accordance with the NSW Biodiversity Offsets Scheme and can be achieved by: a) <i>acquiring or retiring 'biodiversity credits' within the meaning of the Biodiversity Conservation Act 2016;</i> b) <i>making payments into an offset fund that has been developed by the NSW Government; and/or</i> c) <i>funding a biodiversity conservation action that benefits the entity impacted and is listed in the ancillary rules of the biodiversity offset scheme.</i> Table 1: Ecosystem Credit Requirements	Biodiversity credits have been retired by Equis Energy in compliance with condition B14 prior to commencing works on the project. Evidence will provide evidence to the Planning Secretary in compliance with condition B15. Evidence does not need to be included within the BMP to satisfy these conditions.	Section 3.3 Biodiversity offsets

Ref	Comment	Equis Energy and Biosis response		Document location												
	<table><tr><th>Vegetation Community^a</th><th>PCT-ID^a</th><th>Credits Required^a</th></tr><tr><td>River-Oak--Rough-barked-Apple--red-gum--box-riparian-tall-woodland-(wetland)- of the Brigalow- Belt- South- Bioregion- and- Nandewar- Bioregion^a</td><td>PCT-84_DNG^a</td><td>2^a</td></tr><tr><td>Blakely's-Red-Gum--Yellow-Box-grassy-tall-woodland-on-flats-and-hills-in-the-Brigalow-Belt-South-Bioregion-and-Nandewar-Bioregion-(DNG)^a</td><td>PCT-599_DNG^a</td><td>32^a</td></tr><tr><td>Blakely's-Red-Gum--Yellow-Box-grassy-tall-woodland-on-flats-and-hills-in- the- Brigalow- Belt- South- Bioregion- and- Nandewar- Bioregion-(Woodland)^a</td><td>PCT-599_Woodland^a</td><td>1^a</td></tr></table> B15 Prior to carrying out any development that could directly or indirectly impact the biodiversity values requiring offset, the Applicant must provide evidence to the Planning Secretary that biodiversity credits have been retired. Sufficient: (Yes/No/Partial): Yes Document reference and comment: Biodiversity offsets and retirement requirements are discussed in Section 3.3.	Vegetation Community ^a	PCT-ID ^a	Credits Required ^a	River-Oak--Rough-barked-Apple--red-gum--box-riparian-tall-woodland-(wetland)- of the Brigalow- Belt- South- Bioregion- and- Nandewar- Bioregion ^a	PCT-84_DNG ^a	2 ^a	Blakely's-Red-Gum--Yellow-Box-grassy-tall-woodland-on-flats-and-hills-in-the-Brigalow-Belt-South-Bioregion-and-Nandewar-Bioregion-(DNG) ^a	PCT-599_DNG ^a	32 ^a	Blakely's-Red-Gum--Yellow-Box-grassy-tall-woodland-on-flats-and-hills-in- the- Brigalow- Belt- South- Bioregion- and- Nandewar- Bioregion-(Woodland) ^a	PCT-599_Woodland ^a	1 ^a			
Vegetation Community ^a	PCT-ID ^a	Credits Required ^a														
River-Oak--Rough-barked-Apple--red-gum--box-riparian-tall-woodland-(wetland)- of the Brigalow- Belt- South- Bioregion- and- Nandewar- Bioregion ^a	PCT-84_DNG ^a	2 ^a														
Blakely's-Red-Gum--Yellow-Box-grassy-tall-woodland-on-flats-and-hills-in-the-Brigalow-Belt-South-Bioregion-and-Nandewar-Bioregion-(DNG) ^a	PCT-599_DNG ^a	32 ^a														
Blakely's-Red-Gum--Yellow-Box-grassy-tall-woodland-on-flats-and-hills-in- the- Brigalow- Belt- South- Bioregion- and- Nandewar- Bioregion-(Woodland) ^a	PCT-599_Woodland ^a	1 ^a														
5.7a	Biodiversity Management Plan B16. Prior to carrying out any development that could directly or indirectly impact biodiversity values, the Applicant must prepare a Biodiversity Management Plan for the project in consultation with BCS, and to the satisfaction of the Planning Secretary. This plan must: <i>a) be prepared in accordance with the Biodiversity Development Assessment Report (dated 8 May 2024);</i> Sufficient: (Yes/No/Partial): Yes Document reference and comment: CPHR has been consulted twice. Action required: The BMP should include the entire area covered by the site boundary as shown in the development consent. Please check the entire document and all figures and correct this.	BMP area revised to match the site boundary consistent with Appendix 1 of the development consent.		Figures 1-4 have been updated to reflect the revised boundary. BMP area description revised in Section 1.2												
5.7b	<i>b) include a description of the measures and timeframes that would be implemented for:</i> <i>i. protecting vegetation and fauna habitat outside the approved disturbance areas;</i> Sufficient: (Yes/No/Partial): Partial Document reference and comment: Partly addressed.	Section 7.4 updated to allow for required fencing and established timing and defined boundary		Section 7.4.												

Ref	Comment	Equis Energy and Biosis response	Document location
	Action required: Address the boundary issues as discussed above.		
5.7c	<i>ii. minimising clearing and avoiding unnecessary disturbance of vegetation that is associated with the construction and operation of the development;</i> Sufficient: (Yes/No/Partial): Partial Document reference and comment: Consider permanent fencing to delineate the extent of the lease area. Without permanent delineation how will the boundary be protected and monitored accurately? Action required: Discuss how the area outside of the lease boundary will be protected from future disturbance.	Section 7.4 updated to allow for required fencing and established timing and defined boundary	Section 7.4.
5.7d	<i>iii. minimising the impacts to fauna on site and implementing fauna management protocols;</i> <i>iv. rehabilitating and revegetating temporary disturbance areas with native species that are appropriate to the sites ecology and conditions;</i> <i>v. maximising the salvage of vegetative and soil resources within the approved disturbance area for beneficial reuse in the enhancement or the rehabilitation of the site; and</i> <i>vi. controlling weeds, feral pests and pathogens;</i> <i>c) include a program to monitor and report on the effectiveness of mitigation measures;</i> <i>d) include an incidental threatened species finds protocol to identify the avoid and/or minimise and/or offset options to be implemented if additional threatened species are discovered on site; and</i> <i>e) include details of who would be responsible for monitoring, reviewing and implementing the plan.</i> Following the Planning Secretary's approval, the Applicant must implement the Biodiversity Management Plan. Sufficient: (Yes/No/Partial): Yes	No action required.	--
5.8	Schedule 4 - Environmental Management and Reporting C1. Prior to commencing construction, the Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Planning Secretary. This strategy must: <i>a) provide the strategic framework for environmental management of the development;</i>	An Environmental Management Strategy (EMS) has been prepared for the project (GHD 2025) and referenced in Section 1.1 and Section 3.2.	Section 1.1 Conditions of Consent Section 3.2 Guidelines and standards.

Ref	Comment	Equis Energy and Biosis response	Document location
	b) <i>identify the statutory approvals that apply to the development;</i> c) <i>describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;</i> d) <i>set out the procedures that would be implemented to:</i> i. <i>keep the local community and relevant agencies informed about the operation and environmental performance of the development;</i> ii. <i>receive, handle, respond to, and record complaints;</i> iii. <i>resolve any disputes that may arise;</i> iv. <i>respond to any non-compliance;</i> v. <i>respond to emergencies; and</i> e) <i>include:</i> i. <i>references to any strategies, plans and programs approved under the conditions of this consent; and</i> ii. <i>a clear plan depicting all the monitoring to be carried out in relation to the development, including a table summarising all the monitoring and reporting obligations under the conditions of this consent.</i> iii. <i>Following the Planning Secretary's approval, the Applicant must implement the Environmental Management Strategy.</i> Sufficient: (Yes/No/Partial): Partial Document reference and comment: No reference to EMS for the site and relationship with other plans. Action required: Include reference to the EMS for the site.		
5.9	Revision of Strategies, Plans and Programs C2. The Applicant must: a) <i>update the strategies, plans or programs required under this consent to the satisfaction of the Planning Secretary prior to carrying out any upgrading or decommissioning activities on site; and</i> b) <i>review and, if necessary, revise the strategies, plans or programs required under this consent to the satisfaction of the Planning Secretary within 1 month of the:</i> i. <i>submission of an incident report under condition C10 of Schedule 2;</i> ii. <i>submission of an audit report under condition C14 of Schedule 2; or</i> iii. <i>any modification to the conditions of this consent.</i> Sufficient: (Yes/No/Partial): Partial	A provision that the BMP will be reviewed and updated as required by the listed conditions, and the EMS (GHD 2025) has been included in Section 1.5. The section also identifies that the BMP may be revised to achieve improved outcomes, subject to justification, approval and consistency with the conditions of consent.	Section 1.5 Revision of this plan.

Ref	Comment	Equis Energy and Biosis response	Document location
	Action required: Make reference to this condition that the plan will be reviewed and updated as required.		
5.10	Notifications: Incident Notification C10. The Department must be notified in writing via the Major Projects website immediately after the Applicant becomes aware of an incident. The notification must identify the development (including the development application number and the name of the development if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix 6. Sufficient: (Yes/No/Partial): No Document reference and comment: The BMP should be a stand alone document and should address notification requirements. Action required: Include section on incident notification requirements including responsibilities for reporting.	Responsibility for incident notification was included in Table 10, wording within the table has been expanded to include timing and submission via the major projects website. For further clarification incident and non-compliance reporting has been added as Section 6.3.2.	Section 6.3.2 Incident and non-compliance reporting. Section 7.1 Roles and responsibilities Table 10.
5.11	Non-Compliance Notification The Planning Secretary must be notified in writing via the Major Projects website within seven days after the Applicant becomes aware of any non-compliance. C12. A non-compliance notification must identify the development and the application number for it, set out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance. C13. A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance. Sufficient: (Yes/No/Partial): No Document reference and comment: The BMP should be a stand alone document and should address notification requirements. Action required: Include section on non compliance notification requirements including responsibilities for reporting	Responsibility for incident notification was included in Table 10, wording within the table has been expanded to include non-compliance notifications, timing and submission via the major projects website. For further clarification incident and non-compliance reporting has been added as Section 6.3.2.	Section 6.3.2 Incident and non-compliance reporting. Section 7.1 Roles and responsibilities Table 10.
5.12	BCS – 10 February 2025	No action required.	--

Ref	Comment	Equis Energy and Biosis response	Document location
	Summary of comments (ref 1-3.2) provided above in this table. BCS now CPHR. Sufficient: (Yes/No/Partial): Yes Document reference and comment: Response from BCS dated 12/5/25 confirms satisfaction with latest version.		
5.13	BCS – 12 May 2025 CPHR note that the tenure of the land to which the BMP applies (incorrectly referred to as the BAM in Section 2.1 of the BMP) includes land outside the ownership of Equis Energy subject to existing land use commitments limiting potential management actions on that land. Sufficient: (Yes/No/Partial): Partial Action required: The BMP should include the entire area covered by the site boundary as shown in the development consent.	The BMP boundary has been revised to reflect the site boundary as shown in Appendix 1 of the development consent.	Section 1.2 The BMP area. Section 8.1 VMZs Figure 1, Figure 2, Figure 3 and Figure 4.
5.14	BMP states that maintenance work will continue for a period of five years from completion of revegetation works, or until outcomes outlined in Table 15 are achieved. We recommend that periodic monitoring be scheduled after the completion of the maintenance program to ensure that the condition of the restored areas are maintained and that new weed incursions do not occur. Sufficient: (Yes/No/Partial): Partial Document reference and comment: Increase the periodic monitoring to 12 months for the life of the project. Action required: Weed monitoring and maintenance should be undertaken on an annual basis. 5 yearly is inadequate and could result in significant weed invasion.	Weed monitoring determined by the level of weed infestation and control tier in the TARP. Monitoring is annual to allow implementation of the TARP. Or, after year 10 if weed cover is low enough for a period of 3 years, monitoring can be reduced to every 2 years. Monitoring is a designation Action within each control Tier within the TARP and is required in order the implement this adaptive management approach. The TARP was initially provided as an Appendix, as specific plans can become lengthy when applied to multiple management issues. However, as the TARP only applies to weed control in this case for clarity it has been moved into the Weed Management section for clarity and all document references updated.	Section 6.4 Trigger Action Response Plan (TARP). Section 9 Monitoring and reporting Table 19. Section 8.2.4 Weed Management TARP Table 13.

1.2 The BMP area

The BMP area is 45.09 hectares in area and located approximately 9 kilometres southeast of the Oxley Highway between Tamworth and Westdale in northwest NSW, as shown Figure 1. The BMP area is predominantly cleared of remnant woody native vegetation and extensive past clearing for agriculture such as cropping, improved pasture and livestock grazing is evident across the landscape. Areas of native vegetation are largely present in the form of modified derived native grasslands (DNG) in the north along Calala Creek and in the south west. Planted tree screens within productive areas and along Calala Lane contain a combination of exotic and native species.

While degraded, grasslands in the south west are representative of *White Box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and Riverina Bioregions*, listed as a Critically Endangered Ecological Community (CEEC) under the NSW *Biodiversity Conservation Act 2016* (BC Act) and a key focus of the BMP area. The community is also present as regenerating remnant and planted woodland (vegetation is defined further in Section 5.1).

The BMP area is defined as:

- Calala BESS site boundary as shown in Appendix 1 of the Modified Development Consent.
- The area where the Biodiversity Assessment Method (BAM) (DPIE 2020a) was applied and the on-ground assessment for the Calala BESS Biodiversity Development Assessment Report (BDAR) (Biosis 2024) was completed, and updated in the BDAR Addendum (Biosis 2025).

Key areas within the BMP area identified for active management include:

- The Calala BESS development footprint.
 - Native vegetation within a 20 m buffer of the footprint or where otherwise delineated on Figure 2.
- Retained lands within the Equis property boundary.

The BMP applies to all land within the BMP area in order to protect native vegetation or fauna habitat located outside the approved disturbance areas, rehabilitate temporary disturbance areas, control weeds, pests and pathogens, and implement mitigation measures detailed in the BDAR.

Land tenure

Tenure of the land to which the BMP applies is varied and long term access to lands outside the ownership of Equis Energy subject to negotiation with the relevant landholder. Tenure can be categorised as:

- Equis Energy owned Lot 17 DP 629969, which contains the BESS.
- Transmission line connection lands within part Lot 16 DP629969, part Lots 3 and 4 DP244399, and part Lot 6 DP219993, which lie with Transgrid for the purpose of electrical infrastructure and private landholders for the purpose of agriculture.

All reasonable and feasible measures will be taken to liaise with external landholders to achieve the objectives of the BMP.

Landscape context

The BMP area occurs within:

- The Nandewar Interim Biogeographic Regionalisation for Australia (IBRA) bioregion and Peel IBRA subregion.
- The Namoi catchment, with the Peel River located approximately 600 m to the north of the BMP area and the Cockburn River a further 1.1 km north of the BMP area. The nearest named waterway is Calala Creek which enters the north of the BMP area from the east and flows northwest towards the Peel River, as seen in Figure 2. No wetlands are mapped within the BMP area.
- North West Local Land Services (LLS) Region Management Area.
- Tamworth Council Local Government Area (LGA).
- Land zoned RU4 Primary Production Small Lots under the *Tamworth Regional Local Environmental Plan 2010* (LEP).

The siting of the project has been selected, in part, to minimise impacts to the native vegetation and flora and fauna habitats present within the broader BDAR assessment area, as much as engineering and construction constraints allow. The development and BMP area is heavily disturbed and contains limited ecological value in the landscape context and within close proximity to the TransGrid Tamworth 330 Kilovolt substation. Siting of the project has been prioritised to occur on Category 1 - Exempt Land (within the meaning of Part 5A of the *Local Land Services Act 2013* [LLS Act]), as shown on Figure 2.

1.3 Ecological impact controls

This BMP provides controls and actions required to mitigate impacts of the approved development as well as manage and protect retained ecological features within the BMP area. The entirety of the transmission line will be below ground, constructed via trenching, limiting the disturbance to a narrow linear area. Where there is higher biodiversity value, trenchless construction methods (via directional bore) for two sections of the transmission line will be employed, to avoid impacts to the areas of highest biodiversity values within the BMP area.

Key aspects of the proposed works that will result in ecological impacts include:

- Clearing native vegetation and associated habitat.
- Clearing of threatened flora habitat.
- General earthmoving and vegetation removal resulting in soil disturbance, erosion, and the mobilisation of sediment.
- Open excavation works.
- Stockpile/compound road construction.
- Works around watercourses that may interrupt natural flow regimes.
- Noise, vibration, light and vehicular movements.

1.4 Staged submission of this plan

In accordance with Condition C3 (a-c) of the development consent (SSD-52786213), the Applicant has elected to stage the submission of the BMP. Staging was approved on 4 March 2025 by the Planning Secretary. The BMP will be staged as follows:

- Stage 1: Construction of the Project.
- Stage 2: Operations.
- Stage 3: Decommissioning of the Project at end of life

This BMP is for Stage 1 Construction and Stage 2 Operation. The BMP will be updated as necessary prior to the commencement of decommissioning or upgrading. Consultation with the relevant stakeholders has been conducted for Stage 1 and 2. All later stages of the BMP will also include necessary consultation with the relevant stakeholders. Each staged revision of the BMP will be provided to the Secretary, prior to the commencement of each stage.

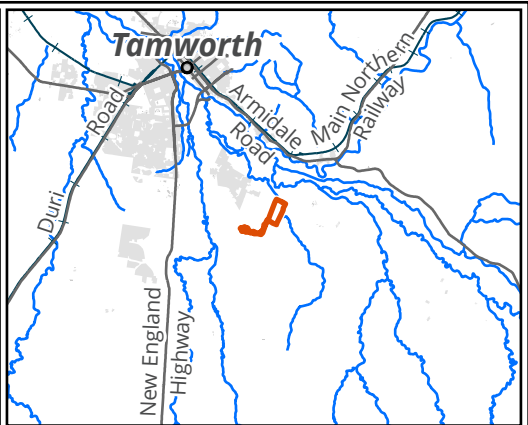
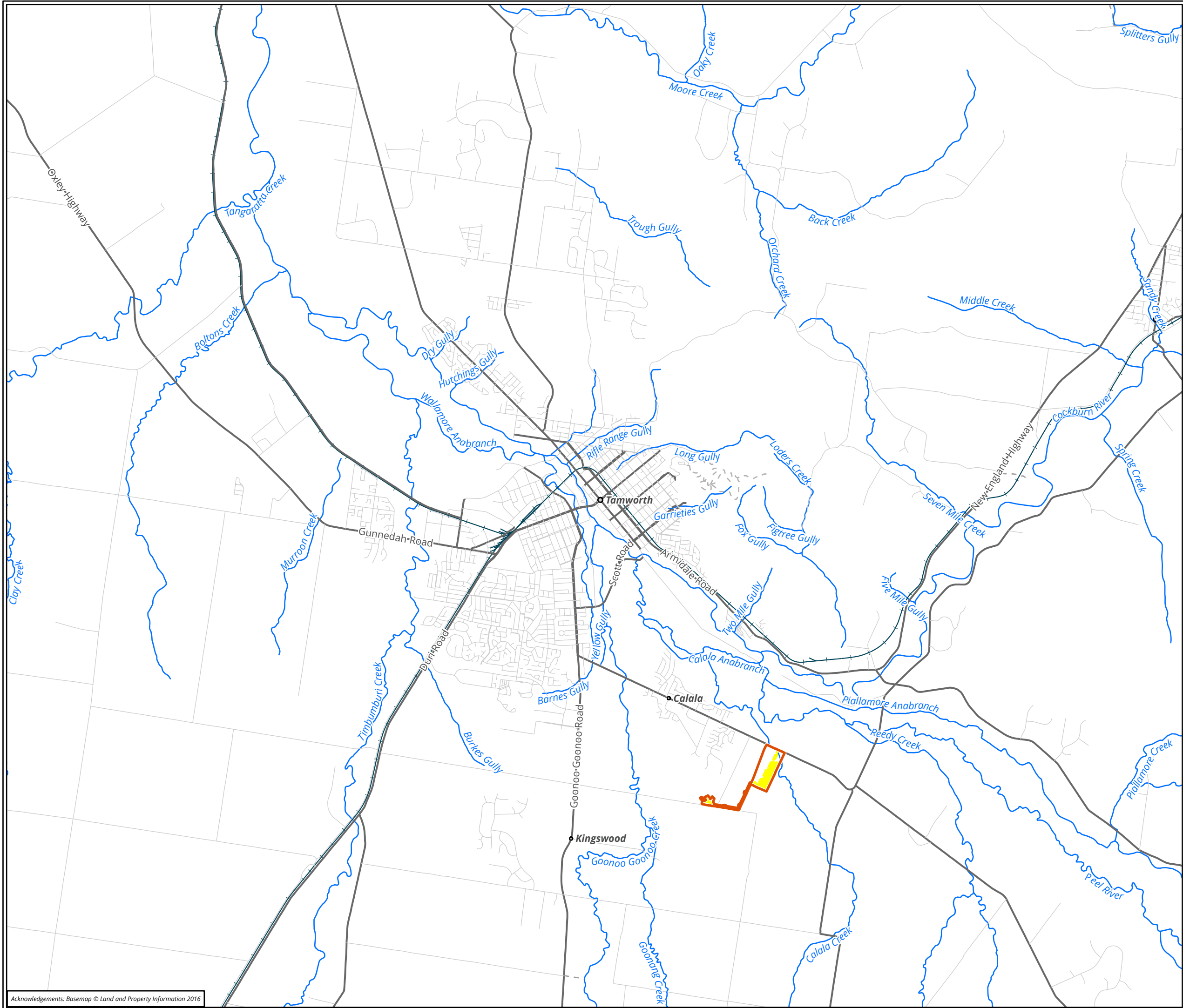
1.5 Revision of this plan

Equis Energy will review the BMP and its operation and implementation within one month of the:

- Submission of an incident or non-compliance report relevant to Biodiversity managed by the BMP.
- Modification of the conditions of consent relevant to the BMP.

The purpose of the review is to ensure that the BMP is meeting the requirements of the objective, procedures and targets of the plan and will be consistent with the review and improvement provisions of the project EMS, including notification of the details of significant changes to site staff, contractors DPHI and relevant authorities (GHD 2025). Incident and non-compliance reporting requirements are detailed in Section 6.3.2.

The BMP may also be revised to improve site specific outcomes in response to scenarios detailed in this plan, or as identified by relevant internal or external stakeholders. Significant changes are to be justified, documented, consistent with the conditions of consent and approval by DPHI and CPHP.



Legend

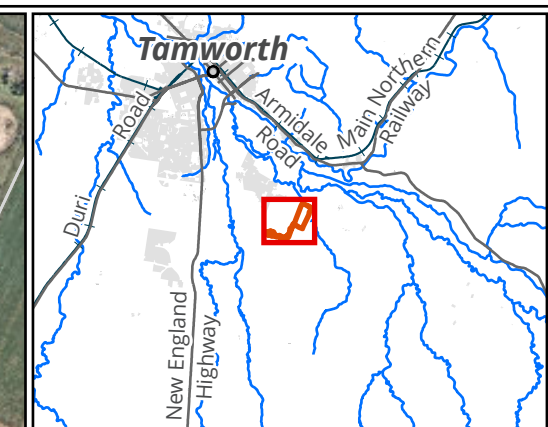
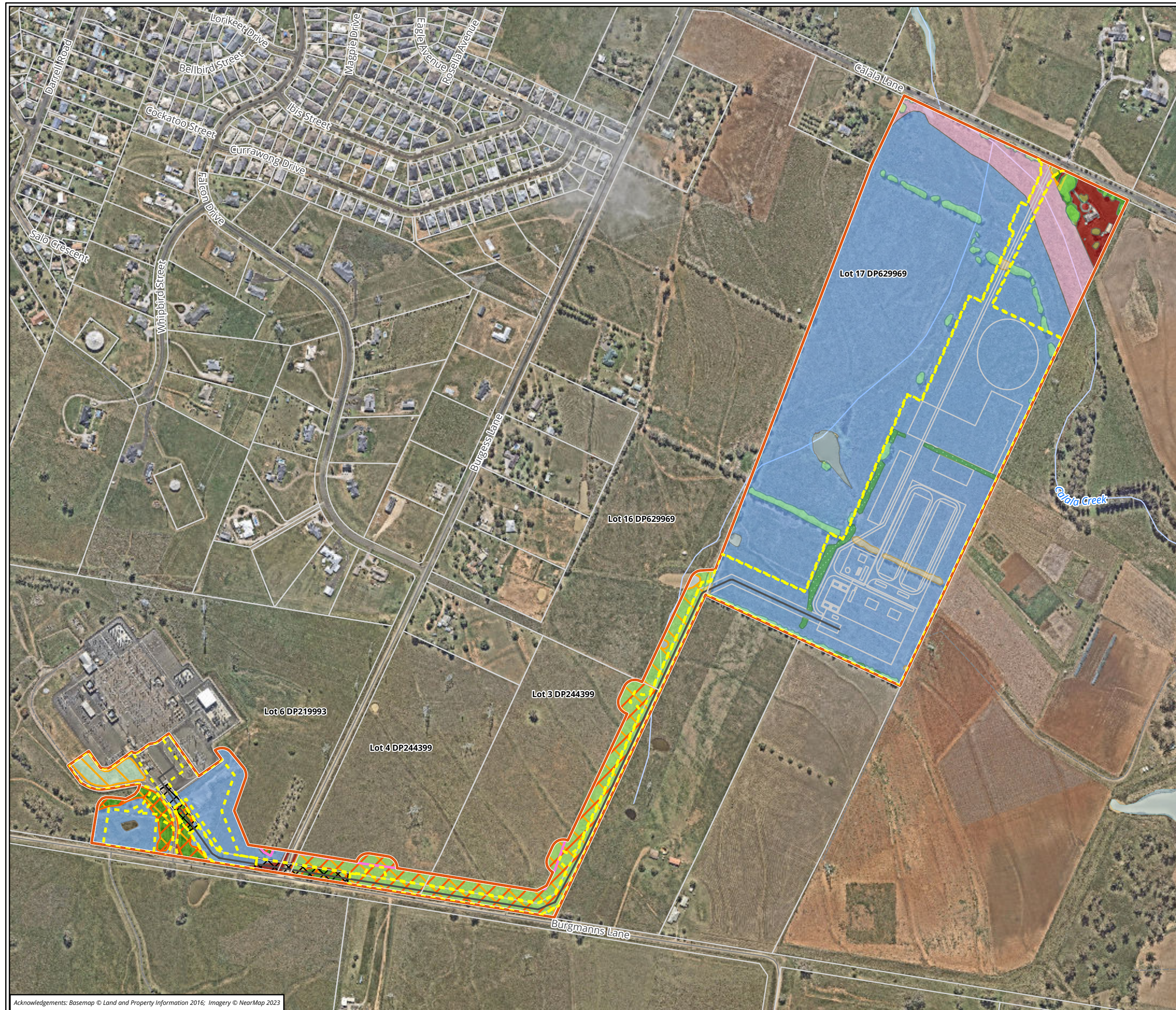
- BMP area
- Development footprint

Figure 1 Location map

0 1,000 2,000
Metres
Scale: 1:75,000 @ A3
Coordinate System:
GDA2020 MGA Zone 56

biosis
APEM Group

Matter: 41055, Date: 25 November 2025,
Prepared by: LH, Prepared for: RB, Last edited by: owilliams
Location: P:\41000s\41055\Mapping\
41055_BMP_BAC_DPHI-Rev.aprx
Layout: 41055_F1_Location



- Legend**
- BMP area
 - Development footprint
 - Underground bore for transmission line
 - Development layout
 - Transmission line (to be installed)
- Vegetation zones (Biosis)**
- PCT 599_Woodland
 - PCT 599_DNG
 - PCT 599_DNG_low
 - PCT 84_DNG
 - Category 1 Land
 - Non-native vegetation
- Critically Endangered Ecological Community (CEEC)**
- White Box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland (BC Act)
 - White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (EPBC Act)
 - Bluegrass, Belson's Panic, Austral Toadflax, Finger Panic Grasss habitat (assumed present)
- Woody vegetation (Cat-1 lands)**
- Landscape planting (proposed)
 - Remove
 - Retain

Figure 2 Site Map

0 50 100 150 200

Metres

Scale: 1:6,000 @ A3

Coordinate System: GDA2020 MGA Zone 56

biosis
APEM Group

Matter: 41055, Date: 03 December 2025,
Prepared by: LH, Prepared for: RB, Last edited by: owilliams
Location: P:\41000s\41055\Mapping\41055_BMP_BAC_DPHI-Rev.aprx
Layout: 41055_F2_Site-map

2 BMP scope and objectives

2.1 Scope

The scope of this BMP is to develop a framework for the management of biodiversity and the ongoing management of biodiversity across the BMP area.

The BMP applies to four key phases of implementation:

- Pre-construction clearance and site preparation.
- Biodiversity management actions during the construction phase - estimated duration of 18 months.
- Post-construction rehabilitation and active management phase that will run for a minimum of five years, or until the objectives and performance criteria outlined in this BMP are met.
- Life of the project weed maintenance and monitoring, support of Calala Creek Riparian buffer and overarching ecology management phase to maintain biodiversity outcomes and apply management procedures appropriate to local values – project life of 25 years (within Equis controlled lands).

2.2 Objectives

The specific objectives for the implementation of this BMP are to:

- Outline strategies to avoid or minimise impacts on biodiversity where possible pre, during and post-construction.
- Describe a pre-clearance strategy.
- Describe a procedure to respond and manage any unexpected finds of threatened species.
- Describe exclusion fencing to protect non-disturbance areas during the construction phase.
- Describe controls for weeds, feral pests and pathogens.
- Describe salvage and rehabilitation measures and their implementation that align with applicable guidelines from NSW DCCEEW and the NSW Minister's Conditions of Approval for the project.
- Describe offset requirements for biodiversity credits and pathways for the project to meet obligations.
- Ensure that all mitigation measures referred to in the Calala BESS BDAR (Biosis 2024) are described and implemented.
- Provide schedules for inspection, monitoring, management, reporting and corrective actions for listed implementation phases.
- Comply with the conditions of consent (B16; Development Consent SSD 52786213).
- Comply with guidelines regarding the management of vegetation in proximity to electricity assets including bushfire hazard mitigation.
- Facilitate the implementation of reasonable and feasible measures to prevent, and if prevention is not reasonable and feasible, minimise, any material harm to the environment that may result from the construction, commissioning, operation, upgrading, decommissioning or rehabilitation of the development.

3 Legislative and guidance requirements

3.1 Legislation

Legislation relevant to this BMP is listed below:

- *Biodiversity Conservation Act 2016* (BC Act) (NSW)
- *Biosecurity Act 2015* (Biosecurity Act) (NSW)
- *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) (Commonwealth)
- *Environmental Planning and Assessment Act 1979* (EP&A Act) (NSW)
- *Fisheries Management Act 1994* (FM Act) (NSW)
- *Pesticides Act 1999* (Pesticides Act) (NSW)

3.2 Guidelines and standards

The primary guidelines, specifications, and other reference documents relevant to this BMP include:

- *A Guide to Managing Box Gum Grassy Woodlands* (Rawlings et al. 2010).
- *Australian Standard 4970 – 2009 Protection of Trees on Development Sites* (Council of Australian Standards 2009).
- *Australian Standard AS 4373 Pruning of Amenity Trees* (Council of Australian Standards 2007).
- *Calala Battery Energy Storage System: Construction Environmental Management Plan (CEMP)* (CPP 2025).
- *Environmental Management Strategy: Calala Battery Energy Storage System* (GHD 2025).
- *Hygiene Protocol for the Control of Disease in Frogs* (DECC 2008).
- *ISSC3 Guide for the Management of Vegetation in the Vicinity of Electricity Assets* (ISSC 2016).
- *National Recovery Plan White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland* (DECCW 2011).
- *New South Wales Weed Control Handbook – A guide to weed control in non-crop, aquatic and bushland situations 7th Edition* (DPI 2018).
- *NSW Hygiene guidelines Protocols to protect priority biodiversity areas in NSW from *Phytophthora cinnamomi*, myrtle rust, amphibian chytrid fungus and invasive plants* (DPIE 2020b).
- *Planning for Bush Fire Protection. A guide for councils, planners, fire authorities and developers* (NSW RFS 2019).
- *Saving our Species strategy: White Box Yellow Box Blakely's Red Gum Woodland* (DPIE 2019a).
- *Standards for Asset Protection Zones* (NSW RFS 2005).

This BMP and all management actions listed herein are to be undertaken in accordance with best practice guidelines, standards and relevant control plans listed above.

3.3 Biodiversity Offsets

The project is required to retire biodiversity credits of the number and class specified in the BDAR (Biosis 2024), which are specified in Table 3 below. The retirement of these credits must be carried out in accordance with the NSW Biodiversity Offsets Scheme (BOS) prior to the commencement of construction.

Table 3 Ecosystem Credit requirements

PCT ID	Vegetation Community	Offset trading group	Contains HBTs	Credits required	Timing
PCT 84	<i>River Oak – Rough-barked Apple – red gum – box riparian tall woodland (wetland) of the Brigalow Belt South Bioregion and Nandewar Bioregion</i>	Eastern Riverine Forests <50 %	No	2	Retire prior to commencing construction
PCT 599	<i>Blakely's Red Gum – Yellow Box grassy tall woodland on flats and hills in the Brigalow Belt South Bioregion and Nandewar Bioregion</i>	<i>White Box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and Riverina Bioregions</i>	No	42	

These impacts will be permanent and will occur from the outset of the development. Condition of consent B14 (detailed below) identifies the offset requirements and the three offset options for the project (Development Consent SSD 52786213). Each of these options has potential benefits and drawbacks, which are briefly outlined below.

The project modifications resulted in a requirement for the retirements of an additional 9 *White Box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and Riverina Bioregions* biodiversity credits. The total 44 ecosystem credit requirement for the modified project is outlined in Table 3 above.

Consent condition B14

B14. Prior to carrying out any development that could directly or indirectly impact the biodiversity values requiring offset, the Applicant must retire biodiversity credits as specified in Table 1 below, unless the Planning Secretary agrees otherwise.

The retirement of these credits must be carried out in accordance with the NSW Biodiversity Offsets Scheme and can be achieved by:

- a) Acquiring or retiring 'biodiversity credits' within the meaning of the Biodiversity Conservation Act 2016;*
- b) Making payments into an offset fund that has been developed by the NSW Government; and/or*
- c) Funding a biodiversity conservation action that benefits the entity impacted and is listed in the ancillary rules of the biodiversity offset scheme.*

Prior to carrying out any development that could directly or indirectly impact the biodiversity values requiring offset, the Applicant must provide evidence to the Planning Secretary that biodiversity credits have been retired.

Options for the retirement of biodiversity credits available to the Applicant are as follows:

Option a) Purchase and retire credits from an open market

Biodiversity credits exist in an open market-based system whereby an owner of a Biodiversity Stewardship Site, who has generated a range of biodiversity credits, lists their credits in an online database for proponents with a credit obligation to interrogate and enter price negotiations with relevant credit holders. As an open market, the price of credits is set by supply and demand factors, as well as requirements for credits generated at a Biodiversity Stewardship Site to be sold for at least the minimum portion each credit contributes to the management costs of the Biodiversity Stewardship Site. Sales over this minimum price can then (once certain factors have been satisfied) become direct profit to the credit owner.

Potential benefits from procuring credits from the open market include a potential increase in offsetting options when applying the 'Like-for-Like' rules included in the BAM, and then further again with the 'Like-for-Like Variation Rules', as well as the ability to negotiate with sellers on price, potentially with multiple credit holders. Drawbacks include an ongoing general paucity of credits available on the market (which is particularly relevant to projects with large credit obligations), sellers setting a high price and being unwilling to negotiate, timeframes associated with negotiations, timeframes associated with procurement of a range of credit types (where required), timeframes to process sales, and additional credit 'transfer' and 'retirement' fees on top of the negotiated credit price.

Option b) Payment into the Biodiversity Conservation Fund managed by the Biodiversity Conservation Trust

Satisfying an offset obligation by via payment into the Biodiversity Conservation Fund (the Fund) has the major benefit of being an expedited and unambiguous way for a proponent to meet their obligations. However, it does include increased costs associated with the 'Risk premium', and an administrative cost per credit added on top of the market value of the credits, as calculated by the Biodiversity Conservation Trust (BCT). As such, payment to the Fund is considered likely to be the most expensive option available to a proponent, however it requires the least amount time and effort in offset security, which can both be substantial (e.g., compared to establishing a Stewardship Site).

The Biodiversity Conservation Fund Charge System (BCF Charge System) provides a quote for the security of biodiversity offsets via payment to the Fund and attaches a nominal fee per entity included in the charge quote.

Option c) Establishment of a Biodiversity Stewardship Site

Establishment of a Biodiversity Stewardship Site (or multiple sites) with the intention of generating credits to satisfy some, or all, of a project's credit obligation is an option available to the proponent. The feasibility of this option is dependent on securing land that is both suitable for the establishment of a Biodiversity Stewardship Site and supports PCTs and/or habitats considered Like-for-Like with those impacted by the project.

To establish a Biodiversity Stewardship Site and enter into a Biodiversity Stewardship Agreement (BSA) with the NSW Minister for the Environment, a Biodiversity Stewardship Site Assessment Report (BSSAR) must be prepared by a BAM Accredited Assessor. The BSSAR must be accompanied by a management plan outlining required management actions, and these management actions must be fully costed through calculation of a

Total Fund Deposit (TFD). These three key pieces of information are then submitted along with a BSA application, supported by information regarding the landowner.

Offset avenue to be implemented

The Applicant has indicated that biodiversity credit obligations will be met via payment into the Fund.

Offset status

The initial total ecosystem credit requirement of 35 ecosystem credits has been retired prior to publishing the current revision (Revision FIN06) of this BMP.

The additional 9 *White Box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and Riverina Bioregions* biodiversity credits will be purchased, prior to works commencing at the existing substation.

4 Methods

4.1 Desktop research

Biosis conducted a review of all available design plans and reports relating to the site and adjacent areas, as well as relevant legislation, recent vegetation mapping, and other documentation relevant to the current project, including:

- *Ecological constraints and opportunities assessment, 57 Burgess Lane Calala (also known as 474 Calala Lane, Calala) NSW* (Biosis 2022).
- *Scoping Report - Calala Battery Energy Storage System* (Mecone 2022).
- *Calala Battery Energy Storage System Biodiversity Development Assessment Report* (Biosis 2024).
- *Calala Battery Energy Storage System Biodiversity Development Assessment Report – Addendum* (Biosis 2025).
- *Tamworth Regional Local Environmental Plan 2010* (LEP).
- PCT information, as held within the *BioNet Vegetation Classification (Veg-C) database* (NSW DCCEEW 2025b).
- *NSW State Vegetation Type Map (SVTM C2.0M2.1)* (NSW DCCEEW 2024).
- The Commonwealth Department of Climate Change, Energy, the Environment and Water (Cth DCCEEW) Protected Matters Search Tool (PMST) for matters protected under the EPBC Act.
- NSW DCCEEW BioNet, the database for the Atlas of NSW Wildlife, for matters protected under the BC Act).
- BirdLife Australia, the New Atlas of Australian Birds (BirdLife Australia 2025).
- NSW BAM Calculator (BAM-C).
- NSW Biodiversity Values Map (NSW DCCEEW 2025c).
- NSW Native Vegetation Regulatory (NVR) map (NSW DCCEEW 2025d).
- The NSW Plant Community Types (PCTs), as held within the BioNet Vegetation Classification database (NSW DCCEEW 2025a).
- PlantNET database (PlantNET 2025).
- Groundwater Dependent Ecosystems (Bureau of Meteorology 2024).

4.2 Site assessment

Field investigations informing this BMP were conducted in May 2022, November 2022, February 2023, June 2023, February 2024 and October 2024 under the terms of Biosis' Scientific Licence issued by the NSW DCCEEW under the *BC Act* (SL100758, expiry date 30 June 2026). Detailed field mapping and collection of GPS point locations were conducted using hand-held (uncorrected) tablet units (Samsung Galaxy Tab X) running

the ArcGIS Field Maps application, using the inbuilt GPS, and aerial photo interpretation. Spatial locations are therefore considered to have an accuracy of generally ± 5 metres.

Assessment in accordance with the BAM (DPIE 2020a) for the BMP area was planned and carried out by Accredited Assessor Brendon True (BAAS18155). This involved:

- The identification of native and exotic plant species, according to PlantNET and *The Flora of NSW* (Harden 2002, Harden 1993, Harden 2000, Harden 2002) with reference to recent taxonomic changes.
- The identification and mapping of PCTs according to the structural definitions held in the Veg-C database (NSW DCCEEW 2025a).
- Undertaking floristic plots within each vegetation zone in accordance with Section 4 of the BAM (DPIE 2020a), considering varying condition states and avoidance of ecotones, areas of disturbance, and edges.
- Targeted surveys for threatened flora were undertaken in accordance with the NSW guidelines *Surveying threatened plants and their habitats* (DPIE 2020c).
- Incidental observations using the “random meander” method (Cropper 1993).
- Identification of previous and current factors threatening the ecological function and survival of native vegetation within and adjacent to the BMP area.
- An assessment of the natural resilience of the vegetation of the site.
- Identifying and mapping fauna habitats (e.g., hollow-bearing trees, stick nests, rock outcropping, availability of flowering shrubs and canopy/understorey feed tree species, presence of any kind of aquatic environment, presence of flying-fox camps etc.), assessing their condition and value to threatened fauna species, and considering threatened species’ habitat constraints.
- Observations of animal activity and searches for indirect evidence of fauna (such as scats, nests, burrows, hollows, tracks, scratches and diggings).

The conservation significance of plant species and plant communities was determined according to:

- BC Act for significance within NSW.
- EPBC Act for significance within Australia.

Areas of native vegetation for which a PCT could validly be assigned were identified and delineated in the field, and their condition determined and assigned. Identification of PCTs within the BMP area was confirmed with reference to the community profile descriptors held within the Veg-C (NSW DCCEEW 2025a).

4.2.1 Assessment of habitat trees

Assessment of hollow-bearing trees within the BMP area was undertaken by suitably qualified and licenced ecologists. No hollows were recorded within the development footprint, while a small number were recorded on adjoining lands. Category-1 lands were not required to be assessed. The methodology below was used for recording hollows.

Hollow-bearing tree inventory

Tree hollows were only recorded if:

- The entrance could be seen from the ground.
- The hollow appeared to have depth.

- The hollow was at least 1 m above the ground (basal hollows were only recorded if they continued up into the tree above 1 m).
- The location of each hollow-bearing tree was recorded with a hand-held GPS unit.

Hollow characteristics

For each individual hollow bearing tree (HBT) and habitat tree, the following data was collected:

- Whether the tree was dead or alive.
- The species of tree (if alive).
- Height of the tree.
- Diameter at breast height (DBH) of the tree.
- Approximate number of hollows.
- Estimated size of hollows based upon diameter entrance.
- Any observed signs of fauna occupancy (scats or regurgitated pellets at the base of habitat trees).

4.2.2 Determining hollow dependent fauna

Habitat trees and HBTs are known to provide potential shelter and breeding habitat for a range of common and potentially threatened fauna species. The size of hollows required by an animal is positively associated with the animal's body weight. While very small animals generally prefer hollows with synonymously small openings, they may also use hollows with larger entrances. However, larger species tend to be more limited by entrance size. Furthermore, the larger the hollow, the more likely it is to be occupied (Gibbons 1999, Gibbons & Lindenmayer 2002).

Hollow suitability for fauna was assessed using data collected during the field investigation. Several factors influence the suitability of hollows for fauna (Gibbons & Lindenmayer 2002). Other habitat factors must be considered when determining the suitability of hollows for individual fauna species. These include the PCT that hollow-bearing-trees are located in, landscape location (e.g., within riparian areas, proximity to water, availability of forage resources), and existing impacts (such as adjacent clearing and development, light and noise etc).

4.3 Limitations

Ecological surveys provide a sampling of flora and fauna at a particular time and season. There are several reasons why not all species will be detected at a site during survey, such as species dormancy, seasonal conditions, the ephemeral status of waterbodies, and migration and breeding behaviours of some fauna. In the case of the current assessment, these factors did not present a significant limitation to assessing the overall ecological values of a site.

Identification of hollows was undertaken by an experienced ecologist in accordance with the BAM (DPIE 2020a), in order to standardise the approach and utilise current best-practice methods for identification of hollows.

5 Existing environment

5.1 Soils

Regional soil landscape mapping indicates that the BMP area occurs on the Tamworth – Keepit Slopes and Plain NSW (Mitchell) Landscape (Mitchell 2002). This landscape is characterised by rolling to undulating slopes and plains, with low hills and low ranges forming part of the New England Plateau. Texture-contrast soils, with colour changing from red brown on upper slopes to yellow with harsh subsoils on lower slopes, are characteristic of this landscape, along with a complex geology of sedimentary and metamorphic rocks with minor volcanics. The Tamworth – Keepit Slopes and Plain landscape has a general elevation of 500–800 metres, where the dominant vegetation may vary with changes in elevation. On lower slopes, grassy woodland communities dominated by White Box are common, along with other Yellow Box, Blakley's Red Gum and species of Acacia. Flats are dominated by Rough-barked apple and Yellow Box, with River Oak dominant along major waterways with occurrences of River Red Gum increasing to the west. On steeper slopes in the east of the landscapes range, Red Stringybark *Eucalyptus macrorhyncha* and Red Ironbark *Eucalyptus sideroxylon* are common (Mitchell 2002).

The soils associated with the BMP area are the Fullwoods Hill and Duri soil landscapes (Banks 2001). The Fullwoods Hill soil landscape is characterised by rocky crests and steep slopes of hills and low hills, on highly variable, complex soils. The vegetation of this landscape has been largely cleared for livestock, but remaining vegetation exists as woodland or open woodland. Soil erosion is common within this landscape due to the high level of grazing by livestock and development of crops. The Duri soil landscape is characterised by rolling to undulating hills and low hills on complex soils often dominated by moderately deep, moderately drained red and brown chromosols (Banks 2001). Similarly, this landscape has been extensively cleared for agriculture, but vegetation is typically open woodland and closed grassland typically comprised of a Eucalypt canopy. Extensive and current past cropping and grazing is evident across this landscape.

5.2 Waterways

Topographic mapping indicates that two watercourses and three man-made dams are present within the BMP area (NSW Spatial Services 2021). A first order (Strahler 1964) tributary of Calala Creek originates in the centre of the BMP area and feeds into second order Calala Creek (Figure 2), which provide small and ephemeral water sources. These watercourses are ephemeral and present as shallow, damp depressions without clearly defined banks or riparian zone. Calala Creek has been heavily modified over time, where vegetation has been extensively cleared in the riparian zone for agriculture and the alignment and flow of the creek has been altered to accommodate Calala Lane.

The drainage patterns of surface water across the BMP area are to the north-west towards Calala Creek. However, graded banks may redirect water into artificial waterbodies within and surrounding the BMP area. Overall, these processes can be said to be contributing factors to sustaining the native vegetation and habitats present.

5.3 Groundwater Dependent Ecosystems

Assessment of the potential for the BMP area to support groundwater dependant ecosystems was undertaken using the Australian Government's Bureau of Meteorology Groundwater Dependant Ecosystems Atlas (Bureau of Meteorology 2024). The BMP area is not mapped as supporting associated with an aquifer in Appendix 8 of the *Risk Assessment Guidelines for Groundwater Dependent Ecosystems* (DPI 2012). Furthermore, use of groundwater for the project is not proposed and pollution controls for surface water will afford the groundwater protection.

5.4 Vegetation communities

Field investigation, undertaken in accordance with the BAM, recorded 7.81 hectares of native vegetation within the BMP area (excluding Category 1 Land). This predominantly takes the form of cleared areas containing DNG that once would have contained a grassy woodland. However, currently only small areas of woody vegetation occur as natural regeneration or planted rows of locally native species (Lot 6 DP219993 only). A summary of vegetation within the development footprint is provided in Table 4, and described below. Representative photos of vegetation types are provided in Table 5.

Table 4 Vegetation types present within the BMP area and development footprint

Vegetation Type	Condition	Associated TECs	Development footprint (ha)	BMP area (ha)
<i>PCT 84: River Oak – Rough-barked Apple – red gum – box riparian tall woodland (wetland) of the Brigalow Belt South Bioregion and Nandewar Bioregion</i>	Derived native grassland	--	0.16	2.35
<i>PCT 599: Blakely's Red Gum – Yellow Box grassy tall woodland on flats and hills in the Brigalow Belt South Bioregion and Nandewar Bioregion</i>	Woodland	White Box-Yellow Box-Blakely's Red Gum Grassy Woodland (Critically Endangered, EPBC Act and BC Act) (refer Section 5.4.1)	0.09	1.00
	Derived native grassland		1.77	4.09
	Derived native grassland - low	White Box-Yellow Box-Blakely's Red Gum Grassy Woodland (Critically Endangered, BC Act) (refer Section 5.4.1)	0.37	0.37
Category 1 Land	--	--	15.82	25.01
Non-native vegetation	--	--	0.05	0.80
Total			18.26	43.62

Non-native vegetation and Category 1 Land

Non-native vegetation has been mapped within the road corridors of Burgess Lane and Burgmanns Lane (as seen in Figure 3). The former is dominated by introduced flora such as Fennel *Foeniculum vulgare* and Guinea Grass *Megathyrsus maximus* var. *maximus*, whereas Burgmanns Lane contains patches of Century Plant *Agave americana*.

In addition to areas of non-native vegetation, the BMP area contains areas of Category 1 Exempt (Cat-1) Land as defined under the *Local Land Services Act 2013*). The classification applies to the majority of Equis Energy BESS lands (Lot 17 DP 629969), with the exception of native vegetation along Calala Creek and Transgrid Lands (Lot 6 DP219993), totalling 25.01 hectares. Cat-1 Land is largely excluded from assessment under the BAM as rural productive land predominantly non-native in character. Cat-1 land within the BMP area is typically managed grassland managed for grazing purposes or asset protection comprised of exotic and native species. Planted tree screens containing native and exotic species are also present within the BESS lands (refer Figure 3).

PCT 84: River Oak - Rough-barked Apple - red gum - box riparian tall woodland (wetland) of the Brigalow Belt South Bioregion and Nandewar Bioregion

Naturally, PCT 84 is a woodland or open forest to 30 metres high dominated by River Oak *Casuarina cunninghamiana* subsp. *cunninghamiana* often with Rough-barked Apple *Angophora floribunda*, River Red Gum *Eucalyptus camaldulensis*, Yellow Box *Eucalyptus melliodora*, Blakely's Red Gum *E. blakelyi* and occasionally White Box *E. albens*. This community has been substantially cleared in some regions and is susceptible to weed invasion by exotic forbs and grasses. Within the BMP area PCT 84 is present as Derived Native Grassland (DNG) and is associated with the riparian zone of Calala Creek, south of Calala Lane. Vegetation is primarily exotic and native grasses, forbs and low growing shrubs with scattered juvenile trees.

Species recorded include Slender Rat's Tail Grass *Sporobolus elongatus*, Plains Grass *Austrostipa aristiglumis*, Red Grass *Bothriochloa macra*, Windmill Grass *Chloris truncata*, Purple Wiregrass *Aristida ramosa*, Common Couch *Cynodon dactylon*, *Lachnagrostis filiformis*, Native Geranium *Geranium solanderi*, *Oxalis perennans*, Lesser Joyweed *Alternanthera denticulata*, as well as various Knotweed *Persicaria* spp., Rushes *Juncus* spp. and Saltbush *Einadia* spp.

The BMP area contains 2.35 hectares of PCT 84, of which 0.16 hectares (or 6.8 %) will be impacted.

PCT 599: Blakely's Red Gum - Yellow Box grassy tall woodland on flats and hills in the Brigalow Belt South Bioregion and Nandewar Bioregion.

PCT 599 typically exists as a tall woodland dominated by Blakely's Red Gum and Yellow Box, often with Rough-barked Apple on flats or White Box on hills. Within the BMP area, PCT 599 has been heavily modified and is present in three condition states:

- PCT 599_Woodland: A woodland where natural canopy or planted rows of trees are present (1.00 ha).
- PCT 599_DNG: Areas of DNG where the tree and shrub layer is absent (4.09 ha).
- PCT 599_DNG_Low: Regenerative areas of DNG within the Tamworth substation of lower condition to that within Lots 3 and 4 DP 244399 (0.37 ha).

Within woodland areas (both natural and planted), White Box is the dominant canopy species, with other planted characteristic species including Yellow Box and Blakely's Red Gum. Woodland areas, though all modified and lacking a midstory, harbour a range of understory species characteristic of PCT 599, predominantly grasses, including Red Grass, Weeping Grass *Microlaena stipoides*, Purple Wire-grass, Native Geranium and Rock Fern *Cheilanthes sieberi*. DNG areas, devoid of canopy and midstory, contain a myriad of characteristic understory species including those listed above as well as others including Tall *Chloris ventricosa*, *Lachnagrostis filiformis*, Corrugated Sida *Sida corrugata* and Shorthair Plumegrass *Dichelachne micrantha*. A high abundance and cover of St Johns Wort *Hypericum perforatum* occurs in this zone. DNG_Low occurs within the Tamworth substation and contains lower diversity and cover of native species compared to DNG elsewhere on site.

There are 5.46 hectares of this PCT recorded within the BMP area, of which 2.23 hectares (or 41 %) will be impacted.

5.4.1 Threatened Ecological Communities

White Box - Yellow Box - Blakely's Red Gum Grassy Woodland (Critically Endangered, BC Act)

All condition states of PCT 599 meet the criteria for *White Box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and Riverina Bioregions* (White Box - Yellow Box - Blakely's Red Gum Grassy Woodland) Critically Endangered Ecological Community (CEEC). There are 5.46 hectares of this CEEC within the BMP area, of which 2.23 hectares (or 40.6 %) will be impacted. The extent of the BC Act listed CEEC is shown on Figure 2.

White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (Critically Endangered, EPBC Act)

PCT 599 is associated with the EPBC Act listed CEEC *White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland*. For vegetation within PCT 599 to be considered as the EPBC listed community it must satisfy the minimum condition threshold detailed in the Approved Conservation Advice (Cth DCCEEW 2023). Meaning a patch of PCT 599 must have a predominantly native understory and either:

- Be 0.1 ha or more and contain 12 or more non-grass native species including one important species, or
- Be 2 ha or more and contain over 20 or more mature trees per hectare or eucalypt regeneration.

PCT 599 within the BMP area meets the condition threshold to be considered the EPBC listed TEC as vegetation has a predominantly native understory and is over 2 hectares, however, there are not 20 or more mature trees per hectare (Biosis 2024). There are three areas which do not meet the criteria, an area of PCT 599_DNG west of the BESS along the northern extent of the transmission line, PCT 599_DNG_Low and a small section of PCT 599_Woodland consisting of a single Yellow Box adjacent Calala Lane.

Overall 4.11 hectares of this CEEC is present in the BMP area, of which 1.55 hectares (or 37.7 %) will be impacted. The extent of the EPBC Act listed CEEC is shown on Figure 2.

Table 5 Representative photos of vegetation types and condition within BMP area

Current condition of vegetation within the BMP area	
Photo 1 PCT 84_Low: River Oak - Rough-barked Apple - red gum - box riparian tall woodland (wetland) Located adjoining Calala Creek in the north.	
Photo 2 PCT 599_ Woodland: Blakely's Red Gum - Yellow Box grassy tall woodland on flats and hills Located in the south west adjacent to Burgmanns Lane	

Current condition of vegetation within the BMP area

Photo 3 PCT 599_DNG:
Blakely's Red Gum -
Yellow Box grassy tall
woodland on flats and
hills

Located in the south in
and adjoining the
transmission line



Photo 4PCT 599_DNG:
Blakely's Red Gum -
Yellow Box grassy tall
woodland on flats and
hills

Located within the
Tamworth substation



Current condition of vegetation within the BMP area

Photo 5 Planted tree screen and grazing land within Category 1 land

Located within Cat 1 Land south of Calala Lane.



5.5 Threatened species habitat

5.5.1 Threatened flora habitat

Threatened species habitat within the BMP area is considered limited due to past disturbance factors such as vegetation clearance and exotic species invasion. However, there is minor potential for threatened flora habitat to occur in certain areas within the BMP area for particular threatened flora species. Targeted surveys were completed within the development footprint plus a small buffer and no threatened flora species were detected. Within potential habitat outside the project's development footprint but within the BMP area, threatened flora habitat is considered spatially limited to PCT 599_DNG and PCT 599_Woodland (identified in Figure 2) and is restricted to those species most likely to be present based on known distribution and habitat associations and which can persist in paddock/disturbed environments:

- Bluegrass *Dichanthium setosum* (Vulnerable BC Act and EPBC Act).
- Finger Panic Grass *Digitaria porrecta* (Endangered BC Act).
- Belson's Panic *Homopholis belsonii* (Endangered BC Act and Vulnerable EPBC Act).
- Hawkweed *Picris euae* (Vulnerable BC Act and EPBC Act).
- Austral Toadflax *Thesium australe* (Vulnerable BC Act and EPBC Act).

Up to 8.00 hectares of habitat for five threatened flora species has been assumed present in areas located outside of the development footprint, with 0.24 hectares occurring within the BMP area primarily associated with PCT 599_Woodland (Vegetation Management Zone [VMZ] 3 and VMZ 4) and PCT 599_DNG (VMZ 3, VMZ 4 and VMZ 5). There are no direct impacts to this habitat as a result of the project.

5.6 Fauna habitat

Fauna habitat features were recorded throughout the BMP area, however, due to the historical modification and almost complete clearing, specific habitat constraints for species credit fauna (listed as threatened under the BC Act and/or the EPBC Act), are absent. There were no hollow-bearing trees, stick nests, rocky habitat (caves, crevices, outcrops or overhangs), and very little woody debris and leaf litter.

Just one man-made structure was observed, a single transmission line tower, not considered to present notable habitat for any threatened fauna species. The remaining habitat that occurs is degraded; highly fragmented and provides limited foraging or sheltering resources. These limited habitat features and their relevance to each fauna group are identified in Table 6 below.

Table 6 Key fauna habitat features present across the BMP area

Habitat features	Fauna species
Feed tree species	The BMP area contains a low diversity of native tree species (all eucalypts), with a low abundance of trees generally. Therefore, the BMP area is not considered to contain significant foraging resources for species such as Koala <i>Phascolarctos cinereus</i> , Eastern Pygmy-possum <i>Cercartetus nanus</i> and Squirrel Glider <i>Petaurus norfolcensis</i> , but may provide foraging and shelter habitat resources to non-threatened birds and arboreal mammals if they move through the landscape.
Watercourses and dams	A portion of Calala Creek occurs within the BMP area (Figure 3) as do artificial waterbodies (dams); however, these are highly ephemeral, lack or have negligible fringing vegetation and are prone to contaminants relating to surrounding land use (stock grazing). These waterbodies are not considered suitable habitat for any species credit amphibians but may provide foraging and water sources to non-threatened amphibians and other fauna moving through and/or sheltering in the landscape.

5.6.1 Mapped and predicted aquatic species habitat

The *Fisheries Management Act 1994* (FM Act) provides a framework to protect and conserve aquatic species and their habitats throughout NSW. No records of threatened aquatic species have been recorded within 10 kilometres of the BMP area on the BioNet Atlas of NSW. However, predicted habitat for threatened aquatic species is mapped on the NSW Department of Primary Industries (DPI) spatial data portal within the BMP area and include the following:

- Southern Purple Spotted Gudgeon *Mogurnda adspersa* – mapped habitat within Calala Creek, from south of the BMP area until intersection with the Peel River.
- Eel Tailed Catfish *Tandanus tandanus* – mapped habitat within Peel River, Piallamore Anabranch and Cockburn River to the north of the BMP area.

Despite mapped habitat for Southern Purple Spotted Gudgeon located within Calala Creek, the likelihood of this species occurring is considered low because, as previously mentioned, Calala Creek (as seen in Figure 3) is heavily modified and subject to disturbance along its entire length. Primarily, this includes channel modification resulting in the loss of important habitat features such as aquatic vegetation, overhanging vegetation, rocks or snags. Furthermore, Calala Creek, being ephemeral, is prone to significant fluctuations in water level and quality, meaning successful reproduction and recruitment is likely not possible. Given the above, Calala Creek, particularly within its upper reaches and where it resides in the BMP area, is not considered viable habitat for this species.

Predicted habitat for Eel Tailed Catfish is mapped within the waterways of the floodplain of the Peel River to the north of the subject land. Potential habitat is not present within Calala Creek, however, connectivity, albeit diffuse, to potential habitat is present via Calala Creek. There is risk the project could cause impacts to downstream environments via erosion (and subsequent sedimentation) and general stormwater runoff. In response, a range of erosion and sediment controls have been devised and are detailed in Section 7.5.

Finally, there is no mapped Key Fish Habitat (KFH) mapped within the DPI spatial data portal within the BMP area. Given the modified condition of Calala Creek, the project is unlikely to result in impacts to fish passage. As the project is categorised as SSD under the EP&A Act, a permit for to temporarily obstruct fish passage during construction (Section 219) or for dredging or reclamation works (Section 201) is not required.

5.7 Priority and environmental weeds

One priority weed and eight general duty weed species for the North West LLS Region have been recorded in the BMP area and are listed in Table 7, along with their associated biosecurity duty. There were no Weeds of National Significance (WoNS) recorded in the BMP area however nine species are categorised as High Threat Weeds (HTWs) under the BAM. Weed management procedures are detailed in Section 8.2.4 and Appendix A.

Preventing the spread of priority weed St John's Wort within the BMP area and offsite during construction is a priority weed action.

Table 7 Priority weeds and WoNS recorded within the BMP area

Scientific name	Common name	WoNS / HTW	Biosecurity duty
<i>Bidens pilosa</i>	Cobbler's Pegs	HTW	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Briza subaristata</i>	Chilean Quaking Grass	HTW	
<i>Carthamus lanatus</i>	Saffron Thistle	HTW	
<i>Cyperus eragrostis</i>	Umbrella Sedge	HTW	
<i>Galenia pubescens</i>	Galenia	HTW	
<i>Hyparrhenia hirta</i>	Coolatai Grass	HTW	
<i>Hypericum perforatum</i>	St John's Wort	HTW	Regional Recommended Measure <i>An exclusion zone is established for all lands in the region, except the core infestation area comprising the Gunnedah Shire council, Gwydir Shire council, Liverpool Plains Shire council and Tamworth Regional council.</i> Whole of region <i>Land managers mitigate the risk of new weeds being introduced to their land. Within exclusion zone: Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found. Within core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.</i>

Scientific name	Common name	WoNS / HTW	Biosecurity duty
<i>Sorghum halepense</i>	Johnson Grass	HTW	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Stenotaphrum secundatum</i>	Buffalo Grass	HTW	

6 Mitigation and Management

6.1 Ecology Mitigation and Management measures for the project

Measures described in this section of the BMP will help to minimise potential impacts to biodiversity values that are to be retained in the BMP area, including:

- 2.19 ha of PCT 84 *River Oak - Rough-barked Apple - red gum - box riparian tall woodland (wetland) of the Brigalow Belt South Bioregion and Nandewar Bioregion* DNG condition (VMZ) 1).
- 2.32 ha of PCT 599 *Blakely's Red Gum - Yellow Box grassy tall woodland on flats and hills in the Brigalow Belt South Bioregion and Nandewar Bioregion* DNG and DNG-Low condition (VMZ3).
- 0.91 ha of PCT 599 *Blakely's Red Gum - Yellow Box grassy tall woodland on flats and hills in the Brigalow Belt South Bioregion and Nandewar Bioregion* Woodland condition (VMZ1, VMZ3, VMZ4).
- Ephemeral water bodies and sources (Calala Creek and artificial dams).
- Flora and fauna habitats supported by the above vegetation.

6.2 Pre-clearance procedures

6.2.1 Fauna pre-clearance and relocation

A licenced ecologist or suitably qualified person will attend site to undertake a pre-clearance assessment of the area to inspect trees, including those categorised as Category 1 land, being removed for the project as a precaution. Surveys for fauna in conjunction with pre-clearing surveys, including the mitigation measure identified in the BDAR to complete nocturnal surveys for amphibians in Calala Creek and the first order tributary (Strahler 1964) that feeds into Calala Creek located within the development footprint. As there were no hollows recorded during the field investigations and there are only two trees being removed, tree felling does not need to be supervised by an ecologist or wildlife handler.

Pre-clearance surveys are required to identify the presence of any fauna species at least three days prior to the commencement of vegetation clearance given their identified potential to occur on site. Suitable release locations must be identified at least 3 days prior to the commencement of the vegetation clearing/earthworks and documented in the pre-clearance report by the project ecologist.

In the event of fauna becoming injured or a listed threatened species being identified or suspected to be identified within the BMP area, all works in the vicinity of the injured animal must cease, and the environmental manager and project ecologist must be notified. If wildlife is discovered within the development footprint during site construction activities, including clearing that may harm, or has resulted in harm, to the animal or pose a risk to site personnel, the following steps will be taken:

- Stop all work in the vicinity of the fauna and immediately notify the project superintendent who will notify the environmental manager and project ecologist.
- Preferably allow fauna to leave the area without intervention.
- Use a licensed fauna ecologist or wildlife carer with specific animal handling experience to carry out any fauna handling.

- Where necessary, to minimise stress to native fauna and/or remove the risk of further injury before a licensed fauna handler arrives onsite, the environmental manager/project ecologist will implement the Handling Procedure detailed in Section 6.2.2.
- If the animal cannot be handled (i.e., venomous reptiles):
 - Exclude all personnel from the vicinity with fencing and/or signage.
 - Record the exact location of the animal and provide to the Project ecologist or appropriate rescue agency.
 - Call the appropriate rescue agency immediately and follow any advice provided by the agency. Once the rescue agency arrives at the site, they are responsible for the animal. Any decisions regarding the care of the animal will be made by the rescue agency. The contact details for the relevant fauna rescue services and local veterinary services contact details are provided in Table 8.

Table 8 Fauna rescue contact details

Agency/Business	Contact details
Project ecologist	To be determined upon engagement
WIRES (to be called if Project ecologist not available)	1300 094 737
Animal Welfare League NSW	02 8899 3333
Tamworth Veterinary Hospital	02 6766 3988 106 Brisbane Street Tamworth
Scott Grube (recommended by Tamworth Regional Council)	0409 364 022

The contact details for the project ecologist will be kept at a suitable location on the project site and be available to the contractor's personnel at all locations where clearing is being undertaken, to enable quick contact and access to the project ecologist.

In the event the rescue service and/or local veterinary service cannot be contacted, the injured animal will be delivered to the relevant agency as soon as practically possible. In the event the rescue service and/or local veterinary service cannot be contacted, if required, the most appropriate euthanasia will be administered by the project ecologist. This is to occur in accordance with animal ethics approval and legislative requirements.

Relocation of threatened fauna captured during construction works, including clearing and associated works, will be undertaken by the project ecologist or wildlife rescuer. If the animal is not injured or stressed, it should be released to an area that is not to be disturbed by the project construction works, in accordance with the following:

- Release sites will contain similar habitat and occur as close to the original capture location as possible.
- If the species is nocturnal, release will be carried out at dusk.
- Release would generally not be undertaken during periods of heavy rainfall.
- Non-native fauna will not be translocated and will be euthanised (where possible).

If the animal has been placed into care due to injury, age (i.e., young) or stress, upon its rehabilitation it will be released in an area that is not to be disturbed by the project construction works at the discretion of the Project ecologist or wildlife rescuer.

6.2.2 Handling procedure

The Handling Procedure will be implemented to minimise stress to native fauna and/or remove the risk of further injury. The Project ecologist will:

- Cover larger animals with a towel or blanket and place in a cardboard box and/or hessian bag.
- Place smaller animals in a cotton bag, tied at the top.
- Keep terrestrial fauna quiet, warm, ventilated and in a dark location away from noisy construction activities.
- Place aquatic fauna in plastic aquaria or plastic bag with a sufficient amount of water and adequate aeration.
- Transport frogs without water or debris in recognition of the risk of transporting disease and the minimal transport time.
- Animals such as venomous reptiles and raptors require specialist handling and will only be handled by appropriately qualified personnel, i.e., Specialist ecologist¹ trained in venomous snake handling.
- If handling bats, the handler must be vaccinated against the Australian Bat Lyssavirus (ABL), which is a form of rabies.
- Any frog handling will be undertaken in accordance with the *Hygiene Protocol for the Control of Disease in Frogs* (DECC 2008). This protocol recommends onsite hygiene precautions be undertaken to minimise the transfer of disease between and within wild frog populations, including:
 - Thorough cleaning/disinfecting of footwear and equipment when moving from one site to another.
 - Spraying/flushing vehicle tyres with a disinfecting solution where necessary in high-risk areas.
 - Cleaning/disinfecting hands between collecting samples/frogs (gloves, not bare hands, will be used to handle frogs); and limiting one frog or tadpole to a bag. Bags will not be reused.

6.2.3 Unexpected finds procedure

If any threatened species are encountered unexpectedly during works, all activities that may impact said species or its habitat will cease until an ecologist is present and can collect the individual. Any such individuals will be recorded and reported and translocated accordingly, with unexpected fauna finds following the procedures above in Sections 6.2.1 and 6.2.2, and threatened flora following translocation guidance, including:

- NSW BioNet *Threatened Biodiversity Profile Database Collection* (TBPDC) (NSW DCCEW 2025e).
- NSW *Translocation operational policy* (DPIE 2019b).
- *Guidelines for the Translocation of Threatened Plants in Australia Third Edition* (Commander et al. 2018).

Works must remain on hold until the ecologist has completed a survey of the project area in line with best practice survey methodology (respective of the species) to determine if there are further individuals inhabiting the site. If further individuals are found, works must remain on hold and individuals recorded and translocated into strategically located areas that are protected outside of the development footprint. The DCCEW Conservation Programs, Heritage and Regulation (CPHR) Division must be contacted to report the

¹ Protocol prevents Biosis employees handling venomous snakes.

unexpected find(s) and their advice sought on how to proceed. There must be a record kept of any unexpected finds for fauna (non-threatened and threatened) and threatened flora, identifying the date and time, location with spatial coordinates and course of action/outcome of the survival of the entity.

6.2.4 Site stabilisation and site derived biomass recycling

All sections of the BMP area cleared of vegetation must be stabilised within two days of clearing using direct application of locally endemic native grass species, where possible, or a sterile cover crop to be replaced with native species during latter rehabilitation work. Installation of a coir mesh/netting overlay should be installed where possible, to provide protection to the seeds and soil. Native seed should be collected in the pre-construction phase to allow time for endemic seed sources to be identified, harvested and propagated in time for the rehabilitation or “post-construction” phase. Seed collection methodology is discussed in detail in Section 8.2.3.

Tree limb sections of the individual White Box *Eucalyptus albens* that is being removed that are more than 30 centimetres in diameter are to be placed on the ground in the protected area of MZ4 in PCT 599 or VMZ1 in PCT 84 for re-use as logs for ground-dwelling fauna. All other tree and shrub material will be salvaged for re-use as woodchip mulch for erosion control and stabilisation of bare ground. Mulch generated from this activity is to be free of annual and woody weed biomass and is to be monitored over the duration of the staged project to eliminate any potential erosion events and opportunistic weed incursions.

6.3 Reporting

6.3.1 Pre-clearance reporting

Specific reporting requirements associated with pre-clearance activities must include:

- Results of pre-clearance surveys.
- Summary of pre-clearance activities actioned.
- Unexpected finds procedure and report.
- Baseline ecology monitoring program reporting.
- Baseline weed density monitoring and control strategy reporting.
- Pre-clearance reports must be provided to the Principal contractor within two weeks of completion of relevant field surveys.

6.3.2 Incident and non-compliance reporting

The Department must be notified in writing via the Major Projects website immediately after the Applicant becomes aware of an incident or non-compliance with conditions or controls applicable to the project in accordance with Conditions C.10-C.13 of the Development Consent. The notification must identify the project (including the development application number and the name of the development if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix 6 of the Development Consent. Specifically:

- Condition C11. The Planning Secretary must be notified in writing via the Major Projects website within seven days after the Applicant becomes aware of any non-compliance.

- Condition C12. A non-compliance notification must identify the development and the application number for it, set out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.
- Condition C13. A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.

6.4 Trigger Action Response Plan (TARP)

A Trigger Action Response Plan (TARP) will be implemented to manage ecology values present within the BMP lands, in particular, ecology values which will be managed for the life of the project (25 years) after the conclusion of the construction and active management phases of the project.

These TARPs include the following:

- Monitoring requirements (may include different locations).
- Trigger levels that indicate a potential non-compliance or flag implementation of contingency measures.
- Management and contingency actions (i.e., corrective and preventative actions) and reporting requirements.
- Responsibilities.
- Timing.

These TARPs detail how the various predicted construction impacts, monitoring components, performance measures, and responsibilities are structured to achieve compliance with the relevant approval requirements. They also form the framework for and contingency actions.

The TARP has been designed specifically for this BMP to illustrate how Equis Energy will manage ecology values within the BMP lands, in addition to those actions with clearly defined timelines and completion criteria within this BMP. The TARP system provides a simple, transparent and useable record of the monitoring of environmental performance and the implementation of management and/or contingency measures. This approach is particularly relevant for elements with baseline condition still to be quantified, and which are influenced by unknown variables such as disturbance response and source points. Weed control is the primary target of the TARP, due to the ongoing nature of management requirements. Ecology aspects and variables managed under the TARP are:

- Weed management.

The TARP is provided in Section 8.2.4.

Table 9 Management strategies applied to project phase

Phase	Management	Strategy
Construction	Active	Actions undertaken in accordance with methodologies and timelines prescribed within approved management plans (i.e. BMP, CEMP).
Post construction	Active / TARP	Actions undertaken in accordance with methodologies and timelines prescribed within approved management plans (i.e. BMP, CEMP). Or If completion criteria for primary works met, migrate monitoring and management to TARP framework.

Phase	Management	Strategy
Operations	TARP	Ecology element monitored and managed in accordance with timing and mitigation prescribed by TARP framework.

Application of the TARP will be supported by ongoing operational annual monitoring of ecology values which are not limited by the achievement of completion criteria tied to active management outcomes. Or are within the realm of commercial landholder biosecurity and protection of the environment obligations.

Periodic monitoring will continue for the life of the project after the completion of the maintenance program to ensure that the condition of the restored areas are maintained and that new weed incursions do not occur. TARP thresholds require more frequent monitoring during this period (annually, or every 2 years if weeds are maintained below Tier 1 minimum thresholds Table 13), however monitoring requirements may be limited to specific management actions or priority areas.

The purpose of periodic monitoring is to:

- Ensure periodic monitoring of ecology values managed under the BMP.
- Identify maintenance or degradation issues which may need to be addressed to ensure restored areas continue to maintain or improve their restored condition.
- Facilitate timely implementation of preventative or remedial actions to support restoration and management areas.

7 Biodiversity management actions during construction

7.1 Roles and responsibilities

In accordance with Condition B16 of the Development Consent, following the Planning Secretary's approval this BMP must be implemented for the project. The roles and responsibilities for personnel implementing this BMP are provided in Table 10 below.

Table 10 Roles and responsibilities

Role	Responsibility
Equis Energy development principal Construction and Operation	- Oversee the implementation of this BMP and other management plans which interface with the BMP (including a Construction Environmental Management Plan (CEMP) and biosecurity sub-plan. - Have working knowledge of the BMP. - Accountable for the implementation of mitigation measures as detailed in Table 1. - Responsible for reporting to relevant agencies non-compliance and incidents related to biodiversity (refer to Section 9). Notification to be via the Major Projects website immediately after the Applicant becomes aware of an incident. - Ongoing implementation of management and monitoring actions during the life of the project once completion criteria are met for active management and maintenance periods. Such as TARP weed management and periodic monitoring. - Review and, if necessary, revise the BMP as required in relation to Consent Condition C2.
Construction Manager Construction	- Ensure resources are made available to enable works to comply with this BMP. - Ensure appropriate approvals and licences are held. - Responsible for the implementation of this BMP. - Responsible for the induction of staff and contractors. - Responsible for all aspects of the worksite including the coordination and management of all staff and contractors. - Responsible for appointing an appropriately qualified and experienced ecologist, in liaison with Equis Energy. - Receiving plant, materials and chemicals and ensuring all items are appropriately stored. - Responsible for addressing corrective actions arising from environmental inspections. - Responsible for notifying Equis Energy of any incidence or non-compliances with this BMP. - Implementing mitigation measures as detailed in Table 1. - Biosecurity management plan be prepared as part of the Project's CEMP implementation that, in addition to the above, also details response strategies to reduce risk of spread and severity of residual impact of any potential biosecurity incursions.

Role	Responsibility
Construction Health, Safety and Environment (HSE) Coordinator Construction Operations and Maintenance (O&M) Site Manager Operation	- Maintaining all environmental management documents. - Identifying where environmental measures are not meeting the targets and where improvements can be achieved. - Monitoring and reporting environmental compliance to the Principal. - Carry out routine environmental site inspections. - Implementing mitigation measures as detailed in Table 1.
Project Ecologist Construction and Operation	- Supervise works being undertaken in environmentally sensitive areas. - Undertake pre-clearing surveys. - Oversee vegetation removal. - Determine if restoration plantings have achieved completion criteria. - Ongoing monitoring of VMZs. - Provide advice where necessary. - Implementing mitigation measures as detailed in Table 1.
All Employees and Contractors Construction and operation	- Follow any instructions provided by Equis Energy, the Construction Manager, O&M Site Manager, EPC HSE Coordinator, or an appropriately qualified and experienced ecologist. - Work in accordance with the requirements of this BMP. - Report and raise any issues that arise that may have an environmental impact to the HSE Coordinator or Site Manager. - Implementing mitigation measures as detailed in Table 1.

7.2 Site inductions

Site specific inductions should include:

- The presence of threatened species habitat and locally significant vegetation communities, including the locations of native vegetation and habitat to be retained and excluded from the clearing activities and how they are fenced off to clearly delineate the boundaries between the project site and the protected areas.
- Relevant legislation, licenses and permits.
- Types of threatened flora and fauna that could potentially occur within the BMP area and how these species can be recognised (e.g., identification resources for Bluegrass, Finger Panic Grass, Belson's Panic, Hawksweed and Austral Toadflax).
- Types of weeds and pests identified within the BMP area.
- Strict hygiene protocols to reduce the potential introduction of invasive flora and fauna species and/or disease into the BMP area that adhere to the NSW *Hygiene guidelines Protocols to protect priority biodiversity areas in NSW from Phytophthora cinnamomi, myrtle rust, amphibian chytrid fungus and invasive plants* (DPIE 2020b). It is recommended that a biosecurity management plan be prepared as part of the Project's CEMP implementation that, in addition to the above, also details response strategies to reduce risk of spread and severity of residual impact of any potential biosecurity incursions.
- Native vegetation rehabilitation procedures.
- Details of field observations shall be reported via a weekly environmental inspection checklist, and communicated to all staff during pre-starts, toolbox and team meetings, as required.

- Specific responsibilities for the protection of flora and fauna, in relation to providing species habitat and associated implications.
- Any non-conformance incidents related to biodiversity management, protection and/or rehabilitation matters must be reported to the Environmental manager/project ecologist.

7.3 Construction Environmental Management Plan

The Contractor is required to identify all potential environmental impacts and implement and maintain control measures, procedures and constraints. Accordingly, these should be documented as part of a Construction Environmental Management Plan (CEMP) which has been prepared (CPP 2025), detailing best practice environmental protection measures, strict water quality practices and stormwater controls, and by ensuring any lighting is directed towards the development footprint, rather than towards the adjacent retained habitats. If there are fauna fatalities from a road strike on public roads as a result of increased traffic activity resulting from construction of the project, a review will be undertaken to ensure project activities are not forcing local fauna on to the roads.

The CEMP should also detail how rubbish and waste will be avoided, reduced, stored, recycled and/or disposed of. Toolbox and prestart meetings will be used, as required, to highlight any specific issues that arise on-site and posters will be used to further educate employees and sub-contractors, particularly immediately prior to rehabilitation works.

No storage of materials or machinery is to be undertaken within exclusion zones or retained vegetation, no preparation of chemicals, refuelling of plant or vehicles, or concrete to be mixed in these areas, or adjacent, and care to avoid the compaction of soils is to be observed.

7.4 Exclusion fencing

The extent of retained ecologically sensitive areas adjacent to the works areas will be shown on relevant sensitive site maps in association with the CEMP and physically delineated on site using protective fencing and signposting. Exclusion zones are to be clearly marked and labelled on design drawings issued for construction and should be displayed in prominent places and provided in site inductions.

A register of sensitive area maps will be maintained and displayed in areas where other worksite information is on display. Prior to the commencement of vegetation clearing and earthworks, exclusion fencing is to be installed along the boundaries of vegetated areas to be retained and protected. The alignment of this fencing is to be in accordance with the Australian Standard *Protection of Trees on Development Sites* (AS4970-2009) and incorporate the relevant tree protection zones for trees and vegetation to be retained.

Exclusion fencing to delineate the disturbance footprint from adjoining retained lands will be 3 metre high chain mesh (or similar) construction panel fencing to establish a defined boundary, which will provide effective protection of retained vegetation within No-Go areas from accidental incursion during construction. In addition, with scope to assist with both the protection and delineation of the restoration areas, works are to include the installation of a heavy-duty UV-resistant silt mesh sediment control fence to eliminate the potential for surface soil and gravity/water directed weed seeds movement into the protected areas.

7.5 Stormwater and erosion controls

Although the BDAR found that no threatened species habitat is likely in Calala Creek, there is a risk the project could cause impacts to downstream environments via erosion (and subsequent sedimentation) and general stormwater runoff. In response, a range of erosion and sediment controls were devised during the BDAR stage. These include:

- Temporary sediment fences and flow diversion mounds.
- Swales – both temporary and permanent.
- Sediment Detention Basins – functioning during both construction and operational stages.
- Where the access road intersects Calala Creek, a culvert will be constructed in a way that aims to prevent any change to the hydrology of Calala Creek.

These are considered appropriate to mitigate contamination risk of Calala Creek and by extension mapped habitat for Eel Tailed Catfish.

Preparation of a Stormwater Management Plan (SMP) and Erosion Sediment Control Plan (ESCP) in accordance with *Managing Urban Stormwater: Soils and Construction* or 'Blue Book' (Landcom 2008) is to be used in conjunction with this BMP to formalise measures preventing discharge of wastewater to the receiving environment and meet stormwater quality management requirements and minimise impact relating to hydrological processes and water quality.

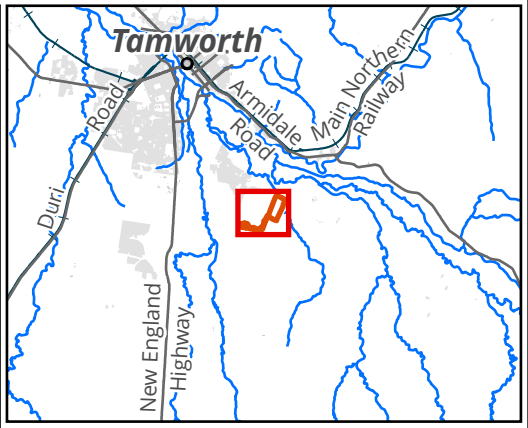
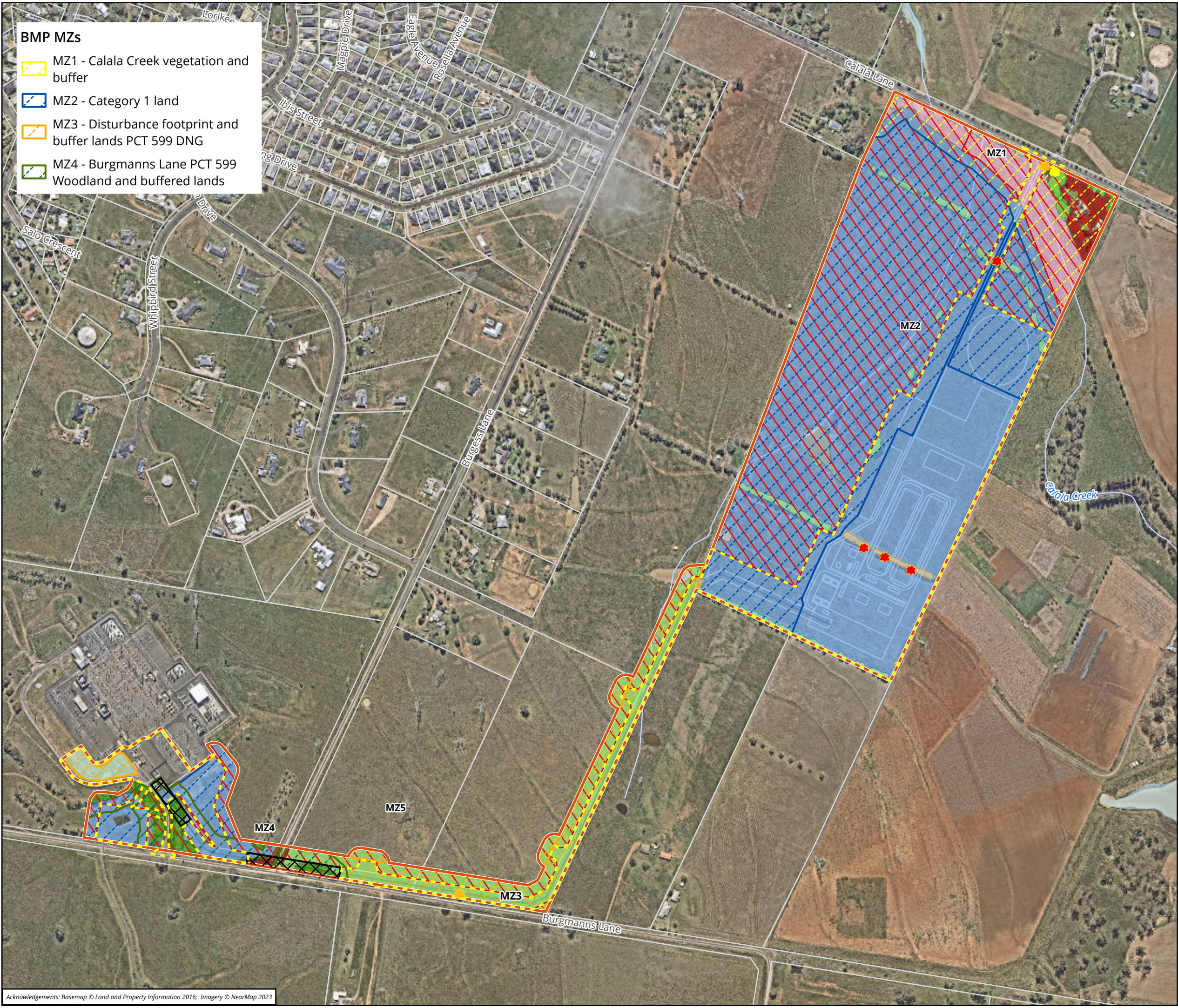
The entirety of the transmission line will be below ground, constructed via trenching, limiting the disturbance to a narrow linear area. Trenchless construction methods (directional bore that excavates beneath the surface to allow for installation of transmission line infrastructure, while minimising above-ground impact) will be employed for two sections of the transmission line, to avoid impacts to the areas of highest biodiversity values (PCT 599_Woodland). To minimise harm to fauna utilising the site the following measures are to be followed:

- Where feasible, trenches will not be left open/uncovered overnight.
- If trenches are left open/overnight, a fauna escape route will be provided.
- All trenches left open overnight will be inspected for fauna prior to works commencing for the day/final back filling to ensure no fauna are present are trapped in trench. Any fauna present is to be captured and relocated by a suitably qualified fauna handler.

7.6 Competing land uses within the BMP area

Actions deemed permissible to occur within the BMP area are to be restricted to ensure management activities remain unimpeded. Restricted activities include the following:

- Illegal rubbish dumping.
- Collection of wood.
- Recreational game hunting.
- Recreational vehicle access.



- Legend**
- BMP area
 - Development footprint
 - Underground bore (transmission line)
 - Development layout
 - Transmission line (to be installed)
 - No-Go zone
- Woody vegetation (Cat-1 lands)**
- Remove
 - Retain
- Vegetation zones (Biosis)**
- PCT 599_Woodland
 - PCT 599_DNG
 - PCT 599_DNG_low
 - PCT 84_DNG
 - Category 1 Land
 - Non-native vegetation
- Tree management**
- Native tree (to be salvaged)
 - Hollow-bearing tree (protect)
 - Woody vegetation (Salvage if appropriate)

Figure 3 BMP Actions (construction phase)

0 50 100 150 200
Metres
Scale: 1:6,000 @ A3
Coordinate System: GDA2020 MGA Zone 56

biosis
APEM Group

Matter: 41055, Date: 03 December 2025,
Prepared by: LH, Prepared for: RB, Last edited by: owilliams
Location: P:\41000s\41055\Mapping\41055_BMP_BAC_DPHI-Rev.aprx
Layout: 41055_F3_BMP-construction

8 Post-construction biodiversity management actions

8.1 Vegetation Management Zones (VMZs)

Four VMZs within the BMP area have been identified with the goal of protecting, restoring, maintaining or enhancing remnant vegetation and species habitat within the project disturbance footprint and adjoining residual lands and are defined on Figure 4.

VMZs group areas of compatible ecology values and management objectives in order to define existing conditions, management strategies and management metrics to achieve the objectives of the BMP. A description of each VMZ is provided below, with objectives, targets and monitoring requirements detailed in Table 11.

VMZ1: Calala Creek riparian zone and adjoining lands

VMZ1 applies to the Calala Creek riparian zone and adjoining lands and is 4.33 hectares in size. Vegetation is predominantly PCT 84_DNG but also includes a small area of PCT 599_Woodland adjoining Calala Lane, planted native and exotic woody vegetation along Calala Lane and Cat-1 lands within 20 metres of PCT_84 to provide a management buffer for the riparian vegetation..

Key values managed within the VMZ1 include:

- 0.27 ha of PCT 599_Woodland (Box Gum Grassy Woodland CEEC).
- 2.35 ha of PCT 84_DNG.
- 1.04 ha of Cat-1 land.
- 0.66 ha of Non-native vegetation.
- 0.09 ha of existing tree screens (within Cat-1 land and Non-native vegetation).

VMZ2: BESS residual Cat-1 lands

VMZ2 applies to residual Cat-1 lands managed for rural purposes to the north and west of the BESS residual lands within Lot 17 DP629969, and Cat-1 land temporary disturbance within the Tamworth substation, and is 23.54 hectares in total area. Land use is primarily grazing and vegetation includes a mix of pasture and planted tree screens (including native and non-native trees). Two dams are also present.

VMZ2 will include proposed landscaping on bunds as visual and noise screens adjoining the BESS (refer Figure 4) as well as grassed mounds allowing for soil retention on-site.. Vegetation screens and buffers will be managed under the BMP, however planting densities and construction of mounds are considered landscaping and are outside the scope of the BMP. Trees and shrub species characteristic of PCTs 84 and 599 are provided in Appendix B: Table 22 for planting within visual screens and landscape buffers.

Key values managed within the VMZ include:

- 23.54 ha of Cat-1 land.
- 1.09 ha of planted vegetation buffer and existing tree screens (within Cat-1 land).

VMZ3: PCT 599 DNG transmission line and buffered lands and PCT 599 DNG Low disturbed lands

VMZ3 applies to 3.82 hectares of land within the 20-metre transmission line development footprint extending from the BESS to Burgmans Lane, 0.37 hectares of PCT 599_DNG_Low within the Tamworth substation, and a small patch of PCT 599_Woodland. The total area of VMZ3 is 4.20 hectares. The transmission line disturbance footprint has been further buffered by 20 metres to establish a management buffer for impacted vegetation and primarily contains PCT 599_DNG Box Gum Grassy Woodland CEEC. Planting is to be undertaken within VMZ3 (refer Section 8.2.6).

Key values managed within the VMZ include:

- 0.01 ha of PCT 599_Woodland (Grassy Box Woodland CEEC).
- 3.82 ha of PCT 599_DNG (Box Gum Grassy Woodland CEEC).
- 0.37 ha of PCT 599_DNG_Low (Box Gum Grassy Woodland CEEC – BC Act only).
- 0.21 ha of potential habitat for threatened flora species Bluegrass, Finger Panic Grass, Belson's Panic, Hawkweed and Austral Toadflax.

VMZ4: PCT 599 Woodland adjoining Burgmanns Lane and buffered lands

VMZ4 applies to PCT 599_Woodland in proximity to the electricity sub-station access road, Burgmanns Lane and Burgess Lane. The total areas of VMZ4 is 2.69 hectares. The VMZ contains the highest condition areas of Box Gum Grassy Woodland CEEC which have been buffered by 20 metres to establish a management buffer for weed control and management of the vegetation. Key values managed within the VMZ include:

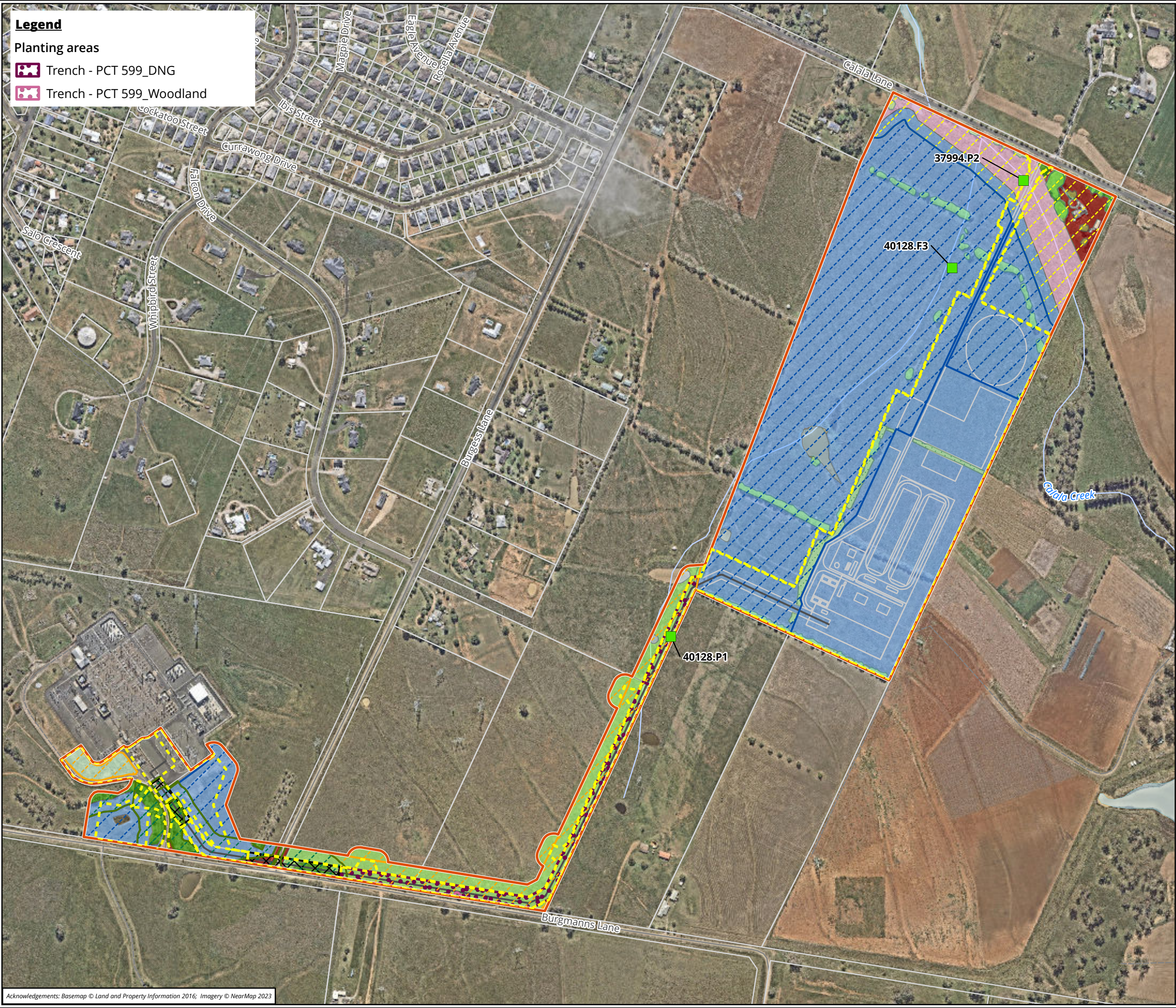
- 0.96 ha of PCT 599_Woodland (Box Gum Grassy Woodland CEEC).
- 0.26 ha of PCT 599_DNG (Box Gum Grassy Woodland CEEC).
- 0.03 ha of potential habitat for threatened flora species Bluegrass, Finger Panic Grass, Belson's Panic, Hawkweed and Austral Toadflax.
- 1.34 ha of Cat-1 land.
- 0.13 ha of Non-native vegetation.

Table 11 Overview of VMZs

VMZ	Location	Issues	Management Objective	Performance Targets	Management Actions	Monitoring
1	Calala Creek riparian zone and buffer	- Soil erosion - Soil compaction - Weed infestation	To retain and enhance native vegetation and habitat in proximity to Calala Creek. To improve riparian and fauna habitat values through placement of woody material salvaged from construction.	- Prevent soil erosion within riparian buffer, with <5% of VMZ affected by erosion during construction. - Temporary disturbance areas de-compacted and returned to pre-disturbance level. - Priority weed species (listed in Appendix A) maintained at <10% cover). - Naturally regenerated native woody vegetation is retained to enhance riparian corridor values. - Woody vegetation is not intentionally removed from zone. - Location of woody salvaged woody habitat placed within zone is recorded. Habitat is retained. - Except where densities exceed thresholds for bushfire hazard management.	- Site rehabilitation (refer to Section 8.2.1). - Ground preparation (refer to Section 8.2.2). - Weed management (refer to Section 8.2.4). - Habitat enhancement (refer to Section 8.2.8).	Monitoring and inspections to be undertaken prior to construction commencing (baseline), then annually (minimum), or as required to achieve objectives of weed control (see Table 19). Monitoring and inspections will evaluate the effectiveness of management measures and determine whether performance targets are met and include: - Establish minimum 2 x photo monitoring points within VMZ (1 x PP must be at BAM monitoring point). - Minimum 1 x BAM plot established as monitoring point for native vegetation cover and abundance. - Weed density map developed and maintained. - Photo monitoring points of priority weed control areas established. - Confirmation salvaged woody habitat is retained.
2	Cat-1 residual lands	- Soil compaction - Fauna habitat - Weed infestation	To minimise weeds and improve habitat structure and connectivity for fauna.	- Prevent soil erosion within drainage lines, with <5% of VMZ affected by erosion during construction and all erosion rectified by completion of site rehabilitation works. - Temporary disturbance areas de-compacted and returned to pre-disturbance land use. - Priority weed species (listed in Appendix A) maintained at <10% cover.	- Site rehabilitation (refer to Section 8.2.1). - Ground preparation (refer to Section 8.2.2). - Habitat enhancement (refer to Section 8.2.8). - Weed control (refer to Section 8.2.4).	Monitoring and inspections to be undertaken prior to construction commencing (baseline), then annually (minimum), or as required to achieve objectives of weed control strategy (see Table 19). Monitoring and inspections will evaluate the effectiveness of management

VMZ	Location	Issues	Management Objective	Performance Targets	Management Actions	Monitoring
				- Naturally regenerated native woody vegetation is retained to enhance structural diversity in the landscape and fauna habitat. - Woody vegetation is not intentionally removed from zone (active management phase). - Woody ground habitat (such as branches) is retained within native vegetation. - Except where densities exceed thresholds for bushfire hazard management.		measures and determine whether performance targets are met and include: - Establish minimum 2 x photo monitoring points within VMZ (1 x PP must be at floristic monitoring point). - Minimum 1 x floristic plot established as monitoring point for native vegetation cover and abundance. - Weed density map developed and maintained. - Photo points of priority weed control areas established. - Survivorship of restoration plantings.
3	PCT 599 DNG within transmission line and buffered lands, PCT 599 DNG Low within Tamworth substation	- Soil compaction - Weed infestation - Restoration planting	To retain, protect and enhance remnant Grassy Box Woodland CEEC and overall ecology values in the area.	- Prevent soil erosion within drainage lines, with <5% of VMZ affected by erosion during construction and all erosion rectified prior to restoration planting. - Temporary disturbance areas de-compacted and returned to pre-disturbance level. - Priority weed species (listed in Appendix A) maintained at <10% cover). - Plantings achieve 80% survival or 80% benchmark floristics (refer to Section 8.2.6). - Naturally regenerated native woody vegetation is retained to enhance structural diversity in the landscape and fauna habitat. - Woody vegetation is not intentionally removed from zone (active management phase). - Woody ground habitat (such as branches) is retained within native vegetation.	- Site rehabilitation (refer to Section 8.2.1). - Ground preparation (refer to Section 8.2.2). - Weed control (refer to Section 8.2.4). - Revegetation (refer to Section 8.2.6).	Monitoring and inspections to be undertaken prior to construction commencing (baseline), prior to restoration planting (baseline), then annually (minimum), or as required to achieve objectives of weed control/restoration planting strategy (see Table 19). Monitoring and inspections will evaluate the effectiveness of management measures and determine whether performance targets are met and include: - Establish minimum 2 x photo monitoring points within VMZ (1 x PP must be at BAM monitoring point). - Minimum 1 x BAM plot established as monitoring point for native vegetation cover and abundance.

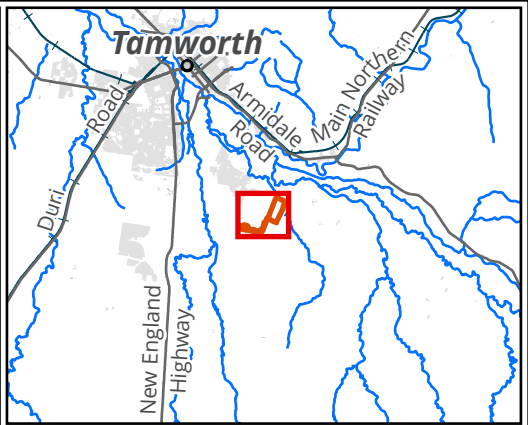
VMZ	Location	Issues	Management Objective	Performance Targets	Management Actions	Monitoring
				Except where densities exceed thresholds for bushfire hazard management.		- Weed density map developed and maintained. - Photo points of priority weed control areas established. - Survivorship of restoration plantings. - Confirmation salvaged woody habitat is retained.
4	PCT 599 Woodland adjoining Burgmanns Lane and buffered lands	- Soil compaction - Fauna habitat - Weed infestation - Restoration planting	To retain and enhance Grassy Box Woodland CEEC and overall ecology values in the area.	- Priority weed species (listed in Appendix A) maintained at <10% cover). - Plantings achieve 80% survival or 80% benchmark floristics (refer to Section 8.2.6). - Naturally regenerated native woody vegetation is retained to enhance structure of Grassy Box Woodland CEEC and fauna habitat. - Woody vegetation is not intentionally removed from zone (active management phase). - Woody ground habitat (such as branches) is retained within native vegetation. - Except where densities exceed thresholds for bushfire hazard management.	- Site rehabilitation (refer to Section 8.2.1). - Ground preparation (refer to Section 8.2.2). - Habitat enhancement (refer to Section 8.2.8) - Weed control (refer to Section 8.2.4). - Revegetation (refer to Section 8.2.6).	Monitoring and inspections to be undertaken prior to construction commencing (baseline), prior to restoration planting (baseline), then annually (minimum), or as required to achieve objectives of weed control/restoration planting strategy (see Table 19). Monitoring and inspections will evaluate the effectiveness of management measures and determine whether performance targets are met. - Establish minimum 2 x photo monitoring points within VMZ (1 x PP must be at BAM monitoring point). - Minimum 1 x BAM plot established as monitoring point for native vegetation cover and abundance. - Weed density map developed and maintained. - Photo points of priority weed control areas established. - Survivorship of restoration plantings.



Legend

Planting areas

- Trench - PCT 599_DNG
- Trench - PCT 599_Woodland



Legend

- BMP area
- Development footprint
- Development layout
- Transmission line (to be installed)
- Underground bore (transmission line)
- BAM / Floristics plot
- Vegetation zones (Biosis)**
 - PCT 599_Woodland
 - PCT 599_DNG
 - PCT 599_DNG_low
 - PCT 84_DNG
 - Category 1 Land
 - Non-native vegetation
- Woody vegetation (Cat-1 lands)**
 - Landscape planting (proposed)
 - Retain
- BMP MZs**
 - MZ1 - Calala Creek vegetation and buffer
 - MZ2 - Category 1 land
 - MZ3 - Disturbance footprint and buffer lands PCT 599 DNG
 - MZ4 - Burgmanns Lane PCT 599 Woodland and buffered lands

Figure 4 BMP Actions (post - construction)

0 50 100 150 200

Metres
Scale: 1:6,000 @ A3
Coordinate System:
GDA2020 MGA Zone 56



Matter: 41055, Date: 03 December 2025,
Prepared by: LH, Prepared for: RB, Last edited by: owilliams
Location: P:\41000s\41055\Mapping\
41055_BMP_BAC_DPHI-Rev.aprx
Layout: 41055_F4_BMP-post-constr

8.2 Rehabilitation and restoration procedure

This procedure provides a prioritised succession of restoration works to achieve land management outcomes, return land to pre-disturbance conditions (where appropriate) and facilitate improved ecological outcomes for key vegetation types and habitat values within the BMP area.

This procedure aims to:

- Manage and enhance remnant native vegetation and fauna habitat onsite.
- Rehabilitate temporary disturbance areas with native species appropriate to the site's ecology and landscape context.
- Maximise the salvage and reuse of vegetative and soil resources to enhance and rehabilitate the site.

BMP actions which primarily apply to the construction phase are shown on Figure 3, while post construction VMZs and planting areas are shown on Figure 4.

8.2.1 Rehabilitation of temporarily disturbed areas

Areas that are temporarily disturbed for the project will be rehabilitated as soon as practical using native species endemic to the area consistent with mapped PCTs or perennial groundcovers appropriate for grazing within non-native vegetation in Cat-1 land. Ground cover is to be established within disturbed areas within 3 months of the completion of construction (as per Condition B12).

Temporarily disturbed areas associated with the Development Footprint may include:

- Transmission line cable trenches.
- Grassland mowed for construction activities.
- Temporary access tracks that are utilised before permanent site access tracks have been completed, or to access transmission line installation areas.
- Construction laydown areas (excluding those that will remain permanent within the BESS site) including, but not limited to, construction vehicle parking areas, wash down facilities or temporary amenity buildings.

The aim of the rehabilitation of temporarily disturbed areas is to minimise the extent of disturbed areas within the development footprint and return them to a condition which represents the criteria in Table 12.

Table 12 Rehabilitation objectives and completion criteria

Rehabilitation aspect	Completion criteria
Site	• Safe, stable and non-polluting • Minimise the visual impact of project disturbance and infrastructure corridors on rural aesthetic
BESS and transmission line ancillary infrastructure	• All ancillary construction infrastructure is removed including temporary tracks. • Laydown areas and temporary tracks are de-compacted to a depth of 500 mm. – Except for tracks designated for access to BMP areas. BMP access tracks to be defined prior to the completion of construction and identified in BMP status reports and figures.

Rehabilitation aspect	Completion criteria
Land use	- Establish groundcover within 3 months of construction completion. - Restore land capability to pre-existing grazing use and capacity within non-native Cat-1 land. - Restore and improve disturbed native vegetation to target values. - Grazing access returned to Cat-1 lands.

8.2.2 Ground preparation

Surface preparation for rehabilitation and restoration will begin within 60 days following the completion of construction activities. Activities include (but are not limited to):

- De-compaction of soils affected by construction activities to a depth of 500 mm.
- Return construction areas to natural landscape preconstruction levels (or as appropriate to facilitate drainage and erosion management).
- Application of soil ameliorants or treatments where existing soil conditions are likely to pose a barrier to plant establishment.
- All equipment, materials and environmental controls not required for support of rehabilitation or maintenance works should be removed from site.
- Where possible, reuse stockpiled vegetation as mulch for ground habitat.

Areas that remain cleared for ongoing operations and maintenance (such as access tracks) or that will be exposed for extended periods will be equipped with cut-off drains or swales as needed to manage erosion. Temporary site stabilisation procedures will commence at least 30 days prior to any nominated site shutdown dates. To stabilise the soil, a sterile ground cover of grass, matting, polymer binder, and/or coarse gravel will be applied.

Additionally, retained logs may be placed along the contour to aid in erosion control and provide habitat. Where resources permit, stripped or stockpiled topsoil, along with the existing seedbank, will be spread over subsoil to a minimum depth of 100 millimetres. Ameliorants, such as gypsum, lime, and fertilizers, will be incorporated under the guidance of a soil specialist to improve soil health by balancing pH, preventing surface crusting, enhancing moisture retention, increasing organic content, and moderating surface temperatures to promote successful germination.

Ground preparation treatments are to be specific to Cat-1 grazing land or native vegetation. Preparations for native restoration planting areas must not include species, ameliorants or approaches intended to facilitate the establishment of exotic pasture to the detriment of Grassy Box Woodland CEEC (Refer Section 8.2.6).

8.2.3 Seed collection and management

Where trenching is undertaken for transmission line installation, the topsoil containing the seed bank for PCT 599 DNG will be retained within the development footprint. The seed bank and regeneration capacity is considered impaired, given the degraded present extent of this vegetation in consistently grazed and managed paddocks. However, there is value in retaining locally occurring genetic diversity and supporting the establishment of groundcover native to the site.

Native seed required for the BMP will primarily have been sourced for propagation of tubestock by a native nursery sourced to provide seedlings required for planting. Suppliers must be able to confirm the provenance

of seed or genetic material (such as cuttings) used to propagate plants sourced for planting and should be sourced from the New England region or similar climatic conditions of the surrounding landscape.

Sourcing seed and genetic material of local provenance appropriate to the site is a mitigation measure towards contributing to ecological restoration at the site. Using seeds of local provenance is beneficial to maintaining genetic diversity and perpetuating native seed banks. Local plants are also best adapted to local conditions, and therefore likely to have improved survivorship outcomes and use of local seedbanks is considered best practice for ecological restoration (NSW Government 1999).

Seed collection is also to be undertaken in native vegetation within the development footprint prior to construction to provide a seed resource for replacement tubestock or supplementary direct seeding. Collection of additional seed from the adjoining retained vegetation may also be beneficial to support genetic diversity within collected seed. Seed collection is to be carried out in accordance with the *Florabank Guidelines – best practice guidelines for native seed collection and use* (NSW Government 1999) by experienced and licenced seed collectors/ecologists. Seed collection from a TEC also requires a scientific/biodiversity conservation licence under Part 2 of the BC Act.

Species and volumes of seed collected should aim to facilitate rehabilitation efforts to reflect the structure of the related PCTs consistent with those described in Section 5.1. Appropriate species selected for restoration of Box Gum Woodland CEEC as a mitigation measure for the project are provided in Appendix B.

8.2.4 Weed management

Prevention of the spread of weeds onto or across the development footprint and adjoining areas during construction will reduce the ongoing burden of treatment and risk of increased degradation of native vegetation or productive areas associated with the project. However, there is a risk of spread even with the application of hygiene procedures, given presence of weeds such as St John's Wort which spreads via the production of a prolific volume of small resilient seeds. As well as other weed species.

Prevention of the offsite transport of weed propagules is also required to prevent the development acting as a source point for infestations elsewhere. With the potential to spread weeds during the construction and operations phase of the project. As such, weed control will be undertaken for the life of the project in accordance with the TARP provided in Table 13.

As disturbance activities are likely to trigger the growth and spread of existing weeds present within the development and BMP areas, as well as risk the introduction of new weeds into areas they were previously absent. Active weed management including removal and treatment is likely to be necessary. A weed management buffer of 20 metres is applied to the transmission line construction footprint in VMZ3 and VMZ4. Where appropriate weed control is proposed within this area by negotiation with relevant landholder, however, ongoing access is only guaranteed to the development footprint and weed management within an adjoining 5 metres is guaranteed under current permissions.

Prior to the commencement of clearing, the location of weeds within the development footprint and BMP area will be surveyed and mapped prior to or as part of pre-clearance surveys. The ecologist will use the survey as a basis to confirm applicable weed control methods and set baseline conditions as reference for monitoring and targets. Weeds targeted as part of this BMP are Priority Weeds for the North West LLS Region as listed in Appendix A.

Information on priority weeds to be collected prior to construction:

- Location and extent of weeds present.

- Combined foliage cover of weeds within a mapped patch (similar weed types can be mapped together where they co-occur)
- Isolated small numbers of weeds can be mapped as a point.

Weeds will be controlled by:

- Hygiene controls such as vehicle and plant washdown detailed in Section 7.3.
- Primary, secondary and maintenance weed control via appropriate weed control techniques including direct removal of individual plants and herbicide application.

Weeds and Pathogens inspection

Measures to identify the presence of existing weeds and pathogens in order to control the introduction and spread will include:

- Prior to vegetation clearing, notable infestations of Priority Weeds and / or pathogens will be identified by the Project Ecologist as part of pre-clearance surveys (Section 6.2).
 - All instances of weeds with a Biosecurity Duty category of Prohibited Matter, Control Order, Regional Recommended Measure must be recorded.
 - The location and extent of weeds to be mapped with GPS, including combined foliage cover of all weeds within a mapped patch (similar weed types can be mapped together where they co-occur). Isolated weeds, or weeds of a lower density and different type within a large patch can be mapped as a point record.
 - Capture photos of strategic locations for monitoring. Record the location and direction (compass bearing) of monitoring photos.
 - Data collected from pre-clearance will be used as the basis for baseline data and as the basis for implementing targeted weed control actions.
 - Data collected from monitoring and reporting will provide the basis for revised weed control program planning, to track progress and achieve weed control targets.
- New infestations identified after pre-clearance surveys to be addressed with advice from the Contract Ecologist, North West LLS or Weed Control Contractor (in accordance with NSW Weed Wise or best practice methods in line with BMP zone area objectives).
- Occurrences of pathogens such as Myrtle Rust and unexplained dieback to be monitored and reported.

Weed treatment

During all phases of the project, weed control will be based on data collected from survey and inspections of the BMP area. Targeted weed control measures will be applied for any significant infestations of Priority Weeds with the objective of:

- No overall increase in the cover and number of weed species present than occurring prior to the project commencing.
- No more than 10 % cover of Priority Weeds within native PCTs by year 5 and maintained for the life of the project.

Weed control is to be undertaken by accredited weed control or bush regeneration contractors in accordance with NSW Weedwise, herbicide label and off-label permit guidelines. To achieve the dual objective of suppressing weed populations and supporting the retention and improvement of native vegetation within the BMP area. Control methods should therefore balance effective control of target weed species against off-target losses of native vegetation or suppression of certain types of vegetation for extended periods (such as

residual herbicide control of woody vegetation). All suitable methods including but not limited to mechanical removal, slashing, application of herbicides and biological controls are permitted, as part of an integrated control program.

Seasonal weed control programs should outline how regenerating native vegetation or areas of higher condition native vegetation will be protected during works, such as demarcation of areas to be avoided during spraying or slashing. Or alternative control methods in proximity to sensitive vegetation. This is particularly relevant for St John's Wort control which typically requires the application of high rates of residual herbicides for effective long term suppression where the species has established in moderate to high densities over extended time periods.

Herbicide application record

Herbicide application will only be carried out by personnel that hold an herbicide application credential in accordance with SafeWork requirements. Herbicides will only be applied in accordance with the Safety Data Sheet (SDS) for that product. A herbicide application record prepared by the Construction Manager will be completed, and public notifications made in accordance with relevant legislation, where herbicides are to be used in areas that could be accessed by members of the public. Only herbicides registered for use near water may be used near any waterways. This includes all waterways within the BMP Area as shown in Figure 3, including ephemeral creek lines.

The Environmental Manager will ensure that a follow-up inspection is undertaken for identified weed infestation sites to ensure treatment was successful.

Re-use of weed impacted topsoil

Topsoil stripped from the BESS footprint is likely to contain Priority weeds as listed in Appendix A and may be re-used within Cat-1 lands where appropriate, with the understanding that follow up weed control is likely to be required to contain the spread of weeds present in the soil. Weed effected topsoil is not to be spread within remnant native vegetation of VMZ1, VMZ3 or VMZ4.

Should high densities of HTW or species with specific control measures such as Control Orders or Regional Recommended Measures be recorded within the BESS footprint, and effective control is not possible prior to stripping the topsoil, weed contaminated topsoil will be isolated and either encapsulated by deep burying, composted appropriately or be disposed of at an appropriate facility. A summary of weeds present, risk analysis and topsoil re-use strategy to be included in pre-clearance surveys and reports.

Ongoing weed management and monitoring

Monitoring of weed infestations will occur as part of the routine environmental inspections throughout the construction and operations phases to determine the effectiveness of management actions. The presence of any Priority Weed species and the necessary management actions will be noted on a weed inspection checklist. Weed management will also take into consideration relevant Commonwealth threat abatement plans and be undertaken in consultation with relevant landholders or other stakeholders where appropriate. Annual report processes should check for updates to the North West LLS Priority Weeds list <https://weeds.dpi.nsw.gov.au/WeedBiosecurities?AreaId=7> (refer to Appendix A for current Priority Weeds).

Weed management TARP

A weed control Trigger Action Response Plan (TARP) has been developed to address variable baseline conditions, response to disturbance and life of project management obligations encountered by the project.

The history of disturbance and presence of weeds across multiple land tenures managed by the BMP encourages the application of an adaptive framework which supports the development of control strategies to facilitate the effective management of weeds at a frequency and intensity appropriate to achieve management targets. And support long term management once the primary management phase has passed.

Management of weeds will be in accordance with triggers and actions prescribed within the TARP provided in Table 13.

Table 13 Weed Control TARP trigger levels and mitigation actions

Control tier	Trigger	Action	Responsibility
Tier 1	≤10% priority weed cover within VMZ.	- Monitor VMZ at 6 month interval during construction phase, 12 month interval during active management phase, and 12 month interval during operations phase. - After year 10, if priority weed cover maintained at ≤10% for a period of 3 years during operations phase, reduce monitoring interval to every 2 years.	Environmental manager Project ecologist Weed control contractor
	Previously unrecorded priority weed species detected in VMZ (until end of construction / active management phase i.e. weed likely to be present as a result of development)	If newly encountered weed species is unlikely to have established as a result of construction activities, and VMZ overall weed cover is ≤10%. Record species, location, cover and abundance for inclusion in weed control monitoring and management strategy.	
Tier 2	>10% priority weed cover within VMZ.	- Develop and implement weed control strategy to achieve target of ≤10% priority weeds within VMZ within a specified timeframe (in conjunction with weed control contractor or suitably qualified person). - Timeframe may be multi-year with staged reductions for areas with high weed density or species which need repeated annual treatment i.e. St Johns Wort or thistle infestations.	
	Previously unrecorded priority weed species detected in VMZ (until end of construction / active management phase i.e. weed likely to be present as a result of development).	Target infestation for removal i.e. weed species treated and does not establish within BMP area, cover reduced to 0%.	
Tier 3	>50% priority weed cover within VMZ (High density weed infestation)	- Develop and implement weed control strategy to achieve target of ≤10% priority weeds within VMZ within a specified timeframe (in conjunction with weed control contractor or suitably qualified person). - Timeframe may be multi-year with staged reductions for areas with high weed density or species which need repeated annual treatment i.e. high density St Johns Wort or thistle infestations.	
	>30% priority weed cover within restoration planting area	Develop and implement weed control strategy to achieve target of ≤10% priority weeds within	

Control tier	Trigger	Action	Responsibility
		VMZ prior to undertaking restoration plantings and/or develop plan to effectively control priority weeds appropriate to undertake within planting areas. - Noting the use of residual selective herbicides effective against some invasive weeds such as woody forbs (i.e. St Johns Wort) will be detrimental to the establishment of susceptible forbs, creepers and vines. - If weed type and cover within planting areas is sufficient to require priority control or risk sub-target restoration outcomes, weed control methods with high effectiveness may be implemented.	

Table 14 Weed management targets and completion criteria

Project phase	Performance targets	Completion criteria
Establish baseline	Map extent and density of priority weed infestations consistent with Weeds and Pathogens inspection methodology.	- Priority weeds mapped. - Photo monitoring points of priority control areas established.
Construction	- Spread of weeds controlled by weed and pathogen hygiene controls. - Number and cover of priority weeds does not increase (relative to documented baseline).	- Controls implemented. - Control strategy developed and implemented if new weed species emerge, or weed densities increase as a result of disturbance from construction.
Post construction (active management)	- Targeted weed control undertaken in accordance with annual targets VMZ1-VMZ4). - Targets apply to the construction footprint & 5 m buffer for VMZ3 and VMZ4 of the transmission line. 20 m buffer managed where accessible by negotiation with relevant landholder. However, ongoing access is only guaranteed to defined corridor. 5 m buffer is guaranteed to be accessible.	Cover of Priority Weeds $\leq 10\%$ within native vegetation by year 5 (post construction) (VMZ 1, 3 and 4).
Operations	Cover of Priority Weeds maintained at $\leq 10\%$ within native vegetation and associated buffers (VMZ1 and MZ2).	- Weed cover managed under TARP for life of the project (25 years) within Equis Energy controlled lands. - Periodic monitoring every year for the life of the project (or in accordance with Weed Control TARP Table 13)..

8.2.5 Natural regeneration

Encouraging the natural regeneration of pre-existing vegetation being retained is an effective form of site rehabilitation as:

- Seeds and propagules exist within the seed bank.
- Species of local provenance are better adapted to the environmental conditions in the area.
- Re-establishment of the community will follow natural patterns of re-colonisation and succession.
- Soil fauna, fungal and microbial populations that are essential to a healthy plant growing environment are already present.

Some practical and cost-effective management actions that can be used to encourage natural regrowth and regeneration include:

- Lightly disturbing the soil surface.
- Removing weed infestations.
- Reintroducing ground habitat such as rocks or woody debris.
- Watering.

The applicability of any of the above management actions will be dependent on the pre-existing vegetation and local disturbance conditions. Natural regeneration and encouragement of natural regrowth will be most effective in areas subject to lower levels of disturbance. Appropriate monitoring and management must be carried out as actions such as soil disturbance and canopy gaps may also result in the establishment of weed populations.

Areas rehabilitated post construction will require revegetation to achieve target condition criteria, however the most effective outcomes are likely to be achieved where works are planned to complement and enhance existing native vegetation adjoining the rehabilitation area. Opportunities to provide buffers, increase existing species richness or establish strata missing from the locality are to be capitalised on wherever practical. This includes the re-introduction of ground habitat such as woody debris which is often absent from the landscape.

8.2.6 Restoration planting

Two areas of remnant native vegetation will be temporarily disturbed by construction activities, these are:

- Transmission line connection and the Tamworth substation within areas of Grassy Box Woodland CEEC.

Revegetation of the disturbed transmission line corridor and the area within the Tamworth substation with groundcover species characteristic of Box Gum Woodland CEEC is to be undertaken with the aim of reinstating grasslands with a similar or higher vegetation integrity to that of surrounding, retained vegetation (as shown on Figure 4). Failed plantings are to be replaced and weed control and management must be maintained for up to five years to achieve a survival rate of 80%, or 80% of benchmark floristic cover and abundance scores for forb, grass and grass-like growth forms (NSW DCCEEW 2025a).

All species installed are to be locally indigenous as well as suitable and characteristic of PCT 599. Rehabilitation of disturbed areas along the transmission line corridor and within substation area corridor is to be with groundcover species characteristic of Box Gum Woodland as outlined in the BC Act and EPBC Act listing documents, and this plan.

Reintroducing native canopy species (*Eucalyptus* spp., *Angophora* spp.) and tall shrubs as plantings along the transmission line is not included in this BMP due to concern about tree roots interfering with the transmission line infrastructure. Instead, plantings should consist of ground story species such as grasses and forbs, and low-growing native shrubs with shallow root systems.

Revegetation works are to be undertaken in general accordance with the specifications outlined below. The recommended planting list is based on species that are characteristic of the remnant Box Gum Woodland vegetation of the BMP area. Additionally, they are species that are easily propagated and established from readily available local provenance seed. Revegetation should, where possible, be carried out in a manner that avoids structured plantings in straight lines and achieves a more randomised pattern. All plants to be installed as part of the required revegetation works are to be either tubestock or hikos (particularly grasses) sized pots. Advanced stock is not to be used for rehabilitation purposes and does not compensate for multiple plantings within the restoration area.

Plant numbers and densities

The areas to be planted and recommended planting densities of native species growth forms are provided in Table 15, with a list of recommended Box Gum Woodland groundcover species to be used for revegetation provided in Appendix B. Note that areas are based on the total approved disturbance area which is a total width of 20 metres adjoining the transmission line. It is foreseeable that not all land within the buffer will be significantly disturbed and may retain native vegetation and not be impacted by vehicle movements (and so not require decompaction and soil preparation).

Plant numbers and densities may be reduced relative to the cover and diversity of native vegetation present in these areas prior to installation, noting some planting may still be necessary to meet floristic diversity targets (refer Appendix C.2:Table 25). Any major revision of planting numbers and densities from those provided in Table 15 are to be made prior to the commencement of restoration planting in conjunction with the bush regeneration contractor or Project Ecologist, be supported by baseline cover and abundance data, justified relative to conditions at the completion of construction, documented with supporting maps and submitted to the regulator.

Table 15 Plant numbers and densities

Growth form	Planting density	Transmission line (VMZ3, VMZ4)		Civil works (VMZ4) (Tamworth substation)	Construction laydown (VMZ3) (Tamworth substation)	Total no. (by growth form)
		599_ Woodland	599_ DNG	599_ Woodland	599_ DNG_Low	
	Planting area	90 m ² *	15,973 m ²	600 m ²	3700 m ²	
Canopy	nil	0	0	0	0	0
Shrub	nil	0	0	0	0	0
Climbers	1 per 5 m ²	18	3195	120	740	4073
Forbs and ferns	4 per 1 m ²	360	63892	2400	14,800	81,452
Grass and grass-like	5 per 1 m ²	450	79865	3000	18,500	101,815
No. plants required (by area)		828	146952	5520	34040	
Total number of plants^						187,340

* 21m² PCT 599_ Woodland to be disturbed and replanted within VMZ4. Equating to 4 climbers, 84 forbs and ferns and 105 grass and grass like plants, of the total shown in column above.

^ If planting of total approved disturbance area is required, assuming nil to low presence of naturally occurring native species..

Staged planting

Installation of plants in stages may be undertaken if staging is likely to result in improved ecological outcomes. Staging is to be approved prior to the commencement of primary planting activities, be supported by clear rationale, adjusted planting schedule and defined areas (including mapped boundaries with accurate area measurement).

Staged planting may be desired to accommodate longer preparation periods prior to planting to facilitate control of high density areas of invasive weeds, the suppression of which will result in improved resilience of native species within the planting area and improved capacity to meet completion criteria.

Table 16 Restoration planting objectives and completion criteria

Planting aspect	Completion criteria
Planting	- Plants are installed at the density and volumes detailed in Table 15, locations shown on Figure 4, species defined in Appendix B and diversity defined in Appendix C.2. - Planting is undertaken as a single initial planting 'event', establishing a timeline for maintenance, monitoring, replanting and associated schedules. - Justification, planting schedule, planting area, number, density and species affected for staged planting (if proposed) is documented and provided to the regulator for approval prior to commencing primary planting works.
Survivorship and replanting	- Plantings achieve 80 % survivorship or 80 % benchmark target floristic cover and abundance values for PCT 599 provided in Appendix C.2: Table 25 (NSW DCCEE 2025a). - Annual replanting and maintenance of restoration area for a period of 5 years, or until survivorship / target values are achieved.

Planting aspect	Completion criteria
	- If planting is staged, monitoring and reporting will ensure survivorship, targets and replanting schedules for the planting program as a whole and individual stages can be clearly delineated. - Active maintenance of later stages may extend past completion of the primary planting program, until targets are met for the stage, or the regulator is satisfied. - Periodic monitoring in accordance with Weed Control TARP (Table 13) once completion criteria for active management and maintenance period are met.

Fertilising

At the time of planting fertiliser is to be applied to each plant in the form of a native slow-release product with an N: P: K ratio similar to that of 21.8 : 0.7 : 7.2. Water crystals may also be used to reduce the incidence of death amongst establishing plants, but only if they are strictly used as per their prescribed quantities. Such an additive will also reduce initial watering requirements during the establishment phase.

Watering

Watering of the revegetation works will be undertaken to ensure that an adequate survival and establishment rate is achieved. Watering is to abide by any local authority water restrictions or guidelines. Watering of all plantings will occur at the time of the planting itself during the construction phase, to minimise shock to the tubestock in their new conditions.

During the establishment period, the frequency of watering to achieve plant establishment will depend on the prevailing climatic conditions at the time of planting and thereafter. Watering will generally be carried out in the cooler hours of the day (morning or afternoon) and will be frequent enough to prevent wilting of plants. During the establishment phase the following watering program (Table 17) is recommended (dependent on weather).

Table 17 Watering program

Weeks 1-4	Months 2-4	Months 5-6
Once per 1-7 days	Once per 14 days	Once per month

Watering should avoid excessive irrigation which may lead to localised increases in saline groundwater levels and saturated saline soils. Watering within the BMP area (and any site at risk of saline soils) should identify an appropriate irrigation rate.

The necessity for watering during the above program will be dependent upon rainfall. The frequency of watering will be gradually reduced as the plantings mature and it is anticipated that after period of four to six months the planting will be sufficiently established such that supplementary watering will no longer be required.

Rehabilitation areas are to be monitored during the maintenance period to ensure that climatic conditions are not affecting the newly establishing plants. If climate or environmental conditions are affecting the establishing plants an appropriate watering program should be reinstated until beneficial climate or environmental conditions return.

8.2.7 Vegetation buffer planting

A vegetation buffer must be established and maintained as a landscape screening and mound around the northern and western boundaries and as illustrated on Figure 4. Vegetation screens and buffers will be managed under the BMP, however planting densities and construction of mounds are considered landscaping and are outside the scope of the BMP. The landscape screening and mound must:

- Be established and planted prior to commencing operation.
- Be comprised of species that are endemic to the area (refer Section 8.1 and Appendix B:Table 22).
- Be designed and maintained in accordance with RFS's Planning for Bushfire Protection 2019 (or equivalent).
- Be properly and actively maintained with appropriate weed management.

Weed management and monitoring is to be in accordance with the TARPs as outlined in Section 6.4, Section 8.2.6 and Section 8.2.4.

8.2.8 Fauna habitat enhancement

Where appropriate measures should be implemented to improve habitat for fauna species that would use the small and fragmented patches of woodland as "stepping stones" to briefly shelter and/or forage in as they move through the landscape. Features such as:

- Re-use of woody debris (e.g., existing log material [>30 cm in diameter] requiring removal from construction areas) in rehabilitation areas to increase the ecological values of the site, stabilise topsoil and create additional habitat.
- Re-use of other habitat features such as any rocks/boulders uncovered during trenching activities to increase the diversity of ground habitat and provide soil protection and stabilisation for plant communities.

Consideration should be given to appropriate spacing between woody debris (and other features) placement to support the long term retention of these features and limit the risk of later removal or identification as hazards for bushfire fuel reduction. Regular spacings of habitat 30-50 metres distant from each other and away from key rural vehicle and equipment access routes, and demarcated with flagging tape, paint, visible post or similar method and inclusion on site GIS features map will support the successful retention and management of this enhancement.

8.2.9 Pest control

Predation by native macropods, introduced herbivores (rabbits and hares), insect pests and infection caused by plant diseases/pathogens can have an adverse effect on the establishment of plantings by defoliating, damaging, removing or killing young plants. To minimise the loss of plants through predation and/or disease, all new plantings will be protected by:

- Use of tree guards, which should be reused on new plantings once the initial planted specimens mature.
- Sourcing native plants for use in rehabilitation from suppliers with adequate hygiene and pest control procedures to guard against the introduction of plant pathogens and disease.
- Temporary exclusion fencing of larger areas or where initial trials indicate that the efficacy of using individual tree guards is low.
- Application of appropriate treatments for plant pathogens, diseases or insect pests in a timely manner to mitigate impacts to plantings and reduce loss of plants or delayed establishment of rehabilitation. Failure

to implement reasonable measures may result in prolonged maintenance periods and replacement of lost plants.

- Implementation of equipment hygiene protocols to limit the introduction and spread of pests and pathogens.

8.3 Maintenance

Maintenance phase works will commence following the implementation of weed control and revegetation activities (establishment phase) and will continue for a period of five years from completion of revegetation works, or until outcomes outlined in Table 16 are achieved. It is anticipated that the maintenance activities will occur quarterly during cooler months and bi-monthly in the warmer months. Required works and indicative effort are outlined in Table 18.

Maintenance watering is intended to support the survival and successful establishment of young plants in rehabilitation areas during times of limited resources and stress. Watering should be adequate to result in hydration of the lower soil profile to provide extended moisture and promote root growth. Watering should be conducted at intervals which reflect natural wetting and drying cycles and encourage resilience and sustainable growth rates. Frequent light watering which does not penetrate the soil layer and promotes leafy growth reliant on supplementary water is to be avoided and may be detrimental to long term establishment of the plants.

Maintenance including watering, weeding and like-for-like plant replacement is to continue until completion criteria are met.

Table 18 Indicative maintenance works summary

Maintenance activity	Frequency	Responsibility
Spot spraying of annual and perennial weeds	Quarterly in cooler months, monthly in warmer months (or in accordance with weed management program).	Environmental manager Bush regeneration or weed control contractor
Maintaining soil stabilisation or other structures. Check for disturbance or erosion.	Bi-annually	Environmental manager Bush regeneration contractor
Supplementary watering	During extended hot or dry periods where plants are at risk of loss or significantly delayed establishment.	Environmental manager Bush regeneration contractor
Replacement planting (native groundcovers)	Annual checks and planting.	Environmental manager Bush regeneration contractor

Periodic monitoring will be undertaken in accordance with Weed Control TARP (Table 13) once completion criteria for active management are met.

9 Monitoring and reporting

Ecological monitoring is to be undertaken by the Project ecologist or suitably qualified person. Monitoring surveys will assess the success of weed control actions, planting survivorship, floristic cover and abundance within native vegetation, qualitative assessment of planting establishment (such as establishment success / vigour), progress of natural regeneration in and around retained remnants of PCT 84 and PCT 599, retention of habitat features or as otherwise detailed below in Table 19. Progress monitoring is to provide quantifiable metrics (where applicable) as detailed within this plan to demonstrate the effectiveness of ecology mitigation measures.

Completion and monitoring reports prepared during the primary rehabilitation and maintenance period will be submitted to the regulator for comment.

Table 19 Biodiversity management actions performance criteria, monitoring and reporting requirement summary

Management action	Relevant procedure	Location	Element to be monitored	Monitoring method / performance criteria	Reporting	Timing	Responsibility
Retirement of biodiversity credits	Section 3.3 – Biodiversity Offsets	Administrative control	Retirement of biodiversity credit obligations.	Observation of credit retirement report.	Summary report	Pre-construction	Equis Energy (Principal)
BMP implementation (construction phase)	All	BMP area (all)	Implementation of procedures within BMP.	Details of field observations to be reported via environmental inspection checklist, and communicated to all staff during pre-starts, toolbox and team meetings, as required.	Summary report	Monthly (during construction)	Environmental manager Construction contractor
Review, revise and update BMP	Table 1 and Table 10	BMP area (all)	Consent Condition B16 and C2 Review and, if necessary, revise the BMP as required in relation to Consent Conditions B16 and C2.	Update the BMP to the satisfaction of the Planning Secretary prior to carrying out any upgrading or decommissioning activities on site Review and, if necessary, revise the BMP to the satisfaction of the Planning Secretary within 1 month of the: - Submission of an incident report under condition C10 of Schedule 2; - Submission of an audit report under condition C14 of Schedule 2; or Any modification to the conditions of this consent.			
Pre-clearance inspections	Section 6.2 - Pre-clearance procedures	Where development footprint intersects with vegetation and habitat features (see Figure 3).	Pre-clearance procedure undertaken in accordance with Section 6.2.	Pre-clearance assessment, surveys and report findings undertaken in accordance with Section 6.2.	Pre-clearance reports	At least three days prior to all construction activities, including the arrival of plant and machinery.	Environmental manager Project ecologist
Define construction boundary and install exclusion fencing	Section 7.3 – CEMP Section 7.4 – Exclusion fencing	Protected areas adjoining the development footprint (No-go areas defined on Figure 3).	Approved clearing limits to be clearly delineated with 3 m panel mesh fencing prior to commencement of construction.	Observation of exclusion fencing and signage delineating No-Go zones along the disturbance boundary is upright, clearly visible and in the correct location. Fencing is installed as specified in Section 7.4.	Pre-clearance reports	Prior to and during construction.	Environmental manager Construction contractor
Seed collection	Section 8.2.3 – Seed collection	VMZ1, VMZ3 and VMZ4.	Observation of seed collection or documentation of provenance from nursery supplier.	Seed collection works are undertaken in accordance with Section 8.2.3 (if required). - Number of species collected (both seed and propagules) for future propagation (if undertaken) - Weight of seed collected and documented.	Summary report	Prior to the commencement of vegetation clearing and earthworks. Or prior to installation of native plants procured for restoration plantings.	Environmental manager Project ecologist Seed collection contractor or nursery supplier.
Stormwater and erosion controls, soil stabilisation	Section 6.2 – Pre-clearance Section 7.3 – CEMP Section 7.5 – Stormwater and erosion control	Development footprint, BMP area (VZ1-4).	Preparation of a SMP and ESCP in accordance with the Blue Book (Landcom 2008) is to be used in conjunction with this BMP to formalise measures preventing discharge of wastewater to the receiving environment and meet stormwater quality management requirements and minimise impact relating to hydrological processes and water quality.	Visual inspection undertaken as per CEMP. Observational data to include: - Success of erosion control materials. - Presence of failures (erosion control structures). - Points of erosion and corrective works completed in response. - Site stabilisation undertaken as per specifications in Section 6.2.4.	Pre-clearance reports, summary reports.	Immediately following vegetation removal and/or earthworks. Visual inspection undertaken as required, but at least every 2 months during construction and more frequently after heavy rain events.	Environmental manager Construction contractor
Weed management	Section 8.2.4 - Weeds	BMP Area (VMZ1-VMZ4)	Observation of weed control works being undertaken in accordance with Section 8.2.4 and Appendix A. Baseline priority weed presence and density established.	- Weeds mapped during pre-clearing inspections and treated accordingly. - Include topsoil risk analysis and re-use strategy.	Pre-clearance report. Summary / annual reports.	Prior to construction commencing (baseline). Prior to restoration planting.	Equis Energy Environmental manager Project ecologist

Management action	Relevant procedure	Location	Element to be monitored	Monitoring method / performance criteria	Reporting	Timing	Responsibility
			Weed species presence, weed cover, photo monitoring of priority management areas in accordance with Section 8.2.4.	- Weed control undertaken (Construction and maintenance phase). - Priority weed cover maintained at $\leq 10\%$ within BMP area. In accordance with Weed Control TARP (Table 13).	Periodic monitoring reports.	Then annually (minimum), or as required to achieve objectives of weed control strategy. In accordance with Weed Control TARP (Table 13)	Weed control / bush regeneration contractor
Pest control	Section 8.2.9 – Pest control	BMP Area (VMZ1-VMZ4)	Pest control undertaken in accordance with Section 8.2.9.	Visual observation.	Summary report.	As required.	Environmental manager Pest control contractor
Rehabilitation of temporarily disturbed areas and ground preparation	Section 8.2.1 – Rehabilitation of temporarily disturbed areas. Section 8.2.2 – Ground preparation	Temporary disturbance areas, and planting areas within BMP area.	Restoration of temporary disturbance areas undertaken in accordance with Section 8.2.1. Ground preparation prior to planting completed in accordance with Section 8.2.2. Establishment of ground cover within 3 months of construction completion in accordance with Condition B12.	Visual observation. Confirmation of nature of works completed. Confirmation of grazing access (to Cat-1 land)	Summary report	On completion of works, post construction, prior to restoration planting, in accordance with Condition B12.	Environmental manager Construction contractor
Restoration planting – installation (primary works)	Section 8.2.6 – Restoration planting	Planting areas within VMZ3 and VMZ4.	Revegetation success monitored by planting survivorship method which involves measuring plant survival at regular intervals following revegetation to monitor the success of planted seedlings. Collecting the following over an established 20 metre transect: - Planting success recorded as either alive or failed, (failed includes missing and deceased). - Signs of predation or disturbance (plant damaged, presence of scat, etc.). General comments: correctly planted, sufficient watering undertaken, plant health and vigour. Revegetation success also monitored to determine if alternative/supplementary completion criteria is met i.e. floristic cover and abundance achieves 80% benchmark values for relevant PCT 88 or PCT 599 as defined in Table 25.	Observation of planting works being undertaken, planting completed in accordance with Section 8.2.6. Survey every six months to gather ecological monitoring data on the progress of the project, commencing at the start of the maintenance period. Six-monthly surveys should include as a minimum photo points, weed density or erosion issues, grazing disturbance or plant losses and strategies employed to address issues of concern and may be completed by the environmental manager. - Establish a minimum of two photo-points in representative locations in each zone. - One photo point must be at the pre-disturbance baseline BAM/floristic plots shown on Figure 4. Quantitative monitoring is to be completed by the project ecologist or suitably qualified person. Baseline monitoring is required at the completion of primary planting works to collect baseline data, and annually thereafter until year 5 or completion criteria is met. Quantitative monitoring includes: 4 x BAM/floristic 20x20m² baseline (pre-disturbance) monitoring plots at locations shown on Figure 4. - Additional floristic monitoring points within VMZ3 are established to average planting values. Up to three monitoring points within VMZ3 are recommended to track floristic cover and abundance scores. - Additional plots may apply variations in layout (i.e. 10x40m² configuration) suited to linear survey areas. Locations should avoid access tracks or areas subject to regular disturbance during the maintenance period and to	Staging plan (if implemented), prior to commencement of primary planting program to be provided to regulator for approval. Restoration planting completion report (on completion of primary planting). Monitoring reports will also provide the following certifications to the principal and regulator: and be included in periodic reporting: Certification of commencement of maintenance period, i.e., all primary biodiversity works have been completed to acceptable standards. Final certification that the targets of the biodiversity management works have been achieved. Periodic monitoring reports.	Prior to commencing primary planting (if staging is proposed). On completion of primary planting works. Annual reporting until the end of year 5 or completion criteria are met. Once completion criteria met (every 5 years for the life of the project).	Equis Energy Environmental manager Project ecologist Bush regeneration contractor

Management action	Relevant procedure	Location	Element to be monitored	Monitoring method / performance criteria	Reporting	Timing	Responsibility
				selected by the project ecologist during the initial monitoring round on the completion of primary planting works.			
Restoration planting – natural regeneration	Section 8.2.6 – Restoration planting Section 8.2.5 – Natural regeneration	Planting areas within VMZ3 and VMZ4.	Natural regeneration of native species within the planting areas can contribute to meeting the completion criteria of achieves ≥ 80% or floristic cover and abundance achieves 80% benchmark values for relevant PCT 88 or PCT 599 described in Table 25.	Annual quantitative vegetation monitoring as described above.	Component of restoration planting reports detailed above.	Component of restoration planting reports, detailed above.	Environmental manager Project ecologist Bush regeneration contractor
Restoration planting - maintenance	Section 8.2.6 – Restoration planting	Planting areas within VMZ3 and VMZ4. Vegetation buffer planting VZ2	Plantings are to be maintained with key elements of water, prevention of predation and suppression of smothering weeds. Replanting is undertaken to achieve a target of 80% survivorship for each species. Or representative diversity within the growth form group if a species is found to underperform. i.e. for PCT 599 to achieve a target of nine grass and grass like species (Table 25). If a planted species survivorship is significantly lower than other species within the growth form group, subsequent replanting's may document the issue and substitute a suitable alternative in order to achieve target survivorship, or floristic cover and abundance criteria.	Monitoring is undertaken with procedure detailed in Section 8.2.6. Monitoring undertaken at Restoration planting locations described above. A target of 80% survivorship for each species is achieved, or representative diversity in the growth form group. Replacement planting is carried out at regular intervals throughout the maintenance period in response to monitoring outcomes. In line with adaptive strategies developed to achieve 80% survivorship at the completion of the maintenance period (up to 5 years). Planting is considered complete where survivorship achieves ≥ 80% or floristic cover and abundance achieves 80% benchmark values for relevant PCT 88 or PCT 599 (Table 25). The maintenance period applied until survival rates have been achieved and may be extended or reduced based on meeting criteria.	Component of restoration planting reports detailed above. Document maintenance activities including watering and other activities.	Component of restoration planting reports, detailed above.	Environmental manager Project ecologist Bush regeneration contractor

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Appendices

Appendix A. Weed management measures

General weed management measures that should be undertaken prior to and during revegetation works:

- Use a range of weed management methods such as slashing or mowing (physical and mechanical control) as well as a range of appropriate herbicides (to avoid herbicide resistance).
- Mow/slash areas infested with weeds **before** they seed (avoiding native vegetation).
- Employ appropriate vehicle hygiene such as:
 - Clean machinery, vehicles and footwear before moving to a new location.
 - Securely cover loads of weed-contaminated material.
 - Dispose of weed contaminated soil at an appropriate waste management facility.
 - Remove weeds immediately and dispose of without stockpiling.
 - Separate weeds from native vegetation to be mulched – do not use weeds for mulch.
 - Minimise soil disturbance in weed infested areas.

Weed control methods to be adopted in the implementation of this BMP are based on a combination of the best-practice methods and guidelines, bush regeneration industry standards and botanical knowledge of weeds. The techniques and methods recommended below are described in detail in various publications such as the *National Recovery Plan for White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland* (DECCW 2011), *Restoring natural areas* (Buchanan 2009) and, the publication *New South Wales Weed Control Handbook – A guide to weed control in non-crop, aquatic and bushland situations 7th Edition* (DPI 2018) that provides descriptions on general and standard weed control methods.

Application of herbicide during weed control works will depend on species targeted and the growing situation. For example, the herbicide selection and the application method for a particular species or class of plant will be determined by factors such as the degree of infestation of target species, limiting damage to off-target native flora and, preventing herbicides entering waterways. (DPI 2018) should be referred to as guide for specific herbicides, record-keeping and herbicide application techniques. Herbicides use must be in accordance with the NSW *Pesticides Act 1999*, Material Safety Data Sheets associated with herbicides being used and labelling instructions for specific trade name herbicides and off-label use permits registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA). Any contractors using herbicides on the site must be trained and appropriately qualified to do so (ChemCert Level 2 or equivalent for team members and ChemCert Level 3 or equivalent for supervisors).

Slashing can be used to prevent weeds from flowering and setting seed. This method can be undertaken with a tractor and slashing implement or by using a hand-held brush cutter (DPI 2018). In addition, (DECCW 2011) have highlighted that slashing or mowing can also be used in bushland areas (with grassy native understorey) as an initial or holding treatment to reduce weed mass. This allows for more efficient follow-up herbicide treatment as fast growing reshooting weeds can be spot sprayed with herbicide among areas of native grasses and herbs. (DECCW 2011) also suggest that to effectively control exotic annual herbs and grasses, mowing or slashing must be done at least monthly in summer (possibly more frequently if conditions are warm and wet and weed growth is accelerated). Further simple techniques for reducing the dispersal of weed species as a result of slashing are to:

- Slash from areas dominated by native species to more degraded areas dominated by exotic species.
- Shake or wash down slashing implements in disturbed/managed areas prior to use in more intact areas.

In summary it is recommended that a combination of reducing the height of weeds, the number of occasions slashing occurs and appropriate weed hygiene protocols be implemented.

Table 20 NSW Weed Wise Priority Weeds for the North West Region

Scientific name	Common name	Biosecurity duty
All plants	All plants	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Alhagi maurorum</i>	Camel Thorn	Regional Recommended Measure <i>Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.</i>
<i>Alternanthera philoxeroides</i>	Alligator Weed	Biosecurity Zone <i>The Alligator Weed Biosecurity Zone is established for all land within the state except land in the following regions: Greater Sydney; Hunter (but only in the local government areas of City of Lake Macquarie, City of Maitland, City of Newcastle or Port Stephens). Within the Biosecurity Zone this weed must be eradicated where practicable, or as much of the weed destroyed as practicable, and any remaining weed suppressed. The local control authority must be notified of any new infestations of this weed within the Biosecurity Zone</i>
<i>Andropogon gayanus</i>	Gamba grass	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries.</i>
<i>Annona glabra</i>	Pond Apple	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries</i>
<i>Anredera cordifolia</i>	Madeira vine	Regional Recommended Measure <i>Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.</i>
<i>Asparagus aethiopicus</i>	Ground Asparagus	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>

Scientific name	Common name	Biosecurity duty
<i>Asparagus africanus</i>	Climbing Asparagus	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Asparagus asparagoides</i>	Bridal Creeper	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable. *this requirement also applies to the Western Cape form of bridal creeper.</i>
<i>Asparagus declinatus</i>	Bridal Veil Creeper	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries.</i>
<i>Asparagus densiflorus</i>	Foxtail fern	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Asparagus plumosus</i>	Climbing Asparagus Fern	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Asparagus scandens</i>	Snakefeather	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Asystasia gangetica</i>	Chinese Violet	Control Order <i>Owners and occupiers of land on which there is Chinese violet must notify the local control authority for the area if the Chinese violet is part of a new infestation on the land, destroy all Chinese violet on the land ensuring that subsequent generations of Chinese violet are destroyed; and keep the land free of Chinese violet. A person who deals with a carrier of Chinese violet must ensure the plant (and any seed and</i>

Scientific name	Common name	Biosecurity duty
		<i>propagules</i>) is not moved from the land; and immediately notify the local control authority of the presence of the plant on the land, or on or in a carrier.
<i>Austrocyllindropuntia cylindrica</i>	Cane Cactus	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Austrocyllindropuntia</i> species	Prickly pears - <i>Austrocyllindropuntias</i>	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Austrocyllindropuntia subulata</i>	Eve's Needle Cactus	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Bassia scoparia</i>	Kochia	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries.</i>
<i>Bryophyllum</i> species	Mother-of-Millions	Regional Recommended Measure <i>Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.</i>
<i>Cabomba caroliniana</i>	Cabomba	Regional Recommended Measure <i>Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found. This applies to all species of Cabomba except for the native Cabomba furcata.</i>
<i>Centaurea stoebe</i> subsp. <i>micranthos</i>	Spotted Knapweed	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes</i>

Scientific name	Common name	Biosecurity duty
		<i>aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries</i>
<i>Centaurea x moncktonii</i>	Black Knapweed	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries.</i>
<i>Cestrum parqui</i>	Green Cestrum	Regional Recommended Measure <i>An exclusion zone is established for all lands in the region, except the core infestation area comprising the Gunnedah Shire council, Gwydir Shire council, Narrabri Shire council and Tamworth Regional council. Whole of region: Land managers mitigate the risk of new weeds being introduced to their land. Within exclusion zone: Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found. Within core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.</i>
<i>Chromolaena odorata</i>	Siam Weed	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries</i>
<i>Chrysanthemoides monilifera</i> subsp. <i>monilifera</i>	Boneseed	Control Order <i>Boneseed Control Zone: Whole of NSW. Boneseed Control Zone (Whole of NSW): Owners and occupiers of land on which there is boneseed must notify the local control authority of new infestations; immediately destroy the plants; ensure subsequent generations are destroyed; and ensure the land is kept free of the plant. A person who deals with a carrier of boneseed must ensure the plant (and any seed and propagules) is not moved from the land; and immediately notify the local control authority of the presence of the plant.</i>
<i>Chrysanthemoides monilifera</i> subsp. <i>rotundata</i>	Bitou Bush	Prohibition on certain dealings <i>Must not be imported into the state, sold, bartered, exchanged or offered for sale. Biosecurity Zone. The Bitou Bush Biosecurity Zone is established for all land within the State except land within 10 kilometres of the mean high water mark of the Pacific Ocean between Cape Byron in the north and Point Perpendicular in the south.</i>
<i>Clidemia hirta</i>	Koster's Curse	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes</i>

Scientific name	Common name	Biosecurity duty
		<i>aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries.</i>
<i>Cotoneaster glaucophyllus</i>	Cotoneaster	Regional Recommended Measure Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.
<i>Crataegus monogyna</i>	Hawthorn	Regional Recommended Measure Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.
<i>Cryptostegia grandiflora</i>	Rubber Vine	Prohibited Matter A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries
<i>Cylindropuntia fulgida</i> var. <i>mamillata</i>	Boxing Glove Cactus	Regional Recommended Measure Whole of region, excluding core infestations within Walgett shire. Whole of region: Land managers mitigate the risk of new weeds being introduced to their land. Within exclusion zone: Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found. Within core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.
<i>Cylindropuntia imbricata</i>	Rope Pear	Regional Recommended Measure Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.
<i>Cylindropuntia kleiniae</i>	Klein's Cholla	General Biosecurity Duty All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the

Scientific name	Common name	Biosecurity duty
		<i>risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Cylindropuntia leptocaulis</i>	Pencil Cactus	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Cylindropuntia pallida</i>	Hudson pear	Regional Recommended Measure. <i>Whole of Region, excluding Core infestations within Walgett shire. Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.</i>
<i>Cylindropuntia prolifera</i>	Jumping cholla	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Cylindropuntia species</i>	Prickly pears - <i>Cylindropuntias</i>	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Cylindropuntia spinosior</i>	Snake Cactus	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Cylindropuntia tunicata</i>	Brown-Spined Hudson Pear	Regional Recommended Measure <i>Whole of Region, excluding Core infestations within Walgett shire. Within exclusion zone: Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, keeping, moving, carrying or releasing the plant. Notify local control authority if found. Within core infestation: Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate</i>

Scientific name	Common name	Biosecurity duty
		spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.
<i>Cytisus scoparius</i> subsp. <i>scoparius</i>	Scotch Broom	Regional Recommended Measure Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.
<i>Dolichandra unguis-cati</i>	Cat's Claw Creeper	Regional Recommended Measure Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.
<i>Egeria densa</i>	Leafy Elodea	Regional Recommended Measure Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.
<i>Eichhornia azurea</i>	Anchored Water Hyacinth	Prohibited Matter A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries
<i>Eichhornia crassipes</i>	Water Hyacinth	Biosecurity Zone The Water Hyacinth Biosecurity Zone applies to all land within the State, except for the following regions: Greater Sydney or North Coast, North West (but only the local government area of Moree Plains), Hunter (but only in the local government areas of City of Cessnock, City of Lake Macquarie, MidCoast, City of Maitland, City of Newcastle or Port Stephens), South East (but only in the local government areas of Eurobodalla, Kiama, City of Shellharbour, City of Shoalhaven or City of Wollongong). Within the Biosecurity Zone this weed must be eradicated where practicable, or as much of the weed destroyed as practicable, and any remaining weed suppressed. The local control authority must be notified of any new infestations of this weed within the Biosecurity Zone. Regional Recommended Measure An exclusion zone is established for all lands in the region, except the core infestation area comprising the Moree Plains Shire council. Whole of region: Land managers mitigate the risk of new weeds being introduced to their land. Within exclusion zone: Land managers should eradicate the plant from the land

Scientific name	Common name	Biosecurity duty
		and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found. Within core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.
<i>Equisetum</i> species	Horsetails	Regional Recommended Measure Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.
<i>Genista linifolia</i>	Flax-leaf broom	General Biosecurity Duty All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.
<i>Genista monspessulana</i>	Cape Broom	Regional Recommended Measure An exclusion zone is established for all lands in the region, except the core infestation area comprising all Local Government Areas east of the Newell Highway. Whole of region: Land managers mitigate the risk of new weeds being introduced to their land. Within exclusion zone: Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found. Within core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.
<i>Gleditsia triacanthos</i>	Honey locust	Regional Recommended Measure An exclusion zone is established for all lands in the region, except the core infestation area comprising the Gunnedah Shire council; Narrabri Shire council and Tamworth Regional council. Whole of region: Land managers mitigate the risk of new weeds being introduced to their land. Within exclusion zone: Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found. Within core infestation: Land managers should mitigate spread of the plant from their land.

Scientific name	Common name	Biosecurity duty
		<i>A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.</i>
<i>Gymnocoronis spilanthoides</i>	Senegal Tea Plant	Regional Recommended Measure <i>Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.</i>
<i>Harrisia</i> species	Harrisia Cactus	Regional Recommended Measure <i>An exclusion zone is established for all lands in the region, except the core infestation area, comprising the Gwydir Shire council and Moree Plains Shire council. Whole of region: Land managers mitigate the risk of new weeds being introduced to their land. Within exclusion zone: Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found. Within core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.</i>
<i>Heteranthera reniformis</i>	Kidney-leaf mud plantain	Regional Recommended Measure <i>Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.</i>
<i>Hieracium</i> species	Hawkweeds - Hieraciums	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries.</i>
<i>Hydrocotyle ranunculoides</i>	Hydrocotyl	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries.</i>
<i>Hygrophila costata</i>	Hygrophila	Regional Recommended Measure <i>Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include</i>

Scientific name	Common name	Biosecurity duty
		<i>but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.</i>
<i>Hygrophila polysperma</i>	East Indian Hygrophila	Regional Recommended Measure <i>Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.</i>
<i>Hymenachne amplexicaulis</i> and hybrids	Hymenachne	Regional Recommended Measure <i>Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.</i>
<i>Hypericum perforatum</i>	St. John's Wort	Regional Recommended Measure <i>An exclusion zone is established for all lands in the region, except the core infestation area comprising the Gunnedah Shire council, Gwydir Shire council, Liverpool Plains Shire council and Tamworth Regional council.</i>
<i>Lagarosiphon major</i>	Lagarosiphon	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries.</i>
<i>Lantana camara</i>	Lantana	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Limnobium laevigatum</i>	Frogbit	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries.</i>
<i>Limnobium spongia</i>	Spongeplant	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries</i>
<i>Limnocharis flava</i>	Yellow Burrhead	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries</i>

Scientific name	Common name	Biosecurity duty
<i>Ludwigia peruviana</i>	Ludwigia	Regional Recommended Measure Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.
<i>Lycium ferocissimum</i>	African Boxthorn	Regional Recommended Measure Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.
<i>Miconia species</i>	Miconia	Prohibited Matter A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries
<i>Mikania micrantha</i>	Mikania vine	Prohibited Matter A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries
<i>Mimosa pigra</i>	Mimosa	Prohibited Matter A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries
<i>Moraea flaccida</i>	Cape Tulip - one leaf	Regional Recommended Measure Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.
<i>Moraea miniata</i>	Cape Tulip - two-leaf	Regional Recommended Measure Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.
<i>Myriophyllum spicatum</i>	Eurasian Water Milfoil	Prohibited Matter A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Scientific name	Common name	Biosecurity duty
<i>Nassella neesiana</i>	Chilean Needle Grass	Regional Recommended Measure An exclusion zone is established for all lands in the region, except the core infestation area comprising lands within the Tamworth Regional Council. Whole of region: Land managers mitigate the risk of new weeds being introduced to their land. Within exclusion zone: Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found. Within core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.
<i>Nassella tenuissima</i>	Mexican feather grass	Prohibited Matter A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries
<i>Nassella trichotoma</i>	Serrated Tussock	Regional Recommended Measure Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.
<i>Nymphaea mexicana</i>	Yellow Waterlily	Regional Recommended Measure Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.
<i>Olea europaea</i> subsp. <i>cuspidata</i>	African Olive	Regional Recommended Measure Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.
<i>Opuntia aurantiaca</i>	Tiger Pear	Regional Recommended Measure Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Scientific name	Common name	Biosecurity duty
<i>Opuntia elata</i>	Riverina Pear	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Opuntia humifusa</i>	Creeping Pear	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Opuntia leucotricha</i>	Aaron's Beard Prickly Pear	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Opuntia microdasys</i>	Bunny Ears Cactus	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Opuntia monacantha</i>	Smooth Tree Pear	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Opuntia robusta</i>	Wheel Cactus	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Opuntia rufida</i>	Blind Cactus	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>

Scientific name	Common name	Biosecurity duty
<i>Opuntia schickendantzii</i>	Chicken Dance Cactus	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Opuntia</i> species	Prickly pears - <i>Opuntias</i>	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Opuntia stricta</i>	Common Pear	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Opuntia tomentosa</i>	Velvety Tree Pear	Regional Recommended Measure <i>Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.</i>
<i>Orobanche</i> species	Broomrapes	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries</i>
<i>Parkinsonia aculeata</i>	Parkinsonia	Control Order <i>Parkinsonia Control Zone: Whole of NSW Owners and occupiers of land on which there is parkinsonia must notify the local control authority of new infestations; immediately destroy the plants; ensure subsequent generations are destroyed; and ensure the land is kept free of the plant. A person who deals with a carrier of parkinsonia must ensure the plant (and any seed and propagules) is not moved from the land; and immediately notify the local control authority of the presence of the plant.</i>
<i>Parthenium hysterophorus</i>	Parthenium Weed	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries. Prohibition on certain dealings. The following equipment must</i>

Scientific name	Common name	Biosecurity duty
		<i>not be imported into NSW from Queensland: grain harvesters (including the comb or front), comb trailers (including the comb or front), bins used for holding grain during harvest operations, augers or similar for moving grain, vehicles used to transport grain harvesters, support vehicles driven in paddocks during harvest operations, mineral exploration drilling rigs and vehicles used to transport those rigs, unless set out as an exception in Division 5, Part 2 of the Biosecurity Order (Permitted Activities) 2017.</i>
<i>Pilosella aurantiaca</i>	Orange Hawkweed	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries</i>
<i>Pilosella officinarum</i>	Mouse-ear Hawkweed	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries</i>
<i>Pilosella piloselloides</i>	King Devil Hawkweed	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries.</i>
<i>Pilosella</i> species	Hawkweeds - Pilosellas	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries.</i>
<i>Pistia stratiotes</i>	Water Lettuce	Regional Recommended Measure <i>Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.</i>
<i>Prosopis</i> species	Mesquite	Regional Recommended Measure <i>Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found. All species in the genus Prosopis have this requirement.</i>
<i>Pyracantha</i> species	Firethorn	Regional Recommended Measure <i>Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment.</i>

Scientific name	Common name	Biosecurity duty
		<i>Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.</i>
<i>Rosa rubiginosa</i>	Sweet Briar	Regional Recommended Measure <i>Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.</i>
<i>Rubus fruticosus</i> species aggregate	Blackberry	Regional Recommended Measure <i>All lands in the region, except the core infestation area comprising the: Gwydir Shire Council, Liverpool Plains Shire Council, Tamworth Regional Council. Whole of region: Land managers mitigate the risk of new weeds being introduced to their land. Within exclusion zone: Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found. Within core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.</i>
<i>Sagittaria calycina</i> var. <i>calycina</i>	Arrowhead	Regional Recommended Measure <i>Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.</i>
<i>Sagittaria platyphylla</i>	Sagittaria	Regional Recommended Measure <i>Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.</i>
<i>Salix cinerea</i>	Grey Sallow	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Salix nigra</i>	Black Willow	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the</i>

Scientific name	Common name	Biosecurity duty
		<i>risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Salix</i> species	Willows	Prohibition on certain dealings <i>Must not be imported into the state, sold, bartered, exchanged or offered for sale. All species in the Salix genus have this requirement, except Salix babylonica (weeping willows), Salix x calodendron (pussy willow) and Salix x reichardtii (sterile pussy willow).</i>
<i>Salvinia molesta</i>	Salvinia	Regional Recommended Measure <i>Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.</i>
<i>Senecio madagascariensis</i>	Fireweed	Regional Recommended Measure. <i>Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.</i>
<i>Solanum elaeagnifolium</i>	Silverleaf Nightshade	Regional Recommended Measure <i>Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.</i>
<i>Solanum viarum</i>	Tropical Soda Apple	Control Order <i>Tropical Soda Apple Control Zone: Whole of NSW.: Owners and occupiers of land on which there is tropical soda apple must notify the local control authority of new infestations; destroy the plants including the fruit; ensure subsequent generations are destroyed; and ensure the land is kept free of the plant. A person who deals with a carrier of tropical soda apple must ensure the plant (and any seed and propagules) is not moved from the land; and immediately notify the local control authority of the presence of the plant on the land, or on or in a carrier.</i>
<i>Sporobolus fertilis</i>	Giant Parramatta grass	Regional Recommended Measure <i>An exclusion zone is established for all lands in the region, except the core infestation area comprising the: Tamworth Regional Council. Whole of region: Land managers mitigate the risk of new weeds being introduced to their land. Within exclusion zone: Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.</i>

Scientific name	Common name	Biosecurity duty
		<i>Within core infestation: Land managers should mitigate spread of the plant from their land. A person should not buy, sell, move, carry or release the plant into the environment. Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.</i>
<i>Stratiotes aloides</i>	Water Soldier	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries</i>
<i>Striga</i> species	Witchweeds	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries. All species in the <i>Striga</i> genus are Prohibited Matter in NSW, except the native <i>Striga parviflora</i>.</i>
<i>Tamarix aphylla</i>	Athel Pine	General Biosecurity Duty <i>All pest plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
<i>Tecoma stans</i>	Yellow Bells	Regional Recommended Measure <i>Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.</i>
<i>Trapa</i> species	Water Caltrop	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries. All species in the <i>Trapa</i> genus are Prohibited Matter in NSW.</i>
<i>Ulex europæus</i>	Gorse	Regional Recommended Measure <i>Land managers should mitigate the risk of the plant being introduced to their land. Land managers should eradicate the plant from the land and keep the land free of the plant. A person should not deal with the plant, where dealings include but are not limited to buying, selling, growing, moving, carrying or releasing the plant. Notify local control authority if found.</i>
<i>Vachellia karroo</i>	Karoo acacia	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries.</i>

Scientific name	Common name	Biosecurity duty
<i>Vachellia nilotica</i>	Prickly Acacia	Prohibited Matter <i>A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries</i>

Appendix B. Native planting species

The following groundcover species are recommended in the *Approved Conservation Advice for the White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland* (Cth DCCEEW 2023), with some appropriate additions from the PCT 599 profiles in the Veg-C database. Refer to Appendix C.2: Table 25 for target species diversity (number of species) per growth form type for each PCT.

Table 21 Box Gum Woodland groundcover planting species

Growth form	Botanical name	Common name
Creepers	<i>Clematis microphylla</i>	Small-leaved Clematis
	<i>Glycine tabacina</i>	Variable Glycine
	<i>Hardenbergia violacea</i>	False Sarsparilla
	<i>Oxytes brachypoda</i>	Large Tick-trefoil
Ferns	<i>Cheilanthes distans</i>	Bristly Cloak Fern
	<i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>	Rock Fern
Forbs	<i>Ajuga australis</i>	Australian Bugle
	<i>Ammobium craspedioides</i>	Yass Daisy
	<i>Arthropodium fimbriatum</i>	Nodding Chocolate Lily
	<i>Arthropodium milleflorum</i>	Vanilla Lily
	<i>Asperula conferta</i>	Common Woodruff
	<i>Asperula scoparia</i>	Prickly Woodruff
	<i>Bossiaea prostrata</i>	Creeping Bossiaea
	<i>Brachyscome diversifolia</i>	Large-headed Daisy
	<i>Brachyscome graminea</i>	Grass Daisy
	<i>Brachyscome multifida</i>	Cut-leaved Daisy
	<i>Brachyscome rigidula</i>	Leafy Daisy
	<i>Brachyscome spathulata</i>	Spoon Daisy
	<i>Brunonia australis</i>	Blue Pincushion
	<i>Brunoniella australis</i>	Blue Trumpet
	<i>Bulbine bulbosa</i>	Bulbine Lily

Growth form	Botanical name	Common name
	<i>Bulbine glauca</i>	Rock Lily
	<i>Burchardia umbellata</i>	Milkmaids
	<i>Calochilus</i> spp.	Beard Orchids
	<i>Calotis cuneifolia</i>	Purple Burr-daisy
	<i>Calotis lappulacea</i>	Yellow Burr-daisy
	<i>Calotis scabiosifolia</i>	Rough Burr-Daisy
	<i>Chrysocephalum apiculatum</i>	Common Everlasting
	<i>Chrysocephalum semipapposum</i>	Yellow Buttons
	<i>Craspedia variabilis</i>	Billy Buttons
	<i>Cymbonotus lawsonianus</i>	Bear's Ear
	<i>Cynoglossum australe</i>	Australian Forget-me-not
	<i>Dichondra repens</i>	Kidney Weed
	<i>Dichopogon fimbriatus</i>	Chocolate Lily
	<i>Dipodium punctatum</i>	Hyacinth Orchid
	<i>Dysphania pumilio</i>	Small Crumbweed
	<i>Einadia hastata</i>	Saloop
	<i>Einadia nutans</i>	Climbing Saltbush
	<i>Eriochilus cucullatus</i>	Parson's Bands
	<i>Eryngium ovinum</i>	Blue Devil
	<i>Galium gaudichaudii</i>	Rough Bedstraw
	<i>Geranium solanderi</i> var. <i>solanderi</i>	Crane's Bill
	<i>Goodenia hederacea</i>	Ivy Goodenia
	<i>Gonocarpus tetragynus</i>	Common Raspwort
	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort
	<i>Lagenophora stipitata</i>	Blue-bottle daisy
	<i>Laxmannia gracilis</i>	Slender Wire-lily
	<i>Leptorhynchus elongatus</i>	Lanky Buttons

Growth form	Botanical name	Common name
	<i>Leptorhynchus squamatus</i>	Scaly Buttons
	<i>Leucochrysum albicans</i>	Hoary Sunray
	<i>Lobelia purpurascens</i>	Whiteroot
	<i>Mimulus repens</i>	Creeping Monkey-flower
	<i>Opercularia diphyllo</i>	Stinkweed
	<i>Ptilotus erubescens</i>	Hairy Tails
	<i>Rhodanthe anthemoides</i>	White Sunray
	<i>Rumex tenax</i>	Shiny Dock
	<i>Swainsona galegifolia</i>	Smooth Darling Pea
	<i>Tricoryne elatior</i>	Yellow Rush-lily
	<i>Triptilodiscus pygmaeus</i>	Common Sunray
	<i>Solenogyne</i> spp.	-
	<i>Stackhousia monogyna</i>	Creamy Candles
	<i>Viola betonicifolia</i>	Arrow-headed Violet
	<i>Vittadinia cuneata</i>	Fuzzweed
	<i>Wahlenbergia gracilis</i>	Australian Bluebell
	<i>Wahlenbergia stricta</i>	Tall Bluebell
	<i>Aristida personata</i>	Purple Wire-grass
	<i>Aristida ramosa</i>	Purple Wire-grass
	<i>Austrostipa rudis</i>	Veined Speargrass
Grass and grass-like	<i>Austrostipa scabra</i>	Rough Speargrass
	<i>Austrostipa verticillata</i>	Slender Bamboo Grass
	<i>Bothriochloa decipiens</i>	Pitted Bluegrass
	<i>Bothriochloa macra</i>	Red Grass
	<i>Carex inversa</i>	Knob Sedge
	<i>Chloris ventricosa</i>	Tall Chloris
	<i>Chloris truncata</i>	Windmill Grass

Growth form	Botanical name	Common name
	<i>Cymbopogon refractus</i>	Barbed Wire Grass
	<i>Cyperus gracilis</i>	Slender Flat-sedge
	<i>Dianella longifolia</i>	Smooth Flax Lily
	<i>Dianella revoluta</i>	Blueberry Lily
	<i>Dichanthium sericeum</i>	Queensland Blue-grass
	<i>Dichanthium setosum</i>	-
	<i>Dichelachne crinita</i>	Longhair Plumegrass
	<i>Dichelachne micrantha</i>	Shorthair Plumegrass
	<i>Echinopogon caespitosus</i>	Tufted Hedgehog Grass
	<i>Elymus scaber</i> var. <i>scaber</i>	Wheatgrass
	<i>Eulalia aurea</i>	(Bory) Kunth
	<i>Gahnia aspera</i>	Rough Saw-sedge
	<i>Juncus</i> spp.	Native Juncus
	<i>Imperata cylindrica</i>	Blady Grass
	<i>Lepidosperma laterale</i>	Sword Sedge
	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
	<i>Lomandra multiflora</i>	Many-flowered Mat-rush
	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
	<i>Panicum effusum</i>	Hairy Panic
	<i>Poa labillardieri</i>	Tussock Grass
	<i>Poa sieberiana</i>	Snowgrass
	<i>Rytidosperma racemosum</i>	Wallaby Grass
	<i>Rytidosperma tenuis</i>	Wallaby Grass
	<i>Sorghum leiocladum</i>	Wild Sorghum
	<i>Stypandra glauca</i>	Nodding Blue Lily
	<i>Themeda triandra</i>	Kangaroo Grass

Table 22 Native tree and shrub species suitable for tree screens and landscape planting

Growth form	Scientific name	Common name	PCTs
Tree	<i>Acacia salicina</i>	Cooba	84
	<i>Angophora floribunda</i>	Rough-barked Apple	84, 599
	<i>Brachychiton populneus</i> subsp. <i>populneus</i>	Kurrajong	84, 599
	<i>Callistemon viminalis</i>	Weeping Bottlebrush	84
	<i>Callitris glaucophylla</i>	White Cypress Pine	599
	<i>Casuarina cunninghamiana</i> subsp. <i>cunninghamiana</i>	River Oak	84
	<i>Eucalyptus albens</i>	White Box	84, 599
	<i>Eucalyptus blakelyi</i>	Blakely's Red Gum	84, 599
	<i>Eucalyptus bridgesiana</i>	Apple Box	84
	<i>Eucalyptus camaldulensis</i> subsp. <i>camaldulensis</i>	River Red Gum	84
	<i>Eucalyptus conica</i>	Fuzzy Box	599
	<i>Eucalyptus laevopinea</i>	Silver-top Stringybark	84
	<i>Eucalyptus melanophloia</i>	Silver-leaved Ironbark	599
	<i>Eucalyptus melliodora</i>	Yellow Box	84, 599
	<i>Ficus rubiginosa</i>	Port Jackson Fig	84
	<i>Glochidion ferdinandi</i> var. <i>ferdinandi</i>	Cheese Tree	84
	<i>Melia azedarach</i>	White Cedar	84
	<i>Notelaea microcarpa</i>	Velvet Mock Olive	84, 599
Shrub	<i>Acacia deanei</i> subsp. <i>deanei</i>	Deane's Wattle	599
	<i>Acacia decora</i>	Western Silver Wattle	599
	<i>Acacia implexa</i>	Hickory Wattle	84, 599
	<i>Acacia neriifolia</i>	Silver Wattle	84
	<i>Acacia viscidula</i>	Sticky Wattle	84
	<i>Alectryon forsythii</i>	n/a	84
	<i>Bursaria spinosa</i> subsp. <i>spinosa</i>	Native Blackthorn	84
	<i>Callistemon sieberi</i>	River Bottlebrush	84
	<i>Cassinia laevis</i>	Cough Bush	84
	<i>Geijera parviflora</i>	Wilga	599
	<i>Leptospermum brachyandrum</i>		84
	<i>Leptospermum brevipes</i>	Slender Tea-tree	84
	<i>Leptospermum polygalifolium</i>	Tantoon	84
	<i>Melaleuca bracteata</i>	Black Tea-tree	84
	<i>Melicytus dentatus</i>	Tree Violet	84
	<i>Myoporum montanum</i>	Western Boobialla	599
	<i>Olearia elliptica</i> subsp. <i>elliptica</i>	Sticky Daisy Bush	599
	<i>Olearia viscidula</i>	Wallaby Weed	84

Growth form	Scientific name	Common name	PCTs
	<i>Phyllanthus subcrenulatus</i>		84
	<i>Pimelea neo-anglica</i>	Poison Pimelea	84, 599
	<i>Pittosporum angustifolium</i>	Butterbush	84
	<i>Pittosporum undulatum</i>	Sweet Pittosporum	84
	<i>Psydrax odorata</i>	Shiny-leaved Canthium	84
	<i>Rubus parvifolius</i>	Native Raspberry	84
Chenopod	<i>Maireana microphylla</i>	Small-leaf Bluebush	599

Appendix C. Vegetation condition

Appendix C.1. Baseline vegetation condition

Baseline vegetation conditions within BMP areas are provided by select BAM and floristic plots completed during the preparation of the Calala BESS BDAR (Biosis 2024).

Baseline condition reference provided by relative point:

- PCT 84 DNG – BAM Plot 37994.P2
- PCT 599 Woodland – BAM Plot 37994.P3
- PCT 599 DNG – BAM Plot 40128.P1
- Category 1 land – Floristic Plot 401278.F3

Table 23 Baseline BAM Plot floristics data

Family	Scientific name	Common name	37994. P2		37994. P3		40128. P1		40128. F3	
			Cover %	Abund.	Cover %	Abund.	Cover %	Abund.	Cover %	Abund.
Native species										
Amaranthaceae	<i>Alternanthera denticulata</i>	Lesser Joyweed	0.1	1						
Amaranthaceae	<i>Amaranthus</i> spp.	Amaranth	0.1	1						
Asteraceae	<i>Calotis lappulacea</i>	Yellow Burr-daisy			4	800				
Campanulaceae	<i>Wahlenbergia gracilis</i>	Sprawling Bluebell							0.1	1
Campanulaceae	<i>Wahlenbergia</i> spp.	Bluebell	0.1	1	0.4	400	0.2	50		

Family	Scientific name	Common name	37994. P2		37994. P3		40128. P1		40128. F3	
			Cover %	Abund.	Cover %	Abund.	Cover %	Abund.	Cover %	Abund.
Chenopodiaceae	<i>Einadia</i> spp.	A saltbush	3	400	2	800				
Convolvulaceae	<i>Dichondra repens</i>	Kidney Weed			0.3	50				
Cyperaceae	<i>Cyperus</i> spp.	A Cyperus			15					
Geraniaceae	<i>Geranium solanderi</i>	Native Geranium	2	300	0.5	50				
Juncaceae	<i>Juncus</i> spp.	A Rush	0.7	50						
Lomandraceae	<i>Lomandra</i> spp.	Mat-rush			0.3	50				
Malvaceae	<i>Sida corrugata</i>	Corrugated Sida			0.2	9				
Myrtaceae	<i>Eucalyptus albens</i>	White Box			50					
Oxalidaceae	<i>Oxalis perennans</i>	None	0.2	50	0.2	50				
Plantaginaceae	<i>Veronica</i> spp.	A Speedwell	0.2	10						
Poaceae	<i>Aristida ramosa</i>	Purple Wiregrass	1	200	20				15	
Poaceae	<i>Aristida vagans</i>	Threeawn Speargrass					15			
Poaceae	<i>Austrostipa aristiglumis</i>	Plains Grass	0.5	50	1	90				
Poaceae	<i>Bothriochloa macra</i>	Red Grass	1	200	15	200	6			
Poaceae	<i>Bothriochloa</i> spp.	Redgrass, Bluegrass							0.5	200
Poaceae	<i>Chloris truncata</i>	Windmill Grass	1	200					0.5	200

Family	Scientific name	Common name	37994. P2		37994. P3		40128. P1		40128. F3	
			Cover %	Abund.	Cover %	Abund.	Cover %	Abund.	Cover %	Abund.
Poaceae	<i>Chloris ventricosa</i>	Tall Chloris					3	400		
Poaceae	<i>Cynodon dactylon</i>	Common Couch	65				8			
Poaceae	<i>Lachnagrostis filiformis</i>	Blown Grass	1	200	2	200				
Poaceae	<i>Microlaena stipoides</i>	Weeping Grass			15	700				
Poaceae	<i>Panicum</i> spp.	A Panic Grass					7			
Poaceae	<i>Rytidosperma</i> spp.	Wallaby Grass			10		1	200		
Poaceae	<i>Sporobolus creber</i>	Slender Rat's Tail Grass					20			
Poaceae	<i>Sporobolus elongatus</i>	Slender Rat's Tail Grass	2	400	15					
Polygonaceae	<i>Persicaria</i> spp.	Knotweed	0.3	50						
Pteridaceae	<i>Cheilanthes sieberi</i>	Rock Fern			0.2	30				
Introduced species										
Apiaceae	<i>Cyclospermum leptophyllum</i>	Slender Celery	0.8	100			0.1	20	0.3	200
Asteraceae	<i>Aster subulatus</i>	Wild Aster	0.3	20						
Asteraceae	<i>Bidens</i> spp.	None	0.5	50	0.1	1				
Asteraceae	<i>Carthamus lanatus</i>	Saffron Thistle	0.2	10	0.3	10	0.5	200	7	
Asteraceae	<i>Cirsium vulgare</i>	Spear Thistle			0.2	1				

Family	Scientific name	Common name	37994. P2		37994. P3		40128. P1		40128. F3	
			Cover %	Abund.	Cover %	Abund.	Cover %	Abund.	Cover %	Abund.
Asteraceae	<i>Conyza</i> spp.	A Fleabane	3	300	0.5	20	5			
Asteraceae	<i>Lactuca serriola</i>	Prickly Lettuce					0.3	50	1	300
Brassicaceae	<i>Brassica</i> spp.	Brassica	2	200					0.1	1
Gentianaceae	<i>Centaurium erythraea</i>	Common Centaury					0.1	1		
Plantaginaceae	<i>Plantago lanceolata</i>	Lamb's Tongues					2	500		
Poaceae	<i>Avena</i> spp.	Oats			0.1	2				
Poaceae	<i>Bromus catharticus</i>	Prairie Grass	2	300						
Verbenaceae	<i>Verbena bonariensis</i>	Purpletop					30		65	
Verbenaceae	<i>Verbena</i> spp.	None	7		0.5	30				

Table 24 Baseline BAM Plot function data

Plot ID	PCT	Area (Ha)	Patch size	Condition	Zone	Easting	Northing	Bearing	Comp. Tree	Comp. Shrub	Comp. Grass	Comp. Forbs	Comp. Ferns	Comp. Other	Struc. Tree	Struc. Shrub	Struc. Grass	Struc. Forbs	Stuc. Ferns	Stuc. Other
37994.P2	84	0.06	5-24 ha	DNG	56	306259	6553196	120	0	0	8	9	0	0	0.0	0.0	72.2	13.0	0.0	0.0
37994.P3	599	0.03	<5 ha	Moderate	56	304986	6552164	187	1	0	9	8	1	0	50.0	0.0	93.3	8.1	0.2	0.0
40128.P1	599	1.30	5-24 ha	DNG	56	305641	6552422	120	0	0	7	1	0	0	0.0	0.0	60.0	0.2	0.0	0.0
40128.F3	Cat-1	14.49	N/A	N/A	56	306131	6553055	--	0	0	3	1	0	0	0.0	0.0	16.0	0.1	0.0	0.0
Plot ID	PCT	Area (Ha)	Patch size	Condition	Zone	Easting	Northing	Bearing	Fun. Large Trees	Fun. Hollow Trees	Fun. Litter Cover	Fun Len. Fallen Logs	Fun. Tree Stem 5to9	Fun. Tree Stem 10to19	Fun. Tree Stem 20to29	Fun. Tree Stem 30to49	Fun. Tree50to79	Fun. Tree Regen	Fun. High Threat Exotic	
37994.P2	84	0.06	5-24 ha	DNG	56	306259	6553196	120	0	0	35	0	0	0	0	0	0	0	4.7	
37994.P3	599	0.03	<5 ha	Moderate	56	304986	6552164	187	1	0	46	0	1	1	1	1	0	1	0.9	
40128.P1	599	1.30	5-24 ha	DNG	56	305641	6552422	120	0	0	40	0	0	0	0	0	0	0	0.5	
40128.F3	Cat-1	14.49	N/A	N/A	56	306131	6553055	--	0	0	--	--	--	--	--	--	--	--	7.0	

Appendix C.2. Target vegetation condition

Target floristic cover and species diversity relative to 80% PCT benchmark for restoration plantings. Restoration plantings should include a range of species from Grass and Grass-like, Fobrs, Ferns and Other growth form groups to meet 'Comp' target values. Structure value represents the total cover of all species in the growth form group, i.e. the target for Grass and Grass-like for PCT 599 is 11 species and 44 % cover.

Table 25 Target floristic cover and species diversity relative to 80% PCT benchmark

Value	PCT	IBRA	Benchmark variation	Comp Tree	Comp Shrub	Comp Grass	Comp Forbs	Comp Ferns	Comp Other	StrucT ree	Struc Shrub	Struc. Grass	Struc. Forbs	Stuc. Ferns	Stuc. Other
Benchmark	PCT 599 <i>Blakely's Red Gum - Yellow Box grassy tall woodland on flats and hills in the Brigalow Belt South Bioregion and Nandewar Bioregion</i>	Nandewar	monthly average, following AVERAGE RAINFALL year	4	4	11	14	1	3	16	2	55	8	0	1
Target (80%)				--	--	9	11	1	2	--	--	44	6	0	1