



# Biodiversity Management Plan

State Significant Development (SSD 8392) Stage 3

Battery Energy Storage System (BESS) Operation

December 2023 (Rev 7)



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# 1 Introduction

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## 1.1 Context

This Biodiversity Management Plan (**BESS BMP**) forms part of the Environmental Management Strategy (**EMS**) for the operational phase of the Riverina and Darlington Point Energy Storage Systems, being Stage 3 of the Development. The 150MW Riverina and Darlington Point Energy Storage Systems comprise three separate generating facilities sharing common site and infrastructure, and collectively are referred to as the Development's Battery Energy Storage System (**BESS**). The facilities have been developed and are owned by the following entities:

- RESS1 Pty Ltd (60MW)
- RESS 2 Pty Ltd (65MW)
- DPSS Pty Ltd (25MW)

The original Development Approval was submitted by the original developer, Edify Energy Pty Ltd.

Note, the Darlington Point Solar Farm was developed and is owned by Darlington Point Solar Farm Pty Ltd, under the same Development Approval (as Stage 1).

During BESS operations, the three entities have jointly entered into an Asset Management Agreement to appoint a single Asset Manager to manage the facilities through the operational phase. This Asset Manager will act as the agent for all three facilities. Whilst the entity undertaking these services may be changed over the operational life, the current appointed Asset Manager is Edify Energy Pty Ltd.

The Asset Manager, as agent for the facilities, will be responsible for ensuring the BESS BMP is complied with, either directly or by the Operation and Maintenance Contractor of the plant. This will include ensuring appropriate Monitoring and Reporting is performed as detailed in the BESS BMP.

This BESS BMP should be read in conjunction with the Biodiversity Development Assessment Report - TransGrid Substation Connection - Darlington Point, September 2022 (**TG BDAR**) and the SSD-8392-MOD-2 Revised Biodiversity Credits Letter.

The TG BDAR determined Stage 2b(ii) works; involving the cable routes and trenching impact areas, and impacts to establish temporary construction areas for office, laydowns, and carparking within the TransGrid Substation (on Lot 2 DP628785). Subsequently, the establishment of temporary construction areas for office, laydowns, and carparking within the TransGrid Substation Lot were deemed not required. SSD-8392-MOD-2 Revised Biodiversity Credits Letter details the results of additional targeted flora surveys within the alignment of the cable routes on 23rd of November 2022 and additional targeted fauna surveys on 1st of December 2022 in order to further reduce the offset obligation in consideration of the cables routes and trenching impact areas only. This native vegetation impact generated an offsetting requirement of 7 Ecosystem Credits and 8 Species Credits. Edify retired the necessary credits through a direct payment into the Biodiversity Conservation Fund, which was completed on 17 January 2023. A separate BMP was prepared and approved to manage and mitigate the potential impacts on biodiversity for Stage 2b(ii).

The TG BDAR determined the works involving the cable routes and trenching impact areas, as relevant to the BESS construction and operation, may involve the following potential indirect impacts to biodiversity:

- loss of breeding habitat, resulting in possible minor (possibly temporary) loss of potential breeding habitat
- trampling of threatened flora species, resulting in rare possible minor loss of threatened flora
- rubbish dumping, resulting in possible degradation of native vegetation and habitat for threatened species.

This BMP describes how impacts on biodiversity will be minimised and managed during the operational phase of the BESS.

This BMP also makes reference to the BMP for the Darlington Point Solar Farm (**BMP DPSF**) by NGH Environmental (March 2018). BMP DPSF includes the land on which the battery infrastructure is located, Lot 1 DP1249830. According to section 7.1 (Table 7-1) of the Darlington Point Biodiversity Assessment Report (**DP BAR**) V07 (August 2018), the 'Battery Facility' area (total 2.00ha) biodiversity impact would result in a "complete loss of habitat". During the construction phase of the DPSF (Stage 1 of Development), this battery facility area was directly impacted with native vegetation permanently removed and has now been built on with the BESS infrastructure.

This BMP has been prepared to address the requirements of:

- New South Wales (NSW) Department of Planning and Environment (**DPE**) approved Development Consent (the **Development Consent**) (7 December 2018), and amended upon approval of SSD-8392-MOD-1 via a Modification of Development Consent on 22 October 2021, and further amended upon approval of SSD-8392-MOD-2 of Development Consent on 31 October 2022.
- All applicable legislation, during the operation of the BESS.
- Mitigation and management measures in the Darlington Point Environmental Impact Statement (EIS) and in the Response to Submissions (**RTS**) on the EIS and DP BAR and additional information provided by the proponent dated November 2018 (definition in determination).
- The Darlington Point Modification 1 Report (SSD 8392 MOD 1), June 2021, and the response to Request for Further Information (RFI 22899008), June 2021.
- Darlington Point Solar Farm development Staging Request (SSD-8392-PA-24), April 2022, acknowledging the Development is being staged with the Solar Farm (SF) Stage being Stage 1 and the BESS Stage being Stage 2. The Secretary approved the staging of the strategies, plans, programs, and sub plans associated with the with the construction operation, and decommissioning of the BESS Stage of the Development
- Biodiversity Development Assessment Report - TransGrid Substation Connection - Darlington Point, September 2022 (**TG BDAR**)
- The SSD-8392-MOD-2 Modification Report, July 2022, and the response to Request for Further Information (RFI-091205), 26 September 2022 (**Modification 2** or **SSD-8392-MOD-2**)
- SSD-8392-MOD-2 Revised Biodiversity Credits Letter, December 2022

Schedule 3, Condition 12 of the Development Consent states:

*Prior to the commencement of construction, the Applicant must prepare a Biodiversity Management Plan for the development in consultation with BCS, and to the satisfaction of the Planning Secretary. This plan must:*

(a) include a description of the measures that would be implemented for:

- minimising the amount of native vegetation clearing within the approved development footprint.
- minimising the loss of key fauna habitat.
- managing potential indirect impacts on threatened and migratory species, including:
  - flora species, including Weeping Myall Woodland and Sandhill Pine Woodland.
  - fauna species, including Grey-crowned Babbler and Superb Parrot.
- rehabilitating and revegetating temporary disturbance areas.
- protecting native vegetation and key fauna habitat outside the approved disturbance areas;
- 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.
- controlling weeds and feral pests.
- protecting and promoting the growth of native plant species (including PCT45) and controlling the growth of exotic ground cover.

(b) include a seasonally-based program to monitor and report on the effectiveness of these measures against the detailed performance and completion criteria.

(c) include details of who would be responsible for monitoring, reviewing and implementing the plan, and timeframes for completion of actions.

Following the Planning Secretary's approval, the Proponent must implement the Biodiversity Management Plan.

Note: If the biodiversity credits are retired via a Biodiversity Stewardship Agreement, then the Biodiversity Management Plan does not need to include any of the matters that are covered under the Biodiversity Stewardship Agreement.

Schedule 3, Condition 12A of the Development Consent states:

*Prior to carrying out works associated with Modification 2 that could directly or indirectly impact the biodiversity values requiring offset, the Applicant must update the Biodiversity Management Plan referred to in condition 12 for works associated with Modification 2, in accordance with the Biodiversity Development Assessment Report (Revision 3.1, dated 20 September 2022).*

## 1.2 Project Description

Stage 1 involved the construction and operation of the solar farm, which is complete and operational. Stage 1 involved impacts to the area where the BESS is sited and has been the subject of a separate BMP (DPSF BMP), which remains current for the solar farm operations.

Details of project and the methodology for construction, operation and decommissioning phases are described at length in Section 2 of the EIS. The EIS and DP BAR (2018) described **directly impacted**: Anywhere that is cleared, has infrastructure built on it or subject to earthworks i.e. trenching, pilings driven into the ground. This directly impacted area included the area where the BESS is sited.

Directly impacted native vegetation included direct impact to Plains Grassland on Alluvial mainly clay soils in the Riverina Bioregion of NSW South Western Slopes (PCT 45) moderate to good moderate. The 2ha BESS land parcel has been accounted for as directly impacted with no ongoing management measures during operations (of the development).

Stage 2a and 2b of the Development involved the construction of the BESS including connection to the Darlington Point Substation. Stage 2b was further split into sub-stages and a specific BMP was developed for the

construction works associated with Stage 2b(ii). Specifically, 2b(ii) comprised the BESS connections to the TransGrid Substation and involved the temporary disturbance of the cable routes within the TransGrid Substation land, as shown below in **Figure 1-1**. These cable route areas were not included in the EIS definition or calculation of directly impacted native vegetation. Potential biodiversity impacts associated with Stage 2b(ii) are included in the TG BDAR, with some impacts relevant to the operations phase of the BESS.

The BESS Operation is Stage 3 of the Development.

The 150MW Riverina and Darlington Point Energy Storage Systems comprise three separate generating facilities sharing common site and infrastructure. The facilities have been developed and are owned by the following entities:

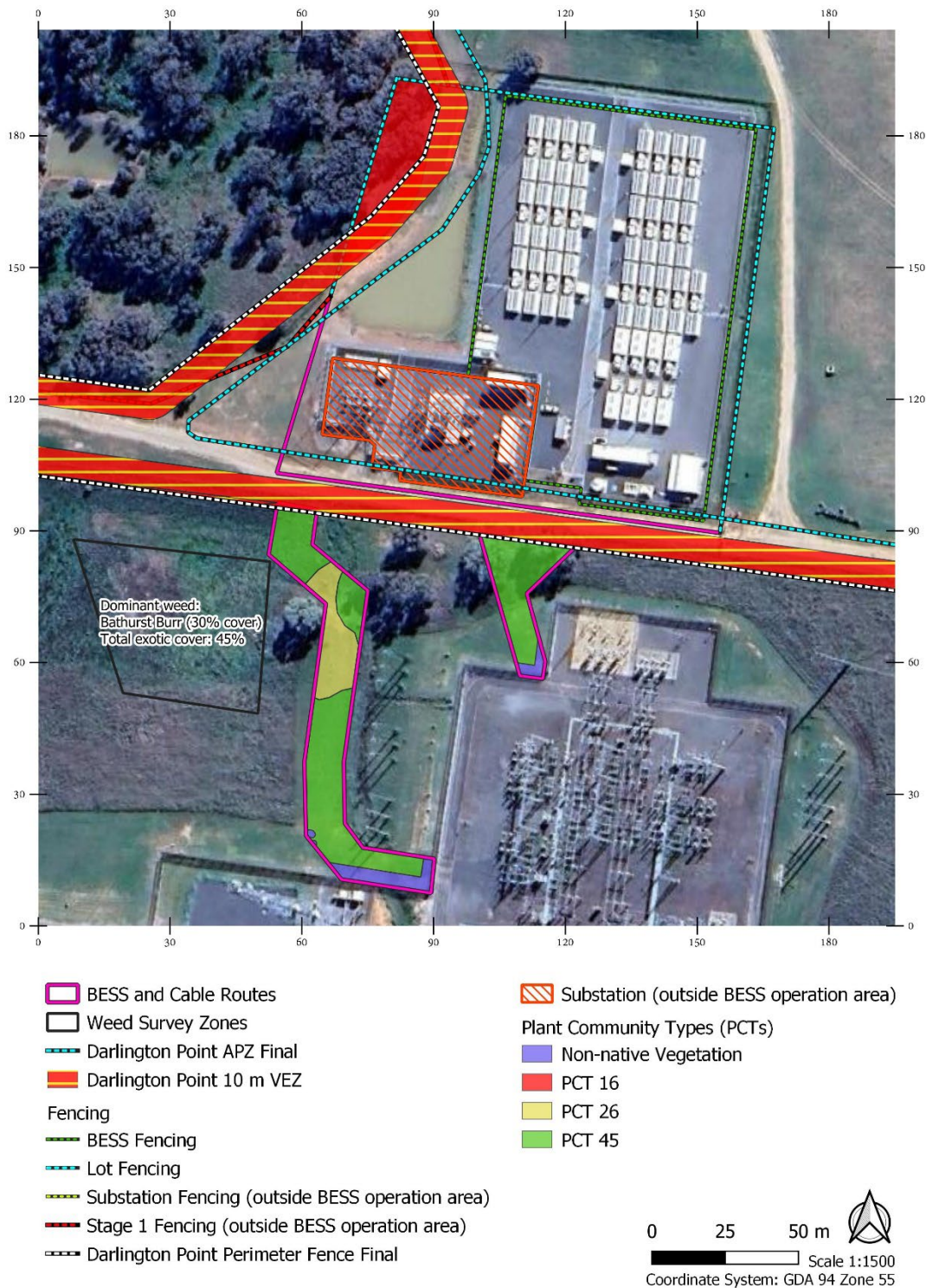
- RESS1 Pty Ltd (60MW)
- RESS 2 Pty Ltd (65MW)
- DPESS Pty Ltd (25MW)

The original Development Approval was submitted by the original developer, Edify Energy Pty Ltd.

Note, the Darlington Point Solar Farm was developed and is owned by Darlington Point Solar Farm Pty Ltd, under the same Development Approval (as Stage 1).

During BESS operations, the three entities have jointly entered into an Asset Management Agreement to appoint a single Asset Manager to manage the facilities through the operational phase. This Asset Manager will act as the agent for all three facilities. Whilst the entity undertaking these services may be changed over the operational life, the current appointed Asset Manager is Edify Energy Pty Ltd.

The Asset Manager, as agent for the facilities will be responsible for ensuring the BESS BMP is complied with, either directly or by the Operation and Maintenance Contractor of the plant. This will include ensuring appropriate Monitoring and Reporting is performed as detailed in the BESS BMP.



**Figure 1-1** BESS site in Lot 1 DP1249830 and Connection Cable Routes in TransGrid Substation land on Lot 2 DP628785 – these areas are the subject of this BESS BMP

(Note: Riverina Substation is shown as ‘outside BESS operation area’ as this asset is owned and operated by TransGrid)



Figure 1-2 below details the complete Project Layout for the Solar Farm and the BESS facility. This includes the Vegetation and Heritage Protection Exclusion Zones, and the Asset Protection Zones. For clarity, the BESS facility has been constructed on the previously cleared laydown area as developed during Stage 1 for the Darlington Point Solar Farm. During Operations of the BESS, the existing commitments to avoid and minimise any potential biodiversity impacts remain.

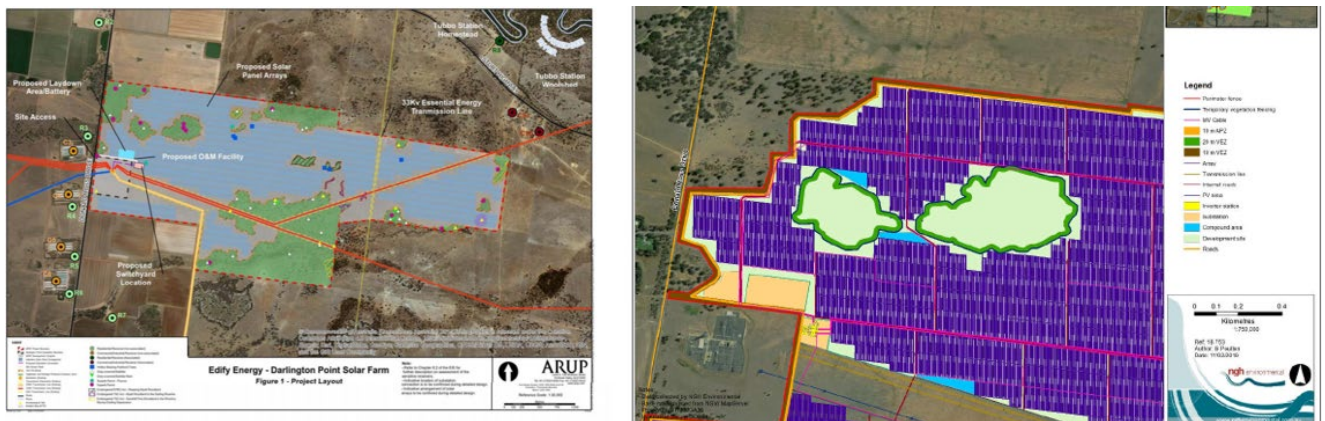


Figure 1-2 Darlington Point Solar Farm Project Layout, extract from BMP (March, 2018<sup>1</sup>) to illustrate the VEZ

### 1.3 Scope/Description of BESS Operation activities

The facility should provide key system security services to maintain power system integrity and stability for the region of the Network, prevent certain load shedding events, provide supply during critical periods, and participate in ancillary services and wholesale electricity markets.

The scope of the operation and maintenance of the BESS and associated works include:

- Battery system (Megapack 2 and 2XL);
- Power Converter System (PCS);
- 0.48kV/33 kV Step-up transformer(s);
- 33 kV switchgear and ring main unit(s);
- Communication systems, including SCADA and Protection to AEMO;
- MV & LV Electrical Switchboards and protection;
- MV and LV cabling;
- 33 kV substation plant;
- Auxiliary electrical equipment such as distribution switchboards, circuit breakers and fuses, cables and wiring, DC systems and all other electrical equipment;
- HVAC/thermal management systems as required;

<sup>1</sup> See Darlington Point Solar Farm's Biodiversity Management Plan (March, 2018)

- Electrical earthing;
- Lighting, fencing, security and miscellaneous electrical items.

The scope of works to be undertaken for the duration of the contracted operation and maintenance period will include the following.

### **MONITORING**

The Operation and Maintenance Contractor will maintain a 24/7 monitoring service, checking the operational status of the BESS for any abnormal operation. Monitoring will be performed using monitoring software and systems and implement largely remote corrective actions where needed. Where remote intervention is not able to be performed, the Operation and Maintenance Contractor shall arrange for maintenance personnel to perform testing and maintenance on equipment.

### **PREVENTATIVE INSPECTION AND MAINTENANCE**

Preventative maintenance is defined as the visual and functional examination of the BESS (intrusive/non-intrusive) to check operational and performance capability and the performance of tasks aimed at preventing the possible future occurrence of errors, disruptions or reduction in performance. These include, but are not limited to, inspection, testing, measuring, comparing, cleaning of items of equipment and replacing of Consumables in accordance with manufacturer's operations manuals.

The Operation and Maintenance Contractor shall perform preventative maintenance to:

- Maintain correct operation in accordance with this Agreement, the Operation and Maintenance Manual and the Battery Supplier Warranty;
- Facilitate the BESS meeting the Availability Warranty and Energy Retention Warranty; and
- To comply with all Authorisation and necessary Legislative Requirements.

Preventative maintenance will be coordinated and scheduled in advance to minimise impact on availability and Critical Peak Periods.

Preventative Maintenance activities include but are not limited to:

- Annual maintenance of the Battery Systems as per the OEM recommendations:
  - o Torque checks within the System, calibration checks, visual inspection (rodents, etc.);
  - o Harness inspection or replacement in kind if damaged (protective sleeve failure, rodents, etc.);
  - o Enclosure integrity;
  - o Touch up paint and gasket inspection or replacement if damaged;
  - o Cabinet cleaning;
  - o Cabinet ventilation system inspection – radiator area cleaning;
  - o Coolant level check; and
  - o Battery and meter communications check;
- 10 yearly maintenance of the BESS including:
  - o BESS coolant refill;
  - o BESS fan replacement;
  - o BESS pump replacement; and
  - o BESS door gasket replacement;
- Preventative maintenance as recommended by the OEMs and as required to comply with the warranty requirements for BOP equipment including the transformers and switchgear;
- General groundskeeping at the Site including inspecting and maintaining vegetation, fences, gates roads, hardstand, ensuring water tanks are filled, emptying and septic system and maintaining other utilities;
- Quarterly visual inspection of the entire BESS for visible damage and defects or incorrect operation including:

- Check and maintain the electrical functionality of the BESS including all meters (including disturbance recorder power quality meters), inverters, transformers, switchgear, cabling and protective equipment such as switches, protections and relays;
- Functional check of the monitoring, control and security systems;
- General condition and cleanliness of all containers and building including checking for potential rodents ingress and the cleanliness of air filters;
- Checking the functionality of the security system, gates and conditions of fences;
- Check fire water levels;
- Check of vegetation encroaching on the bench;
- Visual inspections for oil leaks, spares and goods.
- Inspection of fire extinguishers and detection system as prescribed under the applicable laws;
- Statutory inspections as prescribed under applicable laws;
- Change/supplementing of Consumables;
- Calibration of any tools and meters as required;
- Requirements under the operational protocol agreed by the Network Operator;
- Comply with the Generator Performance Standards including generating and implementing a Generator Compliance Program and performing maintenance activities accordingly; and
- Providing reports on network events as reasonably requested by AEMO under the National Electricity Rules.

## **CORRECTIVE MAINTENANCE**

The Operation and Maintenance Contractor will perform all required corrective maintenance in relation to the BESS (but excluding the equipment covered by the Battery System Warranty) to:

- Maintain correct operation in accordance with this Agreement, the Operation and Maintenance Manual and the Battery Supplier Warranty;
- Facilitate the BESS meeting the Availability Warranty and Energy Retention Warranty; and
- To comply with all Authorisation and necessary Legislative Requirements.

Subject to any provisions of the O&M Agreement which provide that any work shall constitute Additional Services, the Services shall include (without limitation):

- Physical inspection of any Components for which the monitoring system indicates abnormal performance;
- Assisting the Employer with any warranty claims (excluding claims under the Battery System Warranty) and managing the works by parties performed under warranty;
- The repair of any fault, Services Defect, breakdown, deficiency or failure of the BESS; and
- Provision of tools including calibrated tools, consumables and installation of Common Spares (including restocking of spares).

In respect of equipment covered by the Battery System Warranty, The Operation and Maintenance Contractor shall co-ordinate with the Battery System Warrantor in respect of their obligations under the Battery System Warranty including in providing access to Site and coordinating maintenance activities.

## **1.4 Environmental Management System**

The overall Environmental Management System (EMS) for operation of the BESS is described in the Riverina EHS Management Plan, which provides an overview of the systems and processes that will govern the safe operation, technical standards and the management of the BESS for the duration of the contracted service period. This BESS BMP is part of the environmental management framework for the Project.

Mitigation and management measures identified in this BESS BMP will be incorporated into site specific procedures, work instructions and other documents as relevant.

Used together, the EMS (Riverina EHS Management Plan) and this BESS BMP identify required environmental and biodiversity management actions for reference by personnel and contractors.

This BESS BMP will be reviewed every three years or within one month if any of the following occur:

- Submission of an incident report, referenced under condition 4 of Schedule 4
- Submission of an audit report under condition 6 or 7 of Schedule 4; or
- Any modification to the conditions of the project's consent,

## 1.5 Purpose of this BMP

The purpose of this plan is to describe how impacts on biodiversity will be minimised and managed during operation of the BESS. This BMP is referred to as the BESS BMP.

## 1.6 Objectives

The key objective of the BESS BMP is to ensure that impacts to biodiversity are managed and are within the scope permitted by the Development Consent.

This objective will be achieved by ensuring appropriate:

- controls and procedures are implemented during operational activities to avoid (where necessary) or minimise potential adverse impacts to biodiversity values in the disturbance areas.
- measures are implemented to address the mitigation measures detailed in the EIS, TG BDAR and Development Consent.
- measures are implemented to comply with all relevant legislation and other requirements as described in section 21 of the Riverina EHS Management Plan (Appendix D) and section 3 of this BESS BMP.

## 1.7 Targets

The following targets have been established for the management of biodiversity impacts during operation of the BESS:

- Ensure full compliance with the relevant legislative requirements.
- Ensure full compliance with relevant requirements of the TG BDAR and Development Consent.
- No disturbance to biodiversity outside the previously impacted areas within the BESS site and the cable route areas (as shown in **Figure 1-1**).
- Minimise disturbance to biodiversity within the BESS area, including the cable routes in the TransGrid Substation.
- No increase in distribution of weeds currently existing in close proximity to the BESS area, including the cable routes in the TransGrid Substation (refer to **Figure 1-1** and **Figure 7-6**).
- No new weeds introduced to the BESS area, including the cable routes in the TransGrid Substation.

- No pollution or siltation of aquatic ecosystems, wetlands, endangered ecological communities or threatened species habitat.
- No revegetation or screening vegetation plantings within retained native vegetation areas (including ground cover).
- Active erosion will be managed and minimised.

## 1.8 Consultation

DPSF BMP was accepted by DPE to adequately allow for the biodiversity impacts and management of Stage 1 of the Development, including the BESS area to be located within Lot 1 DP1249830, namely Stage 2a. DPE has approved the staging of the Development and the request to submit and establish separate strategies, plans and programs for each Stage of the Development.

The SSD-8392 2b(ii) BMP was developed as a separate plan from the BMP DPSF and was specific to construction works associated with Stage 2b(ii) only, after determining the BMP DPSF did not fully cover the scope of BESS connection works located within the TransGrid Darlington Point Substation (Lot 2 DP628785).

The BESS BMP (this BMP) has been developed as a separate plan from the previous two BMPs, and is limited to the BESS operational phase, with a focus on the cable route areas associated with Stage 2b(ii). SSD-8392 Stage 3 BESS BMP Rev1 was submitted as a post approval document (SSD-8392-PA-66) on 24 March 2023 to commence consultation with the Biodiversity, Conservation and Science (BCS) team, in accordance with Schedule 3, Condition 12 of the Development Consent.

BCS issued a response with recommendations for Rev1 of the BESS BMP on 20 April 2023. This BESS BMP (SSD-8392 Stage 3 BESS BMP Rev2) has been updated to reflect the relevant BCS recommendations to seek approval from DPE as a final version plan.

## 2 Existing Environment

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Stage 3 of the Development involves areas that have been impacted through Stage 1 and Stage 2 of the Development. The previous stages were designed to minimise clearing of native vegetation and threatened species habitats. However, the majority of Lot 1 DP1249830 is now non-native area ('vegetation') on the basis that total habitat loss and biodiversity value has been executed over that area during Stage 1 and Stage 2, and will remain the case during Stage 3 of the Development.

### 2.1.1 Plant Community Types (PCTs) & Vegetation Communities

The TG BDAR assessed the impact areas associated with Stage 2b(ii) of the Development in Lot 2 DP628785, and determined the presence of two plant community types (PCTs), containing one PCT 26 (Remnant) and three PCT 45 (Remnant, Slashed, Planting) vegetation zones.

A description of each PCT is provided below:

- **PCT 26** Weeping Myall open woodland of the Riverina Bioregion and NSW South Western Slopes Bioregion
- **PCT 45** Plains Grass grassland on alluvial mainly clay soils in the Riverina Bioregion and NSW South Western Slopes Bioregion

PCT 26 was confined to a small area (0.04 ha) with a single mature tree and diffuse patches of regrowth. This area was assigned to a single vegetation zone (26\_Remnant). PCT 26 is associated with the following Threatened Ecological Communities (TECs):

- *Biodiversity and Conservation Act 2016* (BC Act)-listed Endangered Ecological Community (EEC): *Myall Woodland in the Darling Riverine Plains, Brigalow Belt South, Cobar Penepplain, Murray-Darling Depression, Riverina and NSW South Western Slopes bioregions*.
- *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)-listed EEC: *Weeping Myall Woodlands*.

The occurrence of PCT 26 fitted the criteria for listing under the BC Act, but not the EPBC Act, therefore 0.04 ha of the BC Act-listed EEC was impacted in Stage 2b of the Development and will be monitored during Stage 3 of the Development. **Figure 2-1** shows the extent of the BC Act, Endangered Myall Woodland (PCT 26), as relevant to the cable route area of the BESS Operation area.



**Figure 2-1 BC Act, Endangered Myall Woodland (PCT 26) mapped over the Connection Cable Routes in TransGrid Substation land on Lot 2 DP628785**

The TG BDAR also identified some non-native vegetation/gravel/bare ground areas, which represent the highly modified/ impacted areas within the TransGrid Darlington Point Substation (**TG DP Sub**) land that have been used for carparking/ hardstand areas. These areas have been covered with gravel or similar material to the extent (and with the intent) that vegetation has not been able to regrow in those areas. In discussions with TransGrid it is known the TG DP Sub is subject to regular and routine maintenance activities to meet the safety and land management requirements relating to asset management of a major electrical substation and infrastructure. Processes employed by maintenance contractors include slashing and mowing the grassed

areas at a frequency ensuring grass length is kept low. Some of the areas impacted by Stage 2b of the Development are non-native vegetation, including parts of the cable route areas. Whilst the Stage 2b works attempted to maximise the use of such non-native vegetation/gravel/bare ground areas, there were impacts to native vegetation, albeit fairly minimal area in total.

A description of the non-native vegetation zone is provided below:

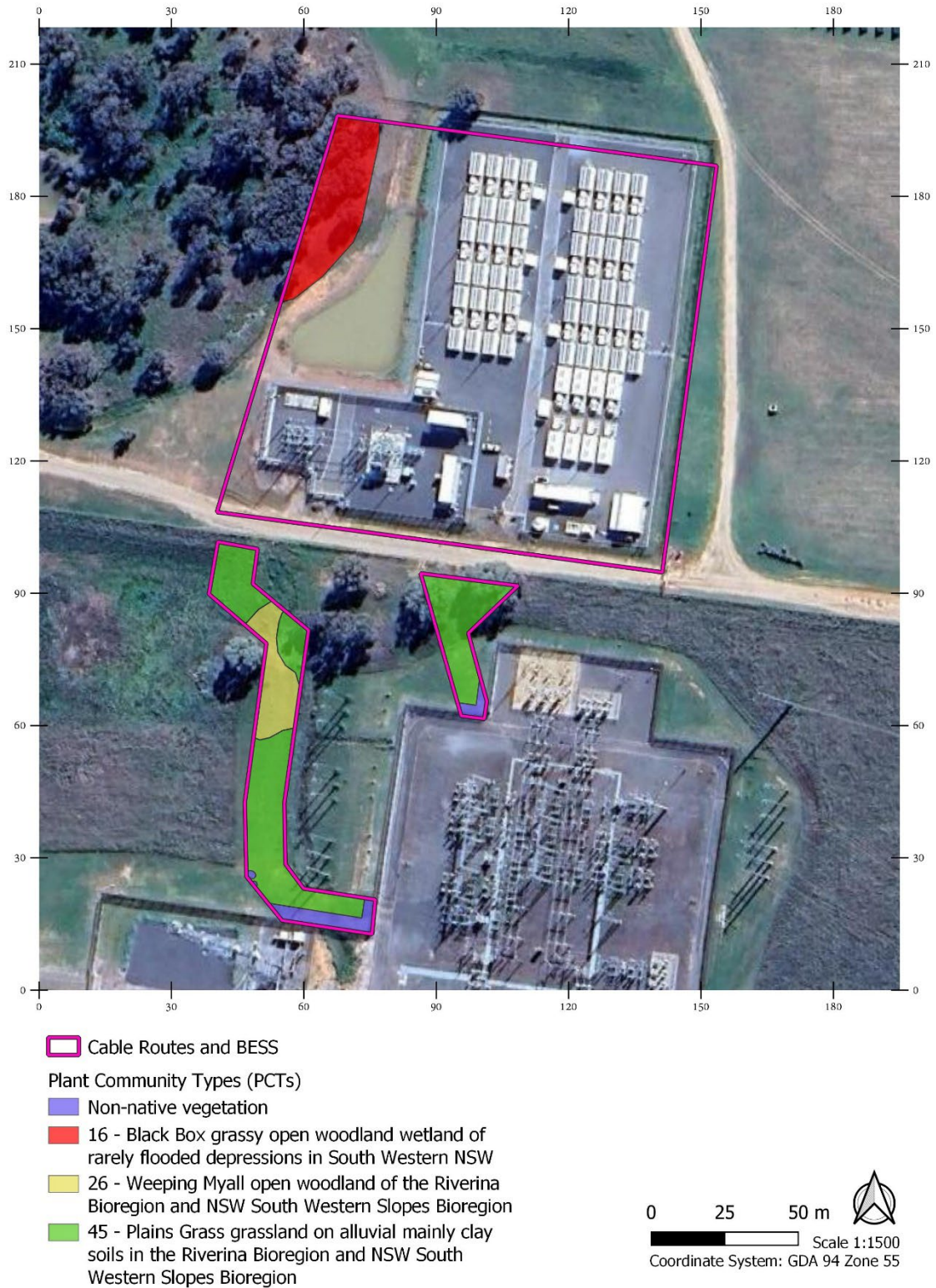
- Non-native

Designation of vegetation as non-native was reserved for highly modified areas surrounding the margins of the TransGrid substation and an active gravel parking area in the south of the subject land. In the former case, these marginal areas were dominated by Wild Oat (*Avena fatua*) and Perennial Ryegrass (*Lolium perenne*), often to the exclusion of all other species. In the latter case, the site is actively used for vehicle parking and only isolated plants were found to persist. The most common species in this area was the High-threat Exotic plant Khaki Weed (*Alternanthera pungens*). These areas were unsuitable for BAM plots, due either to the extremely small area of the zone or, in the case of the carpark, due to the presence of moving vehicles.

The DP BAR (2018) assessed the BESS area (Lot 1 DP1249830) as PCT 45 moderate, with a small area of **PCT 16**, *Black Box grassy open woodland wetland of rarely flooded depressions in South Western NSW*. The PCT 16 area was not impacted in any previous stages of the Development and will continue to be protected during BESS operation (refer to **Figure 1-1**). The balance of Lot 1 DP1249830 was mapped as PCT 45, but is now considered to be non-native vegetation as it was an area that was 'direct impact' during Stage 1 of the Development (used for site office, parking, storage and laydown) and has now been entirely consolidated to hardstand to house the electrical infrastructure associated with the BESS and Riverina Substation, resulting in a complete loss of biodiversity value.

**Figure 2-2** (and **Figure 1-1**) shows the mapped PCTs and non-native areas in Lot 1 DP1249830 and the cable routes within the TransGrid Substation (Lot 2 DP628785), relevant to the biodiversity impacts and mitigation measures to be implemented during the BESS Operation stage.





*Figure 2-2 Mapped PCTs and non-native areas in BESS site in Lot 1 DP1249830 and Connection Cable Routes in TransGrid Substation land on Lot 2 DP628785*

### 2.1.2 Threatened Flora

The following Species Credit Species generated by the BAM-C were assumed present across the whole of their associated PCT(s), as their indicated survey periods fell outside of the window of opportunity for targeted surveys.

- Slender Darling Pea (*Swainsona murrayana*) – see Figure 2-3.

If threatened species are identified during the BESS operational phase the Unplanned Threatened Flora and Fauna Species Finds Procedure must be adhered to.



Figure 2-3: Photo of Slender Darling Pea (*Swainsona murrayana*)

## 2.2 Fauna impacts

Sixteen (16) fauna species, all native, were detected during the April/July 2022 field surveys. Two of the detected species are threatened:

- Superb Parrot (listed as vulnerable under the EPBC Act and BC Act).
- Grey-crowned Babbler (listed as vulnerable under the BC Act).

Neither of these species were found to be within the area to be occupied by the BESS or the BESS scope (connection cables) on the TransGrid Darlington Point Substation land (Lot 2 DP629830), and will not be impacted by the BESS operation, Stage 3 of the Development.

However, noting potential for connectivity between established vegetation, 'bird flappers' will be installed on all fencing, which incorporates barbed wire and is adjacent to PCT 16 (Black Box Woodland). Bird flappers will be installed along the Project's western fenceline, each separated by a distance of 1.0m for a total distance of approximately 150m. The effectiveness of this will be captured during monitoring and reporting programs outlined in this document.

Due to the timing of the field surveys completed for the TG BDAR, and inability to complete targeted seasonal surveys, a number of ecosystem credit species and species credits species were included as assumed present unless one or more constraints indicated assumed absence. Refer to the TG BDAR for justification indicating the reason for excluding particular species.

## 3 Environmental Requirements

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### 3.1 Relevant Legislation and Guidelines

#### 3.1.1 Legislation

Legislation relevant to biodiversity management includes:

- *Environmental Planning and Assessment Act 1979* (EP&A Act).
- *National Parks and Wildlife Act 1974* (NPW Act).
- *Biodiversity Conservation Act 2016* (BC Act).
- *Protection of the Environment Operations Act 1997* (POEO Act).
- *Fisheries Management Act 1994* (FM Act).
- *Local Land Services Act 2013*.
- *Biosecurity Act 2015*.
- *Pesticides Act 1999*.
- *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Environmental legislation is also included in section 21 (Appendix D) of the Riverina EHS Management Plan (EMS).

#### 3.1.2 Development Consent

A Development Consent for the Darlington Point Solar Farm development (SSD 8392) was obtained in December 2018, and included a BESS capacity 50 MW/ 100 MWh. Modification 1 (SSD 8392 MOD 1), which increased the battery capacity to 200 MW/ 400 MWh, was approved in October 2021. The modification stated the BESS would remain in the same location within the approved development footprint, and would involve associated works including a connection to TransGrid's 132kV Darlington Point Substation.

Due to the modification approval, the conditions of consent were amended (as a Consolidated Consent on 22 October 2021), which is still referred to as the Development Consent.

A second Modification (SSD-8392-MOD-2) to:

1. create a new land parcel within Lot 1 DP1249830 to house the Riverina BESS Substation;
2. to allow for temporary construction areas to be utilised within the TransGrid Darlington Point Substation on Lot 2 DP628785 (post-approval, it was determined these areas were no longer required and there was no impact or disturbance of these areas); and
3. to provide the TG BDAR to demonstrate the biodiversity values and impacts have been properly assessed for Stage 2b of the Development;

was approved with amendments to conditions relating biodiversity and the biodiversity management plan requirements issued via a further Consolidated Consent on 31 October 2022. Again, this is referred to as the Development Consent.



Condition of Approval	Condition requirement	BMP Location
	<ul style="list-style-type: none"> <li>• controlling weeds and feral pests;</li> <li>• protecting and promoting the growth of native plant species (including PCT45) and controlling the growth of exotic ground cover;</li> </ul> <p>b. include a seasonally-based program to monitor and report on the effectiveness of these measures against the detailed performance and completion criteria; and</p> <p>c. include details of who would be responsible for monitoring, reviewing and implementing the plan, and timeframes for completion of actions.</p> <p>Following the Planning Secretary's approval, the Applicant must implement the Biodiversity Management Plan.</p> <p><i>Note: If the biodiversity credits are retired via a Biodiversity Stewardship Agreement, then the Biodiversity Management Plan does not need to include any of the matters that are covered under the Biodiversity Stewardship Agreement.</i></p>	<p>Section 5</p> <p>Section 6.3</p> <p>Section 6.1 and 6.6</p> <p>Refer to this BMP</p>

#### Schedule 4 – Environmental Management and Reporting

**Table 3-2 Location of information in this BESS BMP addressing the requirements of Conditions of Consent (Schedule 4)**

Condition of Approval	Condition requirement	BMP Location
<b>Environmental Management</b>		
<b>Schedule 4, Cond 1</b>	<p>Prior to the commencement of construction, the Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Planning Secretary. This strategy must:</p> <p>(a) provide the strategic framework for environmental management of the development;</p> <p>(b) identify the statutory approvals that apply to the development;</p> <p>(c) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;</p> <p>(d) describe the procedures that would be implemented to:</p> <ul style="list-style-type: none"> <li>• keep the local community and relevant agencies informed about the operation and environmental performance of the development;</li> <li>• receive, handle, respond to, and record complaints;</li> <li>• resolve any disputes that may arise;</li> </ul>	<p>Section 1.3</p> <p>Refer to the Riverina EHS Mgt Plan</p>

Condition of Approval	Condition requirement	BMP Location
	<ul style="list-style-type: none"> <li>• respond to any non-compliance;</li> <li>• respond to emergencies; and</li> </ul> (e) include: <ul style="list-style-type: none"> <li>• references to any plans approved under the conditions of this consent; and</li> <li>• a clear plan depicting all the monitoring to be carried out in relation to the development.</li> </ul> <p>Following the Planning Secretary's approval, the Applicant must implement the Environmental Management Strategy.</p>	
<b>Schedule 4, Cond 2</b>	The Applicant must: <p>(a) 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</p> <p>(b) 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:</p> <ul style="list-style-type: none"> <li>• submission of an incident report under condition 4 of Schedule 4;</li> <li>• submission of an audit report under condition 6 or 7 of Schedule 4; or</li> <li>• any modification to the conditions of this consent.</li> </ul>	Section 6
<b>Schedule 4, Cond 3</b>	With the approval of the Planning Secretary, the Applicant may submit any strategy, plan or program required by this consent on a progressive basis. To ensure the strategies, plans or programs under the conditions of this consent are updated on a regular basis, the Applicant may at any time submit revised strategies, plans or programs to the Planning Secretary for approval. With the agreement of the Planning Secretary, the Applicant may prepare any revised strategy, plan or program without undertaking consultation with all parties referred to under the relevant condition of this consent. <p>Notes:</p> <ul style="list-style-type: none"> <li>• <i>While any strategy, plan or program may be submitted on a progressive basis, the Applicant must ensure that all development being carried out on site is covered by suitable strategies, plans or programs at all times.</i></li> <li>• <i>If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.</i></li> </ul>	Section 1 Section 6
<b>Compliance</b>		
<b>Schedule 4, Cond 4</b>	The Planning Secretary 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	Section 6

Condition of Approval	Condition requirement	BMP Location
	nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix 3.	
<b>Schedule 4, Cond 5</b>	The Planning Secretary must be notified in writing via the Major Projects website within 7 days after the Applicant becomes aware of any non-compliance.	Section 6.5
<b>Schedule 4, Cond 5A</b>	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.	Section 6.5
<b>Schedule 4, Cond 5B</b>	A non-compliance which has been notified as an incident does not need to also be notified as a noncompliance.	Section 6.5
<b>Independent Environmental Audit</b>		
<b>Schedule 4, Cond 7</b>	Independent Audits of the development of the battery storage facility must be conducted and carried out in accordance with the Independent Audit Post Approval Requirements (2020) to the following frequency: (a) <del>within 3 months of commencing construction;</del> and (b) within 3 months of commencement of operations.	Section 6.4
<b>Schedule 4, Cond 7A</b>	Proposed independent auditors must be agreed to in writing by the Planning Secretary prior to the commencement of an Independent Audit.	Section 6.4
<b>Schedule 4, Cond 7B</b>	The Planning Secretary may require the initial and subsequent Independent Audits to be undertaken at different times to those specified in condition 7 of Schedule 4 upon giving at least 4 weeks' notice to the Applicant of the date upon which the audit must be commenced.	Section 6.4
<b>Schedule 4, Cond 7C</b>	In accordance with the specific requirements in the <i>Independent Audit Post Approval Requirements (2020)</i> , the Applicant must: (a) review and respond to each Independent Audit Report prepared under condition 7 of Schedule 4 of this consent, or condition 7B of Schedule 4 where notice is given by the Planning Secretary (b) submit the response to the Planning Secretary; and (c) make each Independent Audit Report, and response to it, publicly available within 60 days of submission to the Planning Secretary. unless otherwise agreed by the Planning Secretary.	Section 6.4
<b>Schedule 4, Cond 7D</b>	Independent Audit Reports and the Applicant's response to audit findings must be submitted to the Planning Secretary within 2 months of undertaking the	Section 6.4



Condition of Approval	Condition requirement	BMP Location
	independent audit site inspection as outlined in the <i>Independent Audit Post Approvals Requirements (2020)</i> unless otherwise agreed by the Planning Secretary	
<b>Schedule 4, Cond 7E</b>	Notwithstanding the requirements of the <i>Independent Audit Post Approvals Requirements (2020)</i> , the Planning Secretary may approve a request for ongoing independent operational audits to be ceased, where it has been demonstrated to the Planning Secretary's satisfaction that independent operational audits have demonstrated operational compliance	Section 6.4
<b>Access to Information</b>		
<b>Schedule 4, Cond 8</b>	<p>The Applicant must:</p> <p>(a) make the following information publicly available on its website as relevant to the stage of the development:</p> <ul style="list-style-type: none"> <li>• the EIS;</li> <li>• the final layout plans for the development;</li> <li>• current statutory approvals for the development;</li> <li>• approved strategies, plans or programs required under the conditions of this consent;</li> <li>• the proposed staging plans for the development if the construction, operation or decommissioning of the development is to be staged;</li> <li>• how complaints about the development can be made;</li> <li>• a complaints register;</li> <li>• compliance reports;</li> <li>• any independent environmental audit, and the Proponent's response to the recommendations in any audit; and</li> <li>• any other matter required by the Planning Secretary; and</li> </ul> <p>(b) keep this information up to date.</p>	Section 6.5

## 4 Environmental Aspects and Impacts

The BESS operational phase includes the connection cable routes and trenching impact areas contained within Lot 2 DP629830 (TransGrid's Darlington Point Substation land). This is land that it not owned or managed by the Development or the Asset Manager. The BESS Asset Manager work closely with TransGrid, to collaborate on visual inspections to identify locations where bare ground remains, particularly along the cable trenches between the battery and substation facilities that may require additional rehabilitation efforts to promote revegetation.

Potential biodiversity impacts relating to the cable route and trenching impact areas on Lot 2 DP629830, and which will require some monitoring and management during the BESS Operation that could result in impacts to biodiversity have been described in Table 4-1.

**Table 4-1 Potential biodiversity impacts as a result of the project.**

Nature of impact	Timing	Frequency	PCTs, threatened species and/or TECs impacted	Consequence of impact on biodiversity
<b>Loss of breeding habitat</b>	Operation phase	Rare	<ul style="list-style-type: none"> <li>Threatened species assumed present</li> </ul>	<b>Minor (possibly temporary) loss of potential breeding habitat</b>
<b>Trampling of threatened flora species</b>	Operation phase	Rare	<ul style="list-style-type: none"> <li>Threatened species assumed present.</li> </ul>	<b>Possible minor loss of threatened flora</b>
<b>Rubbish dumping</b>	Operation phase	Possible	<ul style="list-style-type: none"> <li>Native vegetation surrounding the disturbance footprint</li> <li>Threatened species assumed present</li> </ul>	<b>Degradation of native vegetation and habitat for threatened species</b>

## 5 Biodiversity Mitigation and Management Measures

A range of mitigation requirements and control measures are identified in the TG BDAR and Development Consent. Specific measures and requirements to address impacts to biodiversity as relevant to the BESS operation (Stage 3 of the Development) are outlined in Table 5-1. The relevant measures have been listed to cover broad activities and as such there may be some repetition of mitigation measures.

**Table 5-1 Biodiversity management and mitigation measures**

No.	Environmental Safeguards	Timing	Frequency	Mitigation Measure/Mechanism	Responsibility
<b>Clearing and prevention of over-clearing</b>					
1	No new areas to be cleared without further assessment.	During operation	Continuous	No additional clearing is required for operational phase	Operation and Maintenance Contractor
2	All personnel are to be inducted to be aware that disturbance of any stand of native vegetation outside the BESS disturbance footprint, or otherwise unauthorised disturbance, could have legislative consequences if done without approval. Evidence of all personnel receiving an induction would be kept on file (signed induction sheets).	During operation	Continuous	<p>BESS Operation specific induction to be prepared</p> <p>All personnel involved in BESS Operation to be inducted prior to commencement of activities.</p> <p>Provide awareness training during site inductions and toolbox talks-emphasise the importance of native groundcover.</p> <p>Ensure the mapped area of PCT 26 (<i>Myall Woodland EEC</i>) is included in site induction and areas to be protected from development impacts</p>	Operation and Maintenance Contractor

No	Environmental Safeguards	Timing	Frequency	Mitigation Measure/Mechanism	Responsibility
3	An unexpected threatened species finds procedure is recommended. All personnel involved with the BESS Operation should be made aware of potential threatened flora and fauna present. In the event that threatened flora is discovered on site, works should cease in that location and a qualified ecologist should be consulted. Any fauna found during the disturbance are to be allowed (or assisted) to relocate into adjoining habitat. Any vegetation containing threatened fauna may not be disturbed.	During operation	Development of unexpected finds procedure: One-off, prior to operation.  Implementation of procedure: Continuous.	An Unplanned Threatened Flora and Fauna Species Procedure has been prepared (refer to Section 7.1 of this BMP)  Potential threatened flora and fauna present to be detailed within the induction.	Operation and Maintenance Contractor

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**Damage to native vegetation outside of impact zone**


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4	The defined Vegetation and Heritage Protection Exclusion Zone (VEZ) is not to be disturbed. This also includes any other areas of native vegetation.	During operation	Continuous	BESS Operation specific induction to be prepared  All personnel involved in BESS Operation to be inducted prior to commencement of activities.	Operation and Maintenance Contractor
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No	Environmental Safeguards	Timing	Frequency	Mitigation Measure/Mechanism	Responsibility
5	Contractor to remove sections of the 'Darlington Point Perimeter Fence Final' that was erected during DPSF construction phase, which is no longer required and serves a redundant purpose to project safety and boundary delineation between DPSF and RESS	Commencement of Operations or sooner	One-off	Specialist fencing contractor shall be engaged, to ensure fence is removed in a controlled manner that creates no additional impact to flora and fauna	Operation and Maintenance Contractor

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#### Introduction and spread of significant weeds and pathogens

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6	A baseline weed survey will be completed to facilitate management of weeds during operation	Commencement of operation	One-off, prior to operation	<p>Herbicide application will only be administered by authorised personnel with ChemCert accreditation – AQF 3 in accordance with SafeWork requirements.</p> <p>Herbicides will only be applied in accordance label instructions for that product.</p> <p>A Herbicide Application Record will be completed.</p> <p>Only herbicides registered for use near water may be used near any waterways.</p>	Operation and Maintenance Contractor
7	Inspection of weed cover of the BESS operation areas to confirm no increase or spread	During operation	Monthly for the first 12 months, then	Exotic plant surveys will occur on a seasonal basis	<p>Operation and Maintenance Contractor</p> <p>Asset Manager</p>

No	Environmental Safeguards	Timing	Frequency	Mitigation Measure/Mechanism	Responsibility
	of pre-existing weed species		Quarterly/ Seasonally  Weekly for recorded infestations		
8	Weeds present on site that are listed under the NSW Biosecurity Act 2015 or listed as a Weed of National Significant (WoNS) will be managed	During operation	Monthly for the first 12 months, then  Quarterly/ Seasonally  Weekly for recorded infestations	Herbicide application will only be administered by authorised personnel with ChemCert accreditation – AQF 3 in accordance with SafeWork requirements.	Operation and Maintenance Contractor
9	Any herbicide use is to be in accordance with the requirements on the label. Any person carrying out herbicide application would be appropriately trained and competent in its use.	During operation	Monthly for the first 12 months, then  Quarterly/ Seasonally  Weekly for recorded infestations	Herbicide application will only be administered by authorised personnel with ChemCert accreditation – AQF 3 in accordance with SafeWork requirements.  Herbicides will only be applied in accordance label instructions for that product.  A Herbicide Application Record will be completed.  Only herbicides registered for use near water may be used near any waterways.	Operation and Maintenance Contractor

No	Environmental Safeguards	Timing	Frequency	Mitigation Measure/Mechanism	Responsibility
10	Invasive weeds identified during operation activities, that may contain weed propagules, will be removed from site and disposed of appropriately	During operation	Monthly for the first 12 months, then  Quarterly/ Seasonally  Weekly for recorded infestations	Weeds to be disposed of at an approved offsite licensed facility as directed by the HSEQ Manager	Operation and Maintenance Contractor

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#### Additional impacts

11	Installation of reflective markers on the BESS site security fencing to minimise potential bird and bat collisions with the barbed wire, and regular inspection to confirm effectiveness of the measure.	During operation	Continuous	Visual inspection of the reflective markers on the security fencing for effectiveness in minimising bird and bat collisions with the barbed wires	Operation and Maintenance Contractor
12	Emergency spill procedures are to be developed in order to prevent environmental damage associated with chemicals, including fuel and herbicides.	During operation	Development of procedures: One-off, prior to operation.  Implementation of plan: Continuous	The Spill Management protocols documented in Section 18 of the Riverina EHS Management Plan must be adhered to for all spills	Operation and Maintenance Contractor

## 6 Compliance Management

### 6.1 Roles and Responsibilities

The organisational structure for BESS operation is shown in Figure 6-1.

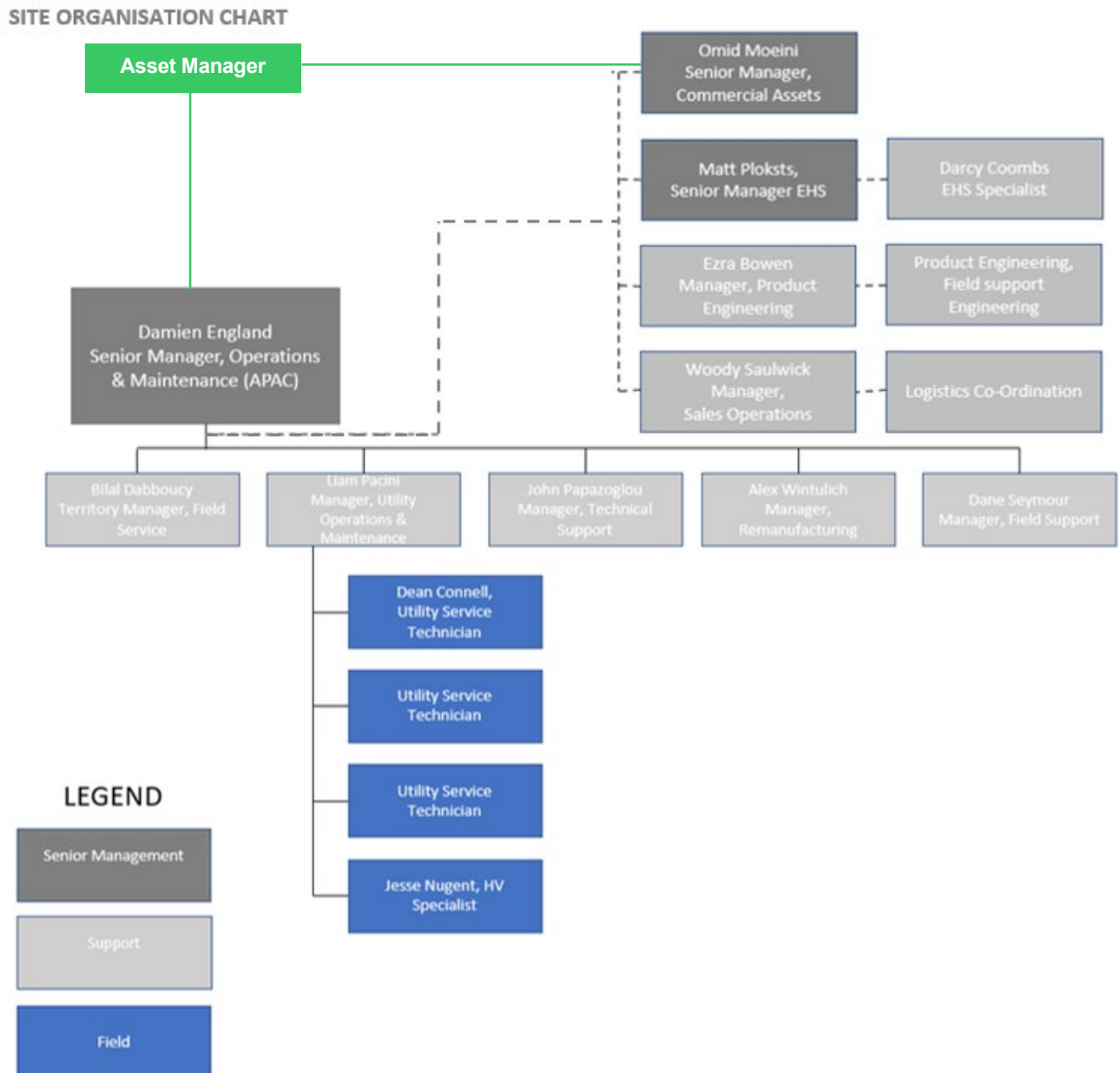


Figure 6-1 Organisation Chart of Operations and Maintenance Contractor (from Riverina EHS Management Plan) and reporting line to Asset Manager



Key responsibilities relating to managing biodiversity during BESS operation are:

- The Asset Manager is responsible for the development and maintenance of the BESS BMP (this plan)
- The Operation and Maintenance Contractor is responsible for the development and maintenance of all other operations management plans including the overarching environmental management strategy, which is referred to as the Riverina Environmental, Health and Safety Management Plan (Riverina EHSMP).
- The Asset Manager manages contracts with ecologists for environmental monitoring as directed by Development Consent (and section 5 of this BMP).
- The Operation and Maintenance Contractor is responsible for ensuring operational activities occur onsite in accordance with the BMP.
- The Operation and Maintenance Contractor is responsible for supervising operations workers and will ensure they are sufficiently trained in the protection of biodiversity and minimising disturbance detailed below.

The operation of the site will be performed by the Operation and Maintenance Contractor and their organisational structure and roles and responsibilities for the operation of the facility can be found in their Riverina EHS Management Plan.

## 6.2 Training

All employees, contractors and staff working on site will undergo induction training covering all procedures and protocols included within this BMP. Site induction provides an introduction to the mapped native vegetation areas – including PCT 16, the ‘Non-impacted vegetation within lot boundary’ and the PCT 26 (Myall Woodland EEC areas shown on Figure 1-1 – to be protected from development activities, emphasise the importance of native groundcover, vehicle hygiene, threatened fauna identification and handling. Further details regarding staff induction and training are outlined in the EHS Plan.

Staff and contractors may be required to attend pre-commencement meetings prior to operational works, to cover details of any urgent biodiversity matters such as any breached of protocols or procedures. Toolbox meetings may also be convened where staff and contractors would be made aware of any less urgent biodiversity matters and reinforce training on implementing protocols and procedures.

## 6.3 Inspections and Monitoring

Inspections incorporating checks of the mapped native vegetation areas – including PCT 16, the ‘Non-impacted vegetation within lot boundary’ and the PCT 26 (Myall Woodland EEC areas shown on Figure 1-1 – and activities with the potential to impact biodiversity will occur following the removal of the redundant fence, followed by monthly inspections in the first year of operations, then annually thereafter for the duration of operations. Monitoring and evaluation of success will include a reflection on the seasonal conditions for the previous period.

Monitoring during BESS operation will be monthly inspections of cable route disturbance areas for the first 12 months post-construction and then quarterly/seasonally for the duration of operations, and within Lot 1 DP1249830. The monthly/quarterly inspections will include:

- A review of any new disturbance to native vegetation.
- A review of any fauna killed or injured. Threatened fauna mortalities will be reported to BCS.
- Fauna relocations will be recorded.
- A review of the use of reflective markers on the security fencing to minimise fauna collisions.
- Areas of high and low threat exotic plants will be recorded.

- A review of any degraded sites where bare ground remains, particularly along the cable routes that link the battery and substation facilities.

Trigger points for corrective action include:

- Damage to native vegetation beyond original BESS construction disturbance areas.
- Presence of injured or deceased fauna.
- Scours greater than 50 mm deep and 100 m long.
- Any new weed infestations
- Observed feral animals or observations from neighbours.
- Infestations of existing or new weeds highlighted during baseline surveys
- Any increase in weed cover or abundance at recorded locations
- Any harm to threatened species due to fencing entanglement or collision.

A monitoring program summary is provided in Table 6-1.

Where threatened species are involved, corrective actions will be supported by a qualified ecologist to assist in advising on appropriate actions and possible further mitigation measures.

**Table 6-1 Monitoring Program Summary – Minimum Requirements**

No.	BMP Section	Monitoring Action	Timing/ Frequency	Responsibility	Decision Trigger / Adaptive Response	Reporting
<b>During operation</b>						
1	Section 6.3	Visual inspection for signs of new disturbance to native vegetation within and outside of the construction impacted areas	Following removal of redundant fence  Regularly – at least monthly	Operation and Maintenance Contractor	Activity in disturbance area to cease immediately. Identified new disturbance to be reported to Asset Manager within 24hrs of detection.  Internal incident investigation to be completed by O&M Contractor within 5 days and incident report to be shared with Asset Manager.  If new disturbance to native vegetation is confirmed, Asset Manager to take appropriate action/s, including notification to DPE and BCS.  Incident to be detailed at staff and contractor pre- commencement meetings at the beginning of each shift to prevent recurrence and reinforce no unauthorised disturbance to any areas outside of the facility security fence line.	Asset Manager to inform DPE of non-compliance immediately.  Asset Manager to inform BCS immediately of incidents causing harm to threatened species, or ecological communities.
2	Table 5-1,	Visual inspection of the reflective markers on the security fencing for	Weekly for the first 12 months	Operation and Maintenance Contractor	If collision of bird or bat with security fence is noted, such incidents then triggers a review and report.	On-site reporting Asset Manager to inform DPE and BCS of

No.	BMP Section	Monitoring Action	Timing/ Frequency	Responsibility	Decision Trigger / Adaptive Response	Reporting
	Section 6.3	effectiveness in minimising bird and bat collisions	After this, monthly		<p>Incident reports will be issued within 1 month to DPE / BCS and relevant ecologist.</p> <p>Review is to be supported by engagement with qualified ecologist or wildlife carer to assist in identifying species involved in collision.</p> <p>If harm to any threatened species is confirmed, further mitigation measures will be considered in consultation with qualified ecologist or wildlife carer.</p> <p>The outcome of any adaptive management measures will be reported to BCS within 1 month of implementation. The review will document recommended measures and their ongoing effectiveness, which will be agreed to in consultation with BCS.</p>	incidents causing harm to threatened species.
3	Section 7.1	Maintain a log of salvaged fauna and actions taken to relocate them.	As required	Operation and Maintenance Contractor	<p>If threatened species are identified, then triggers a review and report.</p> <p>Review is to be supported by engagement with qualified ecologist or wildlife carer to</p>	On-site reporting. Asset Manager to inform DPE and BCS of

No.	BMP Section	Monitoring Action	Timing/ Frequency	Responsibility	Decision Trigger / Adaptive Response	Reporting
					<p>assist in identifying species involved and assistance with appropriate salvage and relocation steps.</p> <p>If harm to any threatened species is confirmed, further mitigation measures will be considered in consultation with qualified ecologist or wildlife carer.</p>	incidents causing harm to threatened species.
4	Section 6.3	Inspection to detect high and low threat exotic plant cover throughout BESS area/s	<p>Monthly for first 12 months, then Quarterly/ Seasonally</p> <p>Weekly for recorded infestations</p>	<p>Operation and Maintenance Contractor</p> <p>Asset Manager</p>	<p>Any new infestation</p> <p>Any increase in cover or abundance (number of plants) at recorded locations.</p> <p>Inspection is to be supported by engagement with qualified ecologist to assist in identifying plant species detected.</p> <p>Include provision of raw data (or copies of field data sheets) with annual reporting to BCS, along with consultation and a commitment to altering methods if controls do not identify and eliminate new infestations or control existing infestations</p>	Annual report to BCS/DPE

## 6.4 Auditing

The Operation and Maintenance Contractor will maintain a compliance register for the BESS to ensure audits and reporting requirements are met within scope and within set timeframes. The compliance register will include a list of Development Consent conditions and biodiversity commitments identified in the EIS, RTS, DP BAR, TG BDAR and this BESS BMP.

Audits (both internal and external) will be undertaken to assess the effectiveness of environmental controls, compliance with this BMP and compliance with other relevant approvals, licenses and guidelines including:

- Independent Environmental Audit of the development of the battery storage facility to be conducted and carried out in accordance with the relevant *Independent Audit Post Approval Requirements* (DPE 2020).
  - Within 3 months of commencement of operations.
- The Independent Environmental Audit must be reviewed and responded to; the Report and response must be submitted to the Planning Secretary within 2 months of undertaking the independent audit site inspection; and the Independent Audit Report and response to it is to be made publicly available within 60 days of submission to the Planning Secretary.

Corrective measures or actions to improve the environmental performance recommended by auditors will be reviewed by the asset management team and incorporated into strategies, plans or programs required under the Development Consent.

The recommendations of the Independent Environmental Audit must be implemented to the satisfaction of the Planning Secretary.

Additional audit requirements are detailed in the Riverina EHS Management Plan.

## 6.5 Reporting

Reporting requirements and responsibilities are documented in detail in the Riverina EHS Management Plan.

Documentation required under the Development Consent to be made available publicly will be done so in a timely manner in accordance with the requirements of the Development Consent.

The Asset Manager will inform DPE of any non-compliance incident within 7 days of occurrence.

Any additional mitigation or management measures relevant to biodiversity have been incorporated into Section 6 of this BMP as required.

Any independent environmental audit, and the response to the recommendations in/from any audit will be made publicly available on the internet. Any other biodiversity matter will also be made publicly available as required by DPE.

## 6.6 Review and Improvement

This BMP will be reviewed every three years, for as long as the BMP is relevant. Continuous improvement of this BMP will be achieved by the ongoing evaluation of performance against the BMP environmental policies, objectives and targets to identify opportunities for improvement.

The continuous improvement process will be designed to:

- Identify areas of opportunity for improvement of environmental management and performance.
- Determine the cause or causes of non-conformances and deficiencies.
- Develop and implement a plan of corrective and preventative action to address any non-conformances and deficiencies.
- Verify the effectiveness of the corrective and preventative actions.
- Document any changes in procedures resulting from process improvement.
- Make comparisons with objectives and targets.

## 7 Protocols and Procedures

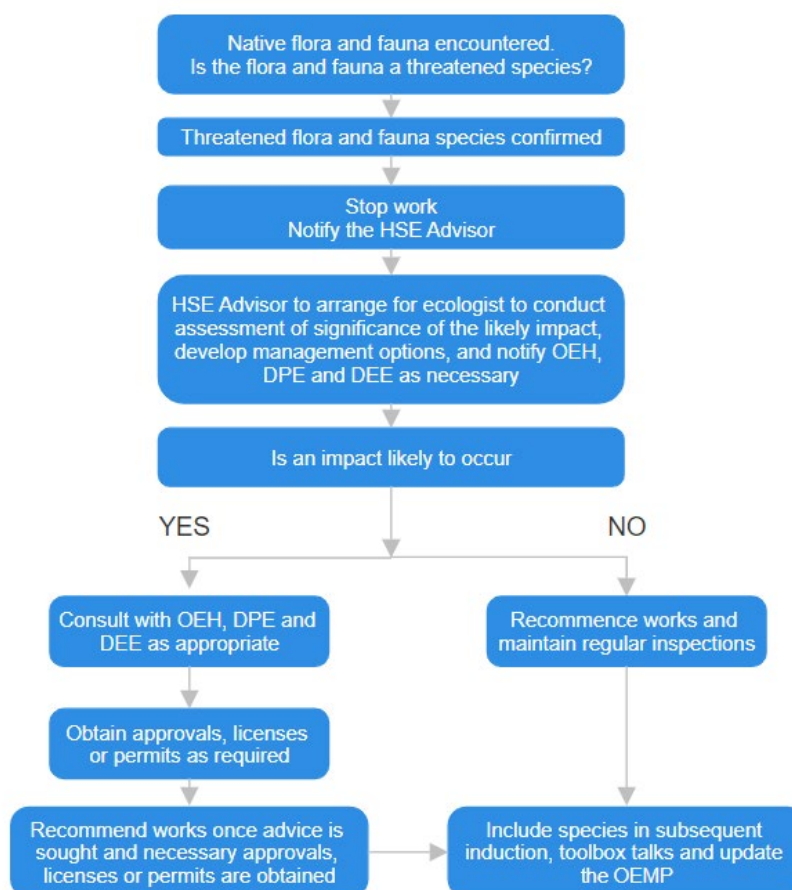
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### 7.1 Unplanned Threatened Flora and Fauna Species Finds Procedure

The procedure in Figure 7-1 shall be used for unplanned threatened flora and fauna species finds.

As a general principle, any native fauna found with the BESS operation area/s should be avoided. Flora and fauna should only be handled by a qualified ecologist or wildlife carer with relevant skills and experience (e.g. snake handling), and only when absolutely necessary.

Any onsite protected fauna injured during an operational activity should be captured and a registered wildlife handler or veterinarian contacted and documented on a threatened species register (Table 7-1). Similarly, any disturbed threatened flora shall be assessed by a qualified ecologist and a suitable action plan derived by the ecologist.



*Figure 7-1: Threatened flora and fauna encounter procedure*

### Step 1

Remove any threat to the fauna that could cause or exacerbate an injury.

### Step 2

Use appropriate equipment to capture the fauna. This may include:

- Frogs: disposable gloves, disinfectant on hands and equipment between animals, disposable plastic bags (one per animal, one use only).
- Mammals: gloves, cloth bags/cotton pillow slips, up-to-date Australian Bat Lyssavirus vaccinations.

### Step 3

Contain the fauna to minimise stress. Gently place the fauna in a holding box specifically designed for holding fauna. Cotton pillowslips may be used to cover mammals, or mammals may be placed





small mammals such as rodents and invertebrates. Larger pest animals may however enter the area periodically through the access off Donald Ross Drive.

#### **7.2.1.1 Fox pest control (NSW Department of Primary Industries)**

Reducing the impact of the red fox relies on a mixture of control techniques comprising poison baiting, shooting, trapping, fencing and guard animals. All these techniques have a short-term effect on local fox numbers. No single control method will be successful on its own and when foxes are removed from an area, reinvasion or immigration from existing untreated areas generally occurs within 2 to 6 weeks.

Control methods can be accessed from <http://www.dpi.nsw.gov.au/biosecurity/vertebrate-pests/pest-animals-in-nsw/foxes/fox-control>

#### **7.2.1.2 Rabbit pest control**

The European rabbit is declared a noxious animal in NSW. Landholders are obliged to control rabbit populations on their land. The aim of control is to reduce the impact of rabbits on farm enterprises and the natural environment. The success of rabbit control should be determined more by how many rabbits remain than by how many rabbits have been removed. Rabbits have the ability to rapidly re-invade and recolonise areas following control, so control programs should involve as large a number of properties as possible. Set clear, attainable objectives for control work, taking account of available financial and physical resources.

Two broad rabbit control strategies are applied to rural land in NSW: the combination of poisons and harbour destruction in eastern areas with cooler climates, and extensive harbour destruction where ground conditions are suitable in western areas. There are three Stages of rabbit control:

- Stage 1- Initial reduction.
- Stage 2- Follow up control.
- Stage 3 Advanced control.

Control methods include:

- Monitoring of population density prior to deciding a control method.
- Poisons.
- Harbour destruction.
- Fumigation.
- Shooting.
- Trapping.

Further details regarding control methods can be accessed from:

<http://www.dpi.nsw.gov.au/biosecurity/vertebrate-pests/pest-animals-in-nsw/rabbits/rabbit-control>.

#### **7.2.1.3 Feral cat control**

Feral cat control can be achieved by applying fox control techniques. Further information can be accessed from: <http://www.environment.gov.au/biodiversity/threatened/publications/factsheet-tackling-feral-cats>.



#### **7.2.1.4 Pesticide application record**

Pesticide application will only be administered by authorised personnel with ChemCert accreditation – AQF 3 in accordance with SafeWork requirements.

Pesticides will only be applied in accordance with label instructions for that product.

A Pesticide Application Record (Figure 7-2) will be completed and public notifications made in accordance with relevant legislation, where pesticides are to be used in areas that could be accessed by members of the public.

Only pesticides registered for use near water may be used near any waterways.

## Pesticide Application Record Sheet



### Location, Applicator, Date of Application

Property/Holding: (residential address)					Date:										
Applicator's Full Name:				Owner (if not applicator):											
Address:				Address:											
			Phone:		Phone:										
Mobile:	Fax:	Email:	Mobile:	Fax:	Email:										
Sensitive Areas (including distances, buffers):				Comments (including risk control measures for sensitive areas):											
<table border="1" style="margin: auto;"> <tr><td></td><td>N</td><td></td></tr> <tr><td>W</td><td>Treated Area</td><td>E</td></tr> <tr><td></td><td>S</td><td></td></tr> </table>					N		W	Treated Area	E		S				
	N														
W	Treated Area	E													
	S														

### Host/Pest

Paddock Number/Name:		Paddock Area:		Order of Paddocks Sprayed:	
Crop/Situation:			Type of Animals:		
Crop/Pasture Variety:			Age/Growth Stage:		
Growth Stage:			Mob/Paddock/Sheed:		
Pest/Disease/Weed:			Animals — Number Treated:		
Pest Density/Incidence: Heavy <input type="checkbox"/> Medium <input type="checkbox"/> Light <input type="checkbox"/>					

### Application Data

Full Label Product Name:			Rate/Dose:		Water Rate L/ha:
Permit No.:		Expiry Date:		Additives/Wetters:	
Total L or kg:		WHP:	ESI*:	Date Suitable for Sale:	
Equipment Type:			Nozzle Type:	Nozzle Angle:	Pressure:
Date Last Calibrated:		Water Quality (pH or description):			

### Weather

Showers <input type="checkbox"/> Overcast <input type="checkbox"/> Light Cloud <input type="checkbox"/> Clear Sky <input type="checkbox"/>					
Rainfall (24 hours before and after)					
Before: mm		During: mm		After: mm	
Time (show time in this column)	Temperature °C	Relative Humidity (%)	Wind Speed	Direction	Variability (e.g. gusting)
Start					
Finish					
Comments:					

\* When using herbicides in mixtures with fungicides and insecticides, an ESI may apply to the non-herbicide component of the mixture.

Figure 7-2: Pesticide Application Record

## 7.2.2 Weed Management Procedure

. Special care is to be taken in inductions for personnel to ensure legislative requirements for pest plant and weed control are met. This may require specialist ecologist involvement in training to ensure correct identification of invasive weeds.

According to the TG BDAR, 20 species of exotic plant (including three listed weed species) were recorded within the BESS Stage 2b(ii) Development area. Of those exotic plants, no Weeds of National Significance or Priority Weeds for the region were recorded during the assessment.

The three recorded weed species are listed as High Threat Exotic (HTE) species under the BAM, which include:

- Khaki Weed (*Alternanthera pungens*) – see **Figure 7-3**



*Figure 7-3: Khaki Weed (Alternanthera pungens)*

- Paspalum (*Paspalum dilatatum*) – see **Figure 7-4**



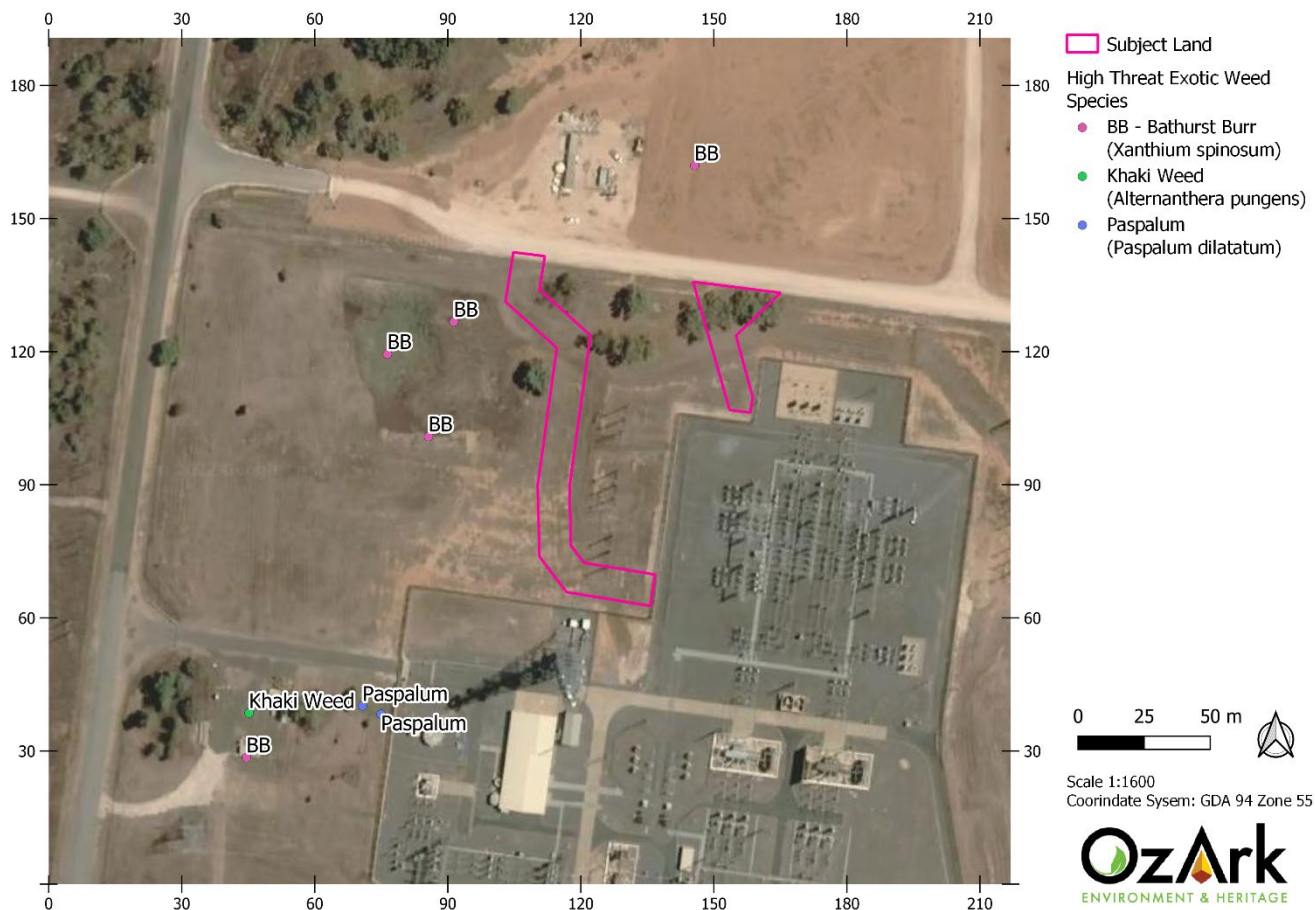
Figure 7-4: *Paspalum* (*Paspalum dilatatum*)

- Bathurst Burr (*Xanthium spinosum*) – see Figure 7-5



Figure 7-5: Bathurst Burr (*Xanthium spinosum*)

The location of plots within the vicinity of the BESS Stage 2b(ii) works are detailed in the **Figure 7-6**.



*Figure 7-6: Weed Species Plots*

*(Source: SSD-8392-2b(ii) Biodiversity Management Plan Rev3, CPP Jan 2023)*

Baseline weed surveys will be conducted upon the commencement of operations, followed by monthly surveys thereafter throughout the operation of the project. Any existing or new weed infestations will trigger the detailed weed management procedure provided in Section 7.2.2.3 of this BMP, whereby any recorded weed infestations will be surveyed on a weekly basis until eradicated. In addition, when inspections determine locations where bare ground remains, particularly along the cable trenches between the battery and substation facilities, weed free topsoil and endemic native seeds shall be sourced and used to promote revegetation.

### 7.2.2.1 Invasive weeds

The BMP lists the implementation of weed control measures to ensure invasive weed problems are not exacerbated. Weeds will be classified with reference to NSW WeedWise profiles. Once weeds are identified within the BESS operation area/s, they should be marked up on relevant drawings.

### 7.2.2.2 Weed inspection

The Operation and Maintenance Contractor will arrange inspection of the BESS operation area/s for weeds as required:

- Baseline weed management survey to be completed at the commencement of operations
- Monthly for the first 12 months of operations to identify high and low threat exotic plants before they go to flower and seed; then quarterly or seasonally to be reported annually to BCS/DPE
- Weekly when a potential weed infestation has been identified.

Exotic plant cover will be mapped with GPS following inspections including noting the specie(s) degree of infestation and capturing an image for monitoring purposes.

### 7.2.2.3 Weed Management

The Operation and Maintenance Contractor will ensure that the below mitigation strategies are implemented in Table 7-2.

**Table 7-2: Weed Management Procedure**

No.	Control measure	Responsibility	Timing
<b>During Operations</b>			
1	If identified weeds need to be eradicated, this should be done by an approved weed contractor  Only employees or contractors holding current licenses/approvals shall apply herbicides and pesticides	Operation and Maintenance Contractor	<b>Ongoing as required</b>
2	Herbicide and pesticides must be applied based on the manufacturer's recommendation and label specifications at the most appropriate time of year for that weed species	Operation and Maintenance Contractor	<b>Ongoing as required</b>
<b>Training</b>			
3	Employees and subcontractors must be trained in the identification of weeds specifically the HTE's relevant to their work sites and appropriate clean down procedures	Operation and Maintenance Contractor	<b>Ongoing</b>
4	Raise awareness of the importance of controlling weeds and their role in preventing its spread.	Operation and Maintenance Contractor	<b>Ongoing</b>
<b>Clean Down Requirements</b>			
5	All vehicles, plant and machinery entering and leaving sites with weed infestations must be cleaned and free of weeds and pathogens	Operation and Maintenance Contractor	<b>Ongoing</b>



No.	Control measure	Responsibility	Timing
	Particular attention should be paid to the radiator, wheel wells, tyres, bumpers and undercarriage on the exterior and the carpets, floor mats and seats within the cab.		
<b>6</b>	Complete Weed/disease Inspection and clean down checklist	Operation and Maintenance Contractor	<b>Ongoing</b>
<b>Visual Inspection</b>			
<b>7</b>	<p>A visual inspection of vehicles, plant and equipment shall be undertaken and shall include the following;</p> <p>The radiator, wheel wells, tyres, bumpers and undercarriage on the exterior and the carpets, floor mats and seats within the cab</p> <p>A wash down bay will not be available on site. All plant, equipment and vehicles are to be cleaned down prior to arrival at site. If during the course of an inspection weed / seed contaminants are identified the equipment or plant will be prohibited from entering site.</p>	Operation and Maintenance Contractor	<b>Ongoing</b>
<b>Weed Surveys</b>			
<b>8</b>	<p>Survey of disturbed areas for weed coverage will be conducted monthly for 12 months post construction, then quarterly or seasonally to provide in annual report to BCS/DPE.</p> <p>Any recorded weed infestations will be surveyed on a weekly basis until eradicated.</p>	<p>Operation and Maintenance Contractor</p> <p>Asset Manager</p> <p>Specialist Ecologist as required</p>	<p><b>Monthly for first 12 months, then</b></p> <p><b>Quarterly/ Seasonally</b></p> <p><b>Weekly following recorded weed infestation</b></p>
<b>Records</b>			
<b>9</b>	<p><b>Records shall be kept and maintained for the following;</b></p> <ul style="list-style-type: none"> <li>• <b>Any pesticides/herbicides used</b></li> <li>• <b>Vehicle Clean Down Checklists</b></li> <li>• <b>Properties with significant weed infestations and/or plant/animal diseases</b></li> <li>• <b>Mapped locations, controls employed, and effectiveness</b></li> <li>• <b>Any requirements of landowners regarding access or weed/disease control techniques</b></li> </ul>	<b>Operation and Maintenance Contractor</b>	<b>Ongoing</b>



#### **7.2.2.4 Weed treatment**

A general guide to weed control and management is presented above. More detailed information, including herbicide types and application rates, can be sought from the project Ecologist or from the WeedWise website (<http://weeds.dpi.nsw.gov.au/>).

#### **7.2.2.5 Herbicide application record**

Herbicide application will only be administered by authorised personnel with ChemCert accreditation – AQF 3 in accordance with SafeWork requirements.

Herbicides will only be applied in accordance label instructions for that product.

A Herbicide Application Record (Figure 7-7) 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.

**Location, Applicator, Date of Application**

Property/Holding: (residential address)					Date:										
Applicator's Full Name:				Owner (if not applicator):											
Address:				Address:											
Phone:				Phone:											
Mobile:	Fax:	Email:	Mobile:	Fax:	Email:										
Sensitive Areas (including distances, buffers):				Comments (including risk control measures for sensitive areas):											
<table border="1"> <tr><td></td><td>N</td><td></td></tr> <tr><td>W</td><td>Treated Area</td><td>E</td></tr> <tr><td></td><td>S</td><td></td></tr> </table>					N		W	Treated Area	E		S				
	N														
W	Treated Area	E													
	S														

**Host/Pest**

Paddock Number/Name:	Paddock Area:	Order of Paddocks Sprayed:
Crop/Situation:	Type of Animals:	
Crop/Pasture Variety:	Age/Growth Stage:	
Growth Stage:	Mob/Paddock/Shed:	
Pest/Disease/Weed:	Animals — Number Treated:	
Pest Density/Incidence: Heavy <input type="checkbox"/> Medium <input type="checkbox"/> Light <input type="checkbox"/>		

**Application Data**

Full Label Product Name:		Rate/Dose:	Water Rate L/ha:
Permit No.:	Expiry Date:	Additives/Wetters:	
Total L or kg:	WHP:	ESI*:	Date Suitable for Sale:
Equipment Type:	Nozzle Type:	Nozzle Angle:	Pressure:
Date Last Calibrated:	Water Quality (pH or description):		

**Weather**

Showers <input type="checkbox"/> Overcast <input type="checkbox"/> Light Cloud <input type="checkbox"/> Clear Sky <input type="checkbox"/>					
Rainfall (24 hours before and after)					
Before:	mm	During:	mm	After:	mm
Time (show time in this column)	Temperature °C	Relative Humidity (%)	Wind Speed	Direction	Variability (e.g. gusting)
Start					
Finish					
Comments:					

\* When using herbicides in mixtures with fungicides and insecticides, an ESI may apply to the non-herbicide component of the mixture.

Figure 7-7: Herbicide Application Record sheet

**7.2.2.6 Follow-up inspection**

The Operation and Maintenance Contractor will ensure that a weekly follow-up inspection is undertaken of identified exotic plant cover to ensure treatment was successful. Follow-up inspection records will be recorded as an addendum to the relevant Herbicide Application Record.



