# Riverina Battery Energy Storage System (BESS) Stage



# **State Significant Development (SSD 8392)**



CPP Project No: 11291

Current Revision			
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# POWER PROJECTS A QUANTA SERVICES COMPANY

## **Biodiversity Management Plan**

Riverina Battery Energy Storage System (BESS) Stage CPP Project No: 11291

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#### 1 Introduction

#### 1.1 Context

This Biodiversity Management Plan (BMP) forms part of the Environmental Management Strategy (EMS) and the Construction Environmental Management Plan (CEMP) for Riverina Energy Storage System, being the Battery Energy Storage System (BESS) stage (the Project) of the Darlington Point Solar Farm development (the Development). This includes details for operational biodiversity monitoring required by the Conditions of Consent read in conjunction with the Darlington Point Biodiversity Assessment Report (DP BAR) V07 (August 2018), as relevant to the BESS area of the Development.

As this BESS stage of the Development is a separate project, to the extent the Solar Farm and BESS required different scope of works and construction contractors, and are and will be managed and operated by different parties, it has been determined a standalone BMP (this document) is required for the BESS project. However, this BMP makes reference to the BMP for the Darlington Point Solar Farm (BMP DPSF) by NGH Environmental (April 2018), because it includes the land on which the battery infrastructure will be located, Lot 1 DP1249830, as part of the Development Footprint. This land has already been directly impacted with native vegetation permanently removed (complete loss of habitat) during the construction phase of the DPSF.

This BMP describes how impacts on biodiversity will be minimised and managed during construction and operation of the Project, as relating to the scope of works within Lot 1 DP1249830 and Lot 2 DP1249830. The Project also involves a scope of works for the connection and communications cables within the TransGrid Darlington Point Substation (TG DP Sub) on Lot 2 DP628785. The cables will connect the BESS to the TG DP Sub. This scope of work was included in the Development Approval, however the impact area was not included in the DP BAR. A new biodiversity assessment has been completed on the proposed impact areas within the TG DP Sub. The Biodiversity Assessment Report – TransGrid Substation Connection – Darlington Point, May 2022 (TG BAR) shows there will be no native vegetation impact resulting from those cable works, thus no biodiversity impact. Therefore, the cable works in the TG DP Sub are referred to as associated works for the BESS Stage of the Development, but are not relevant to this BMP.

This BMP has been prepared to address the requirements of:

- New South Wales (NSW) Department of Planning and Environment (DPE) Conditions of Consent (CoC) (7 December 2018).
- All applicable legislation, during the construction and operation of the Project.
- Mitigation and management measures and Statements of Commitments (SoC) 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,

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and sub plans associated with the with the construction operation, and decommissioning of the BESS Stage of the Development

 The Biodiversity Assessment Report – TransGrid Substation Connection – Darlington Point, May 2022 (TG BAR)

#### CoC 12 states:

Prior to the commencement of construction, the Proponent must prepare a Biodiversity Management Plan for the development in consultation with BCS, and to the satisfaction of the 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 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.

## 1.2 Background

The EIS assessed the impacts of the Development on biodiversity. The DP BAR was prepared by EPS in August 2018 to support the EIS. The report was prepared under the Framework for Biodiversity Assessment as part of the Biodiversity Offsets Policy for Major Projects.

The Development was modified to increase the size of the BESS to the capacity now approved, with approval from DPE received 22 October 2021. DPE issued a Consolidated Consent, which did not alter the conditions relating to biodiversity (other than administrative regulator name changes).

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The CoC issued by DPE and mitigation measures from the EIS and the DP BAR, detail the requirements of this BMP.

The biodiversity assessment for the BESS connection works into the TG DP Sub (TG BAR) determined those works will have no biodiversity impact, and as such there are no requirements relating to this BMP.

### 1.3 Environmental Management System

The overall Environmental Management System for construction of the Project is described in the CEMP. This BMP is part of the environmental management framework for the Project. Mitigation and management measures identified in this BMP will be incorporated into the site specific CEMP.

Used together, the CEMP, BMP, strategies and procedures form management guides that clearly identify required environmental management actions for reference by personnel and contractors.

This BMP will be reviewed every three years.

### 1.4 Project Description

The Darlington Point Solar Farm SSD-8392 (DPSF or Development) project involves the development of a 275 MW alternating current (AC) solar pv system, with all associated infrastructure, as well as a 150MW / 302.7MWh Bbattery energy storage system (BESS) for peak demand resupply, including the connection to the TransGrid Darlington Point Substation. The DPSF Development is being built in stages, with construction of the Solar Farm (SF) stage now completed. The SF is currently completing commissioning activities to enter into operations.

The BESS is Stage 2 of the Development, and the BESS construction will involve the civil and structural works, installation of the battery packs and ancillary electrical infrastructure, and construction of the Riverina BESS 132/33kV Substation (RBESS Sub). Temporary compound office, parking and laydown areas will also be established near the site entrance on Lot 2 DP1249830. The scope of works on Lot 2 DP628785 involving the connection into the TransGrid Darlington Point Substation via 132kV underground cable, control and communications conduits and the construction of a new switch bay at the existing TransGrid Darlington Point Substation will occur in parallel with the aforementioned activities, though will not commence at the same time. It shall be noted that the TG BAR assessed the BESS connection works into the TG DP Sub, and determined those works will have no biodiversity impact, and as such there are no requirements relating to this BMP.

A detailed infrastructure layout is provided in Figure 1 to Figure 8 and includes the following components:

- Compound office, parking and laydown areas.
- Civil and structural balance of plant.
- Installation of Tesla Megapacks system.
- Electrical balance of plant including:
  - MV transformers
  - Switchgear complete with all auxiliary plants
  - All AC and DC cabling including connectors & cable management systems

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- o DC, UPS, emergency power system complete with auxiliary plants
- o Earthing system
- Lightning and surge protection system
- Small power and lighting systems
- Secondary system and SCADA interface with Tesla interface.
- A 33/132 kV switchyard and internal switchroom.
- Facility perimeter fencing (Figure 5 and Figure 6).
- 132kV underground cable (connections works).
- Control and communications cable conduits (connections works).
- A 132 kV switch bay (connection works).
- Fire breaks or asset protection zone (APZ) (with a perimeter access road overlaying this direct impact zone).



Figure 1 DP BESS site proximity within wider solar farm

Source: DP Modification Report 2021





Figure 2 Site compound and laydown area location and details

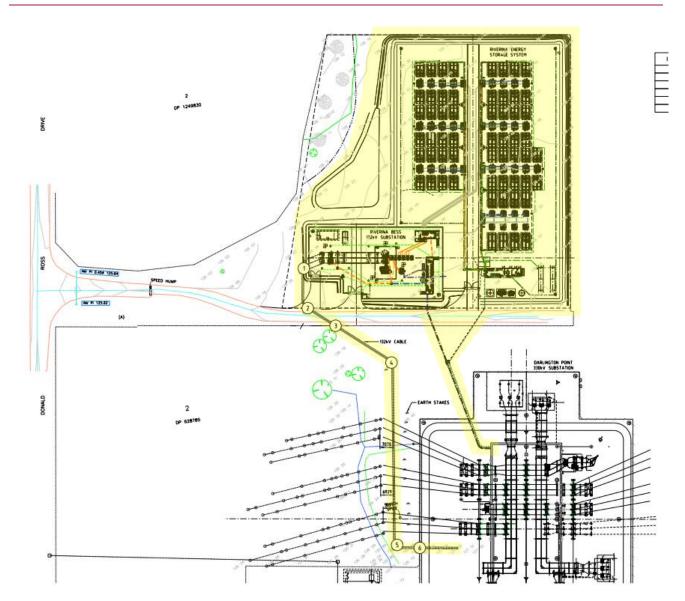


Figure 3 BESS and RBESS Sub construction layout on Lot 1 DP1249830 and connection into the TG DP Sub via 132kV underground cable, control and communications conduits on Lot 2 DP628785 (Project works highlighted in YELLOW)



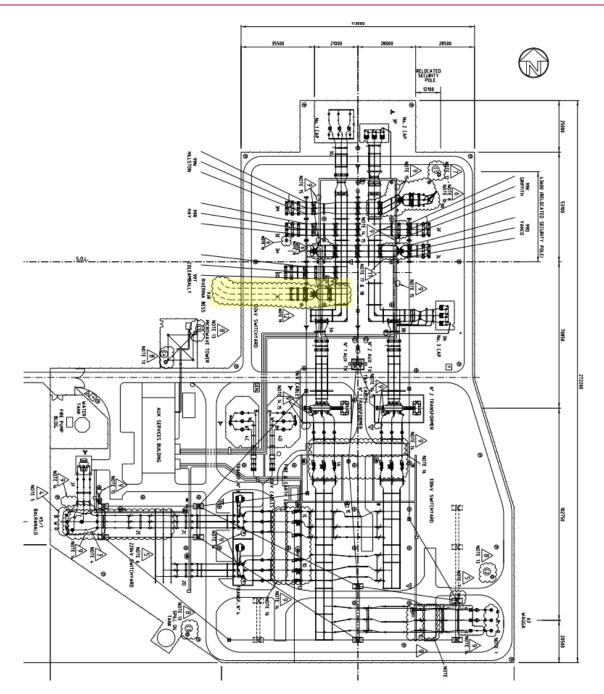
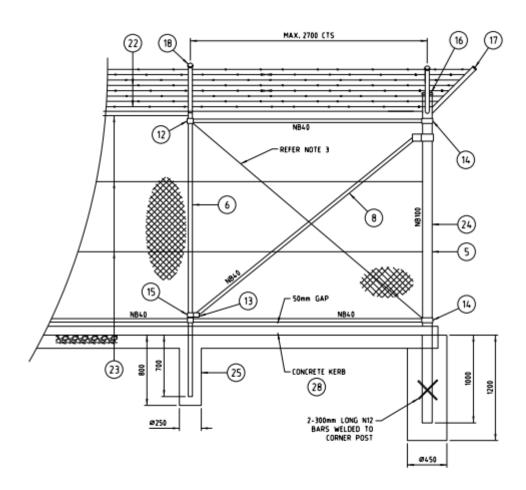


Figure 4 132kV switch bay on Lot 2 DP628785 (Project works highlighted in YELLOW)

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#### FRONT VIEW - CORNER FENCE PANEL DETAIL

SCALE 1:25

NOTE: PIPE DIAGONAL BRACE AND PIPE TOP RAIL BRACE TO BE FITTED ON RETURN CORNER LEG. (TYPICAL EACH CORNER)

Figure 5 BESS Typical Fence Detail



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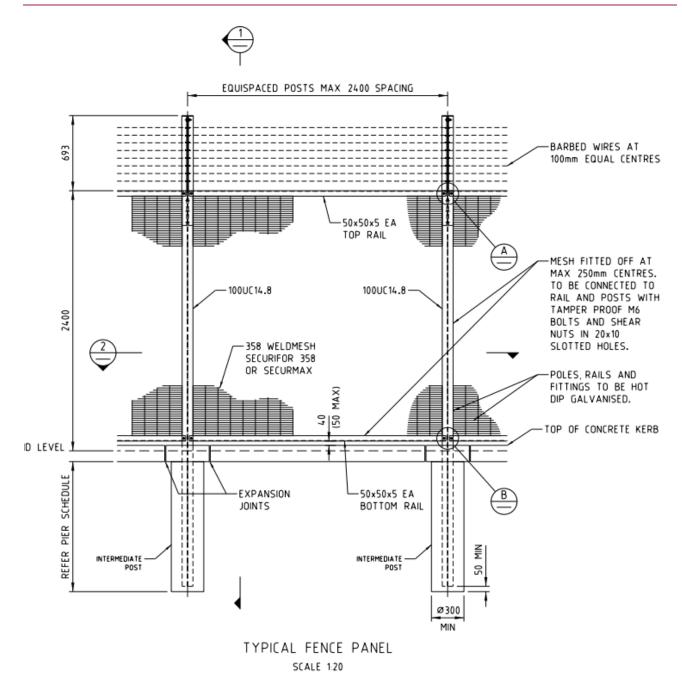


Figure 6 RBESS Sub Typical Fence Detail



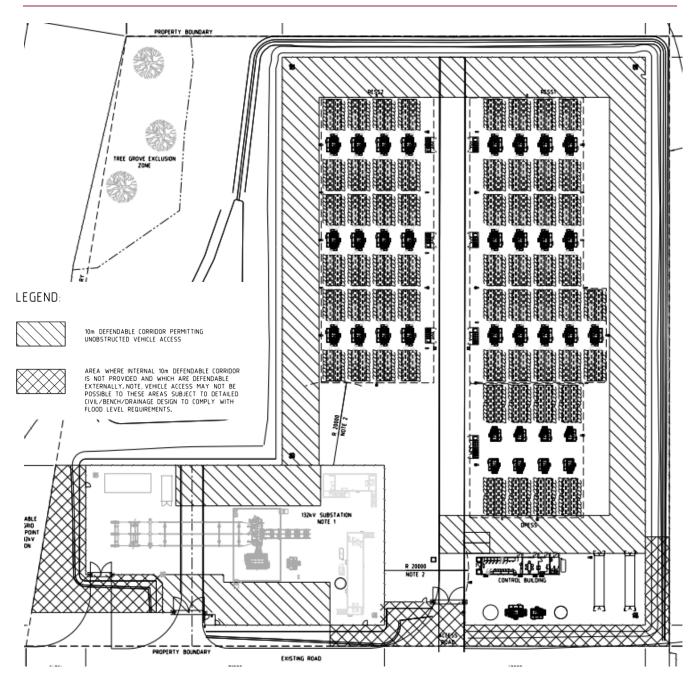


Figure 7 BESS and RBESS Sub Defendable Space



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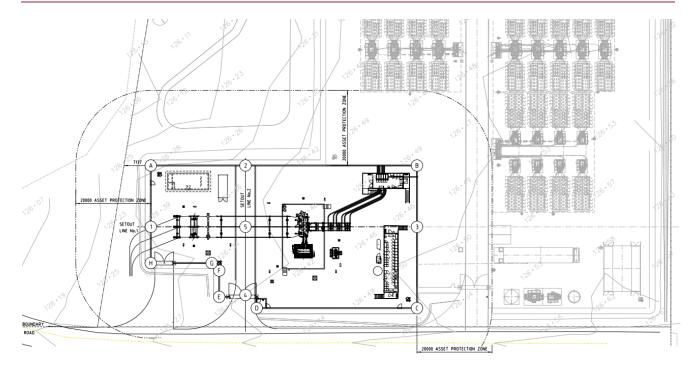


Figure 8 RBESS Sub Asset Protection Zone

Details of project and the methodology for construction, operation and decommissioning phases are described in Section 2 of the EIS.

According to the Darlington Point Biodiversity Assessment Report, August 2018 (DP BAR), the 'Battery Facility' is identified as a 2.0ha area, which would be a 'direct impact' area. The DP BAR describes the direct impact of the battery facility will result in a complete loss of habitat. The direct impacts to biodiversity of the construction of the Development, which includes the battery facility, is the removal of vegetation for construction. The area of direct impact relevant to the battery facility area (and the BESS Stage of the Development) is:

 40.02 ha 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;

Therefore, according to the BAR, the 'battery facility' is a direct impact area of 2.0ha and is included in the 40.02ha PCT 45 directly impacted native vegetation area noted above. There are no ongoing monitoring requirements (e.g. grassland management/monitoring) associated with the directly impacted areas, and this is reflected in this BMP.

It shall be noted that the BESS project area has already been directly impacted with native vegetation permanently removed (complete loss of habitat) during the construction phase of the DPSF.

## 1.5 Purpose of this BMP

The purpose of this plan is to describe how impacts on biodiversity relating to the BESS Stage of the Development will be minimised and managed during construction and operation of the Project.

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## 1.6 Objectives

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

This objective will be achieved by ensuring appropriate:

- controls and procedures are implemented during construction 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, DP BAR, TG BAR and CoC.
- measures are implemented to comply with all relevant legislation and other requirements as described in Section 3 of this BMP.

### 1.7 Targets

The following targets have been established for the management of biodiversity impacts during construction of the Project:

- Ensure full compliance with the relevant legislative requirements.
- Ensure full compliance with relevant requirements of the EIS, DP BAR, TG BAR, SoC and CoC.
- No disturbance to biodiversity outside the construction footprint.
- Minimise disturbance to biodiversity within the Project area.
- No increase in distribution of high threat exotic flora currently existing within the Project site.
- No new high threat exotic flora introduced to moderate condition PCT 45 grassland.
- No fauna mortality during clearing and construction.
- No pollution or siltation of aquatic ecosystems, wetlands, endangered ecological communities or threatened species habitat.
- Rehabilitate all disturbed areas not required for the operation of the BESS.
- No revegetation or screening vegetation plantings within retained woodland or grassland areas.
- Active erosion will be managed and minimised.

#### 1.8 Consultation

BMP DPSF was accepted by DPE to adequately allow for the biodiversity impacts and management of the SF Stage of the Development, including the BESS to be located within Lot 1 DP1249830. DPE has approved the staging of the Development and request to submit and establish separate strategies, plans and programs for the BESS Stage of the Development. This BMP has been developed as a separate plan from the BMP DPSF, and includes reference to the BESS electrical connection works located within the TransGrid Darlington Point Substation (Lot 2 DP628785).

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Edify commenced consultation with DPE on the scope of this BMP in March 2022, including submission of a Staging Request letter, which resulted in acceptance of the staging of the Development such that the BESS Stage is acknowledged as a distinct stage from the SF Stage of the Development. The Secretary approved the staging of strategies, plans, programs and sub plans for the BESS Stage, including this BMP.

Edify commenced consultation with the Biodiversity, Conservation and Science (BCS) team on 6 April 2022 to discuss requirements for the preparation of this BMP.

A Draft of the BMP will be shared with BCS for review and comment. The BMP will be amended in accordance with feedback from BCS and to the satisfaction of BCS.

# 2 Existing Environment

## 2.1 Flora impacts

The Development site was dominated by plains grassland habitat that has historically been cleared for agricultural grazing purposes. Fragmented areas of grassy woodland and open forest also occur within the project boundary.

The project has been designed to minimise clearing of native woodland vegetation and threatened species habitats. In this regard, the development footprint comprises only circa 710 ha of the 1,042 ha project area, primarily to minimise biodiversity impacts.

The proponent has ensured the retention of:

- The majority of woodland and open forest vegetation of high importance.
- Threatened communities listed as endangered under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) and/ or the *Biodiversity Conservation Act 2016* (BC Act).

#### 2.1.1 Vegetation Communities

The project would not disturb any Endangered Ecological Communities (EEC).

Five plant community types (PCTs) were identified in the Development area during surveys including:

- Black Box Grassy open woodland wetland of rarely flooded depressions in south western NSW (PCT 16) (not listed).
- Yellow-Box White Cypress Pine grassy woodland on deep sand-loam alluvial soils of the eastern Riverina and western NSW South Western Slopes Bioregions (PCT 75) (not listed).
- Weeping Myall Open Woodland of the Riverina and NSW Southwestern Slopes Bioregion (PCT 26) (listed as endangered under the BC Act and EPBC Act).
- White Cypress Pine open woodland of sand plains, prior streams and dunes mainly for the semi-arid (warm) climate zone (PCT 28).
- Plains Grassland on Alluvial mainly clay soils in the Riverina Bioregion of NSW South Western Slopes (PCT 45) (not listed).



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Only the Plains Grassland in the Riverina Bioregion of NSW South Western Slopes is relevant to the BESS project area.

It shall be noted that the BESS project area has already been directly impacted with native vegetation permanently removed (complete loss of habitat) during the construction phase of the DPSF.

#### PLAINS GRASSLAND IN THE RIVERINA BIOREGION OF NSW SOUTH WESTERN SLOPES

Historical aerial photos, together with additional interpretation of vegetation maps assisted in an assessment of whether the areas described as PCT 45 Plains Grass Grassland are best categorised as native grassland or derived native grassland. Initial observation of the photos suggests that there was a much greater extent of woody (trees or shrub) vegetation on the site in 1967, which could suggest that the present grassland is a derived native grassland. Nine plots undertaken for the BAM report indicated the high condition of the grassland comprising largely native perennial forbs and grasses. Both EPS, who undertook the biodiversity assessment and BCS regard the selection of PCT 45 Plains Grass Grassland as appropriate. The extent of the community is approximately 824.8 ha within the development area. Of this area 781.64 ha was in moderate condition and 43.53 in poor condition.

Vegetation community types, threatened flora found on site during biodiversity surveys, conducted in preparation of the DP BAR are shown Figure 9.

Vegetation community types, threatened flora found on site during biodiversity surveys, conducted in preparation of the TG BAR are shown Figure 10.

Plant community species lists are provided in Appendix 2 of the DP BAR.



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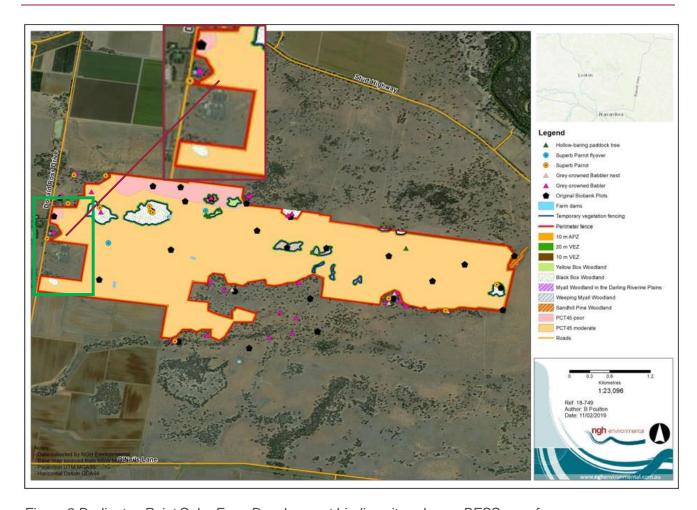


Figure 9 Darlington Point Solar Farm Development biodiversity values – BESS area focus

Source: Figure 2-1 Darlington Point Solar Farm biodiversity values from DPSF BMP, 2018



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Figure 10 TransGrid Darlington Point Substation on Lot 2 DP628785 biodiversity values – Connection area focus

# 2.2 Fauna impacts

Two threatened fauna species were recorded during the Development field survey including:

- 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 and will not be impacted by the BESS Stage of the Development.

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# 3 Environmental Requirements

## 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).

Relevant provisions of the above legislation are explained in the register of legal and other requirements included in section 7 – Legal and Other Requirements of the CEMP.

#### 3.1.2 Guidelines and standards

The main guidelines, specifications and policy documents relevant to this BMP include:

- NSW National Parks & Wildlife Service. 2001. *Policy for the Translocation of Threatened Fauna in NSW: Policy and Procedure Statement No. 9*, Threatened Species Unit, Hurstville NSW.
- Relevant recovery plans, priority action statements and best practice guidelines.
- DECCW. 2008. Hygiene protocol for the control of disease in frogs.
- Australian Standard AS 4373 Pruning of Amenity Trees.
- Australian Standard 4970 2009 Protection of Trees.

#### 3.1.3 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.

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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.

#### 3.1.4 Conditions of Consent

Schedule 3, Condition 12 of the Development Consent requires the development of a BMP to detail how construction and operation impacts on biodiversity will be minimised and managed. Specific conditions relating to biodiversity and/or which detail specific requirements for mitigation and management measures, as relevant for the BESS Stage of the Development, are detailed in Table 3-1 and Table 3-2.

#### Schedule 3 - Environmental Conditions - General

Table 3-1 Location of information in this BMP addressing the requirements of Conditions of Consent (Schedule 3)

Condition of Approval	Condition requirement			BMP Location			
Land Manag	Land Management						
Schedule 3 CoC 8	Following any construction or upgrading on the site, the Proponent must:  (a) Restore the ground cover of the site as soon as practicable;  (b) Maintain the ground cover with appropriate perennial species; and  (c) Manage weeds within this groundcover				Section 9.8		
Biodiversity	1						
Schedule 3 CoC 9	Within two years of commencing construction under this consent, unless the Secretary agrees otherwise, the Proponent must retire biodiversity credits of a number and class specified in Column (a) in Table 1 below, to the satisfaction of BCS.  Table 1: Biodiversity Credit Requirements			Refer to Darlington Point Solar Farm (BMP DPSF) by NGH Environment			
	Vegetation Community	PCT ID	Column (a): minimum credits required	Colum n (b): maxim um credits required	al (April 2018). This requirement shall be		
	Black Box grassy open woodland wetland of rarely flooded depressions in south western NSW (mainly Riverina Bioregion and Murray Darling Depression Bioregion)	PCT 16	<del>29</del> 4	<del>29</del> 4	satisfied by the Solar Farm.		



Condition	Condition requirement				BMP Location
of Approval					
	Plains Grass grassland on alluvial mainly clay soils in the Riverina Bioregion and NSW South Western Slopes Bioregion	PCT 45	3,435	6,973	
	Yellow Box - White Cypress Pine grassy woodland on deep sandy-loam alluvial soils of the eastern Riverina Bioregion and western NSW South Western Slopes Bioregion	PCT 75	7	7	
	Species	Species ID	Credits Required	Credits Required	
	Superb Parrot (Polytelis swainsonii)	10645	60	60	
Schedule 3 CoC 10			Refer to Darlington Point Solar Farm (BMP DPSF) by NGH Environment al (April 2018).  This requirement shall be satisfied by the Solar Farm.		



Condition of	Condition requirement	BMP Location
Approval		
Schedule 3 CoC 11	In the period between 2 years and 3 years from the commencement of operations, unless the Secretary agrees otherwise, the Applicant must commission an independent review of the impacts of the development on PCT45 and submit a subsequent report to the Secretary. This review and report must be undertaken by a suitably qualified, experienced and independent grasslands expert endorsed by the Secretary.  The expert must:  (a) consult with BCS and the Applicant; (b) compare the actual impacts on PCT45 against that predicted in the EIS; (c) if the review concludes that the impacts on PCT45 are greater than that predicted in the EIS, calculate any additional biodiversity offset credit liabilities for the development over and above that specified in Column (a) of Table 1 above, in accordance with the NSW Biodiversity Offsets Policy for Major Projects, (d) document the findings in its report.  If the Secretary determines, after reviewing the expert's report, that the Applicant must retire additional biodiversity credits for PCT45, the Applicant must retire the additional credits within 12 months of the Secretary's determination, up to an aggregate	This land has already been directly impacted with native vegetation permanently removed (complete loss of habitat) during the construction phase of the DPSF.
	maximum of that specified in Column (b) of Table 1 above.	
Schedule 3 CoC 12	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 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; and  • 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; and  • controlling weeds and feral pests;	Refer to this BMP



Condition of Approval	Condition require	ment	BMP Location
	protecting and pr (including PCT45) growth of exotic gr (b) include a seaso the effectiveness of against the detaile (c) include details of reviewing and implication of the following the Secret the Biodiversity Markets		
Hazards			
Schedule 3 CoC 23	(b) ensure that the	e risks of the development; development: It least 10 m defendable space, as outlined in that permits unobstructed vehicle access to the Ithe defendable space as an Asset Protection With the relevant asset protection requirements S's Planning for Bushfire Protection 2019 (or and Standards for Asset Protection Zones; requipped to respond to any fires onsite provision of a 20,000L water supply tank fitted from Storz fitting located adjacent to the internal	Section 9.7
Decommission	oning and Rehabilita	ition	
Schedule 3 CoC 29	Within 18 months Secretary agrees site to the satisfact comply with the ob-	Section 9.8	
	Feature	Objective	
	Project site	<ul> <li>Safe, stable and non-polluting.</li> <li>Minimise the visual impact of any above ground ancillary infrastructure agreed to</li> </ul>	



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Condition of Approval	Condition require	BMP Location	
		be retained for an alternative use.	
	Solar farm infrastructure	To be decommissioned and removed, unless the Secretary agrees otherwise.	
Land use		Restore land capability to pre-existing use.	
	Community	Ensure public safety.	

#### Schedule 4 - Environmental Management and Reporting

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

Condition of Approval	Condition requirement	Location
Environmen	tal Management	
Schedule 4 CoC 1	Prior to the commencement of construction, the Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:	Section 1.3
	(a) provide the strategic framework for environmental management of the development;	Refer to the
	<ul> <li>(b) identify the statutory approvals that apply to the development;</li> <li>(c) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;</li> <li>(d) describe the procedures that would be implemented to: <ul> <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> <li>respond to any non-compliance;</li> <li>respond to emergencies; and</li> </ul> </li> <li>(e) include: <ul> <li>references to any plans approved under the conditions of this consent; and</li> </ul> </li> </ul>	CEMP
	<ul> <li>a clear plan depicting all the monitoring to be carried out in relation to the development.</li> <li>Following the Secretary's approval, the Applicant must implement the Environmental Management Strategy.</li> </ul>	



Condition	Condition requirement	Location
of Approval		
Schedule 4 CoC 2	The Applicant must:  (a) update the strategies, plans or programs required under this consent to the satisfaction of the Secretary prior to carrying out any upgrading or decommissioning activities on site; and  (b) review and, if necessary, revise the strategies, plans or programs required under this consent to the satisfaction of the Secretary within 1 month of the:  • submission of an incident report 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 this consent.	Section 8
Schedule 4 CoC 3	With the approval of the 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 Secretary for approval.  With the agreement of the 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.  Notes:  • 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.  • 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.	Section 1 Section 8
Compliance		
Schedule 4 CoC 4	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 nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix 3.	Section 8
Schedule 4 CoC 5	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 8.5
Schedule 4 CoC 5A	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,	Section 8.5



Condition of Approval	Condition requirement	Location			
	undertaken to address the non-compliance.				
Schedule 4 CoC 5B	A non-compliance which has been notified as an incident does not need to also be notified as a noncompliance.	Section 8.5			
Independen	t Environmental Audit				
Schedule 4 CoC 7	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) within 3 months of commencing construction; and  (b) within 3 months of commencement of operations.	Section 8.4			
Schedule 4 CoC 7A	Proposed independent auditors must be agreed to in writing by the Planning Secretary prior to the commencement of an Independent Audit.	Section 8.4			
Schedule 4 CoC 7B	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 8.4			
Schedule 4 CoC 7C	In accordance with the specific requirements in the <i>Independent Audit Post Approval Requirements</i> (2020), 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 8.4			
Schedule 4 CoC 7D	Independent Audit Reports and the Applicant's response to audit findings must be submitted to the Planning Secretary within 2 months of undertaking the independent audit site inspection as outlined in the <i>Independent Audit Post Approvals Requirements</i> (2020) unless otherwise agreed by the Planning Secretary	Section 8.4			
Schedule 4 CoC 7E	Notwithstanding the requirements of the <i>Independent Audit Post Approvals Requirements</i> (2020), 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 8.4			
Access to Ir	Access to Information				



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Condition of Approval	Condition requirement	Location
Schedule 4 CoC 8	The Applicant must:  (a) make the following information publicly available on its website as relevant to the stage of the development:  • the EIS;  • the final layout plans for the development;  • current statutory approvals for the development;  • approved strategies, plans or programs required under the conditions of this consent;  • the proposed staging plans for the development if the construction, operation or decommissioning of the development is to be staged;  • how complaints about the development can be made;  • a complaints register;  • compliance reports;  any independent environmental audit, and the Proponent's response to the recommendations in any audit; and  • any other matter required by the Secretary; and  (b) keep this information up to date.	Section 8.5

# 4 Commitments

Commitments to protect biodiversity over the life of the Development have arisen in the EIS (including the BAR) and the RTS. The commitments listed in Table 4-1 do not include and are in addition to the CoCs addressed in section 3.1.3 and are as relevant to the BESS Stage of the Development.

Table 4-1 Commitments of the proponent and project contractors

Commitment reference	Commitment requirement	Location in the BMP
General		
Agency submissions	Firebreaks are to be within an already cleared or disturbed area, to avoid the clearing of vegetation.	Section 9.7
Agency submissions	A VEZ is to be around perimeter woodland to minimise edge effects from construction and operation.	Section 9.2.1
EIS Section 7	Retention of the majority of the woodland and open forest vegetation, identified as Vegetation and Heritage Protection Exclusion Zones	EIS (COMPLETED), Section 9.2.1
EIS Section 7	Retention of the threatened communities listed as endangered under the EPBC Act and/or the BC Act recorded within the project area.	EIS (COMPLETED), Section 2.1 and 2.2



Commitment reference	Commitment requirement	Location in the BMP
EIS Section 7	Retention of the majority of structurally diverse flora and fauna habitat.	EIS (COMPLETED), Section 2.1 and 2.2
EIS Section 7	Prepare Pest and Weed Management protocol to manage the occurrence of invasive weeds and pest species across the site during construction and operation. The plans must be prepared in accordance with Murrumbidgee Council and NSW DPI requirements.	Section 9.5
EIS Section 7	Integrate weed and pest management with adjoining landholders.	Section9.5
EIS Section 7	The Weed and Pest Management Plan shall include restricting vehicle and machinery movements to formed access tracks and implementing wash-down procedures for vehicles entering and exiting the site, as appropriate.	Section 9.6.1
EIS Section 7	Bushfire Management protocol will be prepared for the project to be implemented during construction, operation and decommissioning.	Section 9.7
EIS Section 8	Vegetation and land management protocol will be developed for the site and will include considerations to address soil erosion.	Section 9.1 and 9.2
Construction P	Phase	
EIS Section 2	Construction areas impacted by battery, site access, laydown area, firebreak and access roads are accounted for within the direct impact assessment at 100% impact for biodiversity calculations.	Figures 1 to 3
EIS Section 7	Stockpiling of construction materials to be limited to direct impact zones on-site.	Section 6
EIS Section 7	A suitably qualified ecologist will be required to be present during hollow-bearing tree removal to relocate any displaced fauna.	Section 9.2
EIS Section 7	Where possible, dead wood, hollow trunks and tree limbs should be relocated to woodland areas not to be cleared.	Section 9.2
EIS Section 7	Engage site workers to provide an environmental induction prior to commencement of on-site works. This induction will encompass ecologically important matters on site and the procedures to protect flora and fauna.	Section 8.2
EIS Section 7	Vegetation and Heritage Protection Exclusion Zones and trees identified to be retained should be clearly marked (e.g. fencing) to ameliorate unnecessary impacts to vegetation.	Section 9.2.1
EIS Section 7	Re-establishment of stabilised surfaces as soon as possible following construction.	Section 9.8



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Commitment reference	Commitment requirement	Location in the BMP
Operational Ph	ase	
EIS Section 2	Management of vegetation in accordance with the fire management and biodiversity management plans (e.g. slashing or similar).	Section 6
EIS Section 7	Fire breaks (maintained short grass <100 mm year-round)	Section 9.7
EIS Section 7	If the mitigation measures outlined in Section 9.5 of BMP (9 of the EIS) are implemented, then the impact of the project is unlikely to increase the spread of weeds recorded in the project area.	Section 9.5.2

# 5 Environmental Aspects and Impacts

The majority of the Development Footprint (699 ha) is covered by native grassland. The potential impacts of the project on this vegetation community would be both direct and indirect. The direct impacts (approximately 40 ha) include battery energy storage system (BESS), access roads, associated connections and buildings (e.g. switch room), parking and laydown areas. The indirect impacts are not relevant to the BESS and are not discussed any further.

The scope of works for the BESS Stage of the Development include the temporary construction areas for laydown, office and carparking

Key aspects of the Project that could result in impacts to biodiversity have been described in Table 5-1.

Table 5-1 Potential biodiversity impacts as a result of the project.

Impact	Frequency	Intensity	Duration	Consequence
Direct				
Habitat clearance for permanent and temporary construction facilities (e.g. battery facility, compound sites, laydown sites, access tracks)	Regular	High	Construction	<ul> <li>Direct loss of native flora and fauna habitat including: &lt;2 ha of grassland habitat.</li> <li>Potential over-clearing of habitat outside of the Project footprint.</li> <li>Disturbance to fallen timber, dead wood and bush rock.</li> </ul>



Impact	Frequency	Intensity	Duration	Consequence
Fire Break (10 m) creation and maintenance	Regular	Moderate	Construction and operations	<ul> <li>Alteration to grassland habitat and clearing of some woodland.</li> <li>Impact on ground dwelling fauna.</li> </ul>
Vehicle movements	Regular	Moderate to high	Construction and operations	<ul> <li>Patches of bare ground created by repeated tyre movements.</li> </ul>
Indirect				
Edge and barrier effects	Regular	Moderate	Operations	Colonisation by weeds, non-native plants and pest animals.
Accidental spills and contamination from construction activities (including compound sites)	Rare	Moderate	Construction	Pollution of waterways.
Earthworks	Regular	Moderate	Construction	Erosion and sedimentation of waterways.
Noise	Regular	Low	Construction	Construction machinery and activities may disturb local fauna.
Dust generation	Regular	Low	Construction	Inhibit the function of plant species and communities, waterways.
Light spills during night works	Rare	Low	Construction	Night works may alter fauna activities/movements.
Increased vehicle traffic	Regular	Low	Construction	Increase potential for fauna mortality through vehicle strike.
General construction activities	Regular	Moderate	Construction	Feral pest, weed and/or pathogen encroachment.



Impact	Frequency	Intensity	Duration	Consequence
Vehicle movements	Regular	Moderate	Construction and operations	Weeds spread to moderate condition PCT 45 grassland.
Fencing	Regular	Low	Construction and operations	Fauna fatalities.



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# **6 Biodiversity Mitigation and Management Measures**

A range of mitigation requirements and control measures are identified in the EIS, the RTS and CoC. Specific measures and requirements to address impacts to biodiversity as relevant to the BESS Stage of the Development are outlined in Table 6-1. The measures have been listed to cover broad activities and as such there may be some repetition of mitigation measures.

Table 6-1 Biodiversity management and mitigation measures

Measure / Requirement	Resources needed	When to implement	Responsibility	Reference
GENERAL				
Training will be provided to all personnel involved in construction and management phases of the Project, including relevant sub-contractors on landscaping impact control practices and procedures to implement recommendations relating to biodiversity through inductions, toolboxes and targeted training.	Site Induction Toolbox talks Training materials	Pre- construction Construction	HSE Advisor/Site Manager	EIS This BMP
Develop and implement a Traffic Management Plan (TMP) for incorporation of traffic related environmental management safeguards. A traffic movement control protocol including restricting access by incoming vehicles, vehicle hygiene, recording all vehicle movements, recordkeeping and corrective actions should be included in the TMP. The process for managing vehicle hygiene is provided in section 9.6.1 of this BMP.	Traffic Management Plan EIS	Pre- construction	Project Manager	EIS This BMP



Measure / Requirement	Resources needed	When to implement	Responsibility	Reference
Develop and implement a Weed and Pest Management protocols. Details of appropriate eradication methods, appropriate disposal of weeds are detailed in section 9.5.2 of this BMP.	Pest and Weed Management Protocol Specialist advice from contracted ecologist (if necessary)	Pre- construction	Project Manager	EIS This BMP
Develop and implement a Bushfire Management protocols that includes a protocol for managing the perimeter fire exclusion zone (See section 9.7 of this BMP).	This BMP  Planning for Bushfire  Protection 2006 (RFS 2006)  Standards for Asset  Protection Zone (RFS undated)	Pre- construction	Project Manager	Schedule 3 CoC 23
Develop and implement protocols for resolving landform and compaction issues, topsoil segregation and replacement.	Pre-construction soil survey including chemical testing	Pre- construction	Project Manager	EIS This BMP
Develop and implement Waste Management protocols for storage and reuse of topsoil, routine checks for litter and rubbish along access tracks and roads and responsible disposal of rubbish.	This BMP (COMPLETED)	Pre- construction	Project Manager	EIS This BMP



Measure / Requirement	Resources needed	When to implement	Responsibility	Reference
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 Secretary. This BMP 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; and  • 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; and  • 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	This BMP (COMPLETED) EIS (including DP BAR Appendix C) RTS CoCs Detailed infrastructure design Organisational Charts CEMP ESCP TMP Bushfire Management Protocol Pest and Weed Control Protocol Ground Disturbance Protocol Inspection and monitoring forms	Pre-construction	Project Manager	CoC 12



Measure / Requirement	Resources needed	When to implement	Responsibility	Reference
completion criteria; and c. include details of who would be responsible for monitoring, reviewing and implementing the plan, and timeframes for completion of actions.  Following the Secretary's approval, the Applicant 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.				
Protection of native vegetation and fauna habitat to be retained				
Where trees are to be retained, an adequate VEZ will be provided around each tree for the duration of construction. Details for calculating VEZs are provided within <i>Australian Standard</i> 4970-2009	Exclusion materials (temporary fencing/tape) Vegetation Clearing Procedure	Pre- construction Construction	Site Manager	EIS
Stockpiling and storage of materials and machinery will be avoided within the dripline (extent of foliage cover) of any native tree.	This BMP Mapped VEZs Pre Clearing Assessment Survey	Construction	Site Manager All plant operators	EIS



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Measure / Requirement	Resources needed	When to implement	Responsibility	Reference
Any fallen timber, dead wood and bush rock (if present) encountered on site will be left in situ or relocated to a suitable place nearby. Rocks will be removed with suitable machinery so as not to damage the underlying rock or result in excessive soil disturbance.	Pre Clearing Assessment Survey Mapped VEZs	Construction	Site Manager	EIS
Native vegetation areas to be retained will be delineated and construction activities will be excluded from these areas. Clearing and construction contractors will be given inductions that make clear the importance of these areas and component species.	Mapped VEZs Induction/ training materials	Pre- construction Construction	Site Manager	EIS
No plantings will occur within VEZs.	This BMP Mapped VEZs	Construction Operation	Site Manager	EIS
Awareness training during site inductions regarding enforcing site speed limits.	Toolbox Talks Induction materials	Pre- construction Construction	Site Manager/HSE Advisor	EIS

Vegetation Clearing Protocols



Measure / Requirement	Resources needed	When to implement	Responsibility	Reference
A pre-clearing process will be implemented before clearing begins. Pre-clearing surveys will be carried out by the CPP Site Manager /	Marking tape / spray Pre Clearing Assessment Survey	Pre- construction Construction	Site Manager/HSE Advisor	EIS Agency submissions
Prior to the commencement of work, a physical boundary of the approved clearing limit is to be clearly delineated and implemented. The delineation of such a boundary may include the use of temporary fencing, flagging tape, para-webbing or similar.	Mapped VEZs Temporary fencing, flagging tape	Pre- construction Construction	Site Manager/HSE Advisor	EIS
Clearing and construction contractors would be given inductions that make clear the importance of the VEZs and their component species.	Mapped VEZs Training materials	Pre- construction Construction	Site Manager	EIS
The Pre Clearing Assessment Survey will be followed for all vegetation clearing.	Pre Clearing Assessment Survey	Construction	Site Manager	Agency submissions
An Unexpected Threatened Species Finds protocol (section 9.3) will be followed where any unexpected fauna is encountered.	This BMP	Pre- construction Construction	Site Manager/HSE Advisor	EIS



Measure / Requirement	Resources needed	When to implement	Responsibility	Reference				
Minimise Construction Impact Extent								
Construction activities and storage of materials for boundary fencing should be wholly contained within the proposal area. Disturbance to road reserves other than access points identified in the EIS must not occur	This BMP Mapped Project Footprint and approved infrastructure locations Pre Clearing Assessment Survey	Pre- construction Construction	Site Manager	EIS				
Minimise clearing and avoid unnecessary disturbance associated with the construction and operation of the Project	This BMP Mapped Project Footprint and approved infrastructure locations Pre Clearing Assessment Survey	Construction	Site Manager	EIS				



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# 7 Specific Works and Key Actions Required

## 7.1 Construction Activities

This construction methodology is indicative of the staging that will be implemented at the project site. Some activities may occur in parallel. The following methodology is indicative of construction sequencing and vehicle movements.

Typical vehicle movements involved in the construction of the BESS include deliveries of equipment and materials. Most of these movements terminate at the site entrance/laydown area shown in Figure 1 to Figure 3.

The majority of vehicular traffic onsite is by light vehicle (e.g. ute) and restricted to the construction area, main haulage routes and internal access tracks only.

The schedule of work in Table 7-1 guides the key actions required for management of biodiversity for the project.

Table 7-1 Schedule of construction works

Project Phase	Potential Disturbance	Key Actions and Mitigation Performance Target		
Construction site set up, construction of access	<ul> <li>Disturbance to groundcover from vehicle movements.</li> <li>Spread of weeds, particularly high threat exotic plants</li> </ul>	<ul> <li>Clearly delineate the approved clearing and disturbance footprint using temporary fencing, flagging tape, parawebbing or similar.</li> <li>Machinery, trucks and equipment will be restricted to designated parking areas. Disturbance to road reserves other than access points identified in the EIS must not occur.</li> <li>Wash and inspect plant and vehicles as per Traffic Management Procedure.</li> <li>Implement ground disturbance permit procedure prior to any clearing activity.</li> </ul>	<ul> <li>Direct impacts to native grassland must not exceed 42.83 ha identified in the EIS.</li> <li>No mortality of native fauna during vegetation removal.</li> <li>No pollution or siltation of aquatic ecosystems, wetlands, endangered ecological communities or threatened species habitat.</li> </ul>	



Project Phase	Potential Disturbance	Key Actions and Mitigation	Performance Target
		<ul> <li>Implement Vegetation Clearing Protocol for vegetation removal.</li> <li>Place CWD in remaining vegetated areas where practicable.</li> <li>Install and maintain erosion and sediment controls (ESCs).</li> </ul>	
Internal road construction	<ul> <li>Erosion and sedimentation of drainage channels from levelling</li> <li>Disturbance to native fauna from lights and noise.</li> <li>Disturbance of groundcover from stockpiles.</li> <li>Spread of weeds, particularly high threat exotic plants.</li> </ul>	<ul> <li>Provide awareness training during site inductions and toolbox talks-emphasise the importance of native groundcover.</li> <li>Machinery, trucks and equipment will be restricted to designated parking areas. No parking on roadside vegetation will occur.</li> <li>Plant and vehicles will be washed and inspected as per Traffic Management Procedure.</li> <li>Stockpiling and storage of materials and machinery will occur only on designated direct disturbance areas.</li> <li>Stockpiling and storage of materials will avoid the dripline (extent of foliage cover) of any native tree.</li> <li>Direct any lighting away from woodland vegetation.</li> <li>Install and maintain ESCs</li> </ul>	<ul> <li>Direct impacts to native grassland must not exceed</li> <li>42.83 ha identified in the EIS.</li> <li>No dirty water leaves the site</li> <li>Dirt tracking is minimised on sealed public roads.</li> </ul>
Removal of temporary construction equipment	<ul> <li>Disturbance to existing native fauna from lights and noise.</li> <li>Disturbance of groundcover from stockpiles.</li> <li>Spread of weeds, particularly high threat exotic plants.</li> </ul>	<ul> <li>Provide awareness training during site inductions and toolbox talks- emphasise the importance of native groundcover.</li> <li>Machinery, trucks and equipment will be restricted to designated parking areas. No parking on roadside vegetation will occur.</li> <li>Stockpiles and storage will be occur only on designated direct disturbance areas.</li> </ul>	Direct impacts to native grassland must not exceed 42.83 ha identified in the EIS.



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Project Phase	Potential Disturbance	Key Actions and Mitigation	Performance Target
		<ul> <li>Direct any lighting away from woodland vegetation.</li> <li>Plant and vehicles will be inspected and washed as per Traffic Management Procedure.</li> <li>Install and maintain ESCs.</li> </ul>	

# 7.2 Operational Activities

## 7.2.1 Security and Maintenance

Operational traffic will be minimal with the site to be manned by 1-2 people 24/7. Periodical infrastructure upgrades may be required and will generate additional traffic movements for short periods. DPE will be contacted prior to any major upgrades or maintenance works and in the event of any incident affecting biodiversity.

Table 7-2 Schedule of construction works

Project Phase	Potential Disturbance	Key Actions and Mitigation	Performance Target
Operation	<ul> <li>Disruption to the movement of native fauna.</li> <li>Fauna mortalities due to contact with project infrastructure such as fences.</li> <li>Spread of high threat exotic plants.</li> </ul>	<ul> <li>Awareness training for operational staff.</li> <li>Record incidents of fauna mortalities and report threatened species encounters to BCS.</li> <li>Wash and inspect vehicles as per the Traffic Management Plan.</li> <li>Implement weed management protocols.</li> </ul>	No native fauna mortalities.



Project Phase	Potential Disturbance	Key Actions and Mitigation	Performance Target			
Grassland management	<ul> <li>Impacts on native grassland condition from managing fuel load.</li> </ul>	<ul> <li>Manage native grassland as per the rehabilitation and revegetation protocol</li> <li>Wash and inspect vehicles as per the Traffic Management Procedure.</li> </ul>	Direct impacts to native grassland must not exceed 42.83 ha identified in the EIS.			

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# 8 Compliance Management

## 8.1 Roles and Responsibilities

The Project Team's organisational structure and overall roles and responsibilities are shown in Figure 11.

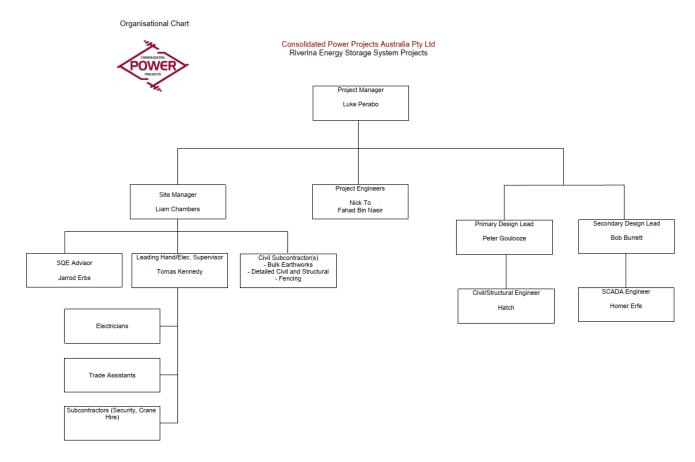


Figure 11 CPP Organisation Chart

Key responsibilities relating to managing biodiversity during construction are:

- CPP Project Manager is responsible for the development and maintenance of all management plans including the overarching environmental management strategy listed in the table of commitments (Section 4).
- The HSE Advisor manages the contracts with ecologists for environmental monitoring as directed by CoCs (section 3.1.3).
- CPP Site Manager is responsible for ensuring groundworks occur onsite in accordance with the BMP.
   This includes but is not limited to disturbance in designated areas only, traffic management restricting movements off internal access tracks, topsoil storage and reuse, rehabilitation of disturbed works are carried out as soon as practicable.

# CONSOLIDATED POWER PROJECTS A QUANTA SERVICES COMPANY

## **Biodiversity Management Plan**

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- The CPP Site Manager who manages the Pre Clearing Assessment Survey and records a running total of vegetation clearing within the development site.
- The CPP Site Manager is responsible for supervising construction workers and will ensure they are sufficiently trained in the protection of biodiversity and minimising disturbance detailed below. The CPP Site Manager in conjunction with the HSE Advisor will oversee weed control and rehabilitation of the site.
- The CPP Site Manager is responsible for implementing the Traffic Management Plan, which includes controlling and recording heavy vehicle movements onsite. Workers involved in installing the BESS infrastructure will be trained and directed to limit vehicle movements.

The operation of the site will be performed by Tesla. Tesla shall propose an appropriate organisational structure for the operation of the facility prior to commencement of operations. A BMP for the operation stage of the BESS Stage of the Development will be provided at the relevant time.

Key responsibilities relating to managing biodiversity during operation are:

- The Operator is responsible for the development and maintenance of all management plans including the overarching environmental management strategy listed in the table of commitments (Section 4).
- The Operations and Maintenance (O&M) Manager is responsible for ensuring groundworks occur onsite
  in accordance with the BMP. This includes but is not limited to disturbance in designated areas only,
  traffic management restricting movements off internal access tracks, topsoil storage and reuse,
  rehabilitation of disturbed works are carried out as soon as practicable. The O&A Manager also manages
  the contracts with ecologists for environmental monitoring as directed by CoCs (Section 3.1.4).
- The Lead Field Technician now manages the ground disturbance permit process. The Lead Field Technician will oversee bushfire management, weed control and rehabilitation of the site to achieve biodiversity outcomes.
- The Engineering Supervisor is responsible for supervising maintenance works and will ensure workers are sufficiently trained regarding protection of biodiversity and minimising disturbance.

# 8.2 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 ground disturbance permit and vegetation clearing processes, traffic movement restrictions and hygiene, threatened fauna identification and handling and locations of environmentally sensitive areas. Further details regarding staff induction and training are outlined in the EMS.

Staff and contractors will attend pre-commencement meetings at the beginning of each shift, which will include the details of any urgent biodiversity matters such as any breeched of protocols or procedures. Longer toolbox meetings will occur weekly where staff and contractors will be made aware of any less urgent biodiversity matters and reinforce training on implementing protocols and procedures.



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# 8.3 Inspections and Monitoring

Inspections of sensitive areas and activities with the potential to impact biodiversity will occur monthly for the duration of construction and annually for the operation of the project. General biodiversity monitoring will include a quantitative and ongoing assessment of grassland and woodland condition. Monitoring and evaluation of success will include a reflection on the seasonal conditions for the previous period.

Monitoring during construction will be monthly inspections of high disturbance areas, groundcover, protected woodland areas and boundary fence lines. These monthly inspections will include:

Details of Course Woody Debris (CWD) placement, recorded as it occurs.

- A review of any fauna killed or injured. Threatened fauna mortalities will be reported to OEH and the
  deaths of any birds resulting from contact with fences or solar panel will be recorded.
- Fauna relocations relating to vegetation clearing will be recorded.
- Areas of high and low threat exotic plants will be recorded and controlled on a seasonal basis.

Biodiversity monitoring during operation will include:

Feral animal and weed control surveys will occur on a seasonal basis.

Trigger points for corrective action include:

- Damaged exclusion fencing or signage.
- CWD stacked, not distributed.
- Any storage or infrastructure located underneath driplines of trees.
- Presence of injured or deceased fauna.
- Scours greater than 50 mm deep and 100 m long.
- High threat exotic plant cover greater that 2% of moderate condition PCT 45 grassland.
- Low threat exotic plant cover greater than 5% of moderate condition PCT grassland.
- Observed feral animals or observations from neighbours.

A monitoring program summary is provided in Table 8-1.



Table 8-1 Monitoring Program Summary – Minimum Requirements

BMP Section	Monitoring Action	Timing/ Frequency	Responsibility	Decision Trigger / Adaptive Response	Reporting
Pre-constructi	on				
Section 9.2	Inspection of VEZ marking and fencing (no-go zones) including individual trees.	At commencement of Project	HSE Advisor and Site Manager	If fencing is damaged it is rectified.	On-site reporting.
Section 9.2	Survey before removal of non-native and non-hollow bearing tree vegetation.	Before clearing commences on-site	HSE Advisor and Site Manager	Engage a suitably qualified ecologist if native fauna is found	Pre Clearing Assessment Survey.
Section 9.2	Survey before removal of native and hollow bearing tree vegetation. Hollows to be re- checked prior to clearing.	Before clearing commences onsite	Suitably qualified ecologist	Implement fauna handling procedure if native fauna is found roosting in hollows.	Ecologist Report.
Section 9.2	Visual inspection of vegetation clearance activities.	Weekly	HSE Advisor and Site Manager	Clearing not aligned to survey, clearing to cease immediately.	On-site reporting. Pre Clearing Assessment Survey.



BMP Section	Monitoring Action	Timing/ Frequency	Responsibility	Decision Trigger / Adaptive Response	Reporting
Section 9.2	Issue Pre Clearing Assessment Survey.	Weekly during Construction.	HSE Advisor and Site Manager	Work will cease if not aligned to Pre Clearing Assessment Survey.	On-site reporting.
During constru	ction				
Section 9.2	Visual inspection of vegetation clearance activities.	Regularly – at least weekly.	HSE Advisor and Site Manager	If lack of exclusion fencing leads to damage to retained vegetation, stop work and report incident. Reinstate exclusion fencing as required. Incident to be detailed at staff and contractor precommencement meetings at the beginning of each shift	Project Manager to inform DPE of non-compliance within 7 days.  Project Manager to inform BCS immediately of incidents causing harm to threatened species, or ecological communities.
Section 9.5	Maintain a log of salvaged animals and actions taken to relocate them.	As required	HSE Advisor and Site Manager	If threatened species are identified, then triggers a review and report.	On-site reporting.
Section 9.5	Inspections for fauna where footings have been left overnight.	Daily as required.	HSE Advisor and Site Manager	No work to proceed until fauna removed from footings.	On-site reporting.



BMP Section	Monitoring Action	Timing/ Frequency	Responsibility	Decision Trigger / Adaptive Response	Reporting
Section 9.8	Inspection of rehabilitation works during construction.	Monthly.	HSE Advisor and Site Manager	N/A	On-site reporting.
Section 9.8	Inspection to detect high and low threat exotic plant cover throughout site.	Quarterly.	HSE Advisor and Site Manager	High threat exotic plant cover of 2% and low threat exotic plant cover of 5% for moderate condition PCT 45.	Annual report to BCS.
Post-construct	tion				
Section 8.3 Section 9.8.3 Section 9.8.4	Inspection to detect high and low threat exotic plant cover throughout site	6 Monthly.	O&M Manager	High threat exotic plant cover of 2% and low threat exotic plant cover of 5% for moderate condition PCT 45.	Annual report to BCS.
Operation		1			
Section 8.3 Section 9.5	Inspection of high and low threat exotic plant cover throughout site	Quarterly	O&M Manager	High threat exotic plant cover of 2% and low threat exotic plant cover of 5% for moderate condition PCT 45.	Annual report to BCS.

# CONSOLIDATED POWER PROJECTS A SQUANTA SERVICES COMPANY

## **Biodiversity Management Plan**

Riverina Battery Energy Storage System (BESS) Stage CPP Project No: 11291

# 8.4 Auditing

The HSE Advisor will maintain a compliance register for the Project to ensure audits and reporting requirements are met within scope and within set timeframes. The compliance register will include a list of CoCs and biodiversity commitments identified the EIS, RTS, DP BAR, TG BAR and this 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 commencing construction, and
  - 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 of the Project recommended by auditors will be reviewed by the senior management team and incorporated into strategies, plans or programs required under by the Development Consent.

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

Additional audit requirements are detailed in the CEMP.

# 8.5 Reporting

Reporting requirements and responsibilities are documented in detailed in the CEMP.

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

CPP will document the outcomes of pre-construction surveys required by the CoCs and RTS and submit to DPE as scheduled in Section 8 of this BMP.

The Project will not involve the clearing of native vegetation. The Project 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 Project 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.

# POWER PROJECTS A QUANTA SERVICES COMPANY

## **Biodiversity Management Plan**

Riverina Battery Energy Storage System (BESS) Stage CPP Project No: 11291

## 8.6 Review and Improvement

This BMP will be reviewed every three years, for as long a 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.

## 9 Protocols and Procedures

## 9.1 Pre-Clearing Assessment Survey Process

The Pre-Clearing Assessment Survey process is integral to communicate the distinction between vegetation projection areas and the ground disturbance footprints which contractors will be working within. This process is also vital to enable the Contractor to track and control vegetation clearing prior to commencement of clearing activities.

The Pre-Clearing Assessment Survey process is managed by the CPP Site Manager and is summarised below;

- Contractors are informed within their contract and site induction that all ground disturbing
  activities require them to obtain a Pre-Clearing Assessment Survey prior to undertaking the
  work.
- The Pre-Clearing Assessment Survey form is available in hard copy at the site office and must be issued by the CPP Site Manager before the work is undertaken.
- The CPP Site Manager will compare the proposed ground disturbance area to the project footprint detailed in the current approved development design.
- The CPP Site Manager will visit the site if required and mark out vegetation projection areas and buffer zones if applicable.
- The CPP Site Manager will either issue the excavation permit corresponding to the relevant Pre-Clearing Assessment Survey or contact the contractor for further clarification.
- Once the excavation permit has been issued, the contractor may undertake ground works as per their contract.
- Once the work has been completed (date specified in the permit), the CPP Site Manager will
  inspect the site, request any additional clean up or remediation activities and sign-off that the
  conditions of the permit have been met.
- The CPP Site Manager will then record the disturbed area as part of a running total disturbed



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area for the project.

An example of the Pre-Clearing Assessment Survey form is provided in Figure 12 below.

Pre-Clearing Assessment Survey								<	OWER		
Project Name				F	Project No.						
Project Manager				5	Site Manager						
Person Completing					Date						
Area of Project											
Identify what permits are re	equired prior to clearing?										
Who is responsible for obta	aining these permits?			□ Client	lient		ontractor		□ CPP		
Is permission required from	n landowners prior to clearing?			□ Yes □ No		□No					
Who obtains permission fro	om the landowners?	- 1		□ Client		☐ Principal Contractor			□ CPP		
List types of dominant	1.	2.		1	3.	3.		4.			
vegetation	5.	6.			7.	7.		8.			
Will areas of dominant vegeta	tion be impacted?			Will loss of do	dominant vegetation be considered signi			nificant?			
Identify on the following map	areas of dominant vegetation	Yes □	No □	(If yes – conta	(If yes – contact the WHSE Manager)				Yes □	No □	
Are there areas of significant vegetation in or surrounding the work area?		Yes □	No □	Will these areas of significant vegetation be affected by land disturbance? (If yes – contact the WHSE Manager)			Yes □	No □			
If applicable list types of	1.	2.			3.			4.			
significant vegetation?	5.	6.			7.			8.			
Are controls required to prevent impact to dominant vegetation or significant vegetation?		Yes □	No □	If applicable v	vhat controls are	required to pre	event impa	act to	vegetation	1?	

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Pre-Clearing Assessment Survey		POWER		
1. 2. 3. 4.				
Are there areas of significant weed infestation in or surrounding the work area?  If "Yes" list types and what controls are required?	Yes □	No □	Types  Controls	
Are there areas of significant cultural heritage in or surrounding the work area?  If "Yes" list types and what controls are required?	Yes □	No □	Controls	

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## Pre-Clearing Assessment Survey



		No 🗆	Types
Is there any fauna within the work area that may be impacted by land disturbance?	Yes □		
If "Yes" list types and what controls are required?	103 1		Controls
Are there areas of significant cultural heritage within the work			Types
area?	Yes□	No □	
If "Yes" list types and what controls are required?	163 🗆	140 🗆	Controls

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### **Pre-Clearing Assessment Survey**



Pre-clearance assessment survey map (The following items are required as a minimum )										
□ North point	☐ Existing Access Roads		□ Laydown areas	☐ Retained vegetation & protected areas						
☐ Existing Access Roads	☐ New temporary access roads		INST	RUCTIONS:						
☐ Construction Activity Zone	□ No Go Zones									
		A = +b = = =	(Delete this text box prior to issuing this document)							
		As these	items are added to the site ma	p, please check them off this list.						
endangered ecological communiti Inform the relevant statutory author in writing; Do not recommence work likely to	on existing access tracks to minimize di cover disturbed as a result of the works completion.  sturbed and the advice of the client's Er of such disturbance arises;  ade aware during site induction training as and endangered ecological communities and endangered ecological communities or their in the REF (if applicable) and which are I steps will be followed;  affect the threatened species, population.	a is to be avironmental a about the ities; ice of ir habitats, likely to be as or	ramp/opening installed to a	ater than 1.5 metres deep) left open at night will have a llow access for any fauna to escape or will be or will be wer being secured, therefore not requiring ramps.						

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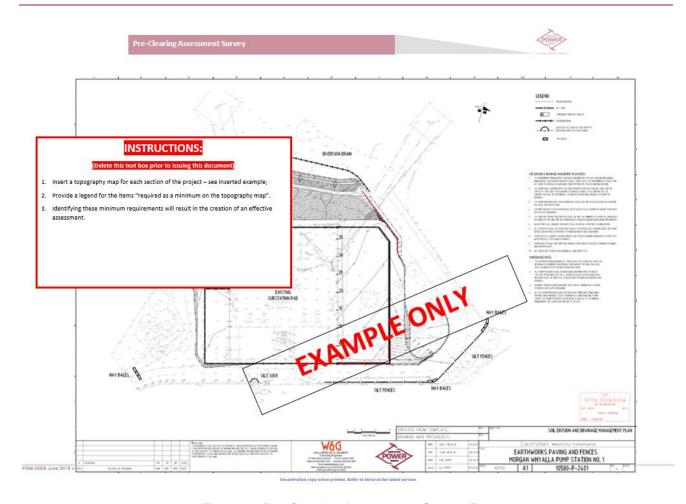


Figure 12 Pre-Clearing Assessment Survey Form

# 9.2 Vegetation Clearance Procedure

When undertaking vegetation clearing, the following process shown in Figure 13 must be followed to minimise the area of disturbance and the amount of vegetation to be cleared.

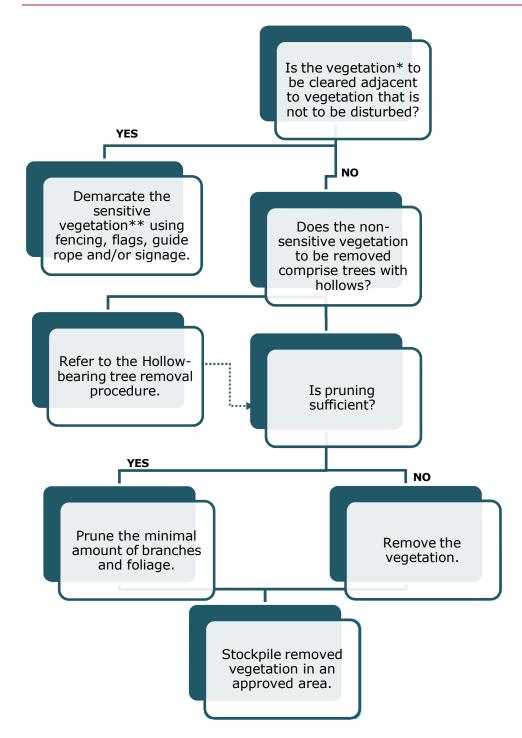


Figure 13 Vegetation clearance procedure

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#### 9.2.1 Vegetation Exclusion Zones

Sensitive vegetation will be protected by exclusion fencing and signage (e.g. Figure 14 and Figure 15). A VEZ will be established around the drip line any external and internal woodland vegetation to ensure that sensitive vegetation is not impacted accidentally. Exclusion fencing will define vegetation to be retained and beyond that a VEZ will be established to mitigate impacts from construction activities.



Figure 15 Example of exclusion zone signage



Figure 14 Example of exclusion zone fencing/flagging



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#### 9.2.2 Lopping, Pruning and Trimming Procedure

Heavy machinery should not be used for pruning or trimming. Appropriate tools to use are loppers, chain saws and vehicle mounted saws.

In the first instance, hollow bearing limbs should be retained. If this is not possible the hollow bearing limb should be inspected by the Project Ecologist / suitably qualified expert and placed in adjacent undisturbed vegetation to provide fauna habitat.

Tree limbs are to be removed using the three cut method as shown below in Figure 16.

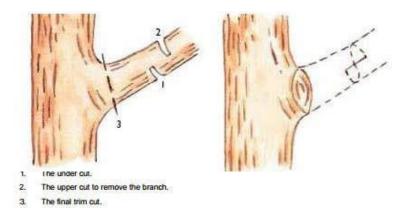


Figure 16 Tree cutting method

#### 9.2.3 Hollow-bearing Tree Removal Procedure

Hollow-bearing trees are important habitat feature for a variety of native animals such as possums, gliders, birds and bats. Before clearing any hollow-bearing trees, it is important to consider if animals are present. The following procedure (Figure 17) is a guide to give animals an opportunity to escape a hollow-bearing tree prior to it being removed.

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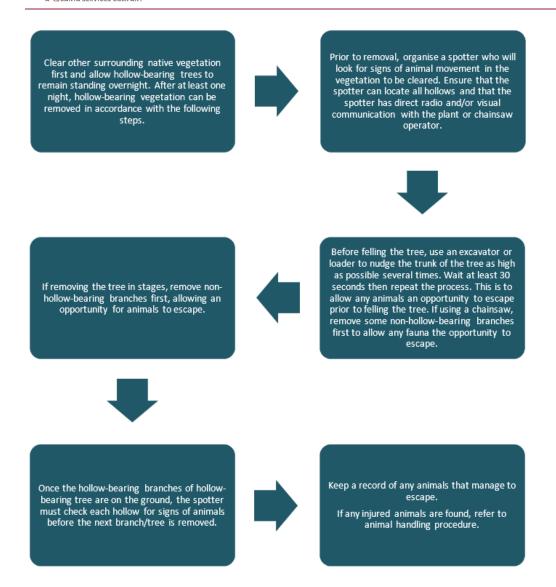


Figure 17 Hollow baring tree removal procedure

#### 9.2.4 Removal of Trees Outside the Approved Clearing Limits

The approved clearing limit is the line between the vegetation to be removed and the vegetation to be retained. It will be shown on all design plans as required. Removal of trees outside the approved clearing limits is not permitted. Where additional impacts to trees are proposed consult the CPP Project Manager for further advice.

#### 9.2.5 Re-use of Coarse Woody Debris

Felled timber greater than 600 mm (primarily tree trunks) will generally be removed from site. Felled timber greater than 200 mm and less than 600 mm will be used as CWD for habitat enhancement and to maximize the salvage of resources within the disturbance area for beneficial reuse. CWD can be



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used to enhance habitat values in existing vegetation and rehabilitated areas including derived native grassland (either in offset areas or areas adjoining impacted areas). CWD can provide:

- Habitat for micro invertebrates.
- Habitat for macroinvertebrates.
- Habitat for vertebrates using fallen timber for shelter, e.g. skinks, geckoes, dunnarts.
- Habitat for vertebrates using fallen timber for foraging, e.g. treecreepers, robins.
- A source of nutrients for native vegetation.
- Increased habitat complexity.

CWD will be placed within protected woodland areas as discrete logs rather than in piles to reduce fire risk and potential for use as shelter by feral animals such as foxes and rabbits. CWD will be placed at discrete intervals at densities to ensure that the CWD Benchmark for the receiving PCT is not exceeded. The density of CWD must take into account existing fallen timber. Removal, transportation, and placement of CWD will be carried out in a manner that minimises disturbance to native vegetation, including the canopy, trees, shrubs, standing dead timber, fallen timber, and groundcover, as well as topsoil.

CWD between 10 and 200 mm in diameter will be removed or chipped and used for disturbed area rehabilitation.

# 9.3 Unplanned Threatened Species Finds Procedure

This procedure depicted in Figure 18 is derived from information provided by the NSW Wildlife Information Rescue and Education Service (WIRES).

Any nests found in habitat features to be removed should be inspected by the Ecologist to determine whether fauna is using the nest, and whether relocation of the fauna and the nest to an adjacent area is viable.

As a general principle, any native animals found with the construction area should be avoided. 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 found within a habitat feature to be removed should be captured and relocated according to the following steps. Any onsite protected fauna injured during a construction activity should be captures and a registered wildlife handler or veterinarian contacted and documented on a threatened species register (Table 9-1).

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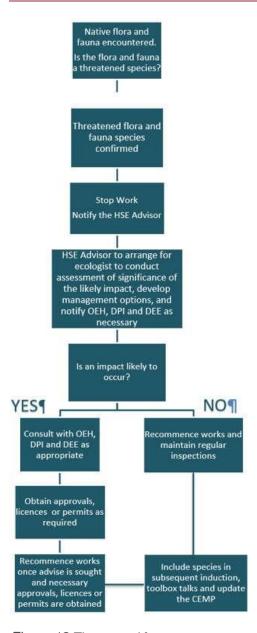


Figure 18 Threatened fauna encounter procedure

#### 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.

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## **Biodiversity Management Plan**

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#### 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 inside them. Boxes should be placed in a quiet, safe, dark location (not in a vehicle unless temperature is constantly monitored). Do not give the fauna food or water.

#### Step 5

Call WIRES on 1300 556 686, who will provide advice on what to do until a trained WIRES rescuer can come to take the fauna away. If you cannot contact WIRES, contact Leeton Veterinary Hospital on 02 6953 3111.

#### Step 6

Release fauna into similar habitats, as near as possible to their capture location. Diurnal (day-active) fauna should be released during the day of capture. Nocturnal (night-active) fauna should be released at or after dusk. Arboreal fauna should be slowly released from their bag onto the trunk of a tree, with bats and gliders placed on a tree with rough or peeling bark and hollows.

#### Step 7

Details of fauna captured and relocated should be recorded in the following register. Any injury or death of a threatened species should be reported to the Project Manager.

Table 9-1 Threatened species register

Date	Species	Location and time captured	Location and time released	Behaviour and condition on release	Details of any injuries/ death	Contact details of vet/wildlife handler if transferred to their care

# 9.4 Native Grassland Management

Native grassland management is not a requirement of the BESS area ('battery facility') within the Development. This is due to the direct impact on native grassland (PCT 45), with the area having first been used as a construction office, carpark and laydown area (overlaid with road gravel) during the SF Stage of the Development.

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## **Biodiversity Management Plan**

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The BESS Stage of the Development will see the area built over with impermeable foundations and infrastructure that would entirely prohibit the regrowth of native grasses. This was documented in the DP BAR, with the 'battery facility' identified as a direct impact area resulting in a complete loss of habitat.

Native grassland surveys required for the SF Development Footprint and detailed in the DPSF BMP are not a requirement of the BESS Development area. If the BESS site and/or the immediate surrounding land is used as a 'control plot' for any native grassland surveys, this will be managed under the DPSF BMP.

## 9.5 Pest and Weed Management Protocol

The Project Manager will initiate collaboration with adjoining landholders to control animal pests and exotic plant species that may traverse property boundaries. These initial communications will inform collaborative past and weed management measures into and during operation.

#### 9.5.1 Animal Pest Management Procedure

Due to perimeter fencing around the entire Development limiting entry to the site by large mammal pests such as feral cats, foxes and rabbits, it is anticipated that most pest control activities will be limited to the control of small mammals such as rodents and invertebrates. Larger pest animals may however be present at the site early in during the construction phase and may enter the site periodically through the access off Donald Ross Drive.

#### 9.5.1.1 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 <a href="http://www.dpi.nsw.gov.au/biosecurity/vertebrate-pests/pest-animals-in-nsw/foxes/fox-control">http://www.dpi.nsw.gov.au/biosecurity/vertebrate-pests/pest-animals-in-nsw/foxes/fox-control</a>

#### 9.5.1.2 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.



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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.

#### 9.5.1.3 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.

#### 9.5.1.4 Pesticide application record

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

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

A Pesticide Application Record (Figure 19) 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.



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#### **Pesticide Application Record Sheet** Industry & Investment Location, Applicator, Date of Application Property/Holding: (residential address) Date: Applicator's Full Name: Owner (if not applicator): Address: Address: Phone: Phone: Mobile: Email: Sensitive Areas (including distances, buffers): Comments (including risk control measures for sensitive E w Area Host/Pest Paddock Number/Name: Paddock Area: Order of Paddocks Sprayed: Type of Animals: Crop/Situation: Crop/Pasture Variety: Age/Growth Stage: Mob/Paddock/Shed: Growth Stage: Pest/Disease/Weed: Animals - Number Treated: Pest Density/Incidence: Heavy 🔲 Medium 🔲 Light 🔲 **Application Data** Full Label Product Name: Water Rate L/ha: Rate/Dose: 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 Overcast Light Cloud Clear Sky Rainfall (24 hours before and after) Before: During: After: mm mm Time (show time Temperature °C Relative Wind Speed Direction Variability in this column) Humidity (%) (e.g. gusting) Start Finish

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

Figure 19 Pesticide Application Record sheet

Comments:

# POWER PROJECTS A QUANTA SERVICES COMPANY

## **Biodiversity Management Plan**

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#### 9.5.2 Weed Management Procedure

High threat exotic plant cover in this BMP are defined under the Biodiversity Assessment Method Order 2017 (NSW Government 2017) as "plant cover composed of vascular plants not native to Australia that if not controlled will invade and outcompete native plant species. Also referred to as high threat weeds." Low threat exotic plant cover is defined in this BMP as all other exotic plants cover that does not typically outcompete native plant species.

According to the DP BAR, 27 species of exotic plant were recorded within the Development area. Of those exotic plants already found to be occurring within PCT 45, none of these species are listed on either the Biosecurity Act (BS Act) and/or are weeds of national significance. High threat exotic plant cover recorded include *Xanthium spinosum* (Bathurst Burr) and *Marrubium vulgare* (Horehound). During construction of the SF Stage of the Development, the BESS facility location was used as construction office, carpark and laydown area (overlaid with road gravel). This resulted in a direct impact and a complete loss of habitat, which would include the loss of exotic plant species. The BESS Stage of the Development will see the area built over with impermeable foundations and infrastructure that would entirely prohibit the regrowth of native grasses as well as weeds.

There may be some potential for activities during the BESS Stage of the Development to spread weeds through the movements of heavy machinery and light vehicles, though movements are heavily restricted to a small and defined area of the overall Development land. And, as noted above, the BESS facility involves direct impact to vegetation cover creating a long-term 'hardstand' pad that is designed to prohibit incurrence of vegetation cover. However, should weeds be detected during construction and operation of the BESS facility the Weed Management Procedure will be implemented.

A detailed weed management procedure is provided below.

#### 9.5.2.1 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 construction area, they should be marked up on relevant drawings.

#### 9.5.2.2 Weed inspection

The HSE Advisor will inspect the project area for weeds as required:

- Prior to clearing and grubbing.
- When a potential weed infestation has been identified.
- Before spring (around August) to identify high and low threat exotic plants before they go to flower and seed.

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.



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#### 9.5.2.3 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/).

#### 9.5.2.4 Herbicide application record

Herbicide application will only be administered by authorised personnel wit 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 20) 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.



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	Industry &
NSW	Investment

Property/Holding:	(resident	al addres	s)		Date:						
Applicator's Full N	ame:				Owner (if not applicator):						
Address:					Address:						
			Phone:					Phone:			
26 1 11			P 12		26.10						
Mobile:	Fax:		Email:		Mobile:		Fax:	Email:			
Sensitive Areas (in	cluding di	stances, l	ouffers):	fers): Comments ( areas):			ding risk control n	neasures for sensitiv			
	W Treate Area										
	S	Æ									
lost/Pest											
Paddock Number/N	Name:		Paddock		0	rder of Paddocks 5	Sprayed:				
Crop/Situation:			77	Type of Animals:							
Crop/Pasture Varie	ty:			Age/Growth Stage:							
Growth Stage:				Mob/Padd	ock/Sh	ed:					
Pest/Disease/Weed	16				Animals -	- Num	ber Treated:				
					Pest Densi	ty/Inci	dence: Heavy 🔲 N	Aedium 🔲 Light 🗀			
71 WW THE PERSON											
pplication Data					12 1-22807522-0000	ri.	luc v	**************************************			
Full Label Product	Name:	ne-conecto	<b>**</b> *********		Rate/Dose: Water Rate L/ha:						
Permit No.:		Expiry	Date:	TCT+	Additives/	(VC18/19163)	00.95 0.00				
Total L or kg:		WHP:		ESI*:	Date Suitable for		NEW AND NO. 100	7 AV 1928			
Equipment Type: Date Last Calibrate	ā.	142	tor Ovalita	State of the state of	zle Type: Nozzle Angle: Pressure:						
Date Last Cambrate	u:	VV.	ter Quality	(pri or ue	escription);						
Weather											
Showers 🔲 Overca	st 🔲 Ligl	nt Cloud [	Clear Sk	у 🖸							
Rainfall (24 hours b Before:	pefore and mm	after)	During:	n	ım	Afte	er: mn	1			
Time (show time in this column)	Tempe	rature °C	C-2000 100	ative dity (%)	Wind Sp	eed	Direction	Variability (e.g. gusting			
Start			6				0.00				
								70			
Finish							35	35			

Figure 20 Herbicide application record sheet

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



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#### 9.5.2.5 Follow-up inspection

The HSE Advisor will ensure that a follow-up inspection is undertaken of identified exotic plant cover to ensure treatment was successful.

Where high threat exotic plants cannot be effectively destroyed prior to topsoil stripping, weed contaminated topsoil will be isolated and disposed of at an approved offsite licensed facility as directed by the HSE Advisor.

#### 9.5.2.6 Ongoing management & monitoring

Monitoring of exotic plant cover will occur as part of the routine monthly inspections to determine effectiveness of management controls. The presence of any exotic plant cover and the necessary management actions will be noted on the regular CPP Environmental Inspection Checklist (refer to CEMP).

## 9.6 Traffic Management Procedure

## 9.6.1 Vehicle, Plant & Equipment Movement

All plant and vehicles entering the development site will arrive on site clean and free from mud, weeds etc. Prior to departure from site all soil and organic matter from tyres and undercarriages must be removed.

All mobile plant required will be inspected prior to entering and leaving site using this project using the CPP Mobile Plant Inspection Form shown in Figure 21 and documented on the vehicle hygiene register (Figure 22).



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## **Mobile Plant Inspection**



Project Name:	Project No.:	Date of Inspection:	Click or tap to enter a date.
Name:	Signature:	Service Records Available:	
Plant Type:	Plant Make:	Registration Number:	
Company:	Plant No.:	Date Last Serviced:	Click or tap to enter a date.

Condition Codes: A = Acceptable, R = Repairs Required, D = Defective, N = Not Applicable

NOTE: Checked Items Found to be Defective (D) Are NOT to be Operated Until Rectified and Permission is Given by Site Manager Items Marked with (\*) are Minimum Requirements

Items	Α	R	D	N	Comments	Items	Α	R	D	N	Comments
Safety						General					
Fire Extinguisher *						Tyre / Track Conditions					
Service Brakes *						Attachments Secure					
Park Brake *						Hydraulic Leaks					
Seat Belts and Seat *						Oil Leaks					
Reverse Alarm *						Coolant Leaks					
Beacon *						Broken / Damaged Parts					
Horn *						ROPS Fitted					
Risk Assessment *						FOPS Fitted					
Pre-Start Book *						Damage to Cabin					

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## **Mobile Plant Inspection**



Items	Α	R	D	N	Comments	Items	Α	R	D	N	Comments		
Safety						General	General						
SOP / Operators Manual *						Rubbish In Cabin							
Lights *						Windows Clean							
Machine Guards *						Lockable Reservoir Caps							
Wipers *						Vandal Covers							
UHF Radio fitted						Controls / Switches							
E Stop						Hoses / Fittings							
First Aid Kit						Electrical Test / Tag							
Fit for Purpose						Rigging Equipment Tagged							
SWL Displayed						Maintenance Sticker Visible							
Load Chart Fitted						Maintenance in date							
Quick Hitch													

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## **Mobile Plant Inspection**



#### **WEED & SEED HYGIENE CERTIFICATE**

Condition Codes: A = Acceptable, C = Contaminated, N = Not Applicable

NOTE: Mobile Plant Found to be Contaminated (C) Is NOT Approved to be unloaded on site, Mobile Plant Not Permitted on site until Issue Rectified and Permission is Given by Site Manager

Check the following areas for any sign of weeds, seed or propagules	Α	С	N	Comments
Earthmoving Equipment				
Hollow Section Chassis Channels				
Turret Pivot Area				
Channels for Hydraulic Hoses				
Counterweight Void Spaces				
Engine Bay Floor				
Fan Shroud and Radiator Core				
Air Filters				
Toolbox				
Arms / Booms				
Bucket Blade				
Rear Blade				
Tracks / Tyres				
Cars, Trucks and 4WD				
Interior of Vehicle				
Tray				
Engine Bay				
Underside of Vehicle				
Toolbox / Storage Compartments				
Wheel Arches				
Verification	Yes	3	No	
Is Wash Down Required				
Was Vehicle Washed Down – If Yes include date in comments				

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Figure 21 Mobile plant inspection form

Date	Time in	Vehicle type	Destination	Driver name	Driver contact no.	Driver registration	Entrance wash (Y/N)	Exit wash (Y/N)	Time out	Inspection staff initial

Figure 22 Sample vehicle hygiene register

The matrix in Table 9-2 can be used to assess the appropriate type of vehicle clean down required - for example, a full clean, a wash down or a visual inspection. These requirements can be applied where there is no project or client guidance on clean down techniques.

# CONSOLIDATED POWER PROJECTS A QUANTA SERVICES COMPANY

## **Biodiversity Management Plan**

Riverina Battery Energy Storage System (BESS) Stage CPP Project No: 11291

Table 9-1 Vehicle clean down matrix

		Dense infestations – contact with weeds unavoidable	Large number of scattered plants or clumps of weeds that can be driven or walked around – contact probable	Small patches of weeds or individual plants – easily avoided – contact with weeds feasible
Operator Actions	RISK	HIGH	MEDIUM	LOW
Drove off-road through vegetation, worked in muddy/ wet conditions / worked among plants where seeds visibly present	HIGH	FULL CLEAN	FULL CLEAN	WASH DOWN
Drove on un-improved roads, pulled onto shoulder, had contact with vegetation either on-foot or with vehicle	MED	FULL CLEAN	WASH DOWN	WASH DOWN
Travelled on improved roads only, did not walk off designated path	LOW	VISUAL INSPECTION	VISUAL INSPECTION	VISUAL INSPECTION

The following techniques should be performed at a designated vehicle clean down station prior to entering a protected site for the first time or when moving from one infested area to another. Cleaning only to occur in Approved Wash/brush down areas close to infected areas to reduce spreading infected material.

# 9.7 Bushfire Management Procedure

In order to minimise the risk of bushfire spreading from or within the Site Manager and HSE Advisor is responsible for ensuring that:

- A 10 m defendable firebreak will be established around the perimeter of the construction footprint for the works defined in this BMP. This perimeter firebreak or APZ is to remain unobstructed at all times.
- The APZ will be maintained on a seasonal basis including mowing prior to the commencement of fire danger season to < 50 mm and will be maintained below 100 mm throughout the year.
- A 20,000 L water supply tank fitted with a 65 mm Storz fitting will be located within the central compound adjacent to the internal access road.

# POWER PROJECTS A QUANTA SERVICES COMPANY

## **Biodiversity Management Plan**

Riverina Battery Energy Storage System (BESS) Stage CPP Project No: 11291

- In the event of a fire in the vicinity of the Project, site personnel will assist RFS and emergency services staff.
- The Murrumbidgee Council Medical and Emergency Services Department is informed once construction is completed, prior to commissioning.
- Prior to reducing fuel loads on grassland, the HSE Advisor will identify areas of native vegetation that could be adversely affected by mowing and mark these with stakes and tags so that they are avoided when mowing.

The readiness of firefighting equipment and condition of firebreaks will be monitored as part of monthly site inspections.

## 9.8 Rehabilitation and Revegetation Protocol

Areas temporarily disturbed for the BESS project will need to be rehabilitated and revegetated as soon as practicable. Temporarily disturbed areas include grassland mowed for construction and decommissioning laydown areas. The aim of the rehabilitation and revegetation is to stabilise the disturbed area and to return it to a condition that is similar to its pre-disturbance state.

#### 9.8.1 Topsoiling

Topsoil will be replaced on all areas from where it has been removed. Prior to the application of topsoil, compacted areas will be tined or ripped to a depth of 150 mm to loosen the surface. Over the tined surfaces will be placed at least 100mm of topsoil. Ensure the topsoil is free of large rocks and sticks. Harrow the topsoil prior to sowing seed if the surface has set hard following rain.

Due to the climatic conditions (evaporation rates) native grassland establishment is best attempted over late autumn, winter or early spring. Wet summers are also able to maintain established perennial pasture growth in summer active species. Summer rainfall is less reliable than summer evaporation and as such revegetation is also less reliable. As such rehabilitation and revegetation should commence in late summer/early autumn as temperatures decrease and evaporation rates fall.

#### 9.8.2 Hydromulching and hydroseeding

Carry out hydromulching / hydroseeding within 5-10 days of completed soil preparation or, if delayed by the weather conditions as soon as conditions permit.

Agitate continuously the slurry of seed, fertiliser, binder (60 kg/ha Guar gum) (and mulch) and water (35 kl/ha) to maintain a uniform consistency during application. Apply it the sprayed slurry uniformly over the whole surface ensuring that all surfaces are sprayed from two directions to ensure complete coverage. The sprayed hydromulch layer within 48 hours of application must have a minimum thickness at any location of 5 mm when using sugar cane mulch, or 2 mm when using wood fibre or shredded paper.

Where straw (5t/ha) is used for mulch apply the straw mulch uniformly using a purpose-made blower unit. Incorporate the emulsion (bitumen) as a spray into the air stream of the mulch blower or apply it in a separate operation within 12 hours from the application of straw mulch. The straw mulch layer within 48 hours of application must have a minimum thickness at any location of 25 mm.



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Do not apply hydroseeding / hydromulching and straw mulching if winds exceed 15 km/hr, temperatures exceed 37°C, the surface is water logged; or during rain periods or when rain appears imminent.

#### 9.8.3 Grass sowing rate

This land has already been directly impacted with native vegetation permanently removed (complete loss of habitat) during the construction phase of the DPSF. The recommended seeding rate and mix will be proposed by a suitably trained contractor. Care should be taken to ensure sufficient plant densities.

#### 9.8.4 Revegetation maintenance

Maintain all revegetated areas for 6 months after all sowing is complete or until Contract Completion, whichever occurs first. Water areas where and when directed by the HSE Advisor. Water by means of a fine spray which causes minimal disturbance to seeded areas.

Clear dead vegetation from areas showing poor growth or damage and replace all lost topsoil. Then recultivate and reseed the area. Control exotic plant cover where required with herbicide or hand removal.