Biodiversity Management Plan

Culcairn Solar Farm

March 2025

Project Number: 240896

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NSW • ACT • QLD • VIC
ABN 31 124 444 622 ACN 124 444 622
W. www.nghconsulting.com.au
E. ngh@nghconsulting.com.au

BEGA - ACT & SOUTH EAST NSW
Suite 11, 89-91 Auckland Street
(PO Box 470) Bega NSW 2550
T. (02) 6492 8333

BRISBANE
T3, Level 7, 348 Edward Street
Brisbane QLD 4000
T. (07) 3129 7633

CANBERRA - NSW SE & ACT
Unit 8, 27 Yallourn Street
(PO Box 62) Fyshwick ACT 2609
T. (02) 6280 5053

GOLD COAST
2B 34 Tallebudgera Creek Road
Burleigh Heads QLD 4220
(PO Box 424 West Burleigh QLD 4219)
T. (07) 3129 7633

MELBOURNE
Level 14, 10-16 Queen Street
Melbourne VIC 3000

NEWCASTLE: HUNTER & NORTH COAST
Level 1, 31-33 Beaumont Street
Hamilton NSW 2303
T. (02) 4929 2301

SUNSHINE COAST
Suite 101, Level 2/30 Main Drive
Birtinya QLD 4575
T. 13 54 93

SYDNEY REGION
Unit 17, 21 Mary Street
Surry Hills NSW 2010
T. (02) 8202 8333

TOWNSVILLE
Level 4, 67-75 Denham Street
Townsville QLD 4810
T. (07) 4410 9000

WAGGA WAGGA: RIVERINA & WESTERN NSW
35 Kincaid Street (PO Box 5464)
Wagga Wagga NSW 2650
T. (02) 6971 9696

WODONGA
Unit 2, 83 Hume Street
(PO Box 506) Wodonga VIC 3690
T. (02) 6067 2533

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Acronyms and abbreviations

AC	Alternating current
AS	Australian Standard
BC Act	*Biodiversity Conservation Act 2016* (NSW)
BCS	Biodiversity, Conservation and Science Directorate
BDAR	Biodiversity Development Assessment Report
BESS	Battery Energy Storage System
Biosecurity Act	*Biosecurity Act 2015* (NSW)
BMP	Biodiversity Management Plan
CE	Critically endangered
CNVMP	Construction Noise and Vibration Management Plan
CoA	Condition of Approval
Cwth	Commonwealth
DAFF	Department of Agriculture, Fisheries and Forestry
DCCEEW	NSW Department of Climate Change, Energy, the Environment and Water
DC	Direct current
DPE	Department of Planning and Environment (NSW) (former)
DPHI	Department of Planning, Housing and Infrastructure
DPI	Department of Primary Industries
DPIE	Department of Planning, Industry and Environment (NSW) (former)
E	Endangered
EEC	Endangered ecological community – as defined under relevant law applying to the proposal
EIS	Environmental impact statement
EMS	Environmental Management System
EP Act	*Environmental Protection Act 1994* (Qld)
EP&A Act	*Environmental Planning and Assessment Act 1979* (NSW)
EP&A Regulation	Environmental Planning and Assessment Regulation 2021

EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Cwth)
EPC	Engineering, Procurement and Construction
ESCP	Erosion and Sediment Control Plan
EWMS	Environmental Work Method Statements
FM Act	*Fisheries Management Act 1994* (NSW)
ha	hectares
HBT	Hollow-bearing trees
IPC	Independent Planning Commission
km	kilometres
kV	Kilovolts
LGA	Local government area
LLS	Local Land Services
LP	Landscaping Plan
m	metres
MERI	Monitoring, Evaluation, Reporting and Improvement
MNES	Matters of national environmental significance
MW	Megawatt
MWh	Megawatt hours
NEM	National Electricity Market
NPW Act	*National Parks and Wildlife Act 1974* (NSW)
NRMMC	Natural Resource Management Ministerial Council
NSW	New South Wales
PCT	Plant Community Type
PE	Project Engineer
POEO Act	*Protection of the Environment Operations Act 1997*
PV	photovoltaic
PWMP	Pest and Weed Management Plan
SEA	Site Environmental Advisor

SSD	State Significant Development
SWMP	Soil and Water Management Plan
TEC	Threatened ecological community
V	Vulnerable

1. Introduction

1.1. Background

Neoen Australia Pty Ltd (Neoen) (the Proponent) have approval for construction, operation and decommissioning of a 350 Megawatt (MW) alternating current (AC) / 402.5 MW direct current (DC), photovoltaic (PV) solar farm, referred to as Culcairn Solar Farm (the Project). The Project is located on rural land, approximately 4 kilometres (km) southwest of Culcairn, New South Wales (NSW).

The Project was assessed in an Environmental Impact Statement (EIS) in accordance with Part 4 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) and Schedule 2 of the Environmental Planning and Assessment Regulation 2021 (EP&A Regulation). It is considered State Significant Development (SSD).

The Proponent received approval for the Project on 25 March 2021 from the Independent Planning Commission (IPC).

Modification Report 1 (SSD-10288 – Mod 1) was prepared and submitted to the former Department of Planning and Environment (DPE) (now referred to as Department of Planning, Housing and Infrastructure (DPHI)) October 2023 and was determined on the 22 December 2023 with consolidated Conditions of Consent issued. The modification to the Project was for the following:

- Minor alignment revision and widening of the Project's Development Footprint along Weeamera Road
- Widening of the Project's Development Footprint over two creek crossings within the Development Site
- Minor amendments to the definitions and wording of Schedule 3 Condition 2 – Transport.

Modification Report 2 (SSD-10288-Mod-2) was prepared and submitted to the DPHI October 2024 and determined 19 December 2024 with consolidated Conditions of Consent issued. The modification was for the expansion of the Battery Energy Storage System (BESS) from 10 MW /200 Megawatt hours (MWh) up to 350 MW/800 MWh at the point of connection.

This Biodiversity Management Plan (BMP) is an implementation plan for conservation and protection, restoration and enhancing the biodiversity value through all phases of the Project. It sets out the objectives and relevant management actions, along with identifying the mitigation measures necessary to deliver the outcomes of the assessment process and conditions of approval.

The Modification Report 1 included an Addendum Biodiversity Development Assessment Report (BDAR) for the Project that assessed the additional impacts from the modification and included one additional mitigation measures. This BMP has been updated to address the additional impacts of the approved modification and new mitigation measure. Modification 2 did not result in any additional impacts to biodiversity or mitigation measures.

1.2. The Project

The Project will involve the construction and operation of a ground-mounted PV solar tracking array generating approximately 350 MW AC / 402.5 MW DC of renewable energy. The power generated will be exported to the national electricity grid.

Key development and infrastructure components will include:

- Single axis tracker PV solar panels mounted on steel frames over most of the site (maximum tilt 4.2 metres (m) in height)
- Onsite BESS with a capacity of 350 MW/800 MWh and up to 244 containerised battery storages of lithium-ion batteries

- Underground and overground electrical conduits and cabling to connect the arrays to the inverters and transformers
- Systems of invertor units and voltage step-up throughout the arrays
- National Electricity Market (NEM) compliant metering arrangements for all energy exported to the grid as well as internal metering to measure battery and solar output
- On site substation, connecting to the existing 330 kilovolts (kV) TransGrid transmission line
- Site office and maintenance building, vehicle parking areas, material laydown area, internal access tracks and perimeter security fencing
- Site access track off Weeamera Road
- Road crossing and easement electrical crossing through underground and/or overhead lines, of Cummings Road and Schoffs Lane
- Vegetative screening at impacted visual receivers and intersection of public roads.

The approved Project layout and area of the Project site is shown in Figure 1-1.

Neoen is the applicant and proponent for the Culcairn Solar Farm. Neoen will engage contractors to undertake the construction activities. There would be at least two contractors engaged during the construction phases of the Project:

- Solar Farm Contractor: undertake all works associated with the development including clearing across the site, earthworks, panel installation and associated solar farm works with the exception of the construction of the BESS
- BESS Contractor: earthworks and construction related to the BESS.

Where relevant, they will be referred to as Solar Farm Contractor and BESS Contractor. For all works that are applicable to all contractors they will be referred to as Engineering, Procurement and Construction (EPC) Contractors or specific roles as outlined in Section 4.9 of the EMS.

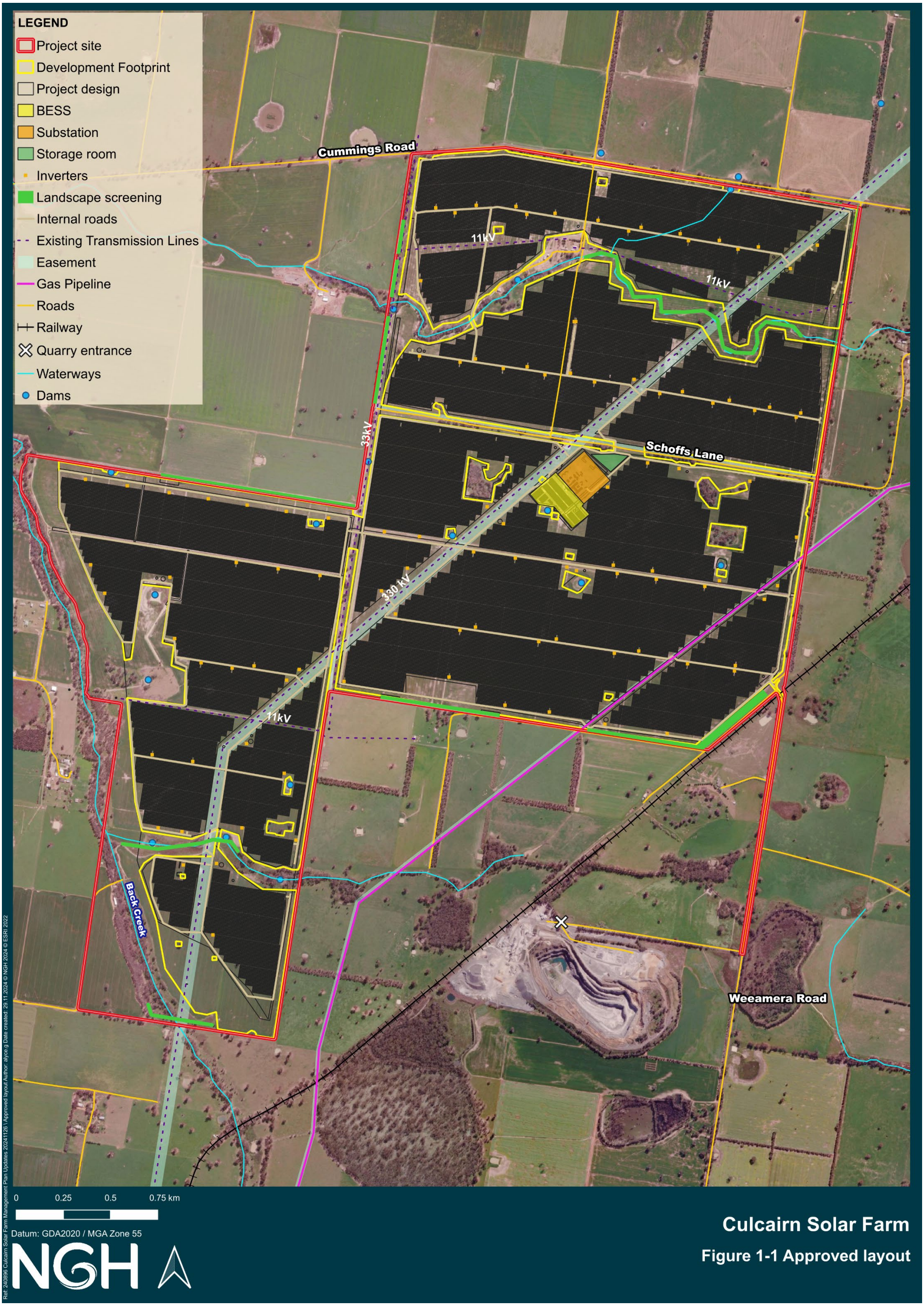

Figure 1-1 Approved Project layout

1.3. Purpose and objectives

The purpose of this BMP is to describe how impacts on flora and fauna will be managed and minimised throughout construction and operation of the Project.

The key objective of the BMP is to ensure that all conditions, mitigation measures and licence/permit requirements relevant to biodiversity are described, scheduled, and assigned responsibility as outlined in:

- The Project EIS (NGH, 2020)
- The Project Submissions Report (NGH, 2020)
- The Project Amendment Report (NGH, 2020)
- Modification Report 1 (NGH, 2023)
- Modification Report 2 (Umwelt, 2024)
- DPHI Consolidated Development Consent (determined 19 December 2024).

The Project will be carried out generally in accordance with the EIS and the Conditions of Approval (CoA), if there is any inconsistency between the documents the conditions of the consent will prevail.

1.4. Environmental Management Strategy

The BMP is part of the Project's overall Environmental Management Strategy (EMS). Mitigation and management measures identified in this BMP will be incorporated into site or activity-specific Environmental Work Method Statements (EWMS).

When used concurrently, the overarching EMS, BMP and other subplans, procedures and EWMS form management guides that clearly identify the necessary environmental management actions for reference by Neoen's personnel and contractors.

The review and document control processes for this plan are described in the EMS.

2. Planning

2.1. Relevant legislation and guidelines

2.1.1. Legislation

Legislation relevant to the development and implementation of the BMP includes:

- *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
- *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)
- *Biosecurity Act 2015*
- *Fisheries Management Act 1994*
- *Game and Feral Animal Control Act 2002*
- *Pesticides Act 1999*
- Pesticides Regulation 2017.

How this legislation is relevant to the BMP and Project is outlined in Appendix B of the EMS.

2.1.2. Guidelines and standards

Guidelines and standards relevant to the development and implementation of the BMP include:

- Australian Standard AS4373 Pruning of Amenity Trees
- Australian Standard AS4970 –Protection of Trees
- Australian Weeds Strategy – A national strategy for weed management in Australia. Natural Resource Management Ministerial Council (NRMMC, 2007)
- Murray Regional Strategic Weed Management Plan 2017 – 2022 (Murray LLS, 2017)
- Murray Regional Strategic Pest Animal Management Plan 2018 – 2023 (Murray LLS, 2018)
- Enhancing farm dams: what to plant in and around your dam (Sustainable Farms & LLS, 2021)
- Noxious and Environmental Weed Control Handbook and website. Department of Primary Industries (DPI, 2018)
- Saving our Species Hygiene Guidelines (DPIE, 2020)
- Australian Pest Animal Management Program (DPIE, 2010)
- General methods of Euthanasia under field conditions. Department of Agriculture, Fisheries and Forestry (DAFF, 2016)
- Monitoring, Evaluation, Reporting and Improvement (MERI) framework for pest animal management in NSW (DPI, 2020)
- Guidelines for the Preparation and Implementation of Wild Dog Management Plans in NSW (DPI, 2016)

2.1.3. Definitions

Commonly restoration, rehabilitation, regeneration, and enhancement are used interchangeably to describe land management including vegetation planting. These will be clarified here, as they each relate to specific management strategies in the BMP. These definitions have been sourced from the glossary of terms in the National Standards for the Practice of Ecological Restoration in Australia (SERA, 2022).

- **Restoration** – the process of assisting the recovery of an ecosystem that has been degraded, damaged or destroyed with the intent to return it to a prior condition.
- **Rehabilitation** – the process of reinstating a level of ecosystem functionality (but not substantiative native biota) on degraded sites where ecological restoration is not the aim.
- **Regeneration** – recovery or recruitment of species from in-situ propagules or propagules that have colonised the site without human intervention. May occur spontaneously or after facilitation (e.g. weed control). Aka natural regeneration.
- **Revegetation** – establishment, by any means, of plants on sites that may or may not involve local or indigenous species.

2.1.4. Conditions of Approval

The Conditions of Approval (CoA) and mitigation measures relevant to this BMP are listed in Table 2-1 below. A cross reference is included to indicate whether the requirement is addressed in this BMP or other Project management documents.

Note, that mitigation measures BD15 and BD17 have been amended in consultation with Biodiversity, Conservation and Science Directorate (BCS) as part of the development of this BMP.

Table 2-1 Approval conditions relevant to the BMP

Reference number	Condition requirement	Document Reference
Conditions of Approval		
Schedule 3 CoA13	**Vegetation Clearance** The Applicant must not clear any native vegetation or fauna habitat located outside the approved Project footprint shown in Appendix 1 [of the CoA].	Section 6.6 Figure 1-1
Schedule 3 CoA15	**Biodiversity Management Plan** Prior to commencing construction, the Applicant must prepare a Biodiversity Management Plan for the development in consultation with BCS, and to the satisfaction of the Planning Secretary. This plan must: (a) Include a description of the measures and timeframes that would be implemented for: • Protecting vegetation and fauna habitat outside the approved disturbance areas • Managing the remnant vegetation and fauna habitat on site • Minimising clearing and avoiding unnecessary disturbance of vegetation that is associated with the construction and operation of the development • Minimising the impacts to fauna on site and implementing fauna management protocols • Avoiding the removal of hollow-bearing trees during spring to avoid the main breeding period for hollow-dependent fauna • Rehabilitating and revegetating temporary disturbance areas with species that are endemic to the area • 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, feral pests and pathogens (b) Include a program to monitor and report on the effectiveness of mitigation measures (c) Include details of who would be responsible for monitoring, reviewing and implementing the plan.	This BMP

Reference number	Condition requirement	Document Reference
	Following the Planning 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.*	
Mitigation measures		
LU4	A Pest and Weed Management Plan would be prepared to manage the occurrence of noxious weeds and pest species across the site during construction and operation. The plans must be prepared in accordance with Greater Hume Shire Council and NSW DPI requirements. Where possible integrate weed and pest management with adjoining landowners.	Appendix H
BD2	Timing works to avoid critical life cycle events such as breeding or nursing: • Hollow-bearing trees would not be removed during breeding and hibernation season (June to January) to mitigate impacts on all hollow dependent fauna • If clearing outside of this period cannot be achieved, pre-clearing surveys would be undertaken by an ecologist or suitably qualified person to ensure no impacts to fauna would occur	Section 6.5 Section 6.6 Appendix B Appendix C
BD3	Implement clearing protocols including pre-clearing surveys, daily surveys and staged clearing, with a trained ecologist or licensed wildlife handler present during clearing events, including: • Pre-clearing checklist • Tree clearing procedure.	Section 6.6 Appendix C Appendix D
BD4	Relocation of habitat features (fallen timber, hollow logs) from within the Project site. Tree-clearing procedure including relocation of habitat features to adjacent area for habitat enhancement.	Section 6.5 Appendix I
BD5	Clearing protocols that identify vegetation to be retained, prevent inadvertent damage and reduce soil disturbance; for example, removal of native vegetation by chainsaw, rather than heavy machinery, is preferable in situations where partial clearing is proposed: • Approved clearing limits to be clearly delineated with temporary fencing or similar prior to construction commencing • No stockpiling or storage within dripline of any mature trees. In areas to clear adjacent to areas to be retained, chainsaws would be used rather than heavy machinery to minimise risk of unauthorised disturbance • Access to the Box-Gum Woodland EEC would not be permitted via vehicles to reduce understorey impacts and clearing	Section 6.6 Section 6.8 Appendix C Appendix H

Reference number	Condition requirement	Document Reference
	• Strict weed protocol must be observed at all times.	
BD6	Noise barriers or daily/seasonal timing of construction and operational activities to reduce impacts of noise. Construction Environmental Management Plan would include measures to avoid noise encroachment on adjacent habitats such as avoiding night works as much as possible.	Construction Noise and Vibration Management Plan (CNVMP, NGH 2024a)
BD7	Light shields or daily/seasonal timing of construction and operational activities to reduce impacts of light spill: • Avoid Night Works • Direct lights away from vegetation.	Table 6-2
BD8	Adaptive dust monitoring programs to control air quality: • Daily monitoring of dust generated by construction and operational activities • Construction would cease if dust observed being blown from site until control measures were implemented. • All activities relating to the proposal would be undertaken with the objective of preventing visible dust emissions from the Project site.	Section 5.5 of the Soil and Water Management Plan (SWMP, NGH 2024c)
BD9	Temporary fencing to protect significant environmental features such as riparian zones.	Section 6.2 Section 6.3
BD10	Hygiene protocols to prevent the spread of weeds or pathogens between infected areas and uninfected areas. This will also be incorporated into the Pest and Weed Management Plan.	Appendix H
BD11	Staff training and site briefing to communicate environmental features to be protected and measures to be implemented: • Site induction • Toolbox talks • Awareness training during site inductions regarding enforcing site speed limits. Site speed limits to be enforced to minimise fauna strike.	Section 8.2

Reference number	Condition requirement	Document Reference
BD12	Preparation of a Management Plan to regulate activity in vegetation: • Protection, enhancement and monitoring of quality/condition of native vegetation to be retained • Best practice removal and disposal of vegetation • Staged removal of hollow-bearing trees and other habitat features such as fallen logs with attendance by an ecologist • Weed management • Unexpected threatened species finds • Rehabilitation of disturbed areas • Exclusion of vehicles through sensitive areas • Best practice clearing of overstorey vegetation for construction of the transmission line to avoid understorey impacts • Adaptive management practices and protocol for corrective actions.	This BMP
BD13	Sediment barriers and spill management procedures to control the quality of water runoff released from the site into the receiving environment: • An erosion and sediment control plan would be prepared and implemented in conjunction with the final design • Spill management procedures would be implemented.	Erosion and Sediment Control Plan (ESCP), Appendix C of the SWMP (NGH, 2024C)
BD14	Appropriate landscape plantings of local indigenous species derived from local native plant communities.	Landscaping Plan (LP, NGH. 2024b)
BD15	• Plain wire is to be used on security fencing where practicable and where it meets safety and security requirements of the Proposal • Use plain wire perimeter fencing where this intersects woodland to avoid potential entrapment of fauna on fence • No barbed wire will be used on any fences	Section 6.2 Table 6-2.
BD16	Appropriate supplementary plantings (as indicated in the final constraints map and layout) to enhance connectivity and mitigate loss of paddock trees across the Project site: • Landscape plantings will be comprised of local indigenous species • Plantings will be a minimum of 20 metres wide.	Appendix I Figure 4-1
BD17	Install hollows of felled trees onto trees or on ground in retained vegetation patches: • Hollow tree limbs would be made into nest boxes and placed in retained vegetation patches	Section 6.5 Appendix I

Reference number	Condition requirement	Document Reference
	• Hollows removed during clearing would be salvaged where possible and remounted to allow continued use by hollow dependant fauna within or adjacent to the project site. A one to one (hollows removed to hollows or nest boxes mounted) would be achieved. • The construction and placement of felled hollows/nest boxes would be managed by a suitably qualified ecologist.	
BD18	A Rehabilitation Plan in conjunction with the Biodiversity Management Plan would be created to improve habitat within retained vegetation in the Project site and include: • Weed control • Replanting or regeneration • Location of hollows from tree removal • Location of nest boxes • Location of logs. Nest box monitoring plan to ensure nest boxes are structurally maintained for the life of the solar farm.	Appendix I
BD19	The site induction should include measures to make employees aware of potential threatened flora and fauna during works and understand the procedures if threatened flora or fauna are detected by on site staff during clearing activities. If threatened species are detected the following procedure would be followed: • Stop work, • Alert an Ecologist for assessment and possible re–location during works	Table 6-2. Section 8.2 Appendix J Unexpected Threatened Species Find Procedure

3. Consultation

In accordance with Condition 15 of Schedule 3 of the Development Consent, the BMP has been prepared in consultation with the Biodiversity, Conservation and Science Directorate (BCS) within the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW). Consultation with BCS will be summarised in Appendix A.

Approval was issued on 4 March 2025 by the nominee of the Planning Secretary for the BMP to be updated to include the modifications without requiring further consultation (see Appendix A).

4. Existing environment

4.1. Plant Community Types (PCTs)

The Project site is comprised of Plant Community Types (PCT) 5, 74, 76, and 277, as observed during field surveys. A summary of these PCTs, including their characteristics and threatened ecological community (TEC) status is provided in Table 4-1.A series of maps, outlining the locations of these PCTs within the Project site, have also been provided, refer to Figure 4-1.

Table 4-1 PCTs occurring within the Project site

Plant Community Type	Description
PCT 5 – River Red Gum herbaceous – grassy very tall open forest wetland on inner floodplains in the lower slopes sub-region of the NSW South Western Slopes Bioregion and the eastern Riverina Bioregion.	This PCT was identified with a dominance of River Red Gum (*E. camaldulensis*). The shrub layer is absent and the ground cover is highly disturbed through frequent grazing by sheep and cattle. Not listed as a TEC under either the BC Act or EPBC Act
PCT 74 - Yellow Box - River Red Gum tall grassy riverine woodland of NSW South Western Slopes and Riverina Bioregions **Critically Endangered community under the BC Act**	This PCT was identified with a dominance of River Red Gum (*E. camaldulensis*) as part of a larger patch including Yellow Box (*E. melliodora*) and Grey Box (*Eucalyptus microcarpa*) along the riparian corridor of Back Creek. *Eucalyptus blakelyii* was also identified in areas of this community. Ground cover is highly disturbed through frequent grazing by sheep and cattle. PCT 74 was considered the best match for the PCT based on overstory species, existing vegetation mapping and location in the landscape. Forms part of the TEC: White Box Yellow Box Blakely's Red Gum Woodland; Critically Endangered under the BC Act. The extent within the Project site does not meet the criteria for the TEC listed under the EPBC Act.
PCT 76 – Western Grey Box tall grassy woodland on alluvial loam and clay soils of NSW South Western Slopes and Riverina Bioregions **Endangered community under the BC and EPBC Act**	This PCT was identified by a dominance of Western Grey Box (*Eucalyptus microcarpa*) in the overstory. The understory has been heavily disturbed through agricultural activities of cropping and continuous grazing by livestock. The shrub layer is absent, and the groundcover is mostly comprised of exotic annuals. Some native groundcovers persist on the road reserves. Listed as Grey Box (*Eucalyptus microcarpa*) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia. Floristic surveys were unable to be completed; therefore, 0.78 ha of this PCT was assumed to meet criteria for the BC and EPBC listed community.
PCT 277 – Blakely's Red Gum – Yellow Box grassy tall woodland of NSW South Western Slopes Bioregion **Critically Endangered community under the BC Act**	This woodland is comprised of patches of trees within a cropped paddock that is used for heavy grazing. The PCT was assigned based on the overstory species and groundcover species where present including Blakely's Red Gum and Yellow Box that are characteristic to this PCT in the IBRA subregion. Forms part of the TEC: White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and derived native grassland TEC listed as Critically Endangered under the BC Act The extent within the Project site does not meet the criteria for the TEC listed under the EPBC Act.

Figure 4-1 Biodiversity features

4.2. Threatened Ecological Communities

Characteristic tree species for two TECs have been observed within the Project site. These are:

- Grey Box (*Eucalyptus microcarpa*) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia listed as Endangered under the NSW BC Act and Endangered under the Commonwealth EPBC act.
- White Box-Yellow Box-Blakley's Red Gum Grassy Woodland and Derived Native Grassland (Box-gum Woodland) listed as Critically Endangered under the NSW BC Act and Critically endangered under the federal EPBC Act.

Woodland vegetation and derived grasslands within the Project site have been heavily modified through cultivation, regular grazing and weed encroachment.

Approximately 0.78 hectares (ha) of PCT 76 occurs along an internal road within the Project site. This vegetation is assumed to meet the criteria for the EPBC listed Grey Box (*Eucalyptus microcarpa*) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia.

PCT 277 and PCT 74 form part of the NSW BC listed Box-gum Woodland; however, does not meet to the condition threshold for the EPBC listed White Box Yellow Box Blakely's Red Gum Woodland.

This was attributed to the dominance of exotic species within the understorey. Refer to Figure 4-1 for TEC mapping within the Project site.

4.3. Threatened or otherwise significant flora species

Site surveys undertaken for the Project did not detect any threatened flora species; however, it has been assumed that the following threatened flora species occur within the Project site:

- Small Purple-pea (*Swainsona recta*), listed as Endangered under the BC Act and EPBC Act
- Small Scurf-pea (*Cullen parvum*), listed as Endangered under the BC Act
- Silky Swainson-pea (*Swainsona sericea*), listed as Vulnerable under the BC Act.

4.4. Priority weeds

Approximately 996 ha of the Project site occurs as exotic grazed pasture or crops. These areas are dominated by exotic vegetation such as Wheat (*Triticum aestivum*) and Barley (*Hordeum sp.*).

Silverleaf Nightshade (*Solanum elaeagnifolium*) is listed as a priority weed for the Greater Hume Local Government Area (LGA) and was identified on site. This is a Weed of National Significance. Under the *Biosecurity Act 2015*, the following duties apply:

- **General biosecurity duty -** To prevent, eliminate or minimise any biosecurity risk this species may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable
- **Prohibition on Certain Dealings -** This species must not be imported into the state, sold, bartered, exchanged or offered for sale
- **Regional Recommended Measure -** Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Priority weeds will be managed in accordance with the *Biosecurity Act 2015* and guided by the Murray Regional Strategic Weed Management Plan (Murray LLS, 2017).

4.5. Observed and threatened fauna

A total of 48 fauna species were observed during field surveys within the Project site. Two threatened species, the Superb Parrot (*Polytelis swainsonii*) and Brown Treecreeper (*Climacteris picumnus*) were recorded.

In addition to this, Table 4-2 details threatened fauna species that were assumed to occur on-site and that may utilise habitat present on site.

Table 4-2 Threatened fauna with potential to use onsite habitat

Credit species	NSW listing status	National listing status	Observed during field surveys?
Bush Stone-curlew *Burhinus grallarius*	Endangered	Not listed	No
Eastern Pygmy-possum *Cercartetus nanus*	Vulnerable	Not listed	No
Gang-gang Cockatoo *Callocephalon fimbriatum*	Vulnerable	Not listed	No
Grey-headed Flying-fox *Pteropus poliocephalus*	Vulnerable	Vulnerable	No
Koala *Phascolarctos cinereus*	Vulnerable	Vulnerable	No
Little Eagle *Hieraaetus morphnoides* (Breeding)	Vulnerable	Not listed	No
Masked Owl *Tyto novaehollandiae* (Breeding)	Vulnerable	Not listed	No
Square-tailed Kite *Lophoictina isura*	Vulnerable	Not listed	No
Squirrel Glider *Petaurus norfolcensis*	Vulnerable	Not listed	No
Superb Parrot *Polytelis swainsonii* (Breeding)	Vulnerable	Vulnerable	Yes

Credit species	NSW listing status	National listing status	Observed during field surveys?
White-bellied Sea-Eagle *Haliaeetus morphnoides* (Breeding)	Vulnerable	Not listed	No
Southern Myotis *Myotis macropus*	Vulnerable	Not listed	No

5. Environmental aspects and impacts

Environmental aspects and impacts relevant to the BMP are described below. Impacts to native vegetation (including ground cover) have been approved under the Amendment Report (NGH, 2020). Neoen must not clear any native vegetation or fauna habitat located outside the approved disturbance footprint shown in Appendix 1 of the CoA and Figure 1-1. Any impact to native vegetation (including ground cover) outside of the approved Project footprint, as shown in Figure 1-1 above, would require a modification. No impacts outside the approved Project footprint are to occur.

5.1. Construction activities

A variety of construction activities that have the potential to impact upon biodiversity management will be undertaken as part of the Project. These activities include, but are not limited to:

- Clearing and grubbing of native and non-native vegetation
- Removal of hollow-bearing trees (HBTs)
- Topsoil stripping
- Works around tributaries of Back Creek and Billabong Creek
- Construction of access tracks, access points and associated drainage
- Construction of BESS
- General earthworks near vegetation and waterways/drainage lines, resulting in disturbance of soils, consequential erosion and the mobilisation of sediment
- Use of chemicals / fuels (potential for spills and subsequent contamination of waterways, habitats).

5.2. Ecological impacts

5.2.1. Direct impacts

Potential direct impacts to biodiversity during construction activities include:

- Removal of approximately 0.77 ha of PCT 277, resulting in:
    - Direct loss of native flora and fauna habitat, including habitat for the Gang Cockatoo, Superb Parrot, Square-tailed Kite and Little Eagle
    - Incidental clearing beyond development footprint
    - Alteration of open foraging habitats through installation of solar infrastructure
- Removal of 64 paddock trees, resulting in:
    - Removal of 49 HBTs
    - Direct loss of native flora and fauna habitat
    - Increased pressure from cumulative loss of habitat and increased competition for remaining HBTs
    - Reduced local connectivity and increased fragmentation of woodland
- Displacement of resident fauna
- Injury or death of fauna.

Potential direct impacts to biodiversity during operation of the solar farm include:

- 787.5 ha of shading by solar infrastructure (70% of the solar array), resulting in:
    - Modification of native fauna habitat

    - Potential loss of ground cover resulting in unstable ground surface and sedimentation of adjacent waterways
- Existence of permanent solar infrastructure (fencing, array infrastructure), resulting in:
- Modification of habitat beneath array (mostly non-native)
- Reduced fauna movements across landscape due to fencing
- Collision risks to birds and microbats (fencing).

5.2.2. Indirect impacts

Potential indirect impacts can occur when construction or operation of the Project affects native vegetation, threatened ecological communities or threatened species habitat beyond the Project site. Potential indirect impacts during construction activities may include:

- Inadvertent impacts to adjacent vegetation, if clearing extends into retained vegetation patches
- Reduced viability of adjacent habitat due to edge effects
- Reduced viability of adjacent habitat due to noise, dust, heat or light spill
- Earthworks result in increased mobilisation of sediments in the vicinity of works
- Increase in pest animal populations.

6. Environmental management protocols and procedures

6.1. Ecological management strategies

The, following environmental controls apply to the Project site and are to be carried out during the pre-construction, construction, post-construction, and decommissioning phases of the Project. The flora and fauna management strategies are designed to ameliorate impacts on flora and fauna and are summarized Table 6-1.

Neoen will undertake all reasonable and feasible measures will be taken to minimise any material harm.

Table 6-1 Ecological management strategies

Ecological management strategy	Timing	Where addressed
Timing of works to avoid critical lifecycle events	Pre-construction Construction	Table 6-2 (BM6 and BM7) Section 6.5 Appendix B Hollow-bearing Tree removal guidelines
Definition of the site boundary	Pre-construction	Section 6.2
Habitat and Vegetation Protection	Pre-construction Construction	Section 6.3
Clearing protocols, pre-clearing and post-clearing surveys	Pre-construction Construction	Section 6.6 Appendix C Procedure for clearing procedure Appendix D Pre-clearing checklist Appendix F Post clearing checklist
Hollow-bearing tree removal and Nest boxes	Pre-construction Construction Operation	Section 6.5 Appendix B Hollow-bearing Tree removal guidelines Section 6.11 Appendix I Rehabilitation Management Plan – Nest Box Strategy
Fauna Recovery Procedures	Pre-construction Construction Operation	Section 6.7 Appendix E Fauna rescue and relocation procedure

Ecological management strategy	Timing	Where addressed
		Appendix G Fauna interaction register
Weed and pathogen management	Construction Operation	Section 6.8 and 6.9 Appendix H Pest and Weed Management Plan
Feral animal management	Construction Operation	Section 6.8 Appendix H Pest and Weed Management Plan
Relocate habitat features (coarse woody debris such as fallen timber, hollow logs) into retained vegetation patches within the Project site	Pre-construction Construction	Table 6-2 (BM10) Appendix I Rehabilitation Management Plan
Back Creek and Billabong Creek Riparian Zones Management	Pre-construction Construction Operation	Section 6.3 Appendix I Rehabilitation Management Plan
Unexpected threatened species finds	Pre-construction Construction Operation	Section 6.10 Appendix J Unexpected threatened species finds Procedure Appendix K Threatened Species Identification
Noise barriers or daily/seasonal timing of construction and operation activities to reduce impacts of noise.	Construction Operation	Table 6-2 (BM17) Implementation of the Project CNVMP (NGH, 2024a).
Light shields or daily/seasonal timing of construction activities to reduce impacts of light spill.	Construction Operation	Table 6-2 (BM18) Implementation of the Project LP (NGH, 2024b).
Adaptive dust monitoring programs to control air quality.	Construction Operation	Implementation of the Project SWMP (NGH, 2024c).
Staff training and site briefing to communicate environmental features to be protected and measures to be implemented.	Pre-construction Construction Operation	Table 6-2 Section 8.2
Rehabilitation	Construction	Section 6.4

Ecological management strategy	Timing	Where addressed
	Operation	Appendix I Rehabilitation Management Plan

6.2. Definition of site boundary

Set up site boundary and exclusion zones with fencing and signage to restrict access to sensitive areas. These sensitive areas include: dams, retained vegetation, vegetative screening, connectivity plantings, revegetation areas and the Back Creek and Billabong Creek Riparian Exclusion Zones (refer to Figure 4-1).

Standard recommendations for defining boundaries are listed below:

- Allow enough lead time to establish exclusion zones before clearing
- Select the appropriate fence type. No barbed wire to be used on any fences (including the substation fence)
- Mark out exclusion zones with temporary markings and where possible use a qualified surveyor
- Permanent exclusion zones including revegetation areas, Back Creek and Billabong Creek, boundary plantings (vegetative screening), connectivity plantings and dams – should be fenced appropriately to exclude stock. No barbed wire will be used on any fences.
- Permanent exclusion zone fencing will be easily identified by appropriate signage and checked by a suitably qualified ecologist prior to the commencement of any works
- Ensure any trees to be felled to establish exclusion zones are felled so as to fall away from the exclusion zone
- Place exclusion zone fencing outside the tree protection zone (in accordance with Australian Standard AS 4970-2009 Protection of trees on Project sites)
- Erect signs to inform personnel of the purpose of fencing. Signs should be clearly visible from a distance of at least 20 metres and should be general in nature, for example ‘Exclusion Zone’
- Store materials or equipment outside exclusion zones in accordance with Australian Standard AS 4970-2009 Protection of trees on Project sites
- Avoid stockpiling materials and equipment and parking vehicles and machinery within the dripline of any tree
- Ensure fences are maintained (regularly inspected and repaired). Removal of exclusion fences should be undertaken in consultation with the EPC Site Environmental Advisor (SEA)
- Communicate the importance of exclusion zones in site inductions and toolbox talks
- Ensure exclusion zones are up to date and marked on a suitable plan
- Ensure breaches are reported to the Neoen Project Manager immediately and managed in accordance with the Project’s Incident Reporting Procedure (Section 8.4 of the EMS)
- Plan fencing in advance to ensure that where practicable, the delineation of the permanent site perimeter boundary will be located to avoid habitat fragmentation within retained vegetation zones.

Exclusion fencing and relevant signage will be installed around habitat to be retained prior to commencement of construction. Perimeter fencing and exclusion fencing will be constructed with plain wire to avoid potential entrapment of fauna on fencing.

Wherever practicable, the delineation of the site perimeter boundary will be located to avoid habitat fragmentation within retained vegetation.

6.3. Habitat and vegetation protection

Several habitat and vegetation protection practices will be employed during the various Project phases to protect retained vegetation both adjacent to and within the Project site.

During construction areas to clear adjacent to areas to be retained, chainsaws will be used rather than heavy machinery to minimise risk of unauthorised disturbance. Additionally, no vehicle access will be permitted into sensitive areas during construction, including dams, retained vegetation, vegetative screening, connectivity plantings, revegetation areas and the Back Creek and Billabong Creek Riparian Exclusion Zones (shown on Figure 4-1). All staff will be briefed on this access requirement during the site induction. Further to this:

- Design and construction planning will aim to maximise retention of significant vegetation in the Project area and minimise clearing where possible

No stockpiling or storage will occur within the dripline of any native trees

Sensitive areas such as retained individual trees and patches of vegetation such as Box Gum Woodland (Figure 4-1), which are close to busy construction, operational and decommissioning zones will be permanently fenced. Signage indicating ‘Sensitive Environmental Area” will be affixed to the fencing to demarcate these areas

- Staff inductions will include a description of the activities allowed within sensitive areas. No other activities, stockpiling or material handling (apart from tree maintenance) will be allowed in these areas
- Fauna habitats adjacent to the Project site are to be protected from construction impacts with the use of temporary fencing and control of potential sediment and erosion impacts as outlined in the SWMP and Erosion and Sediment Control Plan (ESCP) (NGH, 2024c)

All areas identified as a TEC in Figure 4-1 will be protected during all project phases including construction, operation, and decommissioning impacts with the use of fencing and control of potential sediment and erosion impacts as outlined in the SWMP and ESCP (NGH, 2024c).

6.4. Restoration of natural areas

Rehabilitation of retained vegetation within the Project site will be undertaken to enhance its condition, as well as installation of connectivity plantings and landscaping to reduce fragmentation of the local TEC. These measures are outlined in detail in the Project’s Rehabilitation Management Plan (Appendix I).

6.5. Hollow-bearing trees

Detailed guidelines for the removal of HBTs are included in Appendix B. HBTs will not be removed in Spring, to avoid the main breeding period for hollow-dependent fauna.

To offset the removal of HBTs as part of the Project, a one to one (hollows removed to hollows or nest boxes mounted) will be achieved. There are 49 hollow bearing trees to be removed for the Project, however hollow-bearing trees bear multiple hollows. Prior to hollow-bearing tree removal, a survey is required to assess the number of hollows in each tree to estimate the number of hollows / nest boxes requiring installation across the Project Site. Hollows removed during clearing will be salvaged and remounted where possible to allow continued use by hollow dependent fauna. Hollows and nest boxes will be installed across the Project site by a suitably qualified ecologist, in consultation with Neoen. At least 50% of the total hollows require offsetting with the installation of nesting boxes, before clearing and suitable reuse hollows are identified. Further information is detailed in the Nest Box Monitoring Plan included as Appendix C to the Rehabilitation Plan (Appendix I). This outlines specific requirements for the installation of boxes, including what species and how many per species, along with monitoring and maintenance.

6.6. Clearing protocols and surveys

A summary of clearing protocols is provided below. No clearing will be undertaken outside of the approved Project boundary or within clearing exclusion zones at any time during construction. A clearing procedure is provided in Appendix C.

6.6.1. Identify clearing thresholds

The purpose of identifying clearing thresholds is to separate trees and native vegetation to be retained from vegetation to be cleared, as outlined in the BDAR and project approval. Prior to initiation of pre-clearing protocols, a suitably qualified ecologist will work with Neoen to ensure all areas to be cleared are within approved areas. The approved Project clearing limits include:

- 0.77 ha of PCT227
- 64 paddock trees

No-go zones have been mapped in Figure 4-1. Clearing boundaries will be inspected by a suitably qualified ecologist. Different coloured flagging will be used onsite to identify clearing boundaries, as well as no-go zones. The following flagging protocol is recommended to be implemented:

- Red – clearing permit boundary
- Green – biodiversity no-go zones
- The flagging colours will be determined onsite pending availability of colours.

6.6.2. Pre-clearing surveys

The purpose of pre-clearing surveys from a fauna management perspective is to identify habitat trees containing fauna which might otherwise be killed or injured during approved tree-felling and vegetation removal. Standard environmental controls for the pre-clearing surveys are listed below.

- Pre-clearing surveys will be undertaken by a suitably qualified ecologist with experience in fauna handling
- No more than one week out from clearing:
    - The Project Ecologist will mark all habitat trees within the Project footprint to be felled. They will identify the presence or evidence of fauna (including fresh scratches or remains of prey). Pre-clearing surveys will involve nocturnal surveys to detect fauna using habitat features
    - Trees for protection will have exclusion fencing established around the tree to protect it during clearing. This consists of star pickets, plain (non-barbed) wire and para-webbing (or equivalent) with an “Sensitive Environmental Area” and/or “Environmental Protection Area” sign. The Project ecologist will ensure fencing is clearly signed and adequate
    - Trees for removal will be marked with fluorescent marking paint
    - The Project ecologist will check and confirm mapped and recorded data of all habitat trees including number and types of hollows from the EIS,
    - The Project ecologist is to identify fauna release locations outside the Project area. Release locations will be chosen based on the specific habitat requirements of the species captured. Suitable on-site exclusion areas include TECs, nestbox locations and Back Creek and Billabong Creek Riparian Exclusion Zones. Nest Boxes will be installed at the time of pre-construction to create sites for the release of any fauna spotted through the construction or operational phase.
- Less than 24 hours before clearing, using the checklist attached as per Appendix D, the following will occur:
    - Boundaries for construction, clearing and exclusion zones will be confirmed

  - The Project Ecologist will check marked habitat trees within the works area are correctly marked as either for protection or felling
  - Contact will be made with the local vet and/or wildlife carer (contact details outlined in Appendix E) prior to the commencement of clearing works to ensure they are available in case fauna is found
  - Fauna relocation will take place, refer to Appendix E
- Environmentally sensitive features (TECs, habitat trees and rocky habitat (if identified)) will be mapped for inclusion in clearing survey reports
- At the completion of the pre-clearing surveys a report will be compiled of all the data and activities completed during the survey.

6.6.3. Clearing

- Prior to clearing, machine operators are to be informed of the significance of marked habitat trees and given instructions for their removal. They are also to be informed of marked individual trees to be retained and exclusion zone boundaries
- The Project ecologist must be present on site during the removal of HBTs to supervise the works
- Further instructions for fauna rescue and release during clearing are detailed in Appendix E and Unexpected threatened species finds in Appendix J
- HBT removal is to be undertaken in a two-stage clearing process as outlined within Appendix B
- Pruning of mature trees is to be in accordance with Part 5 of the Australian Standard 4373-2007 Pruning of amenity trees. Only trees mapped as ‘Trees to be removed’ will be pruned.

6.6.4. Post-clearing surveys

Post-clearing, the Project Ecologist will survey the cleared area using the checklist attached as Appendix F.

A post-clearing survey report will be compiled and provided to Neon.

6.7. Fauna rescue and release procedure

A Fauna Rescue and Release Procedure has been developed and is included in Appendix E of this BMP. The Fauna Rescue and Release Procedure must be implemented whenever fauna is encountered on the site which require rescuing or relocation. Fauna rescue and/or relocation will be carried out by an experienced ecologist or licenced wildlife handler/carer.

All fauna interactions, including observed and unobserved fatalities, will be recorded in the Project Fauna Register, as included in Appendix G. Further, on-site areas identified for the release of fauna include the following areas:

- All areas with Retained Vegetation
- Back Creek and Billabong Creek Riparian Exclusion Zones
- Nesting Box Installation Areas.
- Revegetation Areas
- Vegetative Screening Areas.

6.8. Pest and weed management Plan

A Pest and Weed Management Plan (PWMP) is provided in Appendix H of this plan. This plan contains the following for weeds:

- Baseline survey for weeds across the Project site prior to clearing

- Requirements for weed identification across the Project site
- Weed hygiene protocols to ensure no weeds are transported to or from the Project site
- Methods for undertaking weed control and treatment (including requirements for herbicide application)
- Requirements for monitoring of weeds
- Requirements for stockpiling, transportation and disposal of weeds.

The PWMP also addresses pest management including baseline surveys prior clearing to confirm species requiring management, suppression and control measures for foxes, cats, rabbits and hares will be undertaken. There are several methods to control foxes, rabbits/hares and cats with the main methods involving poisonous baits, warren and den destruction (ripping warrens) and direct elimination (shooting).

Any program to control feral animals should be put in place early to reduce population numbers as far as possible and this is achieved through continuous monitoring. Feral animal populations can be reduced to minimise pressure on native plants and animals. Due to feral animal populations in surrounding areas, eradication will be largely unachievable. However, prevention and containment can be achieved through implementation of the PWMP.

6.9. Hygiene measures

The following measures to prevent the introduction or spread of pests and weeds onsite will be implemented:

- Hygiene inspections of vehicles, plant and equipment being transported to site
- Application of washdown locations and/or disinfection points at key locations onsite. Any water from the washdown area will be managed in accordance with the SWMP (NGH, 2024c).
- Restricted access to areas of known weed infestation

Further details are provided in PWMP (Appendix H).

6.10. Unexpected threatened species finds

An Unexpected Threatened Species Finds Procedure has been developed and is included in Appendix J of this BMP. The procedure is to be implemented following the discovery of any known or suspected threatened flora or fauna within the Project site.

6.11. Nest box monitoring program

A Nest Box Monitoring Program has been developed and is included as included as Appendix C of the Rehabilitation Plan (Appendix I of this BMP). This outlines the number and type of nest boxes, timing, location and method of installation, maintenance and monitoring.

6.12. Management and mitigation measures

Table 6-2 Biodiversity management and mitigation measures

ID	Mitigation measure	Resources required	Timing	Responsibility	Reference
General					
BM1	Prior to commencing construction, the Applicant must prepare a Biodiversity Management Plan for the development in consultation with BCS, and to the satisfaction of the Secretary in writing. This plan will address biodiversity management specific to the Project site and mitigation measures to be implemented during construction.	This BMP	Prior to construction During construction	Environmental Consultant (NGH) Neoen Project Manager	CoA 15 BD12
BM2	The Project site induction will include environmental features to be protected and site-specific mitigation measures for biodiversity management. It will also include measures to make employees aware of potential threatened flora and fauna during works and understand the procedures if threatened flora or fauna are detected by on site staff during clearing activities. If threatened species are detected the following procedure would be followed: • Stop work • Alert an Ecologist for assessment and possible re–location during works.	Induction records Section 8.2 Appendix J Unexpected Threatened Species Find Procedure	During construction	EPC SEA EPC Ecologist	BD11
BM3	Training and toolboxes will address a range of biodiversity management issues, including: • The enforcement of site speed limits and the prevention of fauna strike • Retained vegetation communities and trees • Retained dams	Toolbox records	During construction	EPC SEA	BD11

ID	Mitigation measure	Resources required	Timing	Responsibility	Reference
	• Vehicle hygiene and biosecurity issues				
Vegetation clearing, protection and management					
BM4	No vegetation will be cleared outside of the approved footprint as part of Project works.	As-con clearing drawings Environmental inspection records	During construction	EPC SEA	CoA 13
BM5	Exclusion fencing and signage will be installed around vegetation to be retained prior to the commencement of construction. Exclusion fencing will be checked by a suitably qualified ecologist to ensure no impact to areas not approved for clearing.	Environmental inspection records	Prior to construction	Solar Farm Contractor SEA Project Ecologist	BD5 BD9
BM6	Hollow-bearing trees will not be removed during core breeding and hibernation season (Spring to Summer).	Clearing reports Environmental inspection records	During construction	Solar Farm Contractor SEA Project Ecologist	BD2
BM7	If clearing outside of breeding and hibernation season cannot be achieved, pre-clearing surveys will be undertaken by an ecologist or suitably qualified person to ensure no impacts to fauna will occur.	Pre-clearing surveys	During construction	Solar Farm Contractor SEA Project Ecologist	BD2
BM8	A trained ecologist or licensed wildlife handler will be present during clearing events and complete: • Pre-clearing checklist • Tree clearing procedure.	Pre-clearing checklist Appendix D Appendix C	During construction	Solar Farm Contractor SEA Project Ecologist	BD3
BM9	Hollow-bearing trees are to be cleared in accordance with the guidelines provided in Appendix B	Appendix B	During construction	Solar Farm Contractor SEA	BD2

ID	Mitigation measure	Resources required	Timing	Responsibility	Reference
				Project Ecologist	
BM10	Habitat features (fallen timber, hollow logs) will be relocated from the Project site to adjacent area for habitat enhancement, in accordance with the Rehabilitation Management Plan.	Environmental inspection records Rehabilitation Management Plan	During construction	Solar Farm Contractor SEA Project Ecologist	BD4
BM11	Clearing limits will be clearly delineated with temporary fencing or similar prior to construction commencing.	Environmental inspection records	Prior to construction	Solar Farm Contractor SEA	BD5 BD9
BM12	No stockpiling or storage will occur within dripline of any mature trees.	Environmental inspection records	During construction	EPC SEA	BD5
BM13	Chainsaws will be used for clearing in areas that are within 40 metres to areas to be retained, to minimise risk of unauthorised disturbance.	Environmental inspection records	During construction	Solar Farm Contractor Project Manager Solar Farm Contractor SEA	BD5
BM14	Vehicle access to Box-Gum Woodland TEC outside the development footprint is not permitted during construction.	Signage Environmental inspection records	During construction	Solar Farm Contractor SEA	BD5
BM15	Screening and landscaping plantings (minimum of 20 metres wide) will be comprised of local indigenous species representative of the vegetation in the Project site.	Landscaping Plan	During construction	Solar Farm Contractor SEA	BD16
BM16	Removal of vegetation will be staged to reduce erosion risk.	ESCP	During	Solar Farm	Best

ID	Mitigation measure	Resources required	Timing	Responsibility	Reference
		SWMP (NGH, 2024c)	construction	Contractor SEA	practice ESCP
Wildlife protection					
BM17	Night works will be avoided as far as practicable to reduce the impacts of noise and light on nocturnal adjacent habitats.	CNVMP (NGH, 2024a) Environmental inspection records	During construction	EPC SEA EPC Project Engineer (PE)	BD6 BD7
BM18	Light mitigation measures will be implemented as required, particularly during night works, including the use of light shields and the placement of lights pointing away from vegetation	LP (NGH, 2024b) Environmental inspection records	As required	EPC SEA EPC PE	BD7
BM19	Nest boxes and salvaged hollows will be installed prior to and during the clearing phase of the Project, in accordance with the requirements of target species. Hollow sizes will include the following categories to provide habitat requirements of the target species: • Small hollows (<5cm in diameter (arboreal mammals)) • Medium hollows (5cm - 10cm in diameter (woodland birds, arboreal mammals)) • Large Hollows(>10cm in diameter (large birds i.e., Cockatoos, owls etc))	Nest Box Monitoring Plan within the Rehabilitation Plan (Appendix I) Environmental inspection records	Pre-construction	Solar Farm Contractor SEA Project Ecologist	BD17 BD18
BM20	Site speed limits will be enforced to reduce fauna strike.	Induction records Signage Environmental inspection records	During construction	EPC SEA	BD11 Best practice

ID	Mitigation measure	Resources required	Timing	Responsibility	Reference
BM21	Plain wire will be used for the perimeter fence and stock fencing to reduce impacts from entanglement on fauna. No barbed wire will be used on any fences.	Environmental inspection records	During construction	EPC Superintendent EPC SEA	BD15
Fauna habitat and connectivity					
BM22	Project boundary fence will be located to avoid habitat fragmentation wherever practicable.	Environmental inspection records	Prior to construction	EPC PE EPC SEA	BD22
BM23	In the event that encountered fauna does not relocate of its own accord, capture and relocation will only be undertaken by a fauna spotter/catcher or ecologist.	Fauna rescue and release records (Appendix E)	As required	Project Ecologist EPC SEA	Best practice
BM24	If any wildlife is injured during construction, Neoen Project Manager is to be notified and, if required, the injured animal will be taken to the nearest veterinary surgery. Alternatively, WIRES are to be contacted on 1300 094 737 for further advice. BCS should also be notified if a threatened species is injured (rog.southwest@environment.nsw.gov.au). Jindera Veterinary Clinic – 02 6026 3277 Holbrook Vet Centre – 02 6036 2374	Fauna rescue and release records (Appendix E)	As required	EPC SEA	Best practice
Aquatic habitats					
BM25	Avoidance of activities in aquatic habitats and riparian zones as much as practicable.	Toolbox records Environmental inspection records	During construction	EPC Superintendent EPC SEA	BD9 Best practice

ID	Mitigation measure	Resources required	Timing	Responsibility	Reference
BM26	Keep vehicles and machinery away from the banks of a waterway where possible. Where machinery must enter the waterway, ensure that they are cleaned, degreased and serviced prior to entering.	Environmental inspection records	During construction	EPC Superintendent EPC SEA	Best practice
Weeds, pests and pathogens					
BM27	A PWMP will be prepared to manage the occurrence of priority weeds and pest species across the site during construction and operation. The PWMP must be prepared in accordance with Greater Hume Shire Council requirements and the Murray Regional Strategic Weed Management Plan 2017 – 2022.	PWMP (Appendix H)	Prior to construction During construction	Environmental Consultant (NGH) Neoen Project Manager	LU4 BD12
BM28	Hygiene protocols outlined in the PWMP will be implemented.	Hygiene declaration form	During construction	EPC Superintendent EPC SEA	Best practice
Rehabilitation					
BM29	Areas of exposure will be progressively revegetated to limit weed invasion during construction works.	Environmental inspection records ESCP Rehabilitation Plan	During construction	EPC SEA EPC PE	Best practice ESCP
BM30	Complete rehabilitation in accordance with the Rehabilitation Plan	Rehabilitation Plan (Appendix I)	Post construction	EPC SEA EPC PE	

7. Monitoring and inspections

Inspections of sensitive areas and activities with the potential to impact biodiversity will occur for the duration of the Project. Requirements and responsibilities in relation to monitoring and inspections also a summary of the key performance criteria and triggers for corrective actions are outlined in Table 7-1. The actions to be implemented should the trigger arise are also described. This combined with the monitoring described in Section 10.3 forms the Trigger, Action Response Plan (TARP) for the Project. The monitoring triggers have been used to inform the triggers for protocols and procedures that require monitoring in Table 7-1. Appendix H outlines specific details for weeds and pest animals. The actions should follow monitoring, control measures and follow up monitoring with an annual reporting component. A suitably qualified contractor will be required for the pest animal control and best practice methods applied.

Further requirements and responsibilities in relation to monitoring and inspections are documented in Section 9 of the EMS

Table 7-1 Summary of performance criteria, triggers for actions and responses for environmental management protocols and procedures

Management protocol or procedure	Performance Criteria	Trigger for additional actions	Action Proposed	Monitoring and/reporting requirements	Responsibility
Clearing protocol and surveys BD2	• No more than 0.77ha of native vegetation will be removed and no more than 64 paddock trees (refer to Figure 4-1 for no-go zones) • Pre-clearance surveys conducted • No impact on exclusion zones.	• Clearing outside of approved clearing areas • Pre-clearance surveys not completed • Clearing of trees not identified for removal • Injured native fauna/ hollow dependent fauna during clearing • Lack of Environmental Incident notification where required	Solar Farm Contractor SEA or Project Manager to: • Review pre-clearance survey process and update/ amend the protocol to include an additional signatory/ signoff to confirm completion • Check demarcation of approved clearing areas and ensure these have been set out by a surveyor and are clearly marketed in the field • Undertake incident investigation as per the Project's Incident Classification and Reporting	• A post-clearing survey report will be compiled by Project Ecologist or fauna spotter catcher and provided to the Solar Farm Contractor SEA • Monthly monitoring of high disturbance areas, exclusion zones and boundary fencing during construction • Progressive monitoring of the cumulative amount of vegetation cleared • Inspection of exclusion	Solar Farm Contractor Project Manager and SEA

Management protocol or procedure	Performance Criteria	Trigger for additional actions	Action Proposed	Monitoring and/reporting requirements	Responsibility
			Procedures, inclusive of notifications to authorities (as relevant) • Undertake native vegetation reinstatement in no go zones • Reinstate loss of paddock tree resource as required, via artificial nest boxes/ additional coarse woody debris as directed by Project ecologist • Undertake environmental awareness training regarding locations of approved clearing areas, native vegetation clearing process and retained native vegetation (exclusion/ no go zones) fencing/ flagging Complete toolbox talks to vegetation clearing crews on native vegetation removal and paddock tree removal • In the case of unauthorised removal of paddock trees,	zone disturbance.	
Fauna rescue and release procedure BD2, BD3	• Fauna encountered on site is rescued by an experienced ecologist/fauna spotter catcher	• Fauna is not relocated by an experienced ecologist/fauna spotter catcher or licenced wildlife	EPC SEA to: • Undertake incident investigation as per the Project's Incident Classification and Reporting Procedures, inclusive of	• All fauna interactions, including observed and unobserved fatalities, will be recorded in the Project fauna register (Appendix G).	EPC SEA

Management protocol or procedure	Performance Criteria	Trigger for additional actions	Action Proposed	Monitoring and/reporting requirements	Responsibility
	• Fauna is relocated injury free • Fauna interaction is recorded in the Project fauna register (Appendix G).	handler/carer. • Fauna is injured • Fauna interaction is not recorded in the Project fauna register (Appendix G).	notifications to authorities (as relevant) • Review onboarding protocol as required, to ensure only personnel with required qualifications and experience are permitted on site to preform specialist roles (i.e. experienced and qualified fauna spotter/ catchers). • Undertake a review of Fauna Rescue and Release Procedure and update this as required to capture any process failings • Complete additional environmental awareness training regarding fauna rescue and release procedure	• The Project fauna register will be reviewed monthly during construction.	
Weed and pathogen management procedure See the Pest and Weed Management Plan (Appendix H) for more detailed information on	• Pests and weeds controlled, in accordance with the PWMP • A general reduction in the abundance of weeds in exclusion zones during the operation period as evidenced by bi annual inspections	• Presence of priority weeds detected during monitoring (twice a year) • New weed species on site detected during monitoring • Moderate or High levels of observed pest animal activity.	• Eliminate any occurrences of Silverleaf Nightshade (*Solanum elaeagnifolium*) priority weed species as soon as practicable in accordance with recommended control methods and timing • Increase targeted weed or pest animal control measures as per Ecologist advice • Implement actions within the Pest	• Project ecologist to undertaken weed surveys and mapping to inform ongoing monitoring. • Weed monitoring will be undertaken during initial pre-clearance surveys and twice a year within the Project site.	EPC SEA Trained Ecologist

Management protocol or procedure	Performance Criteria	Trigger for additional actions	Action Proposed	Monitoring and/reporting requirements	Responsibility
weed species management. BD10 BD12 LU4	• New invasive weeds detected in Project area are controlled during operation	See Section 6.8 for a definition of relative abundance.	and Weed Management Plan (Appendix H).	• Details of pest and weed control actions and monitoring results will be recorded in the annual report (refer to Section 9.4 of the EMS).	
Vehicle hygiene procedure Refer to Pest and Weed Management Plan (Appendix H) BD10	Plant and equipment mobilised to site clean and free of weeds (refer to Figure 4-1 for Project site boundary) Vehicle and machinery weed hygiene controls in place and utilised on site	Vehicle Hygiene Procedure unimplemented (e.g. Hygiene declarations absent, equipment not cleaned sufficiently)	EPC SEA or Project Manager to: • Undertake incident investigation as per the project's Incident Classification and Reporting Procedures, inclusive of notifications to authorities (as relevant) • Ensure the Vehicle Hygiene Procedure is included in site inductions and toolbox talks • EPC SEA to perform weekly spot checks to confirm that staff responsible are implementing the procedure.	• All vehicle inspections and washdowns are recorded in the Vehicle Hygiene Register (Appendix H)	EPC SEA or Project Manager
Rehabilitation and material salvage BD17	• Coarse Woody Debris, rocks and topsoil (as described in Section 3.2 of the Rehabilitation Plan)	• Resources are stockpiled and not relocated • Resources are taken to landfill.	• Stockpiled resources are to be relocated immediately under the guidance of an Ecologist to ensure minimal damage • Undertake incident	• Relocation of materials recorded as it occurs	Solar Farm Contractor SEA

Management protocol or procedure	Performance Criteria	Trigger for additional actions	Action Proposed	Monitoring and/reporting requirements	Responsibility
BD18	removed during construction are retained • Retained resources are relocated appropriately under direction of an ecologist during pre-clearance.		investigation as per the project's Incident Classification and Reporting Procedures, inclusive of notifications to authorities (as relevant) • Procure replacement CWD, rock and or topsoil to replace what was not retained, to be sourced and purchased under the direction of the project ecologist • Ensure the rehabilitation and material salvage procedure is included in site inductions, toolbox talks etc and that staff responsible are implementing the procedure.		
Unexpected threatened species finds BD12	• Threatened Species Finds Procedure followed if threatened species found (Appendix J) • No harm occurs to threatened species.	Threatened species found to be present (living or dead) that were not previously identified.	EPC SEA to: • Undertake incident investigation as per the project's Incident Classification and Reporting Procedures, inclusive of notifications to authorities (as relevant) • Prepare species profile	• As it occurs.	EPC SEA

Management protocol or procedure	Performance Criteria	Trigger for additional actions	Action Proposed	Monitoring and/reporting requirements	Responsibility
			posters for all know threatened species form the area to increase awareness of threatened species that may be encountered • Undertake refresher awareness training with regard to the Threatened Species Finds Procedure		
Vegetation management BD14 BD16 BD18	• Maintain or improve the condition of vegetation across the Project site and within exclusion zones throughout the life of the Project • A general reduction in weed abundance in exclusion zones throughout the operational period.	• Decline in exclusion area condition as evidenced by monitoring • Weed abundance not decreasing within exclusion zones; >50% non-native ground cover Moderate to high pest animal activity recorded in exclusion zones. See Section 6.8 for a definition of relative abundance.	• Project Ecologist to undertake an assessment of the area(s) in decline and propose remedial actions • Undertake incident investigation as per the project's Incident Classification and Reporting Procedures, inclusive of notifications to authorities (as relevant) Recommendations following investigation to be followed which may include but not be limited to: • Exclude stock and human/vehicle access • Targeted weed or pest control • Groundcover rehabilitation and	• Weed monitoring will be undertaken during initial pre-clearance surveys and bi-annually within the Project site	Solar Farm Contractor SEA Trained Ecologist

Management protocol or procedure	Performance Criteria	Trigger for additional actions	Action Proposed	Monitoring and/reporting requirements	Responsibility
			shrub/tree plantings for habitat enhancement • Ecological burns in consultation with appropriate authorities to reduce fuel loads or control over-dominant groundcover species, in accordance with relevant fire regime for the vegetation community.		
Nesting Box Management BD17 BD18	1. Installed Nest Boxes and salvaged hollows are maintained and functional 2. No pests utilising Nesting Boxes / salvaged hollows	1. Nesting Boxes and salvaged hollows require maintenance 2. Pests are utilising Nesting Boxes / salvaged hollows	1. Undertake Maintenance or replacement 2. Targeted pest control	• Monitoring and reporting in accordance with the procedures outlined in the Nest Box Monitoring Plan, included as Appendix C to the Rehabilitation Plan (Appendix I)	Solar Farm Contractor SEA Contractor/ Trained Ecologist
Pest Animal See the Pest and Weed Management Plan (Appendix H) for more detailed information on pest management.	• Pest species controlled, in accordance with PWMP • Maintaining a low number of pest animal species across the Project site.	Pest species not controlled, in accordance with PWMP Moderate to high pest animal activity recorded in exclusion zones.	EPC SEA or Project Manager to: • Implement actions within the Pest and Weed Management Plan (Appendix H).	• Monitoring event is one month (30 days) deployment of all camera traps as per the layout explained in methods • Frequency will comprise two monitoring events per	EPC SEA or Project Manager Suitably qualified Contractor

Management protocol or procedure	Performance Criteria	Trigger for additional actions	Action Proposed	Monitoring and/reporting requirements	Responsibility
BD10 LU4				year (or every six months), during construction and operation.	

8. Compliance management

8.1. Roles and responsibilities

Section 4.8 of the EMS describes the roles and responsibilities of the environmental management team for the Project. Specific responsibilities for the implementation of environmental controls are detailed in Table 6-2 of this plan.

8.2. Training

All employees, contractors and utility staff working on site will undergo site induction training relating to biodiversity management issues. The induction training will address elements related to biodiversity management, including:

- Existence and requirements of this sub-plan
- Relevant legislation
- Specific species likely to be affected by the construction works and how these species can be recognised
- Vegetation communities and trees to be retained
- Site speed limits and their enforcement in minimising fauna strike
- No vehicle access within sensitive areas, including Dams, retained vegetation, vegetative screening, connectivity plantings, revegetation areas and the Back Creek and Billabong Creek Riparian Exclusion Zones (Figure 4-1) during construction
- Vehicle hygiene and biosecurity risks and procedures
- Unexpected Threatened Species Find Procedure including stop work and notifying an Ecologist
- Fauna rescue requirements
- Weed control measures
- General flora and fauna management measures
- Specific responsibilities for the protection of flora and fauna

Further details regarding staff induction and training are outlined in Section 7 of the EMS.

8.3. Auditing

Audits (both internal and external) will be undertaken to assess the effectiveness of environmental controls, compliance with this sub plan, infrastructure approval and other relevant approvals, licences, and guidelines. Audit requirements are detailed in Section 10.3 of the EMS.

8.4. Reporting

Reporting requirements and responsibilities are documented in Section 10.4 of the EMS and Section 7 of this BMP.

Specific information required from this BMP includes a pre-clearing survey and post-clearing report. These reports are to be provided to Neoen and generally include:

- The name and qualifications of the Ecologist or wildlife carer present during clearing
- An assessment of the habitat and handling of fauna

- Information on clearing operations, dates, procedures, areas
- The number of trees and hollows cleared
- Live animal sightings, captures, any releases or injured/shocked wildlife
- Any dead animals located
- Photographs of rescued fauna.

8.4.1. Incident reporting

In accordance with Condition 7 of Schedule 4 of the Development Consent, the Planning Secretary must be notified in writing via the Major Projects website immediately after Neoen becomes aware of an incident.

Written notification of an incident must:

a) Identify the development and application number
b) Provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident)
c) Identify how the incident was detected
d) Identify when the applicant became aware of the incident
e) Identify any actual or potential non-compliance with conditions of consent
f) Describe what immediate steps were taken in relation to the incident
g) Identify further action(s) that will be taken in relation to the incident
h) Identify a project contact for further communication regarding the incident.

As per Appendix 7 of the CoA (Incident Notification and Reporting Requirements), within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, the Applicant must provide the Planning Secretary and any relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements below, and such further reports as may be requested.

The Incident Report must also include:

a) A summary of the incident
b) Outcomes of an incident investigation, including identification of the cause of the incident
c) Details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence
d) Details of any communication with other stakeholders regarding the incident.

All written requirements of the Planning Secretary or relevant public authority, which may be given at any point in time, to address the cause or impact of an incident must be complied with, within any timeframe specified by the Planning Secretary or relevant public authority.

Non-compliances

Non-compliances will be reported in accordance with Section 10.4 of the EMS, and the Planning Secretary (DPHI) must be notified in writing via the Major Projects website within seven days after the Applicant becomes aware of any non-compliance.

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
- The reasons for the non-compliance (if known) and
- What actions have been, or will be, undertaken to address the non-compliance.

It should be noted that as per the requirements of Schedule 4, Condition 10, a non-compliance which has been notified as an incident, does not need to also be notified as a non-compliance.

9. Review and improvement

9.1. Continuous improvement

Continuous improvement of this BMP will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying 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.

9.2. BMP updates

A document review process ensures that environmental documentation including this BMP is updated as appropriate for the specific works that are occurring on-site. Reviews of the BMP are expected to be triggered as relevant, by:

- Independent Environmental Audit
- Internal audits
- Additional environmental aspects and risks
- Environmental near misses and incidents
- Project stage change between construction, operation, and decommissioning.

Should the document review process identify any issues or items within the documents that are either redundant or in need of updating, it is the responsibility of the Neoen Project Manager or delegate to prepare the revised documents.

In accordance with Condition 2 of Schedule 4 of the Development Consent, within 1 month, unless otherwise agreed with the Planning Secretary, of:

- The submission of an incident report under Condition 7 of Schedule 4
- The submission of an audit report under Condition 11 of Schedule 4
- Any modification to the conditions of this consent.

The Neoen Project Manager or delegate must review, and if necessary revise the strategies, plans, and programs required under the Development Consent to the satisfaction of the Planning Secretary.

Where this review leads to revisions in any such document, then within four weeks of the review, the revised document will be submitted to the Planning Secretary for review and approval, unless otherwise agreed with the Planning Secretary.

In accordance with Condition 3 of Schedule 4 and agreement of the Planning Secretary, revised strategies, plan or programs may be prepared without undertaking consultation with all parties nominated under the applicable condition in this approval.

Only the Neoen Project Manager, or delegate, has the authority to change any of the environmental management documentation.

In addition, the processes described in Section 11 of the EMS may result in the need to update or revise this Plan. This will occur as needed.

9.3. Document control

A copy of the updated plan and changes will be distributed to all relevant stakeholders, including BCS in accordance with the approved document control procedure – refer to Section 12.2 of the EMS. This also includes providing the EMS and Management Plans to DPHI and that these are made publicly available (i.e. via the Major Projects Planning Portal). Details regarding this are specified in Section 12.3 of the EMS.

10. References

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Appendix A Consultation

Consultation	BCS comments	How comments addressed?
The BMP was provided to BCS for comment on 14 July 2023.	BCS provided comments back on 15 August 2023 with the following recommendations: • 1.1 Update BD15 to state that no barbed wire will be used on any fences to ensure consistency with Section 6.2. • 2.1 Update BD17 to ensure it is consistent with the information presented in the nest box strategy and tailored to the target species. • 2.2 Clarify whether nest box monitoring includes salvaged hollows converted to nest boxes and update the BMP where relevant. • 2.3 Update the nest box strategy in Appendix I to include the two threatened, hollow dependent birds recorded on site, the Superb Parrot and Brown Treecreeper. • 2.4 To ensure supplementary hollows are available to displaced fauna at the time of clearing, specify a minimum number of constructed nest boxes that are to be installed prior to clearing. • 2.5 Update Appendix C of Appendix I to require ongoing management of all non-target species. • 2.6 Add a specific pest/bee observation section to the nest box installation and inspection proforma in Appendix C of Appendix I • 3.1. Include a map that identifies the avoided land • 3.2. Include useable scaled maps in Section 6.2 that identify the exclusion areas, as well as the locations of permanent and temporary fencing. • 4.1. If non treed areas of TECs exist on the project site, clearly identify these on maps within the BMP and refer to those areas in this section. If not, update Section 6.3 by removing the statement that TECs can and do occur where trees are not present, as this could cause confusion. • 5.1. Update Section 6.5 to state that removal of HBTs will not occur in Spring, as per Appendix B. • 5.2. Update Appendix B to specify that HBTs will not to be cleared until temperatures are less than 30°C so that captured animals are not subjected to heat stress before release • 5.3. Update Appendix B to include information on Squirrel Gliders and other arboreal mammals • 6.1. Update Section 6.6.1 to include the actual clearing limits. • 7.1 Define what an environmentally sensitive feature is, or use alternative terms consistent with what is used in	NGH updated the BMP and its appendices to address these recommendations for Final V1 (17 August 2023)

Consultation	BCS comments	How comments addressed?
	the BMP maps, such as TEC, exclusion areas, trees to be retained, etc. • 8.1 Update Section 6.6.3 to either remove the reference to pruning trees, or to state that only trees mapped as 'Trees to be removed' can be pruned. • 9.1 Undertake baseline weed and pest surveys prior to commencing works on site and update the BMP to include maps showing weed and pest locations. • 9.2. Update the BMP to include maps showing priority weed locations identified during the preparation of the BDAR. • 9.3. Update pest control techniques listed in Section 5.3.1 of Appendix H to ensure they are relevant and realistic for the project. • 9.4. Update Appendix A of Appendix H to remove irrelevant content related to KNP and Bago State Forest. • 9.5. Update Appendix C of Appendix H to ensure it is relevant to the monitoring method detailed in Section 6.3 of Appendix H. • 10.1 Update Table 7-1 to include more detail under the 'Performance Criteria' and 'Trigger for additional actions' heading. • 10.2 Update Table 7-1 to include specific detailed corrective actions under the 'Action Proposed' heading. • 10.3 Update Table 7-1 by referring to specific maps where relevant • 11.1. Update the checklist so it follows a chronological order of events. • 11.2. Update step 2 so it includes a survey for all species, not just threatened species. • 11.3. Update step 6 to include a reference to the location of the colour coding protocol. • 12.1. Justify the use of the trash blanketing revegetation technique and its effectiveness on native species endemic to the project site. • 12.2. Remove 'preferably' from the second paragraph. Without reproductive parts attached to prunings or branches, this technique is unlikely to be successful. • 13.1. Remove the BCS phone number from mitigation measure BM24 listed in Section 6.12 • 13.2. Update Section 9.2 to ensure BCS is consulted on any changes to the BMP.	
BMP Final V1 was provided to BCS for comment on 19 October 2023.	BCS provided comments back on 6 November 2023 with the following recommendations: • 1.1 Update BD15 to state that no barbed wire will be used on any fences. This will ensure consistency with Section 6.2 and ensure there is no doubt about the fencing to be	NGH updated the BMP and its appendices to address these recommendations

Consultation	BCS comments	How comments addressed?
	used. • 1.2 Include a note above Table 2-1 advising that mitigation measures BD15 and BD17 have been amended through consultation with BCS. • 2.1 Update BD17 to remove the reference to "*younger*" trees as this is contrary to the information and literature presented in Appendix I. • 5.3 Update the '*Clearing during June to January*' section in Appendix B to include information on Squirrel Gliders and other arboreal mammals (consistent with what has been presented for parrots and microbats), as they are also likely to be breeding during this period. • 12.1 Detail the revegetation measures that will be used for the project. • 13.1 Include the BCS email address (rog.southwest@environment.nsw.gov.au) in mitigation measure BM24 listed in Section 6.12.	for Final V2 (16th November 2023)

Department of Planning, Housing and Infrastructure

Our ref: SSD-102880PA-78

Benjamin Benfredj
Construction Project Manager
Neoen Australia Pty Ltd
570 George Street
Sydney, NSW, 2000

04/03/2025

Subject: Request regarding consultation requirements for Biodiversity Management Plan (Mod 2)

Dear Mr Benfredj

I refer to your correspondence dated 28 February 2025 requesting the Planning Secretary's agreement to update the Biodiversity Management Plan without undertaking further consultation with BCS (now known as Conservation Programs, Heritage and Regulation (CPHR)).

Modification 2 (SSD-10288 Mod 2) involves an increase in the capacity of the battery energy supply system (BESS). It is noted that the modification:

- is located within the development footprint assessed in the EIS and does not require the clearance any additional vegetation; and
- would not create any additional biodiversity impacts than those originally assessed in the EIS for the Approved Project and no change to the offsets are required.

The Department's assessment concluded the impacts of the proposed modification on biodiversity are minor and will have negligible impact on biodiversity.

In considering this request I have carefully reviewed the documentation associated with the modification and your correspondence.

As nominee of the Planning Secretary, in accordance with Condition 3 of Schedule 4, I agree that the Biodiversity Management Plan can be updated without consulting CPHR.

If you wish to discuss the matter further, please contact Keren Halliday on 8289 6444.

Yours sincerely

Iwan Davies

Director
Energy Assessments

As nominee of the Planning Secretary

Appendix B Hollow-bearing tree removal guidelines

This guideline provides instruction on how to remove Hollow Bearing Trees (HBTs) in a way that minimises the impacts on fauna inhabiting trees and includes:

- Optimum timing for tree removal to minimise impacts on hollow-dependant fauna.
- Detailed information about felling hollow bearing trees (2 staged felling protocol).

Clearing timing

1. Removal of hollow-bearing trees is not to occur in Spring to avoid the main breeding period for hollow dependent fauna. All clearing requires a pre-clearing survey and ecologist/suitably qualified person to ensure no impacts to fauna will occur.
2. During summer/hot days (greater than 30°C), HBT are left in situ until temperatures lower, so any captured animals are not subjected to heat stress before release. Wildlife is not to be held in a vehicle on hot days unless the engine and air conditioning is on.
3. Nocturnal animals (if captured) are not to be released until nightfall as they are vulnerable to predation if released during day.

Pre-clearing survey

1. Prior to works commencing, the fauna spotter[1] /ecologist is to undertake a brief site inspection to ensure that each HBT to be removed is (still) clearly marked so that machinery operators and site construction workers are aware of their presence. This is to avoid any indirect impacts occurring beyond, or in a manner not consistent with the methodology specified in this or other regulatory documents. Marking of the HBTs that will be removed and/or retained is to be clear and must differentiate between removed/retained trees such as through the use of different coloured flagging tape or spray paint.
2. All known hollows must be individually inspected for occupancy and current use. This will require a pole mounted inspection camera or support from an arborist on an Elevated Work Platform. If hollows are found to be occupied, then a plan for how to minimise impacts to the fauna will be prepared (by the fauna spotter/ecologist) specific to the species and its lifecycle and implemented prior to tree removal commencement.
3. A fauna spotter/ecologist will undertake a visual inspection of all hollows and habitat features within 24 hours of clearing to identify resident fauna species that might require relocation.
4. Contact veterinarian/wildlife carers in the area prior to clearing starting. At least one must confirm to be willing to accept wildlife if orphaned or injured fauna are encountered.
5. The fauna spotter/ecologist must assess the surrounding area for alternative hollows suitable for fauna relocation. If these are not present then nest boxes will be made available, and if fauna detected, installed so that mobile hollow dependent fauna have alternative locations to

[1] The 'fauna spotter'/ ecologist must be trained and experienced in handling fauna, , and recognise fauna species and required habitats. If handling microbats the spotter/ ecologist must be appropriately vaccinated.

relocate. Nest boxes will be installed within 100m of the tree removal site and must be suitably sized and designed to accommodate the species of concern[2].

Clearing of habitat features

1. The fauna spotter/ecologist must have appropriate catching, handling, and housing equipment present on site in the event of the need to detain fauna. This includes enclosures suitable for common and suspected threatened species of varying needs and sizes. Housing and transport of wildlife must be in accordance with the Code of Practice for Injured, Sick and Orphaned Protected Fauna: https://www.environment.nsw.gov.au/research-and-publications/publications-search/code-of-practice-for-injured-sick-and-orphaned-protected-fauna.
2. **Stage 1: Clear Non-HBTS first and mechanically disturb HBTS.**
   Non HBT trees will be removed 24-48 hours prior to removal of HBTs (if applicable). HBTs will be disturbed using an excavator (preferable) or loader to hit the trunk as high up the tree as possible several times. This will encourage any fauna to vacate from adjacent HBTs overnight. These disturbance actions will be performed at the end of the day to encourage nocturnal species to relocate overnight. Ensure that entire area within drop radius of the HBT has been cleared of debris.
3. **Stage 2: Clear HBTs**
   Prior to clearing the HBTs, employ the mechanical disturbance protocol again. An excavator (preferable) or loader will be used to shake the trunk as high up the tree as possible. Repeat this process several times. Waiting 30 seconds between each shake.
4. Stage 2 clearing will be completed within 24-48 hours of stage 1. Any HBT that has been left for longer than 48 hours since being shaken/tapped, will be re-shaken/tapped at least the day prior to removal.
5. When removing hollow-bearing trees, a fauna spotter/ecologist will be present at each tree to be removed to look for signs of animal movement in the tree to be cleared. The fauna spotter must be able to communicate directly with plant operators, ideally utilising a UHF radio. If an excavator or large machinery (as opposed to a chain saw) is used to clear hollow bearing trees, an inspection of each hollow must be undertaken by the fauna spotter/ecologist prior to commencement of clearing even if tapping has occurred the night before.
6. The excavator or equivalent machinery operator will slowly lower HBT trees. HBTs must not be pushed and left to fall under their own weight as this can cause direct injury or death to resident fauna.
7. If taking the tree down in stages, remove non-hollow-bearing limbs first. Then remove hollow-bearing limbs
8. Once the hollow-bearing limbs or hollow-bearing tree are on the ground, the fauna spotter/ecologist must check each hollow for signs of wildlife before the next limb/tree is removed. Remove any fauna into a handling bag or suitable secure housing. The fauna spotter will release any adult uninjured fauna into the designated release area (a distance of ~50 metre outside the clearing footprint at the appropriate time of day for the species.
9. Where practical, relocate fauna in their hollow by relocating entire hollow sections to areas of retained vegetation.
10. If dependent young or injured fauna are discovered following or during tree felling, WIRES or similarly qualified and licensed Wildlife care organisation will be contacted to treat any injured or orphaned individuals. If no wildlife handler is available, the fauna must be delivered to a licensed wildlife carer or veterinarian (previously notified of the works).
11. Records of any animals removed or injured must be retained.

[2] Common Brushtail Possum are the most common species encountered in tree removal, therefore this sized nest box will be made available as a minimum if no suitable hollows exist within 100m. If other species are encountered, then alternative nest boxes must be sourced.

12. Once felling, if uninjured nocturnal fauna is detected within the felled tree and the hollow is in good condition, the fallen tree will be marked and left in situ over night to allow the fauna to self-relocate if safe to do so. The following day fallen trees will be left in place or moved to a nearby area to retain fauna habitat once the fauna has relocated.

Handling wildlife

1. Direct contact with any wildlife will be avoided wherever possible. Wildlife will be encouraged to leave hollows through controlled disturbance as detailed above.
2. Any uninjured wildlife that does not include dependent young (unless in the company of its healthy parent) must be encouraged to leave the Project site.
3. If wildlife is injured, WIRES or similarly qualified and licensed Wildlife care organisation will be contacted to treat any injured or orphaned individuals. This organisation will be notified of the tree removal works, prior to works commencing.
4. No handling of microbats unless trained and vaccinated for Australian Bat Lyssavirus with current titre levels.

Clearing during June to January

1. Should clearing of hollow-bearing trees be required during the breeding or hibernation periods of threatened species, consultation will be undertaken with local wildlife carers and/or specialist carers for those faunal groups (e.g., Squirrel Gliders, microbats, parrots and arboreal mammals). Confirmation will be sought from these groups that they will accept rescued fauna.
2. Should inspections identify threatened parrots attending hollows, a detailed assessment will be undertaken of their activity within the hollow. If investigating only, clearing may proceed with the above measures employed. Where parrots are actively building nests (i.e., bringing material to hollows), it is recommended that clearing be postponed until fledging. Where parrots are attending eggs, it is recommended that clearing be postponed until fledging. Where parrots are attending young, it is recommended that clearing be postponed until fledging.
3. Hibernating microbats are likely to occur throughout the winter months, and bats in torpor may occur year-round. Where it is considered highly likely that microbats will be in hibernation, it is recommended that supervised clearing occur, and that recovered bats are relocated to a dedicated bat carer to ensure they are sufficiently fed throughout the remainder of winter, prior to release back to the site in spring. The removal of bats from hibernation puts excessive stress on their fat reserves, which may be depleted prior to them being able to forage effectively in spring, thus intervention is recommended.
4. Should inspections identify Squirrel Gliders or other arboreal mammal activity around hollow bearing trees, the Project Ecologist will undertake further assessment to determine if nesting is occurring. If no nesting is observed, clearing will proceed as per the two staged clearing process outlined above. If nesting is identified, the Project Ecologist will determine the best course of action based on the nest, species identified and connectivity to vegetation. If the nest is unoccupied of young the Project Ecologist may determine clearing can proceed. If the nest is occupied the Project Ecologist may consult with a wildlife carer on the removal of the nest or apply a no go zone buffer (determined by the Project Ecologist) around the tree until the young has vacated the nest.

Appendix C Procedure for vegetation clearing

Purpose

The purpose of this procedure is to describe the clearing and grubbing processes to be implemented throughout the construction phase to minimise threat to remnant vegetation and waterways within the local area.

This should be read in conjunction with Appendix H– Pest and Weed Management Plan.

Scope

The works to be executed under this procedure comprise the following:

- Clearing of all types of vegetation, both living and dead
- Clearing of minor built structures (such as fences)
- Clearing of all rubbish and other materials which are unsuitable for use in the works
- Grubbing of trees and stumps within the approved area.

The work includes the removal of native trees, mulching or relocation of vegetation and the removal of waste material including built structures, rubbish, weeds and exotic plants.

Procedure

1. Liaise with the Solar Farm EPC SEA and confirm that the clearing extent and site feature surveys have been completed and that hollows, bush rocks and woody debris have been identified for relocation and removed
2. Confirm that the flagging protocol has been followed
3. Assess the work area to determine if traffic management is required and implement if necessary
4. Notify the Construction Manager of the area to be cleared to check for underground and overhead services. If services are located in the line of clearing, take action to avoid damaging them
5. Ensure the pre-clearing checklist (Appendix D) has been completed
6. Notify personnel of priority weeds on site and any relevant requirements associated with their removal
7. Remove target weed species as per requirements outlined in PWMP (Appendix H)
8. Ensure protective measures are in place to protect sensitive areas, as marked during the site feature survey. This includes delineation, site inductions and sediment control measures. Ensure access routes are clearly marked
9. Commence clearing in conjunction with pre-clearing surveys and fauna rescue operations. Clearing is to be conducted in two stages. Only areas within the required clearing footprint should be cleared. No clearing should be undertaken outside the marked approved clearing boundary. Refer to Appendix B for Hollow-bearing tree removal guidelines
10. Chip vegetation at the time of clearing and stockpile on site for later use. Inspect for fauna presence immediately before starting chipping process
11. Clear area to within marked area
12. Manually fell trees within 40m of rivers, creeks, watercourses and drainage lines. Prevent trees from falling into exclusion zones
13. Identify overhanging tree branches and trim (as per instruction of the Project Ecologist)

14. Compact and backfill holes within the area caused by grubbing to at least that of surrounding adjacent land
15. Habitat trees will be felled one at a time at the direction of the fauna specialist, 24 hours after the clearing non-habitat trees.
16. Felled habitat trees will be inspected by an ecologist to allow all opportunities to capture any potentially undetected fauna.
17. Hollow bearing limbs, woody debris and bush rock marked for relocation should be inspected for presence of fauna before being moved to fauna translocation sites or other recipient sites previously marked during the site features survey. If any animal emerges, ecologist or wildlife carer should capture, inspect for injuries and relocate to pre-determine fauna release area. If injured, fauna should be referred to vet or wildlife carer Remove all remaining materials cleared, primed and grubbed for recycling or disposal.
18. A post clearing survey will be done and a Post Clearance Checklist completed (Appendix F).
19. Post-completion clearing reports will be provided to Neoen and provide a summary of the results of results of surveys, fauna rescues, fauna injury and mortality. These reports will include:
    - The name and qualifications of the Ecologist or wildlife carer present during clearing
    - An assessment of the habitat and handling of fauna
    - Information on clearing operations, dates, procedures, areas
    - Live animal sightings, captures, any releases or injured/shocked wildlife
    - Any dead animals located
    - Photographs of rescued fauna
    - Records of the number of trees cleared. For the purposes of this requirement, a tree has a trunk diameter 100 mm or more at a point 1.5 metre above the adjacent ground level.

Provide to Neoen a Post-Completion Clearing Report within 21 days from the completion of substantial clearing (as determined by Neoen) providing a final summary of the Progressive Clearing Report.

Appendix D Pre-clearing checklist

Inspection Date:		**Time:**	
Project Ecologist:		**Location:**	
#	**Control Measure**	**Status (Yes/ No/ NA)**	**Comments/ Corrective Action**
1	Boundary of clearing zone fenced?		
2	Has the Project Ecologist completed Pre-clearing surveys for all species, including Threatened Species?		
3	Has the pre-clearance survey been completed within two hours of clearing?		
4	Has all fauna been relocated outside the proposed impact footprint?		
5	Has the Project Ecologist marked habitats to be disturbed using the recognised colour coding protocol (refer to Section 6.6.1)?		
6	Has protective fencing and appropriate signage installed around threatened ecological communities, vegetation to be retained and exclusion zones?		
7	Have all workers been shown the limit of clearing, advised of fauna handling procedures and any other controls?		
8	Have hollow bearing trees been identified?		
9	Have hollow bearing trees been checked for inhabiting species?		
10	Has vegetation and hollows to be salvaged for re-use been identified?		
11	Have all Nest Boxes been installed and are ready		
12	Mulching and chipping plant established?		
13	Has all equipment been inspected and cleaned to remove materials and debris prior to entering site?		
14	Are environmental control measures including erosion and sediment controls in place to prevent down-stream biodiversity impacts?		
15	Is a suitably qualified person present when necessary to supervise clearing works and relocate or rescue fauna as required.		
16	Hollows are to be felled 24 hours after the non-habitat vegetation has been cleared, then felled in a controlled manner and inspected by a		

#	Control Measure	Status (Yes/ No/ NA)	Comments/ Corrective Action
	qualified ecologist or licensed wildlife carer for presence of fauna that needs to be relocated and potential injuries. All hollows have the potential to support fauna and should be placed in adjacent habitat until the following day for further inspection by a licensed wildlife carer and/or ecologist to verify no fauna is present. If possible, the hollows could be permanently relocated in adjacent areas. Has this been done?		
17	Retained logs outside of construction area to be checked for native fauna; any animals impacted by clearing works are to be relocated in accordance with the project Fauna Rescue and Release Procedure.		
18	Any other comments or issues?		

SEA Signature:_____

Appendix E Fauna rescue and release procedure

Purpose

This procedure explains the actions to be taken in the event fauna (included injured, shocked, juvenile or other animal) are discovered on the project site that require handling or rescue during vegetation and soil clearance and ongoing construction activities.

Scope

This procedure is applicable to all native and introduced fauna species that are found on the project site.

If there is an unexpected threatened species finding, the unexpected threatened species finds procedure outlined in Appendix J will be followed.

Induction and training

All site personnel and subcontractors will be made aware of the actions to be taken in the event that fauna is discovered on the project. This training will occur on site during the Project induction and as required in toolbox talks.

Procedure

If wildlife is discovered on the project site during site construction activities that may harm the animal or pose risk to site personnel, the following steps will be taken.

1. Stop all work in the vicinity of the fauna and immediately notify the Superintendent who is then to notify the EPC SEA. The EPC SEA is then to notify the Project Ecologist
2. Preferably allow fauna to leave the area without intervention if it is not injured or in shock and if safe to do so (i.e. no machinery in the immediate vicinity)
3. Call the appropriate rescue agency immediately and follow any advice provided by the agency. Once the rescue agency arrives at site they are responsible for the animal. Any decisions regarding the care of the animal will be made by the rescue agency. The licenced fauna ecologist, rescue services and local veterinary surgery's contact details are below:

Organisation	Contact
Project Ecologist	
WIRES	1300 094 737
Jindera Veterinary Clinic	02 6026 3277
Holbrook Vet Centre	02 6036 2374

In the event the rescue service and/or local veterinary service cannot be contacted, the injured animal will be delivered to the relevant agency as soon as practically possible

4. Where necessary, to minimise stress to native fauna and/or remove the risk of further injury before the appropriate rescue agency arrives onsite, the EPC SEA shall:
    a. Cover the animal with a towel or blanket and place in a cardboard box and/or hessian bag. Appropriate temporary housing for fauna is species dependent. Gliders, possums, bats, snakes,

lizards and frogs can be held individually in a calico bag until release in adjacent habitat. Nestling birds and eggs are best placed in a covered cardboard box equipped with soft cloth

b. Place small animals in a cotton bag, tied at the top

c. Rescued fauna must be protected from exposure to heat and removed from the areas undergoing clearing activities to minimise exposure to noise. Keep the animal in a quiet, warm, ventilated and dark place. A designated site will be decided upon in advance of any construction work

d. Aquatic fauna to be placed in a plastic aquaria or plastic bag with sufficient amount of water. Frogs will be transported without water or debris in recognition of the risk of transporting disease and the minimal transport time. Any frog handling will be undertaken in accordance with the Hygiene Protocol for the Control of Disease in Frogs (DECC 2008)

e. Some animals require particular handling (e.g. venomous reptiles, raptors) and should only be handled by appropriately qualified personnel

f. If handling bats, the handler must be vaccinated against the Australian Bat Lyssavirus (ABL), which is a form of rabies

g. Equipment for fauna rescue (hessian sack, calico bags, gloves and transport boxes) will be kept in designated locations for emergency use by site staff if required. The fauna specialist will carry a fauna rescue kit in a site vehicle, and an additional kit will be located in the site office

5. If the animal cannot be handled, excluder personnel from the vicinity, record the exact location of the animal and contact the rescue agency
6. If the fauna species is identified as a threatened species that is not a species identified in the BMP, the EPC SEA must:
    a. Immediately cease all work likely to affect the threatened species
    b. If the fauna is injured, call the rescue agency
    c. Implement the Unexpected Threatened Species Find procedure – Appendix J.
7. If the fauna is to be released, the Project Ecologist must identify suitable fauna release locations within or near the Project site.

All fauna handling and rescue events will be recorded via the Fauna interaction register (Appendix G).

Onsite areas for the release of fauna include:

- All areas with Retained Vegetation
- Back Creek and Billabong Creek Riparian Exclusion Zones
- Nesting Box Installation Areas
- Revegetation Areas
- Vegetative Screening Areas.

Other **off-site** areas may be deemed suitable at the discretion of the Project Ecologist dependent on the fauna species encountered.

Appendix F Post-clearing checklist

Inspection Date:		**Time:**	
Project Ecologist:		**Location:**	
#	**Control Measure**	**Status (Yes/ No/ NA)**	**Comments/ Corrective Action**
1	Was clearing of vegetation within the boundaries?		
2	Were any hollow-bearing trees, hollow logs and/or bush rocks impacted?		
3	Were any fauna, nests or other fauna features impacted?		
4	Were any animals shocked, injured or killed as a result of the clearing works?		
5	Were the fauna recovery procedures followed? If yes, what actions were taken?		
6	Has woody debris been inspected for fauna immediately before chipping to avoid injury or death to fauna that may be present?		
7	Any other comments or issues?		

SEA Signature: _____

Appendix G Fauna interaction register

Date	Time	Location	Fauna species	Healthy, injured or deceased?	Released? (Y/N)	Required rescue or veterinary attention?	Release or rescue location	Comments

Appendix H Pest and Weed Management Plan

Pest and Weed Management Plan

Culcairn Solar Farm

January 2025

Project Number: 240896

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Document verification

Project Title:	Culcairn Solar Farm
Project Number:	240896
Project File Name:	240896 Culcairn SF BMP Appendix H Pest and Weed MP Final_v3

Revision	Date	Prepared by	Reviewed by	Approved by
Draft V.1	20/04/2023	A. Gill	A. Conley (Agronomist) N. Smith	N. Smith
Draft V.2	27/06/2023	J. Love	W. Heiniger	J. Love
Draft V2.1	6/07/2023	J. Love	Minor changes	
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NSW • ACT • QLD • VIC
ABN 31 124 444 622 ACN 124 444 622
W. www.nghconsulting.com.au
E. ngh@nghconsulting.com.au

BEGA - ACT & SOUTH EAST NSW
Suite 11, 89-91 Auckland Street
(PO Box 470) Bega NSW 2550
T. (02) 6492 8333

BRISBANE
T3, Level 7, 348 Edward Street
Brisbane QLD 4000
T. (07) 3129 7633

CANBERRA - NSW SE & ACT
Unit 8, 27 Yallourn Street
(PO Box 62) Fyshwick ACT 2609
T. (02) 6280 5053

GOLD COAST
2B 34 Tallebudgera Creek Road
Burleigh Heads QLD 4220
(PO Box 424 West Burleigh QLD 4219)
T. (07) 3129 7633

MELBOURNE
Level 14, 10-16 Queen Street
Melbourne VIC 3000

NEWCASTLE: HUNTER & NORTH COAST
Level 1, 31-33 Beaumont Street
Hamilton NSW 2303
T. (02) 4929 2301

SUNSHINE COAST
Suite 101, Level 2/30 Main Drive
Birtinya QLD 4575
T. 13 54 93

SYDNEY REGION
Unit 17, 21 Mary Street
Surry Hills NSW 2010
T. (02) 8202 8333

TOWNSVILLE
Level 4, 67-75 Denham Street
Townsville QLD 4810
T. (07) 4410 9000

WAGGA WAGGA: RIVERINA & WESTERN NSW
35 Kincaid Street (PO Box 5464)
Wagga Wagga NSW 2650
T. (02) 6971 9696

WODONGA
Unit 2, 83 Hume Street
(PO Box 506) Wodonga VIC 3690
T. (02) 6067 2533

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Acronyms and abbreviations

AC	Alternating current
BC Act	*Biodiversity Conservation Act 2016* (NSW)
BCS	Biodiversity Conservation and Science
BDAR	Biodiversity Development Assessment Report
BESS	Battery Energy Storage System
Biosecurity Act	*Biosecurity Act 2015* (NSW)
BMP	Biodiversity Management Plan
CoA	Conditions of Approval
CRC	Cooperative Research Centre
DAFF	Department of Agriculture and Fisheries and Forestry
DC	Direct current
DPE	Department of Planning and Environment (former)
DPHI	Department of Planning, Housing and Infrastructure
DPI	Department of Primary Industry
DPIE	(Former) Department of Planning, Industry and Environment (NSW) (former)
EIS	Environmental impact statement
EMS	Environmental Management Strategy
EPC	Engineering, Procurement and Construction
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Cth)
EP&A Act	*Environmental Planning and Assessment Act 1979* (NSW)
EP&A Regulation	Environmental Planning and Assessment Regulation 2021
EWMS	Environmental work method statements
ha	hectares
IPC	Independent Planning Commission
kV	kilovolt
km	kilometres
LGA	Local government area
LLS	Local Land Services
m	metres
MERI	Monitoring, Evaluation, Reporting and Improvement framework
MW	Megawatt
MWh	Megawatt hours
NEM	National Electricity Market
NPW Act	*National Parks and Wildlife Act 1974* (NSW)

NPWS	National Parks and Wildlife Service
NSW	New South Wales
NV Act	*Native Vegetation Act 2003* (NSW)
POEO Act	*Protection of the Environment Operations Act 1997*
PV	photovoltaic
PWMP	Pest and Weed Management Plan
RMP	Rehabilitation Management Plan
SEA	Site Environmental Advisor
SSD	State significant development
TARP	Trigger Action Response Plan
WMP	Waste Management Plan

1. Introduction

1.1 Background

Neoen Australia Pty Ltd (Neoen) (the Proponent) have approval for construction, operation and decommissioning of a 350 megawatt (MW) alternating current (AC) / 402.5 MW direct current (DC), photovoltaic (PV) solar farm, referred to as Culcairn Solar Farm (the Project). The Project is located on rural land, approximately 4 kilometres (km) southwest of Culcairn, New South Wales (NSW).

The Project was assessed in an Environmental Impact Statement (EIS) in accordance with Part 4 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) and Schedule 2 of the Environmental Planning and Assessment Regulation *2021*(EP&A Regulation). It is considered State Significant Development (SSD).

The Proponent received approval for the Project on 25 March 2021 from the Independent Planning Commission (IPC).

Modification Report 1 (SSD-10288 – Mod 1) was prepared and submitted to the former Department of Planning and Environment (DPE) (now referred to as Department of Planning, Housing and Infrastructure (DPHI)) October 2023 and was determined on the 22 December 2023 with consolidated Conditions of Consent issued. The modification to the Project was for minor alignment revisions and widening of the Project's Development Footprint along Weeamera Road and at two creek crossings. The modification was also for minor amendments to the definitions and wording of Schedule 3 Condition 2 – Transport.

Modification Report 2 (SSD-10288-Mod-2) was prepared and submitted to the DPHI October 2024 and determined 19 December 2024 with consolidated Conditions of Consent issued. The modification was for the expansion of the Battery Energy Storage System (BESS) from 10 MW /200 Megawatt hours (MWh) up to 350 MW/800 MWh at the point of connection. Modification 2 did not result in any additional impacts to biodiversity or mitigation measures.

1.2 The Project

The Project will involve construction of a ground-mounted PV solar tracking array generating approximately 350 MW AC / 402.5 MW DC of renewable energy. The power generated will be exported to the national electricity grid.

Key development and infrastructure components will include:

- Single axis tracker PV solar panels mounted on steel frames over most of the site (maximum tilt 4.2 metres (m) in height)
- Onsite BESS with a capacity of 350 MW/800 MWh and up to 244 containerised battery storages of lithium-ion batteries
- Underground and overground electrical conduits and cabling to connect the arrays to the inverters and transformers
- Systems of invertor units and voltage step-up throughout the arrays
- National Electricity Market (NEM) compliant metering arrangements for all energy exported to the grid as well as internal metering to measure battery and solar output
- On site substation, connecting to the existing 330 kilovolt (kV) TransGrid transmission line
- Site office and maintenance building, vehicle parking areas, material laydown area, internal access tracks and perimeter security fencing
- Site access track off Weeamera Road
- Road crossing and easement electrical crossing through underground and/or overhead lines, off Cummings Road and Schoffs Lane
- Vegetative screening at impacted visual receivers and intersection of public roads.

The approved Project layout is provided in Figure 1-1.

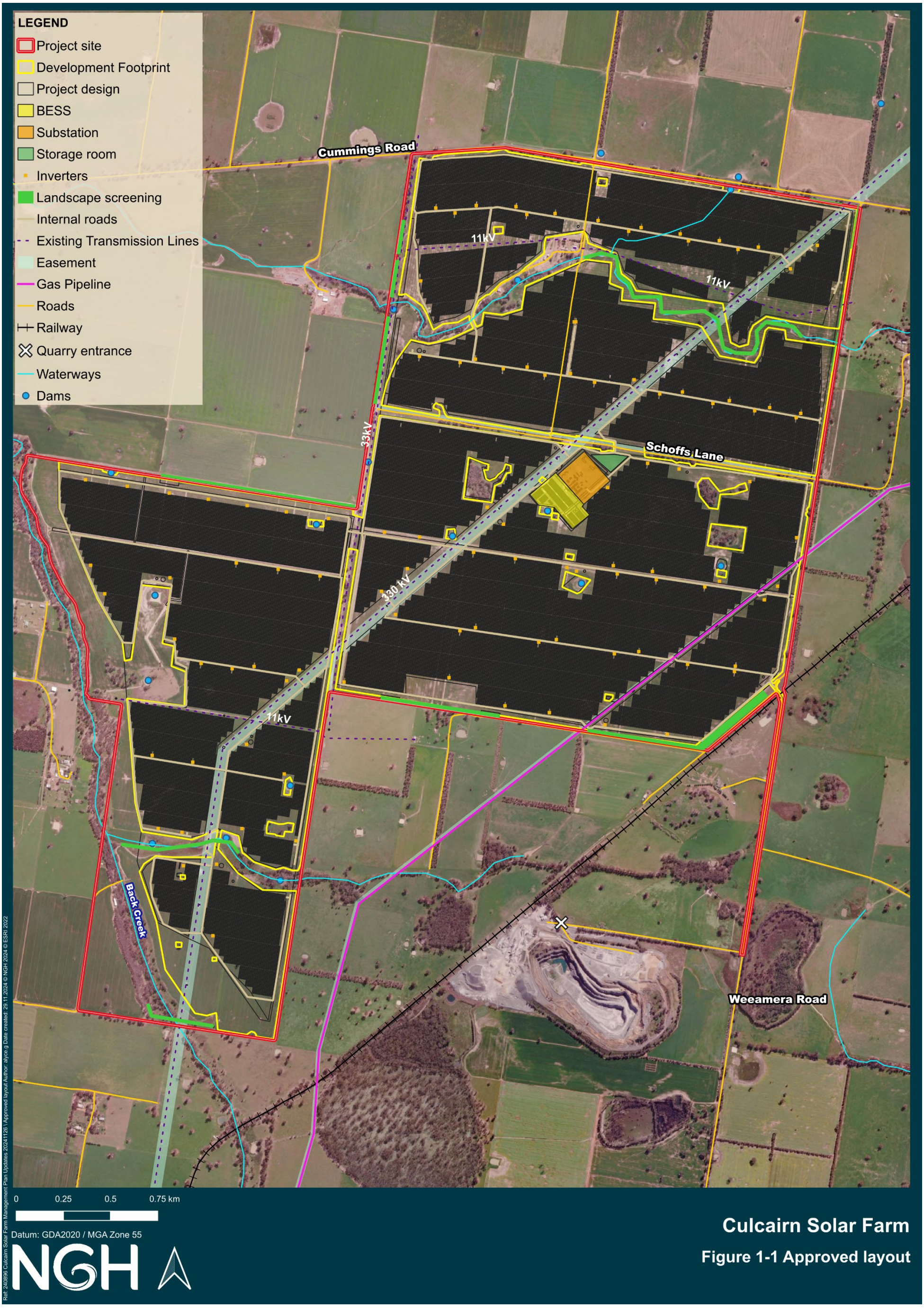

Figure 1-1 Approved Project layout

1.3 Purpose and objectives

The purpose of this Pest and Weed Management Plan (PWMP) is to describe the management measures that will be implemented to manage and mitigate the possible increase of pest and weed species activity onsite during the construction and operation of the Project.

To achieve this, Neoen and its subcontractors will:

- Ensure appropriate measures are implemented to address Conditions of Approval (CoA
- Detail pests and weeds identified within the Project site
- Ensure practical measures are implemented prior to and during construction and operation to control and minimise the abundance of pests and weeds within the Project site
- Establish procedures to prevent introduction of new pests and weeds within the Project site
- Ensure that adequate visual monitoring is undertaken within the Project site.

The key objective of the PWMP is to ensure all conditions, mitigation measures and licence / permit requirements relevant to pest and weed management are described, scheduled, and assigned responsibility as outlined in:

- The Project EIS (NGH, 2020)
- The Project Submissions Report (NGH, 2020)
- The Project Amendment Report (NGH, 2020)
- Modification Report 1 (NGH, 2023)
- Modification Report 2 (Umwelt, 2024)
- DPHI Consolidated Development Consent (determined 19 December 2024).

1.4 Environmental Management Strategy

The PWMP is part of the Project's overall Environmental Management Strategy (EMS). Mitigation and management measures identified in this PWMP will be incorporated into site or activity-specific Environmental Work Method Statements (EWMS).

When used concurrently, the overarching EMS, PWMP and other subplans, procedures and EWMS form management guides that clearly identify the necessary environmental management actions for reference by Neoen's personnel and contractors.

The review and document control processes for this plan are described in the EMS.

2. Planning

2.1 Relevant legislation and guidelines

2.1.1 Legislation

Legislation relevant to the development and implementation of the PWMP includes:

- *Biodiversity Conservation Act 2016* (BC Act)
- *Protection of the Environment Operations Act 1997* (POEO Act)
- *Game and Feral Animal Control Act 2002*
- *Biosecurity Act 2015*
- *National Parks and Wildlife Act 1974 (NPW Act)*
- *Pesticides Act 1999*
- Pesticides Regulation 2017

How this legislation is relevant to the PWMP and Project is outlined in Appendix B of the EMS.

2.1.2 Guidelines and standards

Guidelines and standards relevant to the development and implementation of the PWMP include:

- Murray Regional Strategic Weed Management Plan (LLS, 2017 - 2022)
- Noxious and Environmental Weed Control Handbook and website (DPI, 2018)
- Saving our Species Hygiene Guidelines (DPIE, 2020)
- Murray Regional Strategic Pest Animal Management Plan (LLS, 2018 - 2023)
- Australian Pest Animal Management Program (DPIE, 2010)
- General methods of Euthanasia under field conditions (DAFF, 2016)
- Monitoring, Evaluation, Reporting and Improvement (MERI) framework for pest animal management in NSW (DPI, 2020)
- Guidelines for the Preparation and Implementation of Wild Dog Management Plans in NSW (DPI, 2016)

2.1.3 Conditions of Approval

The CoA and mitigation measures relevant to the PWMP are listed in Table 2-1. A cross reference is also included to indicate where the requirement is addressed in this Plan or other Project management documents.

Table 2-1 Approval conditions relevant to the PWMP

CoA	Condition requirement	Reference
Conditions of Approval		
Schedule 3 Condition 15	Prior to commencing construction, the Applicant must prepare a Biodiversity Management Plan for the development in consultation with BCS, and to the satisfaction of the Planning Secretary. This plan must: a) Include a description of the measures and timeframes that would be implemented for: • Protecting vegetation and fauna habitat outside the approved disturbance areas; • Managing the remnant vegetation and fauna habitat on site; • Minimising clearing and avoiding unnecessary disturbance of vegetation that is associated with the construction and operation of the development; • Minimising the impacts to fauna on site and implementing fauna management protocols; • Avoiding the removal of hollow-bearing trees during spring to avoid the main breeding period for hollow-dependent fauna; • Rehabilitating and revegetating temporary disturbance areas with species that are endemic to the area; • 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, feral pests and pathogens; b) Include a program to monitor and report on the effectiveness of mitigation measures; and c) Include details of who would be responsible for monitoring, reviewing and implementing the plan. Following the Planning Secretary's approval, the Applicant must implement the Biodiversity Management Plan.	Biodiversity Management Plan (BMP) (NGH, 2024a) This Plan
Mitigation measures		
LU4	A Pest and Weed Management Plan would be prepared to manage the occurrence of noxious weeds and pest species across the site during construction and operation. The plans must be prepared in accordance with Greater Hume Shire Council and NSW DPI requirements. Where possible integrate weed and pest management with adjoining landowners.	This Plan
BD10	Hygiene protocols to prevent the spread of weeds or pathogens between infected areas and uninfected areas. This will be incorporated into the Pest and Weed Management Plan.	Section 5
BD12	Preparation of a Management Plan to regulate activity in vegetation: • Protection, enhancement and monitoring of	Rehabilitation

CoA	Condition requirement	Reference
	quality/condition of native vegetation to be retained. • Best practice removal and disposal of vegetation. • Staged removal of hollow-bearing trees and other habitat features such as fallen logs with attendance by an ecologist. • Weed management. • Unexpected threatened species finds. • Rehabilitation of disturbed areas. • Exclusion of vehicles through sensitive areas. • Best practice clearing of overstorey vegetation for construction of the transmission line to avoid understorey impacts. • Adaptive management practices and protocol for corrective actions.	Management Plan (RMP, NGH, 2024b) Waste Management Plan (WMP, NGH 2024c) BMP / RMP Section 5.4 / Section 5.2 / Section 5.3.3 BMP RMP RMP

3. Existing environment

3.1 Vegetation

A summary of vegetation identified within the Project site during the Project Biodiversity Development Assessment Report (BDAR) (NGH, 2020) is provided in Table 3-1.

Table 3-1 Vegetation identified within the Project site

Description	Proportion within Project site (hectares)
Exotic grazed pasture / crops, dominated by Wheat (*Triticum aestivum*) and Barley (*Hordeum* sp.).	996
PCT 5 - River Red Gum herbaceous-grassy very tall open forest wetland on inner floodplains in the lower slopes sub-region of the NSW South Western Slopes Bioregion	24.32
PCT 74 - Yellow Box - River Red Gum tall grassy riverine woodland of NSW South Western Slopes Bioregion and Murray Bioregion	8.09
PCT 76 - Western Grey Box tall grassy woodland on alluvial loam and clay soils in the NSW South Western Slopes and Murray Bioregions	5.52
PCT 277 - Blakely's Red Gum - Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion	14.83

3.2 Priority weeds

Silverleaf Nightshade (*Solanum elaeagnifolium*) was identified onsite during preparation of the Project BDAR (NGH, 2020) and is listed as a priority weed for the Greater Hume Local Government Area (LGA). This is a Weed of National Significance. Under the *Biosecurity Act 2015*, the following duties apply:

- **General biosecurity duty -** To prevent, eliminate or minimise any biosecurity risk this species may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable
- **Prohibition on Certain Dealings -** This species must not be imported into the state, sold, bartered, exchanged or offered for sale
- **Regional Recommended Measure -** Land managers should reduce the impact of the plant on assets of high economic, environmental and/or social value.

Priority weeds will be managed in accordance with the *Biosecurity Act 2015* and guided by the Murray Regional Strategic Weed Management Plan (LLS, 2017 - 2022).

3.3 Pest species

Under the NSW *Biosecurity Act 2015*, pest animals are not defined by species. Pest species can be considered as any species (other than native species) that present a biosecurity threat (LLS, 2018 - 2023).

One priority pest species was identified during preparation of the Project BDAR (NGH, 2020):

- European Red Fox (*Vulpes vulpes*)

The European Red Fox (*Vulpes vulpes*) is listed as a priority pest species for action within the Murray Region (LLS, 2018 - 2023).

4. Environmental aspects and impacts

4.1 Construction and operation

A variety of construction and operational activities have the potential to influence the abundance of pest / weed species within the Project site. These activities include, but are not limited to:

- Movement of vehicles
- General earthworks
- Operation of compounds
- Human presence and activity
- Waste management
- Clearing / maintenance of vegetation and habitat
- Works conducted around waterways.

4.2 Environmental impacts

Environmental impacts associated with construction activities include:

- An increase in pest and weed species, resulting in:
    - Increased competition for native species
    - A reduction in populations of native fauna and flora species
    - Impacts to nearby sensitive receivers.
- Spread or movement of weeds and pathogen from the Project site.

5. Environmental management measures

Management measures for control of pests and weed species will generally involve the following:

- Baseline surveys
- Prevention
- Monitoring (discussed in Section 6)
- Control
- Disposal.

Subject to the outcome of preventative measures and monitoring, control measures will be implemented in consultation with Neoen and local landholders. All control methods will be humane and designed and implemented by an appropriately qualified person.

5.1 Baseline surveys

Prior to the commencement of clearing, the location of pests and weeds within the Project site will be surveyed and mapped. Surveys should be undertaken between spring and early summer. This will assist with providing a baseline for monitoring during the construction and operation of the Project.

Following the surveys, a Pest and Weed Survey Report will be prepared by an ecologist outlining the survey method and results. The ecologist will use the survey as a basis to provide / confirm applicable pest and weed control methods.

5.2 Prevention

The Engineering, Procurement and Construction (EPC) contractor, in consultation with Neoen, will implement the following measures to prevent the introduction or spread of pests and weeds onsite:

- Hygiene inspections of vehicles, vessels, plant and equipment being transported to site
- Application of washdown locations and/or disinfection points at key locations onsite
- Restricted access to areas of known weed infestation
- Barrier exclusions and covers will be implemented within and surrounding construction compounds and work sites in conjunction with construction fencing, particularly where monitoring has identified the incursion of pest species
- Materials or practices that may improve pest species habitat will be avoided
- Waste will be appropriately stored in a manner that is inaccessible to animals (including pest species) and disposed off-site at a suitably licenced facility.

5.2.1 Hygiene declaration and inspections

Neoen, its contractors, and all suppliers of plant and equipment, will be informed of their general obligation under the *Biosecurity Act 2015* to prevent the introduction and spread of pests and weeds within and outside of the Project site. Suppliers will be expected to present their materials and equipment clean and free of soil, seed and biological materials including weeds, seeds and other organisms. The supplier will complete the Hygiene Declaration Form (Appendix A) prior to entry to site.

The EPC contractor will establish a checkpoint for the Site Environmental Advisor (SEA) or Supervisor carry out visual inspections of plant and equipment to ensure compliance with the Hygiene Declaration Form (provided in Appendix A of this document). A checkpoint will be located at the site access point, located off Weeamera Road, refer to Figure 1-1.

Where cleanliness standards are not met (plant and equipment don't meet requirements on Hygiene Declaration Form), thorough wash down will be required prior to site access being granted. Wash down or brush down locations must be away from production and other sensitive areas and not drain into waterways or cropping areas.

The completed Hygiene Declaration Form will be:

- Kept in the relevant vehicle during transportation and activities with the Project site
- Presented at the Project access point (located off Weeamera Road). Completed Hygiene Declaration Forms will be kept in the Project office for audit and compliance tracking purposes.

5.2.2 Washdown stations

Where incoming and outgoing vehicles, machinery and equipment do not satisfy the cleanliness requirements of the Hygiene Declaration Form, washdown will be required. Washdown areas will be located at the site access point off Weeamera Road. Only vehicles / equipment that meet the cleanliness standards will be allowed onto the Project site.

Additional areas of key pest or weed outbreaks may be identified over the life of the Project. These areas will be clearly marked as a 'Restricted Area' and vehicles / machinery entering or leaving these areas will require additional inspections / washdown.

The general washdown procedure is detailed in Table 5-1. To prevent the distribution of weeds and pathogens, all dirty water from on-site washdown stations will be managed in accordance with the Soil and Water Management Plan. This water will not be used for dust suppression on site.

Table 5-1 General washdown procedure

Step	Description
1. Check	• Check the exterior and interior of vehicles and machinery for soil, plant material and other debris. Refer to Appendix A for a guide for where to focus attention.
2. Clean	• Remove large clods of soil using a stiff brush or crowbar • Wash vehicle, plant and machinery at site entry point before entering site, and before leaving restricted areas.

5.2.3 Restricted areas

Pest and weed dominated areas identified during the baseline surveys (refer to Section 5.1) will be demarcated and signposted by the Project ecologist. Weed infested areas / topsoil stockpiles will be demarcated as 'Restricted Areas'. Vehicles or plant that are required to enter the restricted areas will be cleaned at in-situ mobile washdown stations and inspected prior to moving to other areas of the site.

Mobile washdown stations will be established in weed and pathogen restricted areas as they are identified. Once vehicles or items of mobile plant or equipment are assessed as clean to the satisfaction of the Hygiene Declaration Form, they will be free to move about the Project site.

The demarcated Restricted Areas will be inspected as part of the weekly environmental inspection by the EPC Contractor to ensure the flagging, signage and washdown area are in place and functional.

5.3 Controls

As outlined in Section 5.1, a baseline Pest and Weed survey will be undertaken prior to the commencement of clearing. This baseline data will be used to further define pest and weed controls that will be implemented

within the Project site. The following sections discuss the relevant pest and weed controls that will be implemented for the Project.

5.3.1 Pest control

Prior to the commencement of clearing, the Pest and Weed Survey Report will outline the location of pests identified during baseline surveys, as well as the relevant controls for each species.

One priority pest species, the European Red Fox (*Vulpes vulpes*), was identified during preparation of the Project BDAR (NGH, 2020). However, a number of other priority pest animals occur within the Murray region. These species have been identified in Table 5-2, along with controls recommended in the Murray Region Strategic Pest Management Plan (LLS, 2018 - 2023).

Table 5-2 Priority pest species occurring within the Murray and appropriate controls (LLS, 2018 - 2023)

Species name	Recommended Primary Controls*	Recommended Supplementary Controls
European Red Fox *Vulpes vulpes*	• Ground baiting • Fox exclusion fencing • Participation in coordinated group programs	• Ground shooting (contractor)
Feral Cat *Felis catus*	• Ground shooting (contractor) • Trapping • Exclusion fencing	N/A
Feral Goat *Capra hircus*	• Trapping • Ground shooting (contractor)	N/A
Feral Pig *Sus scrofa*	• Trapping • Ground baiting	• Ground shooting (contractor)
Wild Deer *Cervidae*	• Ground shooting (contractor)	N/A
Wild Dog *Canis familiaris*	• Shooting (contractor) • Trapping • Exclusion fencing • Ground baiting	N/A
Wild Rabbit *Oryctolagus cuniculus*	• Ground baiting • Biological control (RHDV programs) (contractor) • Exclusion fencing	• Ground shooting (contractor) • Fumigation (contractor) • Trapping

*Listed controls are not exhaustive – refer to the Murray Regional Pest Animal Management Plan for additional controls / options

Following the completion of the Pest and Weed Survey Report, Table 5-2 will be updated with the controls adopted for pest species identified onsite.

5.3.2 Managing native pest species

Native species are protected by law in NSW. Issues associated with managing the impacts of native species (such as kangaroos, emus, wombats and possums) should be addressed separately in consultation with National Parks and Wildlife Service (NPWS) and having regard to the regulatory requirements of the *Biodiversity Conservation Act 2016* (LLS, 2018 - 2023).

Non-lethal methods of controlling native pest species may include:

- Exclusion netting / fencing
- Gates
- Olfactory devices.

Where it is necessary to use lethal methods, such as shooting to destroy native animals because they are a threat to human safety, damaging property and / or causing economic hardship, the NPWS can issue a biodiversity conservation licence to harm protected native animals under the *Biodiversity Conservation Act 2016* (LLS, 2018 - 2023).

5.3.3 Weed control

Prior to the commencement of clearing, the Pest and Weed Survey Report will outline the location of all weed species, as well as the relevant controls for each species. This information will inform ongoing weed management and monitoring.

Weeds will be controlled by a suitably qualified and experienced contractor in accordance with the following:

- Best Practice Weed Management Guide for Environmental Weeds (CRC, 2002)
- New South Wales Weed Control Handbook – A guide to weed control in non-crop, aquatic and bushland situations 7th Edition (DPI, 2018)
- *Pesticides Act 1999*
- Pesticides Regulation 2017.

The Project will implement the recommended weed controls, as outlined in the Murray Regional Weed Management Plan (LLS, 2017 - 2022) and Weeds Australia (DAFF, 2021). One priority weed, Silverleaf Nightshade (*Solanum elaeagnifolium*), was identified during preparation of the Project BDAR (NGH, 2020). Controls relevant to this species are summarised in Table 5-3.

Table 5-3 Controls for weeds occurring with the Project site (DAFF, 2021)

Species name	Recommended Controls	Controls to be adopted during the Project

Silverleaf Nightshade *Solanum elaeagnifolium*	• Foliar application of chemical controls (glyphosate / picloram)
	• Mechanical controls (e.g., manual removal) are **not** recommended
	• Organic matter from this species (e.g., roots) should be disposed of, as root fragments can produce new plants if left in situ.
		• Foliar application of chemical controls
		• Areas containing Silverleaf Nightshade will adopt the following controls:
		  ○ Physical weed control
		  ○ Chemical weed control
		See below for further detail on physical / chemical controls.

Following completion of the Pest and Weed Survey Report, Table 5-3 will be updated with any additional weed species identified in the Project site, and the recommended / adopted controls.

Additional updates may be required, as other weeds listed in the Murray Regional Weed Management Plan (LLS, 2017 - 2022) are identified onsite.

Physical weed control

Where an area is identified as a weed infested area (Restricted Area), signage will be installed to identify the extent of the area. Prevention Controls (as outlined in Section 5.2) and signage will be placed on the entry and exit into that area while it is being cleared. Controls will be monitored as part of weekly inspections by the EPC Contractor.

During clearing of the Project site, topsoil from areas identified as dominated by weeds will be stockpiled separately from 'clean' topsoil from non-weedy areas. Weed topsoil stockpiles will be stored in either the area which it came from or within an area which has the same assemblage of weed species. Weed topsoil stockpiles with differing weed species assemblages must not be stored in the same area.

Silverleaf Nightshade is particularly hard to control / eradicate once it becomes established in an area. Therefore, a 50 m buffer around Restricted Areas will be established; soils within these areas will be stored separately from 'clean' topsoil. Soil from Restricted Areas that contain Silverleaf Nightshade will only be stored and reused within those areas. Weedy topsoils that cannot be used within the appropriate areas (e.g., areas with the same assemblage of weed species) will be destroyed in a manner that reduces the likelihood of weed spread, in accordance with:

- *Biosecurity Act 2015*
- *Protection of the Environment Operations Act 1997.*

Topsoil, mulch and spoil stockpiles will be inspected for evidence of weeds on a regular basis as a part of routine weekly environmental site inspections. Chemical weed control will be undertaken to eradicate weeds on identified weedy stockpiles to limit seed and propagule proliferation.

Chemical weed control

A weed control contractor will be employed to implement chemical weed control across the Project site as the primary means of eradicating / reducing the spread of weeds. The weed control contractor will be suitably qualified and experienced in the management and control of weeds, particularly Silverleaf Nightshade.

At a minimum, a twice a year weed control program will be conducted, during the construction and operational phases of the Project. This will generally involve a Spring and Autumn round of weed spraying, the timing of which will be adapted each season, to maximise efficacy by targeting the most appropriate life stage of the target species, Silverleaf Nightshade. After consultation with a local agronomist, it was agreed that chemical weed control for Silverleaf Nightshade should be conducted when the soil is moist. In addition to this, chemical applications should be applied during spring, during periods of new growth or when flowering. A follow-up spray in Autumn will be required to control re-shoots, and run-down the root reserves. Additional weed control programs may be required to control this species, depending on the extent of weed ingress.

The precise timing and locations for weed spraying will be determined by the weed control contractor.

Prior to spring, the weed contractor will prepare a customised weed spraying program, which will consider the following:

- Specific weeds present on site, including areas for priority control
- Seasonal and climatic factors for that year
- Weed monitoring results
- Areas soon to be disturbed for clearing and construction (weeds in these areas should be controlled as a priority to avoid dispersal of weed plant material within the site)
- Location of existing or emerging weed infestations within and adjacent to the disturbance area

- Recent bushfire activity
- Necessity for follow-up spraying
- Time and resources available to carry out the proposed program.

In areas subject to traffic and disturbance (such as access roads and spoil emplacement areas), areas that support sediment control structures (weed topsoil stockpiling sites, drainage lines) and other areas where the weed contractor recommends, weeds within a 50 metre buffer of the disturbance area will be sprayed to reduce the likelihood of weeds spreading (legal Project boundaries will be limiting factors for spraying activities beyond the disturbance area).

Coloured dye will be used in weed spraying units to allow for the proper identification of areas that have been sprayed.

For all weed species there is a range of herbicide and treatment options available. Broad spectrum non-specific weed treatments are potentially problematic in areas where weed species occur in conjunction with native plants. Where available, herbicide treatments should be selective or at least partially selective. The NSW Weed Wise database will be consulted when determining chemical control options for the treatment of select weed species.

5.3.4 Pathogen control

The prevention measures outlined in Section 5.2 will prevent the spread of any pathogens to site from these known and potential pathogen infected areas.

Primary control methods for Phytophthora and other pathogens (if applicable) is prevention (outlined in Section 5.2), and adaptive management i.e., identifying die back (Section 6.4), confirming if an infestation is identified onsite, controls are put in place to prevent its spread.

Controls will be based on site-specific risk exposure and may include, but not be limited to, the following:

- SEA or Project Ecologist demarcates and signposts the restricted area to reduce disturbance and control access
- Establishment of washdown and disinfection stations at the access and exit points of the restricted area
- Utilisation of mobile disinfectant pump packs to address pathogen risk where required
- Toolbox on the restricted area to communicate the risks and new controls in place
- Neoen and the EPC Contractor will review site activities in the area to determine if activities can be modified to prevent further disturbance to the restricted area. Modification of activities will include re-route access around the restricted area within the Project site
- If works are required in the Restricted Area, works are to be undertaken during periods of dry soil conditions.

Establishment and monitoring of Restricted Areas are outlined in Section 5.2.3 of this Plan.

5.4 Disposal

Pest species euthanised during control programs will be disposed of at a licenced waste management facility in accordance with the *Biosecurity Act 2015* and *Protection of the Environment Operations Act 1997.*

Silverleaf Nightshade is particularly hard to control / eradicate once it becomes established in an area. Therefore, weedy topsoils that cannot be used within the appropriate areas (e.g., areas with the same assemblage of weed species) will be destroyed in a manner that reduces the likelihood of weed spread, in accordance with:

- *Biosecurity Act 2015*
- *Protection of the Environment Operations Act 1997.*

Refer to the Project WMP for further detail on weed material disposal.

6. Monitoring

6.1 Monitoring objectives

The key objective of the PWMP is to ensure that the spread of pests and weeds are minimised throughout the construction and operation of the Project. To achieve this, Neoen and its contractors will:

- Implement remote camera monitoring, to be conducted by suitably qualified persons, to visually determine pest and predator species presence and abundance within the Project site
- Adapt and amend this monitoring program in response to changes in pest abundance within and surrounding the Project site
- Determine weed presence / absence for the Project site
- Determine changes in weed presence / absence for the Project site.

6.2 Pest Monitoring

Monitoring techniques will primarily utilise remote camera monitoring due to the cryptic nature of many pest species, with monitoring for secondary indicators such as scats, disturbance, nests and scavenging to be undertaken in the event of pest species sightings.

To determine if there has been an increase in pest activity onsite, pest animal density levels will be defined by relative abundance categories (refer to Table 6-1) as defined in the Monitoring, Evaluation, Reporting and Improvement (MERI) framework for pest animal management in NSW (DPI, 2020). Additionally, pest monitoring will be guided by the Murray Regional Strategic Pest Animal Management Plan (LLS, 2018 - 2023).

Table 6-1 Relative abundance categories (DPI, 2020)

Relative Abundance Rating	Definition
High (abundant)	Many animals seen at any time and much sign of activity. Animals always observed and reliable sightings or signs. Significant sign of animals on more than 80% of occasions.
Medium (common)	Some animals seen at almost any time / many active signs / Frequent but unreliable sightings of animals. Significant signs of animals on 50-80% of occasions.
Low (occasional)	Few or no sightings, little active signs. Very little sign of animals on 1-50% of occasions
Absent	No animals - No sign of animals, or animals have been removed from this location.
Unknown	Unsure, no information to base your judgement.
Present, but abundance unknown	Species is present, but abundance is unknown

Pest monitoring will be undertaken by a suitably qualified ecologist(s). The proposed methodology for recording pest and predator monitoring is provided in Table 6-2.

Table 6-2 Pest presence / absence monitoring

Objective
To determine presence / absence of pests within the Project site, to document any changes arising from increased activity associated with the Project, and to inform the location and extent of controls required.
Sampling units
Remote camera monitoring within the Project site, particularly around construction compounds and other high-use areas.
Method
Remote camera monitoring: • Cameras will be placed at each construction compound area and within other high-use areas (a minimum of five (5) monitoring locations will be chosen) • Cameras to be attached to a tree or stake and positioned approximately 1 m above ground • The cameras are to be unbaited, as this is more suitable for long term monitoring • Cameras are placed out for one month (30 days) per monitoring period • Coordinates will be recorded for each camera location, in order to repeat the method during each subsequent monitoring event • Field staff will also note secondary pest indicators such as scats, disturbance, nests and scavenging to be undertaken in the event of pest species sightings.
Location
• Adjacent to construction compounds and other high-use areas (minimum of five (5) monitoring locations)
Timing, effort and frequency
• A monitoring event is defined as one month (30 days) deployment of all camera traps as per the layout explained in methods • Ecologist will be required to set up and collect the camera traps • Frequency will comprise two monitoring events per year (or every six months), during construction and operation.
Data analysis
• Data to be kept in a spreadsheet to determine presence/absence at monitoring locations between monitoring periods • Data trends are to be analysed by a suitably qualified ecologist in order to determine occupancy.
Triggers for adaptive management
A recorded increase in relative abundance category for a given species (refer to Table 6-1). Adaptive management measures will be determined in consultation with Neoen.

6.3 Weed monitoring

The monitoring of weed presence / absence will be undertaken by a suitably qualified ecologist(s). The proposed methodology is provided in Table 6-3.

Table 6-3 Weed monitoring

Objective
To determine weed presence / absence and spatial distribution of weeds for the Project site, to inform weed control methodology t and to monitor cycles of weed growth and new weed establishment
Sampling units
Weed species diversity and spatial distribution.
Method
• Surveys will be undertaken within the Project site, including drainage lines and will record weed species, location and comments for the Project site (refer to Appendix C for template) • Baseline surveys across the Project site prior to clearing will determine weed species present and therefore appropriate controls to be implemented for the Project • Mapping will be produced for each monitoring rounds that identifies weed species composition and spatial distribution to allow comparison between monitoring periods • Field data and mapping will be updated each monitoring period (new areas and revisit mapped areas to record growth and/or effectiveness of management applied)
Location
• Within the Project site.
Timing, effort and frequency
Weed monitoring will be undertaken during initial pre-clearance surveys (baseline) and twice a year within the Project site.
Data analysis
Field data (Appendix C) to be kept in a spreadsheet by the ecologist to determine any changes in presence/absence and extent of weeds across the site from baseline data captured to the twice a year monitoring periods to assess overall weed suppression/removal success/
Triggers for adaptive management
A Trigger Action Response Plan (TARP) has been developed for weeds which includes response measures for both weed species composition and distribution and new occurrences of weeds (refer to Appendix B)

6.4 Other monitoring – dieback

If dieback is noted during weed monitoring periods (the proformas in Appendix C include prompts to record any dieback noted), management measures described above in Section 5.2 will be implemented in the first

instance (restricting access, hygiene measures) to control the spread of the observed occurrence. Stakeholders (Local Land Services and local landholders) will be notified and further consulted regarding follow up soil testing and mapping, and adaptive management steps will be implemented (investigation of the spread, prohibiting access, revising hygiene strategies).

6.5 Management and mitigation measures

Table 6-4 Pest and weed management measures

ID	Measure	Resources required	Timing	Responsibility	Reference
General					
PWM1	Wherever possible, adjoining landholders will be consulted on pest and weed management strategies.	PWMP	Construction Operation	Solar Farm Contractor SEA Operator	LU4
PWM2	Work areas will be regularly maintained and kept free of rubbish.	Waste Management Plan (WMP)	Construction Operation	EPC SEA Operator	Best practice
PWM3	Plant and equipment entering and exiting the site will be clean and free of dirt, mud, seed and biological materials including weeds, seeds and other organisms.	PWMP	Construction Operation	EPC SEA Operator	Best practice
PWM4	A checkpoint will be established at the site access point off Weeamera Road. All plant / equipment entering the Project site will need to meet the requirements of the Hygiene Declaration Form (refer to Appendix A).	PWMP	Construction Operation	EPC SEA Operator	BD10 Best practice
PWM5	Where hygiene standards are not met, thorough wash down will be required prior to site access being granted. Wash down or brush down locations must be away from production and other sensitive areas and not drain into waterways or cropping areas.	PWMP	Construction Operation	EPC SEA Operator	BD10 Best practice
PWM6	Pest species that are euthanised during control programs, as well as weedy vegetative material and weed seed collected in washdown facilities, will be disposed of at a licenced waste management facility in accordance with the *Biosecurity Act 2015* and *Protection of the Environment Operations Act 1997*.	PWMP	Construction Operation	EPC SEA Operator	Best practice
Pests					
PWM7	Controls for pest species will be implemented in accordance with the	PWMP	Construction	EPC SEA	Best

ID	Measure	Resources required	Timing	Responsibility	Reference
	Murray Region Strategic Pest Management Plan (LLS, 2018 - 2023).		Operation	Operator	practice
PWM8	Non-lethal methods for controlling native pest species will be adopted during the Project. If lethal methods are considered necessary, Neoen will apply for a biodiversity conservation licence through NPWS.	PWMP	Construction Operation	EPC SEA Operator	Best practice
PWM9	Prior to the commencement of clearing, a Pest and Weed Survey Report will be prepared, outlining the location of all pests identified onsite, as well as the relevant controls for each species.	PWMP	Construction Operation	Solar Farm Contractor SEA Operator	Best practice
PWM10	Monitoring for presence and abundance of pest species will be conducted twice a year throughout construction and operation of the Project.	PWMP	Construction Operation	Solar Farm Contractor SEA Operator	Best practice
Weeds					
PWM11	Prior to commencement of clearing, the Pest and Weed Survey Report will outline the location of all weed species, as well as the controls for each species.	PWMP	Construction	Solar Farm Contractor SEA	Best practice
PWM12	A weed control contractor will be employed to implement chemical weed control across the Project site as the primary means of eradicating / reducing the spread of weeds. The NSW Weed Wise database will be consulted when determining chemical control options for the treatment of select weed species.	PWMP	Construction Operation	Solar Farm Contractor SEA Operator	Best practice
PWM13	Weed control programs will be conducted bi-annually, at a minimum. Additional weed control events may be required, depending on weed ingress.	PWMP	Construction Operation	Solar Farm Contractor SEA Operator	Best practice
PWM14	Coloured dye will be used in weed spraying units to allow for the proper identification of areas that have been sprayed.	PWMP	Construction Operation	Solar Farm Contractor SEA Operator	Best practice
PWM15	Weed infested areas (Restricted Areas) will be marked with signage, that identifies the extent of the weed infestation at both ends.	PWMP	Construction Operation	Solar Farm Contractor SEA	Best practice

ID	Measure	Resources required	Timing	Responsibility	Reference
				Operator	
PWM16	Topsoil from areas dominated by weeds will be stockpiled separately from 'clean' topsoil.	PWMP	Construction	Solar Farm Contractor SEA	Best practice
PWM17	Soil from Restricted Areas that contain Silverleaf Nightshade will only be stored and reused within those areas.	PWMP	Construction	Solar Farm Contractor SEA	Best practice
PWM18	Weedy topsoil stockpiles with different weed species will not be stored in the same location.	PWMP	Construction	Solar Farm Contractor SEA	Best practice
PWM19	Topsoil, mulch and spoil stockpiles will be inspected for evidence of weeds during routine weekly environmental site inspections.	PWMP	Construction	Solar Farm Contractor SEA	Best practice
PWM20	Chemical weed control will be undertaken to eradicate weeds on stockpiles and limit seed and propagule proliferation	PWMP	Construction	Solar Farm Contractor SEA	Best practice
PWM21	In areas subject to traffic and disturbance (such as access roads and spoil emplacement areas), areas that support sediment control structures (weed topsoil stockpiling sites, drainage lines) and other areas where the weed contractor recommends it, weeds within a 50 m buffer of the disturbance area will be sprayed, to reduce the likelihood of weeds spreading (legal Project boundaries will be limiting factors for spraying activities beyond the disturbance area).	PWMP	Construction	Solar Farm Contractor SEA	Best practice
PWM22	Vegetation cleared from within an identified 'Restricted Area' is to be removed and disposed of at a licenced waste management facility, or destroyed in a manner that reduces the likelihood of weed spread.	PWMP	Construction	Solar Farm Contractor SEA	Best practice
PWM23	Weed presence and abundance will be monitored bi-annually throughout the construction and operation of the Project.	PWMP	Construction Operation	Solar Farm Contractor SEA Operator	Best practice
Pathogens					
PWM24	If *Phytophthora* is detected on site, the area will be demarcated and signposted as a Restricted Area to reduce disturbance and control access.	PWMP	Construction	EPC SEA	Best practice

ID	Measure	Resources required	Timing	Responsibility	Reference
PWM25	Washdown and disinfection stations (where a pathogen has been detected) will be established at the access and exit points of Restricted Areas.	PWMP	Construction	EPC SEA	Best practice
PWM26	Neoen and the EPC Contractor will review work activities in Restricted Areas to determine if activities can be modified (e.g., re-routing access) to prevent further disturbance.	PWMP	Construction	Solar Farm Contractor SEA	Best practice
PWM27	Where work is required in a Restricted Area (where a pathogen has been detected), it will be undertaken during periods of dry soil conditions.	PWMP	Construction	Solar Farm Contractor SEA	Best practice
PWM28	If dieback is observed within the Project site, management measures will be implemented to control the spread of the occurrence (restricting access, hygiene measures), and appropriately manage it (investigation of the spread, prohibiting access, revising hygiene strategies).	PWMP	Construction Operation	EPC SEA Operator	BD10 Best practice

7. Compliance management

7.1 Roles and responsibilities

Section 4.8 of the EMS describes the roles and responsibilities of the environmental management team for the Project .Specific responsibilities for the implementation of environmental controls are detailed in Section 6.5 of this Plan.

7.2 Training

All employees, contractors and utility staff working on site will undergo site induction training relating to pest and weed management issues. The induction training will address elements related to pest and weed management include:

- Identification of key pest and predator species
- Waste management
- Identification of key weeds
- Washdown procedures and hygiene standards and any disinfection requirements
- Identification of 'Restricted Areas'.

Further details regarding staff induction and training are outlined in Section 7 of the EMS.

7.3 Auditing

Audits (both internal and external) will be undertaken to assess the effectiveness of environmental controls, compliance with this sub plan, infrastructure approval and other relevant approvals, licences, and guidelines. Audit requirements are detailed in Section 10.3 of the EMS.

7.4 Reporting

Reporting requirements and responsibilities are documented in Section 10.4 of the EMS.

An annual report will be provided and will include:

- Pest and weed monitoring results
- Details on pest and weed control actions undertaken since the last report including:
    - A list of control activities undertaken
    - A map of areas where control activities were undertaken
- The efficacy of the control measures in relation to the objective of minimising pest and weed distribution and / or abundance in the Project site, with comparative analysis to baseline monitoring data.
- Recommendations for future control activities
- A summary of the efficacy of other control measures outlined in this plan and recommendations for revisions to controls.

Details on incident reporting are included in Section 9.3 of the EMS. The Contractor will promptly advise Neoen on events that are non-conforming with the CoAs and mitigation measures (Section 9.3 of the EMS). Neoen will advise the DPE accordingly for any notifiable non-conformances.

8. Review and improvement

8.1 Continuous improvement

Continuous improvement of this PWMP will be achieved through ongoing evaluations of environmental management performance against environmental policies, objectives and targets for the purpose of identifying 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.

8.2 PWMP update and amendment

The processes described in Section 11 of the EMS may result in the need to update or revise this Plan. This will occur as needed.

Only the EPC SEA, or delegate, has the authority to change any of the environmental management documentation.

A copy of the updated plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure – refer to Section 12.2 of the EMS.

9. References

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Umwelt. (2024). *Modification 2 Report - Culcairn Solar Farm*. Umwelt (Australia) Pty Ltd.

Appendix A Hygiene declaration form template

Part A: Information			
Date			
Time			
Description of Equipment / Building / Container ID			
Make / Model / Building Type			
Registration No.			
Vehicle / Plant Number			
Name of Operator / Driver			
Travelling / Delivered From			
Travelling / Delivered To			
Part B: Washdown Log			
Location of Washdown and Inspection			
Is the equipment, or building clean (i.e. free of all mud, seed, vegetative material, bio-security risks such as insects, animals, nests, etc.)?	☐ Yes	☐ No	☐ N/A
If travelling / delivered from outside the project site, has the vehicle, plant, equipment and/or building been disinfected? If so, with what?" ……..	☐ Yes	☐ No	☐ N/A
Part C: Declaration (I, the undersigned declare that the information that I have provided in this declaration is true and correct)			
Name			
Signature			

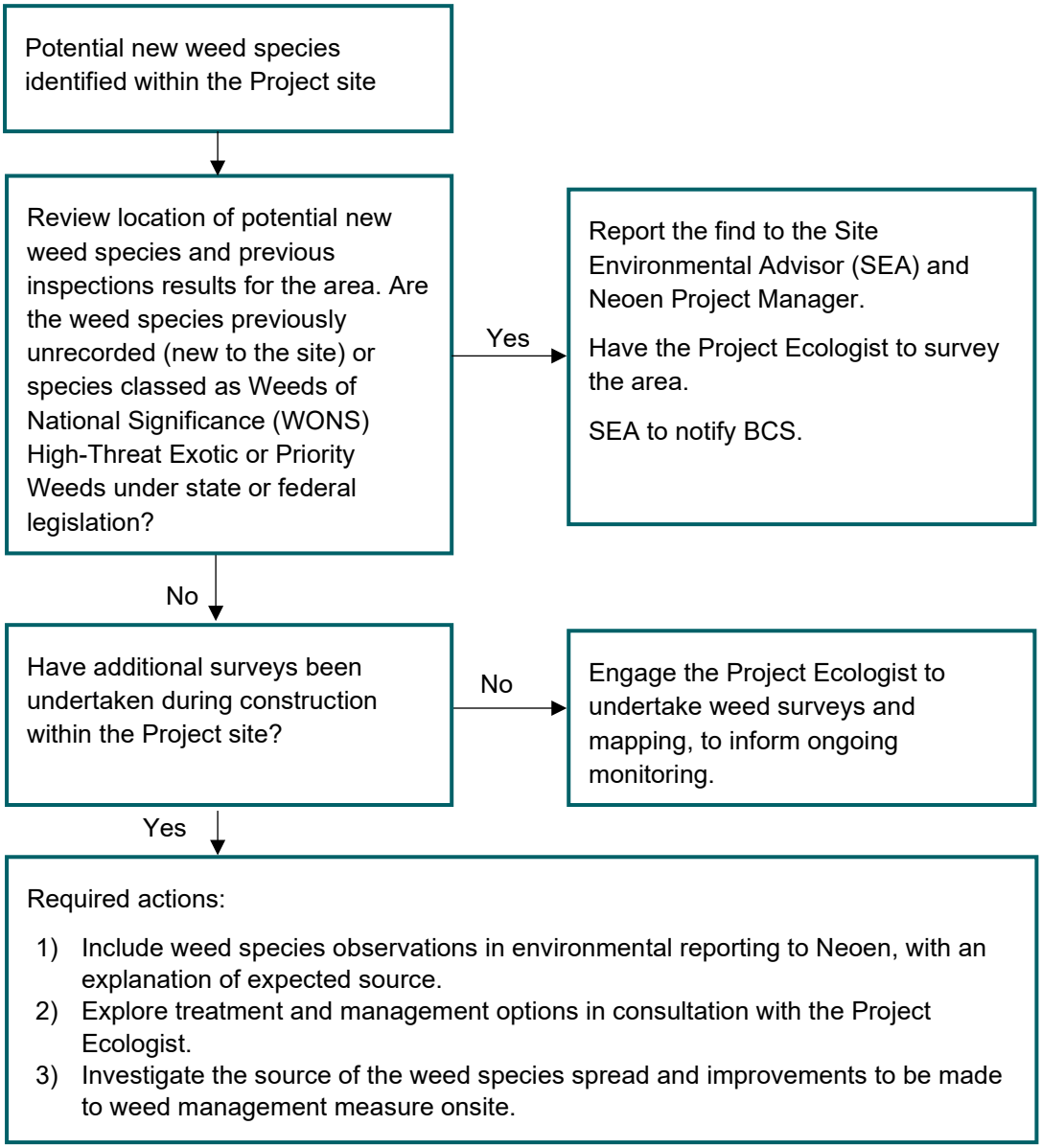
Part A: Information		
Date		
Part D: Check at Entry to Site (to confirm the above)		
Is the equipment / building clean and disinfected?	☐ Yes	☐ No
Name		
Signature		
Date		
If no, what remedial action is required? **e.g. return to supplier, washdown offsite.**		
Part E: Check at Entry to Site to Have Remedial Actions Completed (only complete is answered no to Part D)		
Have the remedial actions been completed?	☐ Yes	☐ No
Name		
Signature		
Date		
Part D: Attached Photos of inspection (if required)		
Date		

Appendix B Trigger Action Response Plan (TARP) – Weeds

TARP objectives

1) To identify if previously unrecorded weed species are present within the Project site; and
2) To establish required actions to improve weed management measures or further investigate the source of weed spread.

Procedure:



Appendix C Monitoring template – weeds

Weed presence/ absence monitoring (refer Section 6.3.1 of Pest and Weed Management Plan)				
Aim:	To determine weed presence/absence within proximity to Project roads and key Project infrastructure		**Timing (circle one):**	Pre-clearance Bi-annually
Date:		**Location:**	**Collectors:**	

Weed Species	**Coordinates**		**Time**	**Project Phase***	**Size (m^2)**	**% Cover**	**Notable Features* / comments**
	East	North					

*Project Phase = Pre-construction, construction, post-construction, Notable features = observed new occurrence, weather, dieback, etc.

Appendix D Monitoring template - pests

Method:	Remote camera monitoring		**Timing:**	Bi-annually
Date:		**Location:**	**Collectors:**	

# Camera	**Coordinates**		**Time**	**Project Phase***	**Species recorded**	**Presence/absence**	**Notable Features***
	East	North					

*Project Phase = Pre-construction, construction, post-construction, Notable features = significant increase in occurrence of feral herbivores observed, etc.

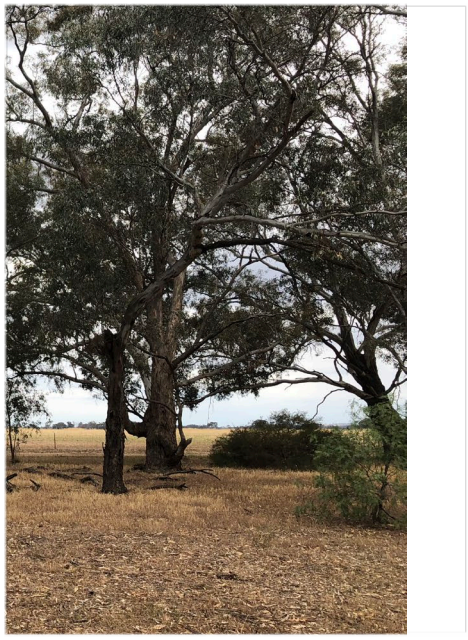
Appendix I Rehabilitation Plan

Rehabilitation Plan

Culcairn Solar Farm

January 2025

Project Number: 240896



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NSW • ACT • QLD • VIC
ABN 31 124 444 622 ACN 124 444 622
W. www.nghconsulting.com.au
E. ngh@nghconsulting.com.au

BEGA - ACT & SOUTH EAST NSW
Suite 11, 89-91 Auckland Street
(PO Box 470) Bega NSW 2550
T. (02) 6492 8333

BRISBANE
T3, Level 7, 348 Edward Street
Brisbane QLD 4000
T. (07) 3129 7633

CANBERRA - NSW SE & ACT
Unit 8, 27 Yallourn Street
(PO Box 62) Fyshwick ACT 2609
T. (02) 6280 5053

GOLD COAST
2B 34 Tallebudgera Creek Road
Burleigh Heads QLD 4220
(PO Box 424 West Burleigh QLD 4219)
T. (07) 3129 7633

MELBOURNE
Level 14, 10-16 Queen Street
Melbourne VIC 3000

NEWCASTLE: HUNTER & NORTH COAST
Level 1, 31-33 Beaumont Street
Hamilton NSW 2303
T. (02) 4929 2301

SUNSHINE COAST
Suite 101, Level 2/30 Main Drive
Birtinya QLD 4575
T. 13 54 93

SYDNEY REGION
Unit 17, 21 Mary Street
Surry Hills NSW 2010
T. (02) 8202 8333

TOWNSVILLE
Level 4, 67-75 Denham Street
Townsville QLD 4810
T. (07) 4410 9000

WAGGA WAGGA: RIVERINA & WESTERN NSW
35 Kincaid Street (PO Box 5464)
Wagga Wagga NSW 2650
T. (02) 6971 9696

WODONGA
Unit 2, 83 Hume Street
(PO Box 506) Wodonga VIC 3690
T. (02) 6067 2533

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Acronyms and abbreviations

AC	Alternating current
BCS	Biodiversity, Conservation and Science Directorate
BESS	Battery Energy Storage System
BDAR	Biodiversity Development Assessment Report
BMP	Biodiversity Management Plan
cm	centimetres
CNVMP	Construction Noise and Vibration Management Plan
CoA	Conditions of Approval
CWD	Coarse woody debris
DBH	Diameter at breast height
DC	Direct current
DCCEEW	Department of Climate Change, Energy, the Environment and Water (formerly DAWE)
DPE	Department of Planning and Environment (NSW)
DPHI	Department of Planning, Housing and Infrastructure
EEC	Endangered ecological community – as defined under relevant law applying to the proposal
EIS	Environmental impact statement
EMS	Environmental Management Strategy
EP&A Act	*Environmental Planning and Assessment Act 1979* (NSW)
EP&A Regulation	Environmental Planning and Assessment Regulation 2021
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Cwth)
EPC	Engineering, Procurement and Construction
EWMS	Environmental Work Method Statement
GPS	Geographical positioning system
GMP	Groundcover Management Plan

IPC	Independent Planning Commission
km	kilometres
kV	kilovolts
LP	Landscape Plan
m	metres
m^2	Metres squared
mm	millimetres
MW	Megawatt
MWh	Megawatt hours
NBMP	Nest Box Monitoring Plan
NEM	National Electricity Market
NSW	New South Wales
PCT	Plant Community Type
PV	Photovoltaic
PWMP	Pest and Weed Management Plan
RMP	Rehabilitation Management Plan (the Plan)
SEA	Site Environmental Advisor
SSD	State Significant Development
SWMP	Soil and Water Management Plan
TEC	Threatened ecological community

1. Introduction

1.1. Background

Neoen Australia Pty Ltd (Neoen) (the Proponent) have approval for construction, operation and decommissioning of a 350 Megawatt (MW) alternating current (AC) / 402.5 MW direct current (DC), photovoltaic (PV) solar farm, referred to as Culcairn Solar Farm (the Project). The Project is located on rural land, approximately 4 kilometres (km) southwest of Culcairn, New South Wales (NSW).

The Project was assessed in an Environmental Impact Statement (EIS) in accordance with Part 4 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) and Schedule 2 of the Environmental Planning and Assessment Regulation 2021 (EP&A Regulation). It is considered State Significant Development (SSD).

The Proponent received approval for the Project on 25 March 2021 from the Independent Planning Commission (IPC).

Modification Report 1 (SSD-10288 – Mod 1) was prepared and submitted to former Department of Planning and Environment (DPE) (now referred to as Department of Planning, Housing and Infrastructure (DPHI)) October 2023 and was determined on the 22 December 2023 with consolidated Conditions of Consent issued. The modification to the Project was for minor alignment revisions and widening of the Project's Development Footprint along Weeamera Road and at two creek crossings. The modification was also for minor amendments to the definitions and wording of Schedule 3 Condition 2 – Transport.

Modification Report 2 (SSD-10288-Mod-2) was prepared and submitted to the DPHI October 2024 and determined 19 December 2024 with consolidated Conditions of Consent issued. The modification was for the expansion of the Battery Energy Storage System (BESS) from 10 MW /200 Megawatt hours (MWh) up to 350 MW/800 MWh at the point of connection. Modification 2 did not result in any additional impacts to biodiversity or mitigation measures.

1.2. The Project

The Project will involve construction and operation of a ground-mounted PV solar tracking array generating approximately 350 MW AC / 402.5 MW DC of renewable energy. The power generated will be exported to the national electricity grid.

Key development and infrastructure components will include:

- Single axis tracker PV solar panels mounted on steel frames over most of the site (maximum tilt 4.2 metres (m) in height)
- Onsite BESS with a capacity of 350 MW/800 MWh and up to 244 containerised battery storages of lithium-ion batteries
- Underground and above ground electrical conduits and cabling to connect the arrays to the inverters and transformers
- Systems of invertor units and voltage step-up throughout the arrays
- National Electricity Market (NEM) compliant metering arrangements for all energy exported to the grid as well as internal metering to measure solar output
- On site substation, connecting to the existing 330 kilovolts (kV) TransGrid transmission line
- Site office and maintenance building, vehicle parking areas, construction compounds, internal access tracks and perimeter security fencing
- Site access track off Weeamera Road
- Road crossing and easement electrical crossing through underground and/or overhead lines, of Cummings Road and Schoffs Lane
- Vegetative screening at impacted visual receivers and intersection of public roads.

The approved Project layout is provided in Figure 1-1.

For information about the existing environment of the Project site, including Plant Community Types (PCTs), priority weeds and observed and threatened species, refer to Section 4 of the Project BMP.

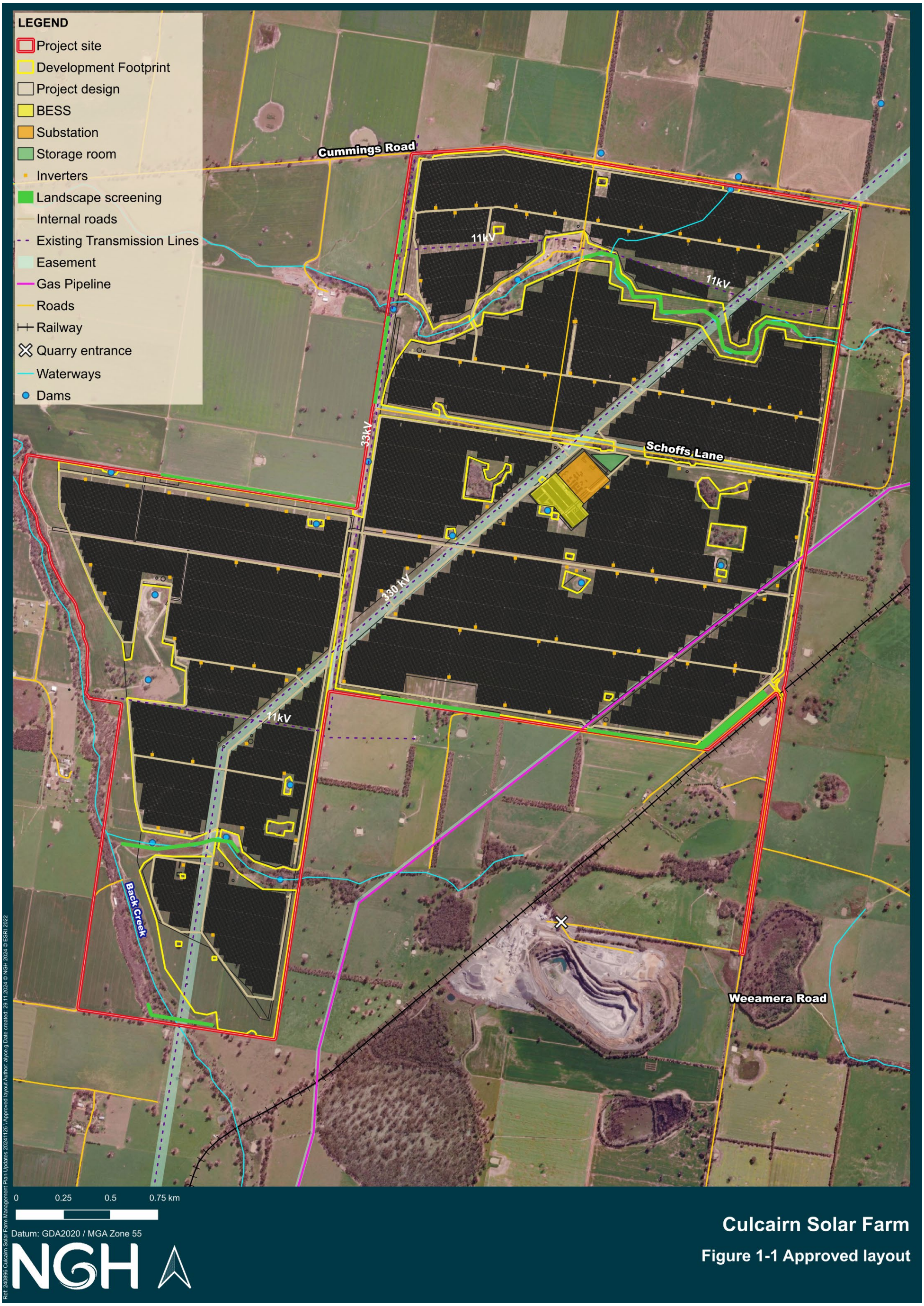

Figure 1-1 Approved development layout

1.3. Purpose and objectives

1.3.1. Purpose

The purpose of this Rehabilitation Management Plan (RMP) is to address the requirements of the relevant conditions and mitigation measures relevant to the RMP are described, scheduled and assigned responsibility as outlined in:

- The Project EIS (NGH, 2020)
- The Project Submissions Report (NGH, 2020)
- The Project Amendment Report (NGH, 2020)
- Modification Report 1 (NGH, 2023)
- Modification Report 2 (Umwelt, 2024)
- DPHI Consolidated Development Consent (determined 19 December 2024).

1.3.2. Objectives

The key objectives of this RMP are to describe the management measures that will be implemented to ensure the following:

- Areas of temporary construction disturbance are revegetated and rehabilitated prior to operation
- Vegetative and soil resources are salvaged during construction, stored appropriately and reused within the disturbance footprint
- Management and revegetation of the areas identified for supplementary planting for biodiversity (connectivity / loss of paddock trees)
- Retained vegetation of Threatened Ecological Community (TEC) *Grey Box (Eucalyptus macrocarpa) Grassy woodlands and Derived Native Grasslands of South-eastern Australia,* and *White Box Yellow Box Blakely's Red Gum Woodland,* will be enhanced within the Development Site.

The RMP will be implemented to improve the biodiversity values of the retained habitat such as strategic revegetation to restore or rehabilitate connectivity and food sources, installation of nest boxes, relocation of fallen timber for related fauna habitat.

To achieve this, Neoen will:

- Ensure appropriate measures are implemented to address the conditions of approval
- Implement measures to control weeds and feral animals
- Implement measures to maximise native vegetation return (regeneration / revegetation)
- Implement measures to identify and protect biodiversity features of significance (TECs, hollows and logs)
- Implement measures to replace habitat features of significance (nest boxes)
- Implement measures to monitor the Project's native vegetation rehabilitation success.

1.4. Environmental Management Strategy

The RMP is an appendix to the Biodiversity Management Plan (BMP), which is part of the Project's overall Environmental Management Strategy (EMS). Mitigation and management measures identified in this RMP will be incorporated into site or activity-specific Environmental Work Method Statements (EWMS).

When used concurrently, the overarching EMS, BMP and other subplans, procedures and EWMS form management guides that clearly identify the necessary environmental management actions for reference by Neoen's personnel and contractors.

The review and document control processes for this plan are described in the EMS. A summary of consultation regarding this plan is included in Appendix A of the BMP.

1.5. Related documents

Project documents relevant to this Plan that have been referred to throughout this document include:

- Environmental Management Strategy (EMS) (NGH, 2024b)
- Biodiversity Management Plan (BMP) (NGH, 2024a)
- Pest and Weed Management Plan (PWMP) (NGH, 2024e)
- Nest Box Monitoring Plan (NBMP) (Appendix B)
- Groundcover Management Plan (GMP) (NGH, 2024c)
- Landscaping Plan (LP) (NGH, 2024d)
- Soil and Water Management Plan (SWMP) (NGH, 2024f)

1.6. Definitions

Commonly restoration, rehabilitation, regeneration, and enhancement are used interchangeably to describe land management including vegetation planting. These will be clarified here, as they each relate to specific management strategies in the BMP. These definitions have been sourced from the glossary of terms in the National Standards for the Practice of Ecological Restoration in Australia (SERA, 2017).

- **Restoration** – the process of assisting the recovery of an ecosystem that has been degraded, damaged or destroyed with the intent to return it to a prior condition.
- **Rehabilitation** - the process of reinstating a level of ecosystem functionality (but not substantiative native biota) on degraded sites where ecological restoration is not the aim.
- **Regeneration** – recovery or recruitment of species from in-situ propagules or propagules that have colonised the site without human intervention. May occur spontaneously or after facilitation (e.g., weed control). Aka natural regeneration.
- **Revegetation** – establishment, by any means, of plants on sites that may or may not involve local or indigenous species.
- **Development Site** - The area of land that is subject to the Project. The Development Site is made up of approximately 1066 ha and includes a portion along Weeamera Road. The Project's Development Footprint is situated within the wider Development Site.

2. Planning

2.1. Legislation

Legislation relevant to the development and implementation of the BMP includes:

- *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
- *Environmental Planning and Assessment Act 1979* (EP&A Act)
- *Biodiversity Conservation Act 2016* (BC Act)
- *Biosecurity Act 2015*
- *Game and Feral Animal Control Act 2002*
- *Pesticides Act 1999*
- Pesticides Regulation 2017.

How this legislation is relevant to the RMP and Project is outlined in Appendix B of the EMS.

2.2. Conditions of Approval

Table 2-1 outlines the Conditions of Approval (CoA) and the final mitigation measures relevant to this RMP.

Note, that mitigation measures BD17 has been amended in consultation with Biodiversity, Conservation and Science Directorate (BCS) as part of the development of the BMP and its appendices.

Table 2-1 CoA and commitments relevant to the RMP

Condition	Condition / commitment requirement	Addressed
Schedule 3 CoA 15 (a)	• Rehabilitating and revegetating temporary disturbance areas with species that are endemic to the area • 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.	Section 3.4 Section 3.6.3
BD4	Relocation of habitat features (fallen timber, hollow logs) from within the development site. Tree-clearing procedure including relocation of habitat features to adjacent area for habitat enhancement.	Section 3.6.3 Section 3.7 BMP (NGH, 2024a)
BD10	Hygiene protocols to prevent the spread of weeds or pathogens between infected areas and uninfected areas. This will also be incorporated into the Pest and Weed Management Plan.	Section 3.6.1 PWMP (NGH, 2024e)
BD12	Preparation of a Management Plan to regulate activity in vegetation: • Protection, enhancement and monitoring of quality/condition of native vegetation to be retained • Best practice removal and disposal of vegetation • Staged removal of hollow-bearing trees and other habitat features such as fallen logs with attendance by an ecologist • Weed management • Unexpected threatened species finds	This Plan – Section 3.3 BMP PWMP LP (NGH, 2024d) GMP (NGH, 2024c)

Condition	Condition / commitment requirement	Addressed
	• Rehabilitation of disturbed areas • Exclusion of vehicles through sensitive areas • Best practice clearing of overstorey vegetation for construction of the transmission line to avoid understorey impacts • Adaptive management practices and protocol for corrective actions.	
BD14	Appropriate landscape plantings of local indigenous species derived from local native plant communities.	Section 3.6.2 Appendix A LP (NGH, 2024d)
BD16	Appropriate supplementary plantings (as indicated in the final constraints map and layout) to enhance connectivity and mitigate loss of paddock trees across the development site: • Landscape plantings will be comprised of local indigenous species • Plantings will be a minimum of 20 metres wide.	Table 4-1 Section 3.5
BD17	Install hollows of felled trees onto trees or on ground in retained vegetation patches: • Hollow tree limbs would be made into nest boxes and placed in retained vegetation patches • Hollows removed during clearing would be salvaged where possible and remounted to allow continued use by hollow dependant fauna within or adjacent to the project site. A one to one (hollows removed to hollows or nest boxes mounted) would be achieved. • The construction and placement of felled hollows/nest boxes would be managed by a suitably qualified ecologist.	Section 3.6.3 Section 3.7
BD18	A Rehabilitation Plan in conjunction with the Biodiversity Management Plan would be created to improve habitat within retained vegetation in the development site and include: • Weed control • Replanting or regeneration • Location of hollows from tree removal • Location of nest boxes • Location of logs. Nest box monitoring plan to ensure nest boxes are structurally maintained for the life of the solar farm.	This Plan Section 3.6.1 Section 3.6.2 Section 3.7 Section 3.6.3 Table 4-1 Appendix B

3. Environmental aspects and impacts

The primary objective of this Plan is to ensure that potential impacts from the Project on retained vegetation are minimised, and that measures are taken to enhance the areas of retained vegetation and manage biodiversity plantings within the Project's Development Site.

3.1. Construction activities

A variety of construction activities that are relevant to this RMP include, but are not limited to:

- Clearing and grubbing of native vegetation
- Removal of hollow-bearing trees
- Topsoil stripping
- Works around tributaries of Back Creek and Billabong Creek
- General earthworks near vegetation and waterways/drainage lines, resulting in disturbance of soils, consequential erosion and the mobilisation of sediment
- Development of temporary construction compounds.

3.2. Vegetation impacts

Potential impacts to areas of retained vegetation as a result of construction activities include:

- Loss of connectivity and refuges with the clearing of 64 paddock trees
- Loss of hollows as habitat with the removal of 49 hollow-bearing trees
- Increased dust from construction activities
- Changes to water quality and alterations to natural hydrological flows (changed landforms and drainage flow, erosion, and the mobilisation of sediment)
- Invasion and spread of terrestrial weeds and pest fauna species
- Potential spread of disease pathogens.

Exclusion areas, inclusive of retained dams and woodland, for rehabilitation and revegetation within the Project's Development Site are provided in Figure 3-1.

Rehabilitation measures described in Section 3.3 and in Table 4-1 aim to improve vegetation and habitat within the retained woodland in the Development Site.

Refer to the Project's BMP for the pre-clearing checklist (Appendix D) and Hollow Bearing Tree Procedure (Appendix B)

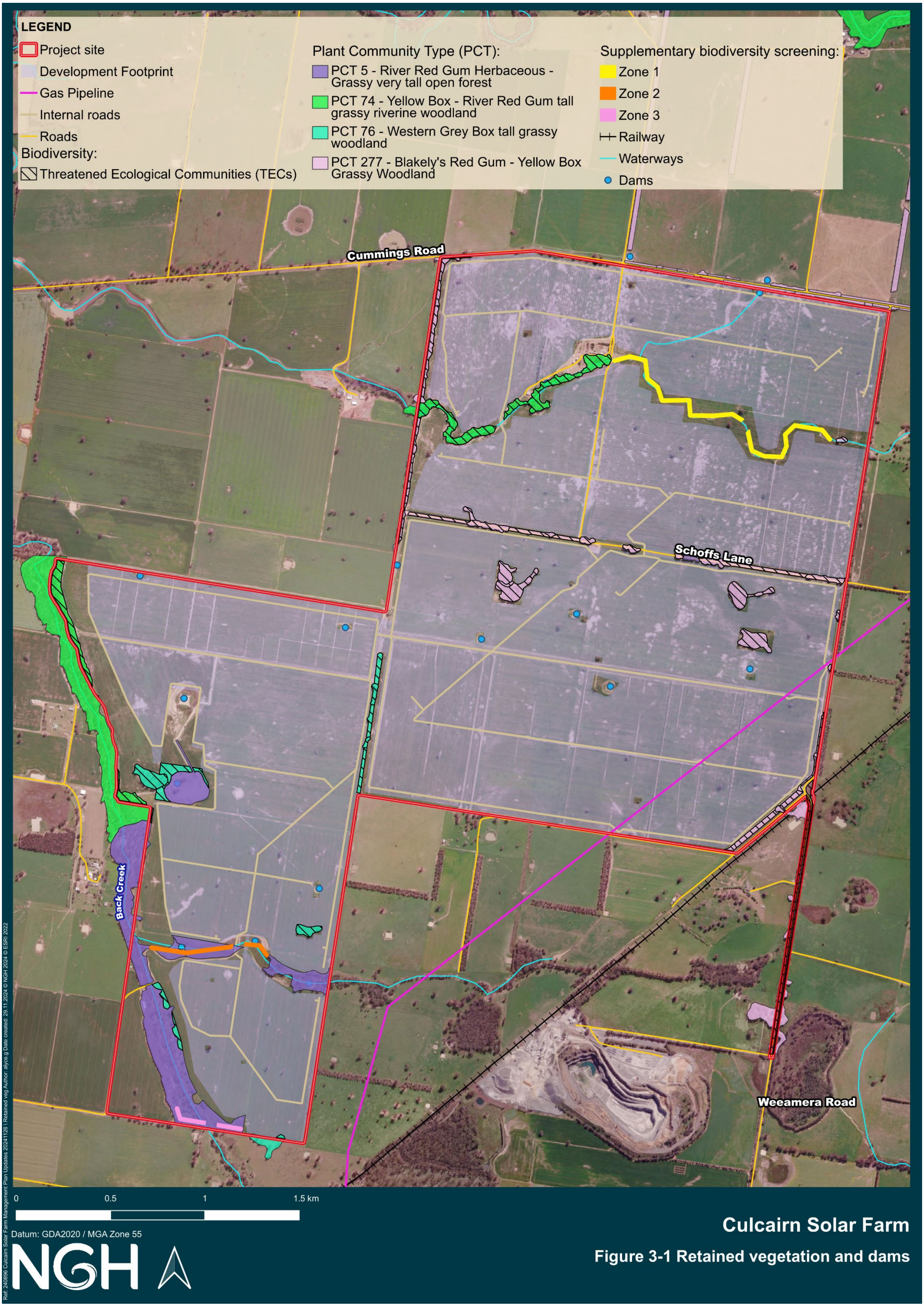

Figure 3-1 Retained dams and woodland within the Development Site

3.3. Rehabilitation measures

This Section describes the measures to rehabilitate temporarily disturbed areas following construction and the re-use of materials within the Development Site. This Section also describes the guiding principles of rehabilitation and enhancement of retained native vegetation within the Development Site.

The principles have been derived from the *National Recovery Plan for White Box -Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland* (DECCW, 2011) and the Guide to Managing Box Gum Grassy Woodland (Rawlings, 2010) management guidance on ways to improve Box-Gum Woodlands and to support diversity in agricultural settings. The focus of the rehabilitation will be on:

- Soil health restoration
- Revegetation
- Linking of remnant habitats
- Controlling introduced weeds
- Controlling introduced fauna
- Monitoring long-term gains in biodiversity values.

Refer to Figure 3-1 for the areas of retained vegetation to be enhanced and managed during the lifespan of this Project.

3.4. Rehabilitation of temporarily disturbed areas

Areas temporarily disturbed for the Project will be rehabilitated and revegetated as soon as practicable. Temporarily disturbed areas may include:

- Piling installation areas
- Batters for permanent tracks and temporary tracks
- Construction compound areas
- Cable trenches.

The aim of the rehabilitation and revegetation is to stabilise disturbed areas and to return it to a condition that is similar to its pre-disturbance state, which means that native groundcover comprising the relevant vegetation plant communities are returned to these locations.

The following parameters have been established and are detailed in the Project's Groundcover Management Plan (GMP):

- Soil restoration and preparation requirements
- Species selection.
- Soil preparation
- Establishment techniques
- Maintenance requirements
- Perennial groundcover targets, indicators, condition monitoring, reporting and evaluation arrangements:
    - Live grass cover will be maintained at or above 70% at all times to protect soils, landscape function and water quality
    - Any grazing stock will be removed from the site when cover falls below this level
    - Grass cover will be monitored on a fortnightly basis for the first 12 months then twice a year for at least 5 years using an accepted methodology
- Contingency measures to respond to declining soil or groundcover condition. Identification of baseline conditions for rehabilitation following decommissioning.

3.5. Supplementary planting for biodiversity

Figure 3-1 identifies the areas for supplementary plantings for habitat connectivity and to compensate for the loss of paddock trees and which was committed to in the Response to Submissions. Appropriate supplementary plantings will be guided by the species diversity within adjacent plant communities and the location in the landscape.

Supplementary plantings will be comprised for endemic species to the relevant plant community type (PCT), refer to Appendix A. The following PCTs are associated with the zones identified in Figure 3-1:

- **Zone 1:** PCT 74 – Yellow Box – River Red Gum tall grassy riverine woodland of NSW South Western Slopes and Riverina Bioregions
- **Zone 2 and Zone 3**: PCT 5 – River Red Gum herbaceous – grassy very tall open forest wetland on inner floodplains in the lower slopes sub-region of the NSW South Western Slopes Bioregion and the eastern Riverina Bioregion.

The supplementary planting zones will be a minimum of 20 metres in width with the following approximate lengths:

- **Zone 1**: 1,680 metres along the riparian zone of the drainage line in the northern portion of the Development Site
- **Zone 2**: 660 metres along the riparian zone of the drainage line in the southern portion if the Development Site
- **Zone 3**: 400 metres along the southern boundary of the Development Site and within the Back Creek riparian corridor.

Supplementary plantings in Zones 1-3 will be planned and executed at the same time as the boundary screening for visual amenity. A proposed planting density of 600 plants per hectare has been derived from the Holbrook Landcare Network with a ratio of 30% trees to 70% shrubs and groundcovers, refer to Appendix C of the LP (NGH, 2024d) for further detail, specifically Table 10-2 for planting densities. Refer to Section 3.6.2 of this Plan for revegetation techniques.

Monitoring and corrective action will be in accordance with Section 3.6.4 of this Plan.

3.6. Enhancement of retained vegetation

The improvement of habitat within the retained areas of vegetation within the Development Site are guided by the following principles:

1. Restrict grazing pressure from livestock and exotic herbivores such as rabbits and overabundant native animals such as kangaroos
2. Natural regeneration of the overstorey and understory will be the primary revegetation method. This will assist in ensuring the providence of the regenerating vegetation is accurate for the area
3. Re-planting of endemic native tubestock may be undertaken around existing scattered trees throughout the retained Woodland. This is in additional to the supplementary planting discussed above. This approach will enable the re-establishment of the spatial patterns of open woodland. If required, such saplings will be individually guarded / fenced until they reach maturity
4. Replace and retain coarse woody debris throughout the Woodland. Where this conflicts with any safety measures for the Project (i.e., Bush-fire Management Planning), retain the coarse woody debris near to new plantings as appropriate where it can add value as habitat and for erosion control
5. Strategic weed control will be undertaken by controlling the weeds before invasive plants set seed to further enhance native regeneration (refer to weed management practices identified in the Project's PWMP NGH, 2024e).

3.6.1. Weed control

Weed control is one action recommended by the Project Biodiversity Development Assessment Report (BDAR) to reduce the incursion of weeds into the remnant patches of woodland and derived grassland. To manage and enhance the rehabilitated areas and areas for improvement, weed control will be carried out in accordance with the PWMP (Appendix H of the BMP).

3.6.2. Revegetation and regeneration

To assist in the rehabilitation of the retained Woodland (patches), management actions will include but are not limited to:

- Protection of patches of the listed ecological communities (e.g., Grey Box Woodland and Box-Gum Grassy Woodland) in accordance with the Project BDAR (NGH, 2020). This will be achieved via:
    - Delineating existing Woodland areas and identifying areas for supplementary biodiversity plantings as exclusion or no-go zones during construction, using temporary fencing, flagging tape, rope and signage or similar
    - Installation of wildlife friendly fencing (without barbs) to protect existing vegetation and habitat from grazing livestock, pest herbivores and over abundant native herbivores (Kangaroos), and to allow the regeneration of native seed stock as groundcover, mid-storey and over-storey species
- Protection of each remnant patch from weeds by preventing soil disturbance, and by eradicating new infestations
    - Weed treat the areas to be planted with reference to the PWMP
- Enhancement of grassland areas by stabilising and improving soil conditions (e.g. where bare ground is observed, introduction of soil stabiliser/ weed free mulch)
    - Include a soil ameliorant where required with reference to the baseline soil data (McMahon, 2018)
- Avoidance of the use of fertilisers in or near patches
- Expansion of patches where practicable by planting/seeding at the edges, as well as within the patches
- Replanting with endemic species associated to the specific plant community type of the Woodland area, refer to Appendix A and reference Figure 3-1
    - Place tree guards or similar protection around saplings after planting to protect new growth from grazing herbivores
- Expansion and connection of existing patches
- Undertaking strategic grazing or slashing when native tussock grasses have built up to a high level in order to open inter-tussock spaces for tree seedlings, ground-layer species and shrubs to establish.
- Installation of habitat features:
    - Those retained from construction works, for example, coarse woody debris, weed-free top soil and rocks, refer to Section 3.6.3
    - Nest box installation to return hollow habitat for native fauna to replace the hollows lost from hollow-bearing tree removal, refer to Section 3.7 and the Nest Box Monitoring Plan (Appendix B)
- An annual review of data gathered form the protected patches to ensure mitigation measures and rehabilitation strategy employed are being effective.

Revegetation techniques

Two revegetation techniques are recommended for undertaking revegetation works as part of the Project. These are detailed below.

Strip revegetation

Strip revegetation can be utilised with direct seeding or tube planting activities. Ground is strategically grazed and/or mowed to remove weed biomass and planting strips are sprayed within 2-4 weeks prior to planting. Planting can take place using machinery or by hand and highly diverse local species (from vegetation lists) are planted at close intervals (seed 1m, tube stock 2 metres alternating life forms, e.g., grass, shrub tree). Tube stock (herbs, shrubs and trees) are guarded. Direct seeding is not usually guarded.

Strip revegetation is most useful on grassy land free of extensive shrub and tree layers. This method will be most suited to the supplementary biodiversity planting areas and the edges of retained patches, refer to Figure 3-1.

Guild revegetation

Guild revegetation can be utilised with direct seeding or tube planting activities. Ground is strategically grazed and/or mowed to remove weed biomass and planting areas (guilds or small patches; min 10 metres x 10 metres) are sprayed within 2-4 weeks prior to planting. Planting will usually take place by hand and highly diverse local species (from vegetation lists provided in Appendix A) are planted in a vegetation guild (plants from each form and strata), e.g., lower and mid understorey and overstorey stratas; and groundcover, grass, climber, bulb, herb, shrub, small tree, tall tree forms.

Seed mixes can be formed into seed balls for distribution in each guild; or tube stock can be sorted into 'guild' trays and planted with hamiton/potapukki planters. Tube stock is then guarded with tree guards. Seeds are revisited as seedlings and tree strata seedlings can be guarded.

Guild revegetation is most useful in woodland remnants with existing overstorey or shrubby areas, but little diverse understorey. This method will best be used in the remnant patches of Woodland.

3.6.3. Enhancement with re-use of resources

Re-use of Coarse Woody Debris (CWD)

Felled timber greater than 200 millimetres (mm) and less than 600 mm in diameter will be used as CWD for habitat enhancement and to maximise the salvage of resources within the disturbance area for beneficial reuse.

CWD can be 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 and macro-invertebrates
- 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 and microorganisms for native vegetation growth
- Increased habitat complexity.

CWD will be placed within retained woodland within the Development Site, refer to Figure 3-1, 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. For PCT 76 (Western Grey Box tall grassy woodland) and PCT 277 (Blakely's Red Gum – Yellow Box grassy tall woodland), this benchmark is listed as 49 metres per 1000 metres squared (m^2). That is, in any 50 metres x 20 metres plot, the total linear length of CWD greater than 10 centimetres (cm) in diameter will not exceed 49 metres in total. 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. Felled timber greater than 600 millimetres (mm) in diameter (primarily tree trunks) will be used as CWD where practicable or left on site where it is too large to transport.

Felled timber between 10 mm and 200 mm in diameter will be chipped and used for disturbed area rehabilitation following construction. Mulched or chipped vegetation that is free from weeds, and that has been salvaged during the vegetation clearing process may also be used to return groundcover to areas where bare ground is observed.

Refer to the retained areas shown in Figure 3-1.

Re-use of rocks

Rocks greater than 300 mm diameter at their widest point removed during construction will be retained and relocated to retained woodland areas. Removal, transportation, and placement of rocks will be carried out in a manner that minimises disturbance to vegetation constraints, including the canopy, trees, shrubs, standing dead timber, fallen timber and groundcover, as well as topsoil.

Refer to the retained areas shown in Figure 3-1 for rock relocation.

Re-use of soil resources

Topsoil will be salvaged where possible within the approved disturbance area and stockpiled for beneficial reuse in the enhancement or rehabilitation of the site, in accordance with this RMP.

Where topsoil is being reused onsite, prior to re-use, any undesirable grass / weed growth on topsoil stockpiles that is being reused for site rehabilitation will be sprayed with a knockdown before use. More than one application of herbicide may be required. Apply the last application of herbicide not less than four (4) weeks before spreading the topsoil or as per the manufacturer's instructions.

Stockpiles and storage of materials and machinery will avoid the dripline (extent of foliage cover) of any native tree.

Where bare ground is observed in areas of retained vegetation, weed free topsoil and endemic native seeds shall be sourced and used to promote native vegetation revegetation (refer Appendix A for endemic species list).

Refer Figure 1-1 for temporary construction compounds to be rehabilitated following construction and Figure 3-1 for topsoil re-use in retained Woodland areas and for supplementary planting areas for biodiversity.

3.6.4. Monitoring and corrective actions

Monitoring (observation) and evaluation are essential components of any rehabilitation project. A range of monitoring methods will therefore form an important component of these works. Monitoring will be based on the objectives outlined in Section 3.5. Monitoring will be:

- Carried out at regular intervals
- At the same time every year. The best time of year is when plants are growing and identifiable (e.g., spring).
- Observations or measurements should be recorded in the same way each time otherwise they cannot be compared
- Use permanent fixtures for photo points, quadrats or line transects
- Observations and measurements will be written down and dated with the name of the observer
- Keep it SMART: Simple, Measurable, Achievable, Relevant, Timely
- Compare the information recorded on previous occasions to detect changes or reconsider management decisions and future actions.

Monitoring techniques

Photo points

Choose fixed locations where photographs will adequately record changes in the areas of Woodland enhancement and supplementary biodiversity planting. Add a fixture, such as a star picket or wooden post. Record the GPS coordinates of each photo point. When using, take a photo in each cardinal direction and ensure the direction is marked on the photo.

Vegetation monitoring

Walk and record method

Use a meandering walking survey to record the plants, animals, general condition and interesting or concerning features, where any weed or pest maintenance may be required. Conduct the meandering walking survey by:

1. Choosing a route that efficiently covers a representative portion of the Woodland area
2. Record the plant species. Note whether they are native or exotic, abundant or scarce.
3. Record any fauna sightings (native and exotic), issues of concern such as erosion or weed infestations, unusual (rare) plants, and signs of regeneration. Record the GPS coordinates of any noted features.
4. Record the information in the same way each time for comparable data.

Quadrat method

A square area of a predetermined size, usually 1 metres x 1 metres, from which you record the species diversity, number of individuals and approximate percentage cover within the quadrat. Record these details, as well as the approximate percentage of bare ground, and mosses and lichens.

Choose several locations within the Woodland patches and areas of supplementary biodiversity plantings. This will become comparable data from within the same patch and between patches of the same plant community type.

Supplementary plantings for biodiversity

Refer to the planting monitoring program in Appendix C4.5 of the LP for the monitoring method of the visual screening plantings, which can be applied to the supplementary plantings.

Fauna monitoring

Opportunistic fauna sightings will be recorded on the monitoring proforma during the monitoring period. Bird surveys could be included during the monitoring period. The best conditions for bird monitoring are in the early morning in calm and dry weather conditions.

Soil baseline and monitoring

Refer to the baseline soil survey (McMahon, 2018) to review the baseline soil nutrient levels prior to rehabilitation and supplementary plantings. Sites with low levels of organic matter will need soil health improved. This may include:

- Shallow or deep ripping
- Application of gypsum on anaerobic clays
- Planting and subsequent mowing/grazing of native grasses and legumes in the absence of overstorey.

Identify locations within the retained Woodland and supplementary biodiversity planting areas as fixed locations for subsequent soil surveys to monitor soil health, nutrient loading and organic material over time. Permanently mark these sites and record the GPS coordinates. For example, the ratio of Carbon: Nitrogen in the topsoils of high quality box gum grassy woodland should be in the order of 16:1 or more.

Soil sampling will occur every 4-5 years for the lifetime of the Project or if there are observed issues during monitoring e.g., unexplained plant death, lags in plant development.

Some example proformas are provided in Appendix C.

Monitoring

Event 1 – Baseline monitoring prior to construction

Baseline monitoring of vegetation condition should occur prior to construction and include the installation of fixed features, such as photo points and soil sampling locations.

Event 2 – following installation of nest boxes and CWD

Event 2 will assess the condition of the fence line and ensure that Tree Protection Zones (TPZs) are not impacted where they exist on the boundary of the patch and adjacent to construction works.

Overstory tree health will also be assessed at this time and noted. Any disturbance or soil erosion causing exposed ground will be recorded. Record any fauna or weed sightings, refer to monitoring techniques above.

Check to ensure the placement of CWD within the retained Woodland and supplementary planting areas is secure and that no ground disturbance (soil erosion) is evident as a result of the placement of the CWD.

A check to ensure salvaged hollows have been attached to standing trees within the Woodland areas, in accordance with the Nes Box Strategy (Section 3.7) and NBMP (Appendix B) shall also be undertaken.

Event 3 – three months following nest box installation

Refer to monitoring requirements of the NBMP, Appendix B.

Event 3 will also assess the percentage of native understory and the occurrence of weed species. The establishment of any new weed species will be noted.

Event 4 – six months after fence installation

Six months after fencing installation the site will be monitored for any native seedling germination. Percent cover of weeds versus percent cover of natives grasses will be assessed. Overstory tree health will also be assessed and compared to the initial overstory tree health assessment. Any demise in overstory tree health will be recorded. Refer to monitoring techniques outlined above.

Annual monitoring surveys

Annually, conduct a monitoring event at the same time each year (spring to early summer) and following the monitoring techniques outlined above. Ensure the same technique is followed each time and the same data is collected each time. Use photo points to gather a visual representation of change in each Woodland and supplementary planting area.

Nest box monitoring

Follow the two year requirements of nest box monitoring as detailed in Appendix B.

Neoen will be responsible for the ongoing monitoring of the Woodland and supplementary planting areas for the lifetime of the solar farm.

Monitoring will be undertaken by a suitably qualified and experienced ecologist.

Corrective Actions required to ameliorate any issues identified from the monitoring are described below in Table 3-1.

Corrective actions

Table 3-1 highlights the corrective actions to be put in place to improve natural regeneration and increase the diversity of native shrubs and understory.

Table 3-1 Vegetation management and rehabilitation corrective actions

Event	Criteria	Corrective Action	Timeframe	When	Responsibility
Woodland pre-construction	Nest boxes installed in accordance with the Nest Box Strategy.	• Nest boxes shall be installed in accordance with the Nest Box Strategy (refer to Section 3.7).	Within 1 week of observation	Pre-construction	Solar Farm Contractor
Woodland **EMS Construction- phase Weekly Inspection** **12 months then for 2 years post construction**	Woodland fence line intact, operational and with visible signage.	• Rectify fence or sign damage so it retains it functionality and is clearing visible	Within 1 week of observation	Construction	Solar Farm Contractor
Woodland **EMS Construction- phase Weekly Inspection**	TPZs have been established for any trees that occur near the fence-line.	• Implement TPZ.	Within 24hrs if observation	Construction	Solar Farm Contractor
All Woodland and supplementary biodiversity plantings inspections	Woodland appears generally stable without significant soil (exposed areas of bare ground >10 m^2) and/or significant vegetation loss (vegetation loss to >10 m^2 patches).	• Where >10 m^2 of bare ground damage is recorded, suitable topsoil (weed free) removed during the construction process shall be respread via non-mechanical methods (wheelbarrow, shovels, rakes etc) to areas of significant disturbance. • Application of a soil binder (or other suitable ground covers) to assist with soil retention, until native revegetation stabilises the area. Felled	Within 1 week of observation	Construction	Solar Farm Contractor

Event	Criteria	Corrective Action	Timeframe	When	Responsibility
		vegetation (weed free and non-hollow bearing) may also be mulched/ chipped and used as a source of groundcover, as determined appropriate by Site Environmental Advisor (SEA).			
All Woodland and supplementary biodiversity plantings inspections	Presence of bare ground >1m^2 that has not been caused by ecological factors (i.e. ant/termite mounds, native rodent/marsupial diggings).	• Suitable topsoil (weed free) removed during the construction process shall be respread via non-mechanical methods (wheel barrow, shovels, rakes etc.) to the disturbed areas to promote soil stabilisation via the establishment of native vegetation (natural regeneration). • Felled vegetation (weed free and non-hollow bearing) from the clearing process may also be mulched/ chipped and used as a source of groundcover, as determined appropriate by SEA.	Within 1 week of observation	Construction	Solar Farm Contractor
All Woodland and supplementary biodiversity plantings inspections	Evidence of vegetation debris i.e. leaves, twigs, bark, fallen logs, coarse woody	• If nil vegetation debris is	Within 1 week of	Construction	Solar Farm

Event	Criteria	Corrective Action	Timeframe	When	Responsibility
	debris.	present within the Woodland at all, utilise weed free vegetation removed in the construction process and re-spread throughout the Woodland (i.e. CWD, mulched non-hollow vegetation).	observation		Contractor
All Woodland and supplementary biodiversity plantings inspections	Evidence of native flora species recruitment i.e., newly germinated native grasses, herbs, shrubs or tree have germinated.	• If there is no evidence of native flora species recruitment, native vegetation will be replanted from high quality local providence seedings from the list presented in Appendix A. Replating shall occur within in the retained Woodland and be positioned around existing scattered trees. Saplings will be individually guarded/fenced until they reach maturity.	Within 1 month of observation	Construction	Solar Farm Contractor
All Woodland inspections and Supplementary biodiversity plantings	Evidence of grazing on native vegetation from herbivores.	• Adaptively manage fencing requirements. Individually guard/ fence native plants until they reach maturity as appropriate. • Implement measures identified in the PWMP regarding Pest	Within 1 week of observation	Construction	Solar Farm Contractor

Event	Criteria	Corrective Action	Timeframe	When	Responsibility
		Management as needed.			
All Woodland inspections and Supplementary biodiversity plantings	Success rate maintained at 90% for all plantings.	• Replace plants one for one in the autumn and in accordance with this Plan and the LP	Autumn	Construction	Solar Farm Contractor

3.7. Nest box strategy

Target Species

The Project BDAR (NGH, 2020) identifies the following species as those impacted by the removal of hollow-bearing trees, and therefore, those that will benefit from hollow installation:

- Southern Myotis (*Myotis macropus*)
- Little Lorikeet (*Glossopsitta pusilla*)
- Little Pied Bat (*Chalinolobus picatus*)
- Turquoise Parrot (*Neophema pulchella*)
- Yellow-bellied Sheathtail-bat (*Saccolaimus flaviventris*).
- Superb Parrot (*Polytelis swainsonii)*
- Brown Treecreeper (*Climacteris picumnus*)

In addition to the species listed above, it is highly likely other species of birds and arboreal mammals will utilise hollows within the Project Development Site.

Approach

Nest boxes will be installed in the retained woodland within the Project's Development Site to compensate for the loss of habitat from the removal of 49 hollow-bearing trees during solar farm construction. Some hollow-bearing trees bear multiple hollows. Prior to hollow-bearing tree removal, a survey is required to assess the number of hollows in each tree to estimate the number of hollows / nest boxes requiring installation in the retained Woodland within the Development Site. As identified in the Project BDAR (NGH, 2020), hollows removed during clearing will be salvaged where possible and remounted to allow continued use by hollow dependant fauna within the Development Site.

A one to one (hollows removed to hollows or nest boxes mounted) will be achieved (NGH, 2020). An assessment of the number of hollows will be required once hollow-bearing limbs have been removed and a decision made whether they are salvageable for mounting as a hollow in the retained Woodland. Nest box numbers will be calculated, ordered and installed following hollow-bearing limb salvage. Refer to Figure 3-1 for the locations of Woodland for hollow installation. A minimum of 50% of the hollows proposed for removal will be offset by the installation of nest boxes prior to the commencement of clearing. Once clearing has commenced, suitable hollows will be identified and salvaged for beneficial reuse onsite.

Nest boxes will be designed to meet the requirements of target species as identified in the Project BDAR (NGH, 2020) and listed in Section 3.6.4.

Reuse of hollows

Recent research indicates that the reuse of tree hollows has many advantages (Griffiths, Robert, & Jones, 2021), including:

- A closer resemblance to natural hollows (including microclimates)
- Greater longevity than nest boxes
- The ability to maintain the natural hollow density and type within an area, and can be installed at the same aspect and angle due to the individual features of natural hollows that cannot be replicated with a nest box
- Greater attractiveness for a larger array of hollow-dependent species.

Some considerations required when reusing hollows include:

- It can be labour intensive, without an established and efficient workflow
- Drying out and cracking – the hollow microclimate is less reflective of the natural environment when a live hollow is reused

- Public safety – nest box construction and attachment is well established, whereas the use of natural hollows is more variable
- A repurposed limb is much heavier than a nest box, which can be a limiting factor for effective installation, cost and safety considerations.

Nest boxes

Consideration will be given to nest box composition to ensure they are made of material, and constructed, for longevity. According to Hollow Log Homes (HLH, 2023), hardwood ply and composite boxes using Cyplas are becoming a popular option offering long term durability (HLH, 2023). Other options include chainsaw carved nest boxes and injection moulded modular nest boxes (refer to Habitech Modular Nest box Solutions) where the mounting bracket system bonds to the host tree (Habitat Innovation, 2023).

Installation steps

During the vegetation clearing process, the Hollow Bearing Tree Procedure shall be followed (refer to Appendix B of the BMP).

Once all the hollow -bearing timber is felled, and hollows have been salvaged via chainsaw and capped as necessary, the diameter opening of each hollow shall be measured and different sized hollows grouped together.

To prevent overcrowding and maximise coverage, hollows of the same size group, will be installed on standing trees within the retained Woodland areas, with adequate spacing between each installed hollow. Spacing between hollows of different size groups is less important, as these different sized hollows will attract different species. All hollows should be installed at least 8 metres of the ground, as far as practicable.

A GPS coordinate, the hollow size (small, medium, large) and a photograph of where each of the salvaged hollows have been installed shall be recorded. Hollow sizes include:

- Small hollows hollows <5cm in diameter (arboreal mammals)
- Medium hollows hollows up 5cm to 10cm in diameter (woodland birds, arboreal mammals)
- Large Hollows hollows >10cm in diameter (large birds i.e., Cockatoos, owls etc)

The following should be considered prior to nest box installation:

1. **Timing**: Nest boxes will be mounted a short time prior to construction or clearing phase begins to increase the likelihood of use by animals that lose their hollow. Hollow limb hollows will be mounted as soon as practicable after felling.
2. **Placement**: Ideally, nest boxes will be placed in good quality retained habitat in relative proportions and in the vicinity of hollows lost (HBTs removed).

2.1. All hollows should be installed at least eight (8) metres from the ground, as far as practicable.
2.2. To prevent overcrowding and maximise coverage, adequate spacing will be allowed between hollows of the same size group.
2.3. Re-used tree hollows will be installed, in line with the Guideline for the Relocation of Large Tree Hollows (CCC, 2016). While this guideline was written for the relocation of large hollows, the same principles can be applied for smaller hollows.
2.4. For all nest boxes and hollow limb relocation, the nest box identification number, type, GPS location, species and diameter at breast height (DBH) of the host tree, nest box height and orientation will be recorded following installation.

3. **Attachment**: The attachment method should reflect the nest box type – hollow-limb vs constructed nest box. Constructed nest box attachment will be in accordance with the recommendations from the supplier. Generally, boxes are best hung on a large nail rather than nailed to the tree through a backing board (Goldingay, Thomas , & Shanty, 2018). Boxes also need to be stable or they will not be used by fauna (Lindenmayer, et al., 2017). Refer to Habitat Innovation (2023) for other mounting brackets, which bond to host tree.

4. **Tree age**: Nest box use by birds is greater when placed on large old trees compared with small trees, most likely due to structural attributes of large trees (Le Roux, et al., 2016).
5. **Suitability**: Suitable areas for installation generally include those outlined as retained Woodland for rehabilitation and enhancement, refer to Figure 3-1.

Nest box monitoring and maintenance

A Nest Box Monitoring Plan has been prepared to detail the monitoring and maintenance requirements of the nest boxes and Hollows following installation within the Development Site, refer to Appendix B.

The NBMP is to ensure nest boxes and Hollows are structurally maintained for the life of the solar farm.

4. Vegetation management and rehabilitation measures

Table 4-1 outlines the relevant mitigation measures pertinent to this Plan with reference to retained Woodland and supplementary plantings for biodiversity within the Development Site, particularly the areas of Box-Gum Woodland Endangered Ecological Community (EEC), refer to Figure 3-1.

Table 4-1 Rehabilitation measures

ID	Mitigation measure	Resources required	Timing	Responsibility	Reference
Protect and enhance retained Woodland					
RM1	Preparation of a Biodiversity Management Plan that will include protocols for protection, enhancement and monitoring of quality/condition of native vegetation to be retained, exclusion of vehicles through sensitive areas and rehabilitation of disturbed areas.	This Plan BMP PWMP	Pre-construction Construction	Environmental Consultant (NGH) Neoen Project Manager	BDAR
RM2	A Rehabilitation Plan in conjunction with the Biodiversity Management Plan will be created to improve habitat within retained vegetation in the development site and include: • Weed control • Replanting or regeneration • Location of hollows from tree removal • Location of nest boxes • Location of logs. Nest box monitoring plan to ensure nest boxes are structurally maintained for the life of the solar farm.	This Plan PWMP BMP NBMP	Pre-construction Construction Operation	Environmental Consultant (NGH) Neoen Project Manager	BD18 BDAR BD12
RM3	Staff training and site briefing to communicate environmental features to be protected and measures to be implemented.	Site Induction	Pre-construction	Engineering, Procurement and Construction	BDAR

ID	Mitigation measure	Resources required	Timing	Responsibility	Reference
		Toolbox Talks	Construction	(EPC) SEA	BD11
RM4	Temporary fencing and signage to protect significant environmental features such as riparian zones and retained Woodland. Prior to construction commencing, exclusion fencing, and signage will be installed around habitat to be retained.	BMP	Pre-construction Construction	EPC SEA	BDAR BD9
RM5	Access to the Box-Gum Woodland EEC will not be permitted via vehicles to reduce understorey impacts and clearing (refer to Figure 3-1).	BMP	Pre-construction Construction	EPC SEA	BDAR BD5
RM6	Strict weed protocol must be observed at all times.	PWMP	Construction Operation	EPCSEA	BDAR BMP
RM7	Inform all personnel of the location of the retained Woodland within the Development Site and that entry is prohibited by workforce, the induction process training and awareness package.	Induction training Toolbox Talks	Pre-construction Construction	EPC SEA	Best practice
RM8	Implement erosion and sediment controls to protect retained Woodland. Sediment barriers and spill management protocols to control the quality of water runoff from the site into the receiving environment.	SWMP	Construction	Solar Farm Contractor SEA	BDAR BD13
RM9	Where trees within the retained Woodland are within proximity to the fence-line, an adequate tree protection zone (TPZ) will be provided around each tree for the duration of construction. Details for calculating TPZs are provided within *Australian Standard 4970-2009 – Protection of trees on development site*.	This Plan	Pre-construction Construction	Solar Farm Contractor SEA	Best practice
RM10	Restrict grazing pressure to the Box-Gum Woodland from livestock and exotic	This Plan	Construction	Solar Farm	Best

ID	Mitigation measure	Resources required	Timing	Responsibility	Reference
	herbivores such as rabbits and overabundant native animals such as kangaroos.		Operation	Contractor SEA Operator	practice
RM11	Where required, replanted saplings shall be individually guarded / fenced until they reach maturity.	This Plan	Construction Operation	Solar Farm Contractor	BDAR
RM12	Appropriate landscape plantings of local indigenous species derived from local native plant communities.	This Plan LP	Pre-construction Construction	Solar Farm Contractor	BD14
RM13	Appropriate supplementary plantings (as indicated in the final constraints map and layout) to enhance connectivity and mitigate loss of paddock trees across the development site: • Landscape plantings will be comprised of local indigenous species • Plantings will be a minimum of 20 metres wide	This Plan Figure 3-1	Operation	Solar Farm EPC SEA Contractor Ecologist	BDAR BD16
RM14	A Weed Management Procedure will be developed for the proposal to prevent and minimise the spread of weeds. This will include: Management protocol for declared priority weeds under the *Biosecurity Act 2015* during and after construction; and Weed hygiene protocol in relation to plant, machinery, and fill.	BMP PWMP	Construction Operation	EPC SEA Operator	BDAR
RM15	Any occurrences of pathogens such as Myrtle Rust and Phytophthora will be monitored, treated, and reported in accordance with PWMP.	BMP PWMP	Construction Operation	EPC SEA Operator	BDAR
RM16	Wildlife friendly fencing. Prior to the reintroduction of livestock, livestock exclusion fencing shall be installed around all areas of retained Woodland (refer to Figure 3-1).	This Plan	Construction	EPC SEA	BD15 Best

ID	Mitigation measure	Resources required	Timing	Responsibility	Reference
	No barbed wire is to be used on Project fencing, plain wire only, as this can injure native wildlife expected to utilise the areas.		Operation	Operator	practice
Re-use of resources and nest boxes					
RM17	Relocation of habitat features (fallen timber, hollow logs) from within the development site. Tree-clearing procedure including relocation of habitat features to adjacent area for habitat enhancement.	BMP Tree-clearing Procedure	Construction	Solar Farm Contractor SEA	BDAR CoA 15 (a) BD4
RM18	Native vegetation removed in the construction process that is free from weeds and is non-hollow bearing may be retained as Coarse Woody Debris (CWD) and re-spread throughout the retained Woodland or considered for chipping/ mulching and used in the Box Gum Woodland as deemed necessary.	This Plan	Construction	Solar Farm Contractor SEA	CoA 15 (a)
RM19	Install hollows of felled trees onto trees or on ground in retained vegetation patches.	This Plan	Construction	Ecologist Solar Farm Contractor SEA	BD17 BDAR
RM20	Hollows removed during clearing will be salvaged where possible and remounted to allow continued use by hollow dependant fauna within or adjacent to the project site. A one to one (hollows removed to hollows or nest boxes mounted) will be achieved.	This Plan	Construction	Ecologist Solar Farm Contractor SEA	BD17 BDAR
RM21	Hollow tree limbs will be made into nest boxes and placed in retained vegetation patches.	This Plan	Construction	Ecologist Solar Farm Contractor SEA	BDAR

ID	Mitigation measure	Resources required	Timing	Responsibility	Reference
RM22	The construction and placement of felled hollows/nest boxes will be managed by a suitably qualified ecologist.	This Plan	Pre-construction (nest boxes) Construction (hollows)	Ecologist Solar Farm Contractor SEA	BD17 BDAR
RM23	Rocks greater than 300 mm diameter at their widest point removed during construction will be retained and relocated to retained woodland areas.	This Plan	Construction	Solar Farm Contractor SEA	CoA 15 (a)
RM24	Topsoil will be salvaged where possible within the approved disturbance area and stockpiled for beneficial reuse in the enhancement or rehabilitation of the site. Where topsoil is being reused onsite, prior to re-use, any undesirable grass / weed growth on topsoil stockpiles that is being reused for site rehabilitation will be weed treated before use.	This Plan	Construction	Solar Farm Contractor SEA	CoA 15 (a)
Monitoring and management					
RM25	Rehabilitation of temporary disturbance areas with species that are endemic to the area.	This Plan GMP	Construction Decommissioning	EPC SEA	BDAR CoA 15 (a)
RM26	Monitor the Project's native vegetation rehabilitation success. Adaptive management practices and protocol for corrective actions.	This Plan BMP	Construction Postconstruction	EPC SEA	BDAR Best practice
RM27	Monitor and maintain the next boxes over the life of the solar farm to ensure on-going structural integrity.	NBMP (Appendix B)	Construction Operation	Solar Farm Contractor SEA	BDAR BD18

ID	Mitigation measure	Resources required	Timing	Responsibility	Reference
				Operator	

5. Compliance management

5.1. Roles and responsibilities

Section 4.8 of the EMS describes the roles and responsibilities of the Neoen Project team in relation to environmental management. Specific responsibilities for the implementation of environmental controls are detailed in Table 4-1 of this Plan.

5.2. Training

All employees, contractors and utility staff working on site will undergo site induction training relating to rehabilitation. The induction training will address elements related to rehabilitation include:

- Identification of key pest and predator species
- Waste management
- Identification of key weeds
- Washdown procedures and hygiene standards
- Any disinfection requirements
- Identification of 'Restricted Areas'.

Further details regarding staff induction and training are outlined in Section 7 of the EMS.

5.3. Monitoring and inspections

Requirements and responsibilities in relation to monitoring and inspections are documented in Section 10 of the EMS. Monitoring requirements for retained Woodland and supplementary plantings are detailed in Section 3.6.4 of this Plan. Monitoring requirements for the nest boxes are detailed in Appendix B of this Plan.

5.4. Auditing

Audits (both internal and external) will be undertaken to assess the effectiveness of environmental controls, compliance with this sub plan, infrastructure approval and other relevant approvals, licences, and guidelines. Audit requirements are detailed in Section 10.3 of the EMS.

5.5. Reporting

Reporting requirements and responsibilities are outlined in Section 10.4 of the EMS.

Details on incident reporting are included in Section 9.3 of the EMS. The Contractor will promptly advise Neoen on events that are non-conforming with the CoAs and mitigation measures. Neoen will advise DPHI accordingly for any notifiable non-conformances.

Specific to this Plan, an annual report will be provided and will include the results of any monitoring, enhancement areas, supplementary biodiversity plantings and nest boxes, which occurred within the year. A summary of the efficacy of rehabilitation measures outlined in this Plan and recommendations for revisions to measures will be provided in the annual report.

6. Review and improvement

6.1. Continuous improvement

Continuous improvement of this RMP will be achieved through ongoing evaluations of environmental management performance against environmental policies, objectives and targets for the purpose of identifying 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.

6.2. RMP updates and amendments

This RMP will be revised:

- Whenever the construction program, scope of work, or work methods change;
- If the development consent is modified
- Whenever the work methods and control structures are found to be ineffective; or
- If directed by DPHI. This will occur as needed and in accordance with the process outlined in the EMS.

The processes described in Section 11 of the EMS may result in the need to update or revise this Plan. This will occur as needed.

Only the SEA or delegate, has the authority to change any of the environmental management documentation.

A copy of the updated plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure – refer to Section 12.2 of the EMS.

7. References

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Appendix A Endemic species list

The following table provides a list of suitable endemic species for each plant community type represented by the retained woodland within the Development Site. The plant community types include:

- PCT 5 – River Red Gum herbaceous-grassy very tall open forest wetland on inner floodplains in the lower slopes sub-region of NSW South Western Slopes Bioregion and the eastern Riverina Bioregion
- PCT 74 – Yellow Box - River Red Gum tall grassy riverine woodland of NSW South Western Slopes Bioregion and Riverina Bioregion
- PCT 76 – Western Grey Box tall grassy woodland on alluvial loam and clay soils in the NSW South Western Slopes and Riverina Bioregions
- PCT 277 – Blakely's Red Gum - Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion.

Species	Associated PCTs
Upper Stratum Species	
Eucalyptus camaldulensis (River Red Gum)	5, 74
Eucalyptus microcarpa (Grey Box)	74, 76, 277
Allocasuarina luehmannii (Bulloak)	74, 76
Eucalyptus melliodora (Yellow Box)	74, 277
Callitris glaucophylla (White Cypress Pine)	74, 76, 277
Eucalyptus blakelyi (Blakely’s Red Gum)	277
Mid Stratum Species	
Acacia dealbata (Silver Wattle)	5, 277
Acacia deanei supsp, deanei (Deane’s Wattle)	74
Acacia implexa (Hickory Wattle)	74
Acacia pycnantha	76
Acacia buxifolia subsp buxifolia	76
Bursaria spinosa subsp. spinosa	76

Species	Associated PCTs
Hibbertia obtusifolia (Hoary Guinea Flower)	277
Dodonaea viscosa subsp cuneata	76
Acacia hakeoides	76
Acacia oswaldii	76
Exocarpos strictus (Dwarf Cherry)	5
Lower Stratum Species	
Austrodanthonia caespitosa (Ringed Wallaby Grass)	5, 74, 76
Sida corrugata (Corrugated Sida)	76, 277
Austrostipa scabra subsp. Falcata (A Speargrass)	76
Austrostipa scabra subsp. scabra (Rough Speargrass)	74, 277
Themeda australis (Kangaroo Grass)	76, 277
Einadia nutans subsp. Nutans (Climbing Saltbush)	74, 76
Wahlenbergia gracilis (A Bluebell)	76
Atriplex semibaccata	76
Lomandra filiformis	76, 277
Lomandra longifolia (Spiny-headed Mat-rush)	74
Dianella porracea	76
Bothriochloa macra (Red Grass)	5, 277

Appendix B Nest Box Monitoring Plan

A Nest Box Monitoring Plan (NBMP) to ensure nest boxes and salvaged hollows are structurally maintained for the life of the solar farm. Even without regular maintenance, nest boxes can be functional for up to 25 years after installation.

B.1 Nest box monitoring and maintenance

- Following installation, the nest boxes and relocated hollow-limbs will following installation, three months after installation and then every second year thereafter by an ecologist
- To minimise disturbance to any fauna that may be occupying the boxes, monitoring and inspection will be performed with a camera on the end of an extendable pole
- Monitoring activities should coincide with nesting seasons for target species and any maintenance works or pest management to be undertaken as necessary
- Monitoring data will include (at a minimum): name of the observer, date, prevailing weather conditions, assessment of nest box condition including structural integrity, evidence of rot or termites, condition of fastenings etc, evidence of fauna activity and whether there is any pest activity like feral bees, Common Mynas, Common Starlings or ants.
- Non-target species such as European Honeybee should be managed (i.e., removed) if native species occupation target is not met.

Approximately 10% native species occupancy over the first four years is considered success (Goldingay, Thomas , & Shanty, 2018; Lindenmayer, et al., 2017).

B1.1 Fauna handling procedures

Any necessary fauna handling during installation or monitoring works must be in accordance with the Fauna Rescue and Release Procedure (refer to Appendix F of the BMP). If any unexpected threatened species, habitat or populations of flora or fauna are found on site, then the Unexpected Threatened Species Finds Procedure (Appendix F of the BMP) must be followed.

B1.2 Performance measures

The performance of the nest box program will be assessed against the following items:

- All nest boxes are still in place and functional year on year, for the life of the solar farm
- Diversity of native fauna using the nest boxes
- Use of nest boxes designed for target species are being used by those species
- Rates of exotic fauna using nest boxes.

The following measures will enable management of items outline above:

Performance indicator	Corrective action	Responsibility
Poor uptake / usage rate by wildlife	Review the location, type and number of next boxes used.	Neoen is responsible for engaging suitably qualified ecologists to undertake the monitoring and suitably qualified contractors to undertake the maintenance.
Nest boxes are occupied by exotic or invasive fauna	Review / change nest box design and / or placement on tree to exclude undesirable species, treat if applicable, or relocate those nest	

Performance indicator	Corrective action	Responsibility
	boxes to another location.	
Nest boxes are lost or deteriorating rapidly and require maintenance	Identify causes of deterioration or nest box loss. Modify position or design if required.	

B.2 Reporting

B2.1 Installation reporting

A brief Nest Box Installation Report will be provided within one month of completing nest box installation. The objective of this report is to:

- Document the methods of next box installation
- Document the specific location of the nest boxes, including the following attributes for each nest box:
  - Date of installation
  - Box identification number
  - Woodland zone reference
  - GPS location
  - Nest box design
  - Position on the recipient tree (bearing and height)
  - Tree species.
- Provide recommendations for monitoring events or future works.

B2.2 Ongoing nest box monitoring report

A brief Next Box Monitoring Report will be supplied following each monitoring event, refer to Section B.1. The objective of the report is to:

- Document the methods of monitoring content and condition of nest boxes
- Document monitoring results, refer to Section B2.3
- Provide recommendations for maintenance activities or future monitoring events
- Fauna incidents reporting.

B2.3 Nest box installation and inspection proforma

The following proforma may be used to document nest box installations.

Date	Box ID	Location description	Easting	Northing	Target species	Attachment method	Structural integrity	Evidence of fauna activity	Pest/bee observation	Inspection due
Example (e.g.,) 27.7.23	NB01	Lot 140, Grey Box dbh 120cm, halfway down slope	564892	2548963	Little Pied Bat	Nail, include here condition of fastenings	Include here any evidence of rot, termite damage, cracking, etc	Fauna activity	Any pest activity	27.10.23

Appendix C Inspection and maintenance proformas

C.1 Example 1 – Revegetation inspections

The following proforma may be used to document revegetation planting, inspections and follow-up actions.

Date	Zone	No. plants	Inspection date and details	Inspection date and details	Inspection date and details	Inspection date and details
e.g., 27.7.23	Back Creek Riparian Area	120	25.10.23 Weeding, watering, 10 plants died	20.12.23 15 plants died. Planted 25 replacement.	30.3.23 Plants growing well. Guards removed	

C.2 Example 2 – sample vegetation survey proforma

RESTORATION ZONE: Eucalyptus Grassy Woodland

REVEGETATION PLOT NUMBER:

DATE OF SURVEY:

NAME OF RECORDER:

Height of planted overstorey (metres) ◯ **Eucalyptus** ◯ **Callitris**	**Height of planted shrubs in understorey (metres)** ◯ **Acacia** ◯ **Other shrubs**	**Height of planted grasses and forbs in understorey (metres)** ◯ **Grasses** ◯ **Forbs**	**Natural regeneration** **(list species names)**
Total surviving Eucalyptus:	**Total surviving shrubs:**	**Total surviving shrubs:**	**Total number of species naturally regenerating:**
Tally Eucalyptus mortalities:	*Tally shrub mortalities:*	*Tally shrub mortalities:*	
Total Eucalyptus mortality:	**Total shrub mortality:**	**Total shrub mortality:**	

Appendix J Unexpected threatened species finds procedure

Purpose

This procedure details the actions to be taken when a threatened flora and fauna species is unexpectedly encountered during construction activities.

Scope

This procedure is applicable to all activities conducted by personnel that have the potential to come into contact with threatened species.

Where threatened fauna is unexpectedly encountered that requires handling or rescue refer to the Fauna Rescue and Release Procedure (Appendix J).

Induction/Training

Where required, personnel will be inducted on the identification of potential threatened species occurring on site and the relevant actions for them with regards to this procedure during Project Induction, Site Inductions and regular Toolbox Talks.

Procedure

The EPC SEA is responsible for implementing this procedure.

Threatened species / TEC is unexpectedly encountered during clearing/construction activities
• **STOP ALL WORK** in the vicinity of the find. • Immediately notify the EPC SEA who will notify the Project Ecologist, Project Manager and Neoen Representative. The Neoen Representative will then contact the relevant agencies including BCS as required.
Assessment of impact
An assessment is to be undertaken by the EPC SEA and the Project Ecologist or appropriate specialist to identify the plant or animal to species level and the likely impact to the threatened species and appropriate management options, such as relocation measures, developed in consultation with Neoen.
Approvals
Obtain any relevant license, permits or approvals required if the threatened species is likely to be significantly impacted.
Recommencement of works

Construction works may recommence once the EPC SEA has

- Obtained approvals as required, and
- Confirmed that all corrective actions and additional mitigation measures have been implemented.
- Ensured that the threatened species is included in subsequent Sensitive Area Plans, Project Inductions and Toolbox Talks

Provided information to Neoen to enable update of ecological monitoring and/or biodiversity offset requirements.

Appendix K Threatened species identification

Species	BC Act	EPBC Act	Identification	Photo
Flora				
Small Purple-pea *Swainsona recta*	Endangered	Endangered	Small Purple-pea is a slender, erect perennial herb growing to 30 cm tall. The leaves are divided into up to six pairs of 10 mm long, very narrow leaflets, each with a pointed tip. There is also a single leaflet at the end of each divided leaf. It bears one to several sprays of between 10 and 20 purple, pea-shaped flowers, between late September and early December. Flowers are followed by pods up to 10 mm long in summer.	

Species	BC Act	EPBC Act	Identification	Photo
Small Scurf-pea *Cullen parvum*	Endangered		Is a small perennial pea that may either trail or stand erect. Its leaves comprise three elongated leaflets to 25 mm long by 8 mm wide. Its flowers are usually also in threes, purple-pink (or sometimes white), appearing in summer.	

Species	BC Act	EPBC Act	Identification	Photo
Silky Swainson-pea *Swainsona sericea*	Vulnerable		The Silky Swainson-pea is a prostrate or erect perennial, growing to 10 cm tall. The stems and leaves are densely hairy. The leaves are up to 7 cm long, composed of 5 - 13 narrow, pointed leaflets, each up to 15 mm long. The purple pea-shaped flowers are to 11 mm long, and are held in groups of up to 8 flowers, on a stem to 10 cm tall. The spring flowers are followed by hairy pods, up to 17 mm long.	
Fauna				

Species	BC Act	EPBC Act	Identification	Photo
Bush Stone-curlew *Burhinus grallarius*	Endangered		The Bush Stone-curlew stands about 55 cm tall. It has a grey to light brown back, marked with black blotches, and a streaked rump. It has buff and white underparts with dark streaks, and a black band that runs from near its eye down its neck. This species has large, bright yellow eyes and a hunch-shouldered stance on long spindly legs. When disturbed it lies flat on the ground, with its head and neck outstretched. Its call is a loud eerie wailing "wee-loo", mostly heard at night.	
Eastern Pygmy-possum *Cercartetus nanus*	Vulnerable		Tiny (15 to 43 grams) active climbers, with almost bare, prehensile (capable of curling and gripping) tails, and big, forward-pointing ears. They are light-brown above and white below. Adults have a head and body length between 70 - 110 mm and a tail length between 75 - 105 mm.	

Species	BC Act	EPBC Act	Identification	Photo
Gang-gang Cockatoo *Callocephalon fimbriatum*	Vulnerable		These birds are primarily slate-grey, with the males easily identified by their scarlet head and wispy crest, while females have a grey head and crest and feathers edged with salmon pink on the underbelly. They range in length from 32 to 37 cm, with a wingspan of 62 to 76 cm.	
Grey-headed Flying-fox *Pteropus poliocephalus*	Vulnerable	Vulnerable	The Grey-headed Flying-fox is the largest Australian bat, with a head and body length of 23 - 29 cm. It has dark grey fur on the body, lighter grey fur on the head and a russet collar encircling the neck. The wing membranes are black and the wingspan can be up to 1 m. It can be distinguished from other flying-foxes by the leg fur, which extends to the ankle	

Species	BC Act	EPBC Act	Identification	Photo
Koala *Phascolarctos cinereus*	Vulnerable	Endangered	Arboreal marsupial with fur ranging from grey to brown above, and white below. It has large furry ears, a prominent black nose and no tail. It spends most of its time in trees and has long, sharp claws, adapted for climbing. Adult males weigh 6 - 12 kg and adult females weigh 5 - 8 kg. During breeding, males advertise with loud snarling coughs and bellows	

Species	BC Act	EPBC Act	Identification	Photo
Little Eagle (*Hieraaetus morphnoides*)	Vulnerable		A medium-sized bird of prey that occurs in two colour forms: either pale brown with an obscure underwing pattern, or dark brown on the upper parts and pale underneath, with a rusty head and a distinctive underwing pattern of rufous leading edge, pale 'M' marking and black-barred wingtips. Both forms have a black-streaked head with a slight crest, a pale shoulder band on the upperwings, a rather short and square-tipped barred tail, and feathered legs. Nests in tall living trees within a remnant patch, where pairs build a large stick nest in winter.	

Species	BC Act	EPBC Act	Identification	Photo
Masked Owl *Tyto novaehollandiae* (Breeding)	Vulnerable		A medium-sized owl to 40 - 50 cm long, with dark eyes set in a prominent flat, heart-shaped facial disc that is encircled by a dark border. The feet are large and powerful, with fully feathered legs down to the toes. The owl exists in several colour forms, with wide variation in plumage. The upperparts are grey to dark brown with buff to rufous mottling and fine, pale spots. The wings and tail are well barred. The underparts are white to rufous-brown with variable dark spotting. The palest birds have a white face with a brown patch around each eye; the darkest birds have a chestnut face.	
Square-tailed Kite *Lophoictina isura*	Vulnerable		A reddish, medium-sized, long-winged raptor, about the size of a Little Eagle or harrier. As with most raptors, there is sexual dimorphism in morphology with females being larger than males. Males weigh approximately 500 g while females weigh 650 g. The Square-tailed Kite has a length of 50-56 cm and wingspan of 130-145 cm. Adults have a white face with thick black streaks on the crown and finer streaks elsewhere. The saddle, rump and central upper tail coverts are blackish with grey-brown barring. The underparts are predominantly grey-brown with black tips on the grey, square-tipped tail and wing edges. There are no differences in colour between males and females.	

Species	BC Act	EPBC Act	Identification	Photo
Squirrel Glider *Petaurus norfolcensis*	Endangered		Adult Squirrel Gliders have a head and body length of about 20 cm. They have blue-grey to brown-grey fur above, white on the belly and the end third of the tail is black. There is a dark stripe from between the eyes to the mid-back and the tail is soft and bushy averaging about 27 cm in length. Squirrel Gliders are up to twice the size of Sugar Gliders, their facial markings are more distinct and they nest in bowl-shaped, leaf lined nests in tree hollows. Squirrel Gliders can be distinguished from Sugar Gliders by their longer, bushier tails.	
Superb Parrot *Polytelis swainsonii* (Breeding)	Vulnerable	Vulnerable	Is a distinctive large, bright grass-green parrot with a long, narrow tail and sharply back-angled wings in flight. Males have yellow foreheads and throats and a red crescent that separates the throat from the green breast and belly. Females are slightly duller green and have a dull, light blue wash in place of the males' red and yellow markings.	

Species	BC Act	EPBC Act	Identification	Photo
White-bellied Sea-Eagle *Haliaeetus morphnoides* (Breeding)	Vulnerable		Large eagle that has long broad wings and a short, wedge-shaped tail. It measures 75–85 cm in length, and has a wingspan of 180–220 cm. Adults are predominantly white and grey. The head, breast and belly, and the feathering on the legs, are white. The back and upper surfaces of the wings are grey, and the undersides are greyish-black with a smaller area of white along the leading edge. The tail is grey at the base and has a white tip.	
Southern Myotis (*Myotis Macropus*)	Vulnerable		It has disproportionately large feet; more than 8 mm long, with widely-spaced toes which are distinctly hairy and with long, curved claws. It has dark-grey to reddish brown fur above and is paler below. It weighs up to 15 grams and has a wingspan of about 28 cm. The Southern Myotis generally occurs along watercourses and often roosts and nests in hollows and man-made structures adjacent to watercourses.