Prepared for
AGL Macquarie Pty Ltd
ABN: 18 167 859 494

Liddell Battery and Bayswater Ancillary Work

Modification Report for Transmission Line Easement

24-Feb-2025
Liddell Battery and Bayswater Ancillary Work
Doc No. 60698503

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Client: AGL Macquarie Pty Ltd

ABN: 18 167 859 494

Prepared by

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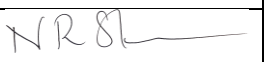
1	24-Feb-2025	For issue	Neil Standen Project Manager	

Table of Contents

Executive Summary

AGL Macquarie Pty Ltd (AGLM) owns and operates the Bayswater Power Station, formerly associated with the now-closed Liddell Power Station, both of which have played a significant role in New South Wales' electricity supply. In line with AGLM's transition to a low-carbon future, AGLM is developing a Battery Energy Storage System (BESS) as part of the Liddell Battery and Bayswater Ancillary Works Project (LBBAWP). The LBBAWP is a State Significant Development (SSD-8889679), approved under the *Environmental Planning and Assessment Act 1979* (EP&A Act).

As part of ongoing design refinements, AGLM is seeking to modify SSD-8889679 to allow for the construction of a new 330 kV overhead transmission line (OHL) segment, replacing the existing 33 kV OHL. This modification (the 'proposed modification') is required to optimise the efficiency and reliability of the BESS grid connection to the Transgrid switchyard at Liddell. The proposed modification would result in a 'minimal environmental impact' compared to the approved project and is therefore sought under Section 4.55(1A) of the EP&A Act.

While transmission towers W4 and W5 are within the approved project area, the proposed 330 kV transmission line easement between these two towers crosses an area outside the approved project area boundary (refer to Figure 2). AGLM is seeking an adjustment to the approved project area to encompass the transmission line easement for construction.

Once operational, vegetation management will be required within the easement to maintain safe vegetation clearance distances. These activities will be managed under AGLM's existing Ground and Vegetation Disturbance Approval (GVDA) Procedure.

The proposed modification is a critical enhancement to the approved project, ensuring the BESS can function optimally to support grid stability and renewable energy integration. It aligns with the strategic objectives of the NSW Climate Change Policy Framework, the Net Zero Plan Stage 1: 2020–2030, and the Hunter Regional Plan 2041 by supporting the transition to renewable energy infrastructure and ensuring the efficient integration of BESS technology into the National Energy Market.

No increase to the approved project's workforce, operational hours, traffic loads, or noise limits would be required. The proposed modification would not significantly alter the overall land use or operational scope of the approved project. A qualitative assessment of environmental factors has determined that potential impacts associated with the proposed modification would be minimal. The proposed modification area consists of previously cleared and disturbed vegetation with no significant biodiversity value. Standard vegetation management practices would mitigate any potential environmental impacts associated with the proposed modification and would unlikely result in additional environmental impacts (see section 6.0) beyond those already assessed in the approved project.

1.0 Introduction

1.1 Background

AGL Macquarie Pty Ltd (AGLM) owns and operates the Bayswater power station (Bayswater), which is approved to generate up to 2,640 megawatts (MW), the former Liddell power station (Liddell), and associated ancillary infrastructure systems. Together, Bayswater and Liddell operated to produce around 21,000 gigawatt hours (GWh) annually, or approximately 30 percent (%) of New South Wales (NSW) electricity supply. AGL Energy Limited (AGL) acquired these assets from the NSW Government in September 2014 and, in doing so, formed the subsidiary AGLM.

AGL has publicly announced its intention to transition towards a low-carbon future and respond to the National Energy Market (NEM) and customer requirements. Liddell has approached its end of life and was closed in April 2023. Bayswater will continue to operate up to 2035 to support the transition of the NEM toward net-zero emissions before the facility is retired. AGL has committed to closing all coal-fired generation assets in its portfolio by 2050.

AGLM is preparing to develop a Battery Energy Storage System (BESS) to be constructed as part of the Liddell Battery and Bayswater Ancillary Works Project (LBBAWP), approved under development consent SSD-8889679 (from here out referred to as 'the approved project'). The LBBAWP is a State Significant Development (SSD) under the *State Environmental Planning Policy (State and Regional Development) 2011* and is subject to Part 4, Division 4.7 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

An Environmental Impact Statement (EIS) (Jacobs, 2021) was prepared in March 2021 in accordance with the Secretary's Environmental Assessment Requirements (SEARs). Development consent (SSD-8889679) was issued by the Department of Planning, Housing and Infrastructure (DPHI) (previously the Department of Planning and Environment) on 8 March 2022.

Since development consent was issued, AGLM has further developed the design of the high voltage connections of the BESS to the Transgrid switchyard at Liddell.

The revised design would align a new 330 kV cable replacing the old 33 kV overhead line (OHL) (from here referred to as the 'proposed modification').

1.2 Site description

Liddell is located approximately 15 kilometres (km) southeast of Muswellbrook, 25 km northwest of Singleton, and approximately 165 km west-northwest of Sydney. The total area of the AGLM landholding is approximately 10,000 ha, including the Bayswater and Liddell power station operational areas, the Ravensworth rehabilitation area, Lake Liddell and surrounding buffer lands.

Elevations within the area surrounding the AGLM landholding range from around 100 to 500 metres (m) above sea level. The New England Highway runs north of the Bayswater operational area and south of Lake Liddell. The Highway is a major part of Australia's national highway system, an 883 km stretch running from north of Toowoomba in Queensland to Hexham in New South Wales.

The AGLM landholding is predominantly surrounded by rural and agricultural land uses. The landholding itself is dominated by large-scale infrastructure associated with the Bayswater and Liddell power stations, as well as open-cut mining activities. Agricultural grazing land is also present within and surrounding the AGLM landholding. The majority of the AGLM landholding has been previously disturbed during the construction and operation of Liddell and Bayswater power stations, as well as by historic and ongoing agricultural activity.

The BESS component of the approved project is proposed to be constructed within the location of the existing solar array area shown as 'Area 2' in Figure 1. This location was selected because it is close to Liddell Power Station, is no longer required for power station operations, and has been previously disturbed. The approved project area consists of prominently exotic grassland vegetation communities. The vegetation within the proposed modification area is considered to be highly modified as a result of previous land clearing and infrequent vegetation management, is in poor condition and is of low ecological value (Jacobs, 2021) (AECOM, 2024).

The proposed modification area is generally flat, with localised steeper areas along the road embankment and the sides of the canal. The land in the broader area generally slopes downwards to the south and southeast, towards Lake Liddell.

1.3 History of the proposed modification

Development consent (SSD-8889679) was granted for the LBBAWP on 8 March 2022.

The components of the approved project include:

- Stage 1: Decoupling Works – comprising a transformer compound, ancillary infrastructure and connection to the Liddell switch yard to decouple Liddell from Bayswater
- Stage 2: Liddell BESS – comprising a battery compound and ancillary infrastructure, approved with the storage capacity to facilitate a maximum discharge of up to 500 MW for a four-hour period, or up to 2 gigawatts hours (GWh)
- Stage 3: Bayswater Ancillary Works – including a range of ancillary infrastructure works to upgrade, replace or maintain existing infrastructure and support ongoing site operation until the planned closure of Bayswater. Stage 3 also captured the consolidation of development consents listed in Section 1.1.

The following development consents were surrendered and consolidated into SSD-8889679 following section 68 of the EP&A Regulation:

- Development Application (DA) 50-3-2005 – Antiene Coal Unloader (DPHI)
- DA 8/2016 – Blast Wall (Muswellbrook Shire Council) (MSC)
- DA 74/2018 – Bayswater Security Shed (MSC)
- DA 8.2018.273.1 – Feed water Pipeline (Singleton Council) (SC)
- DA 8.2018.23.1 – Low Pressure Pump Station Stabilisation (SC)
- DA 8.2018.23.2 – Low Pressure Pump Station Modification (SC)
- DA 54_86 – Hunter Valley Gas Turbines (MSC)
- DA 20_98 – Ravensworth Coal Unloader (SC)
- DA 114_2016 – Change of Use (MSC)
- DA 223_2004 – Rail Sidings (SC)
- DA 401_2000 – Coal Rail Unloader Augmentation (SC)
- DA 460_2001 – Unloader Upgrade (SC).

A modification to development consent SSD-8889679 was approved on 27 February 2024 (from here out referred to as ‘Modification 1’). Modification 1 (EMM, 2023) included the staging allocation of biodiversity offset credits, creating a standalone stage for the offset credits specific to the BESS, aligned more accurately with the approved project's development schedule. It did not alter the approved disturbance area or the number of offset credits required.

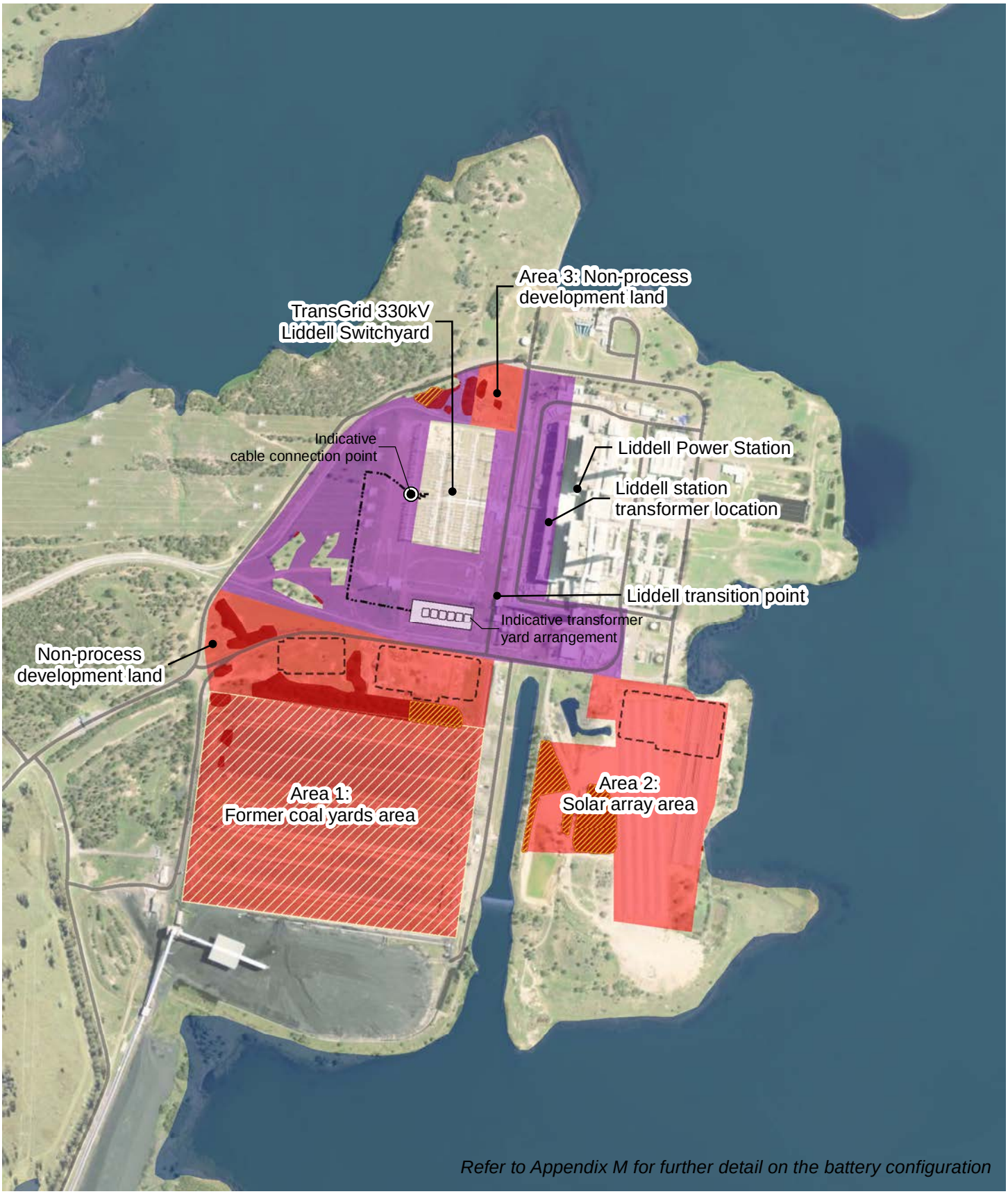
The EIS for SSD-8889679 (Jacobs, 2021a) included high-level details relating to the BESS grid connections. AGLM has since refined the design for the BESS grid connection, resulting in the 330 kV high voltage power line spanning outside of the approved Project area. AGLM is seeking approval for the span of OHL 330 kV cable between transmission towers W4 and W5, shown in Figure 2.

1.4 Purpose of this report

This Modification Report has been prepared to accompany an application under sections 4.55(1A) of the EP&A Act to modify Development Consent SSD-8889679. The proposed modification is seeking approval for a span of OHL 330 kV cable outside of the approved project area.

The purpose of this report is to provide a description of the proposed modification, the statutory context and consultation undertaken and an assessment of potential environmental impacts in accordance with relevant statutory requirements.

This Modification Report has included consideration of the matters set out in section 4.15 of the EP&A Act and has been prepared in accordance with the State Significant development guidelines – preparing a modification report (NSW Department of Planning and Environment, 2022).



Legend

Project area
- Battery energy storage system
- Decoupling area
- Former coal yards area

- Indicative cable connection point (for discussion with TransGrid)
- Indicative 330kV cable route
- Transformer yard relocation
- Indicative battery block footprint

- Species impact
- PCT impact - offset required
- Road
- Waterway
- Waterbody

0 100 200m

1:10,000 at A4

N

Data sources
Jacobs 2021
AGL 2020
©Department of Finance, Service and Innovation Aug 2020

Imagery:
© Department of Customer Service 2020

GDA94 MGA56

Figure 1 Overview of Stage 1 and 2 of the LBBAWP (source: Jacobs 2021)

Date: 29/03/2021 Path: \\jacobs.com\ANZ\IE\Projects\04_Eastern\IS334000\22_Spatial\GIS\Directory\Templates\Figures\EIS\IS334000_EIS_F004_BatteryDecoupling_r3v2.mxd
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2.0 Strategic Context

The EIS for SSD-8889679 (Jacobs, 2021) described the strategic context of NSW Government policies, including, specifically relevant to this proposed modification, the *NSW Climate Change Policy Framework* (State of NSW and Office of Environment and Heritage , 2016) and the *Net Zero Plan Stage 1: 2020-2030* (State of NSW, 2020). These policies focus directly on how energy is generated and consumed in NSW and include long-term objectives to achieve net-zero emissions by 2050 and make NSW more resilient to a changing climate. Additionally, a key initiative of the Hunter Regional Plan 2041 (State of NSW , 2022) is to prioritise transitioning to net zero emissions.

AGLM has a clearly articulated plan to achieve decarbonisation of generation by 2050 (AGL, 2022). The Liddell site has been a key component in AGLM's progression to close all coal-fired generation assets by 2050, closing in Lidell Power Station in April 2023. The BESS will contribute to plans to manage the transition to decarbonisation and net-zero emissions while responding to the market's requirements for reliable and affordable electricity (Jacobs Group (Australia) Pty Limited, 2020).

The Muswellbrook Local Strategic Planning Statement 2020-2040 (Muswellbrook Shire Council, 2020) has a key number of planning priorities, the following of which are relevant to the BESS and, subsequently, the proposed modification:

- Planning Priority 1: Our Shire embraces technology and innovation.
- Planning Priority 2: We plan for the transition of mine and power station sites before their closure.
- Planning Priority 3: The mineral resource and power generation industry is productive, accountable and considerate of surrounding land uses.
- Planning Priority 7: Industrial land is developed in an orderly manner, which meets future needs, and is provided with appropriate infrastructure.
- Planning Priority 18: We adapt to climate change and build climate and hazard resilience.

2.1 Need for the proposed modification

The BESS will provide storage and firming capacity for the NEM, adding additional services to assist the grid's stability. As described in the EIS for SSD-8889679 (Jacobs, 2021), the main aim is to take advantage of the site's strategic location within the NEM by utilising the connection capacity resulting from Liddell's closure and existing transmission infrastructure.

The proposed modification is a needed component of the BESS, enabling the alignment of a new 330 kV high voltage power line connecting the proposed step-up transformers to the existing Transgrid Switchyard.

2.2 Alternatives considered

2.2.1 Do nothing

If the proposed modification does not proceed (i.e., the 'do nothing' option), the existing 33 kV OHL would remain and would not be able to transmit adequate energy efficiently and, therefore, not achieve the maximum storage capacity for the BESS. Operating under this scenario would result in substantial inefficiencies between the BESS, leading to voltage mismatches, increased losses, and capacity limitations.

Failing to upgrade the transmission line would hinder the quantity of electricity the BESS can provide to the grid, potentially affecting electricity consumers. Therefore, the 'Do Nothing' option is not the preferred option.

2.2.2 Preferred option

The proposed modification is considered minor; however, it is an essential component to achieve maximum storage capacity for the BESS.

Therefore, the proposed modification is considered the preferred option as it is required for the BESS operation.

3.0 Description of Proposed Modification

3.1 Proposed modification overview

The EIS for SSD-8889679 (Jacobs, 2021a) included high-level details relating to the BESS grid connections. AGLM has since refined the design for the BESS grid connection. The proposed modification includes:

- Construction of a new 330 kV transmission line connecting the BESS to the existing electricity network. The transmission line would include:
  - A series of transmission poles up to a height of approximately 44 m, two of which (poles W4 and W5) would be placed to the west and east of the proposed modification area (within the approved Project area).
  - High tensile conductors, arranged in a 3x vertical configuration on the proposed transmission poles, with a ground clearance of 17.43 m.

The proposed modification area would be situated within the transmission line easement between transmission towers W4 and W5 (refer to Figure 2), outside the approved project area.

3.2 Construction activities

Construction activities are as described in the EIS for SSD-8889679 (Jacobs, 2021a). The proposed modification will be constructed concurrently with the BESS. The OHL would be strung between the existing transmission poles from temporary plant and equipment located on the existing road and hard standings within the approved project area. Trimming of vegetation may be required to facilitate the installation of the OHL and provide overhead access. However, vegetation clearing is unnecessary, and no direct construction impacts will occur within the proposed modification area.

3.3 Operational activities

Periodic vegetation management within the proposed modification area will be required in operation to maintain the minimum ground clearances identified in Figure 3. Between power poles W4 and W5, a ground clearance of 17.43 m is required, with all spans having a recommended minimum vertical clearance of 9 m between the top of any vegetation and the OHL. Clearances are specified in accordance with AS7000:2016 – Overhead line design and Transgrid's design requirements.

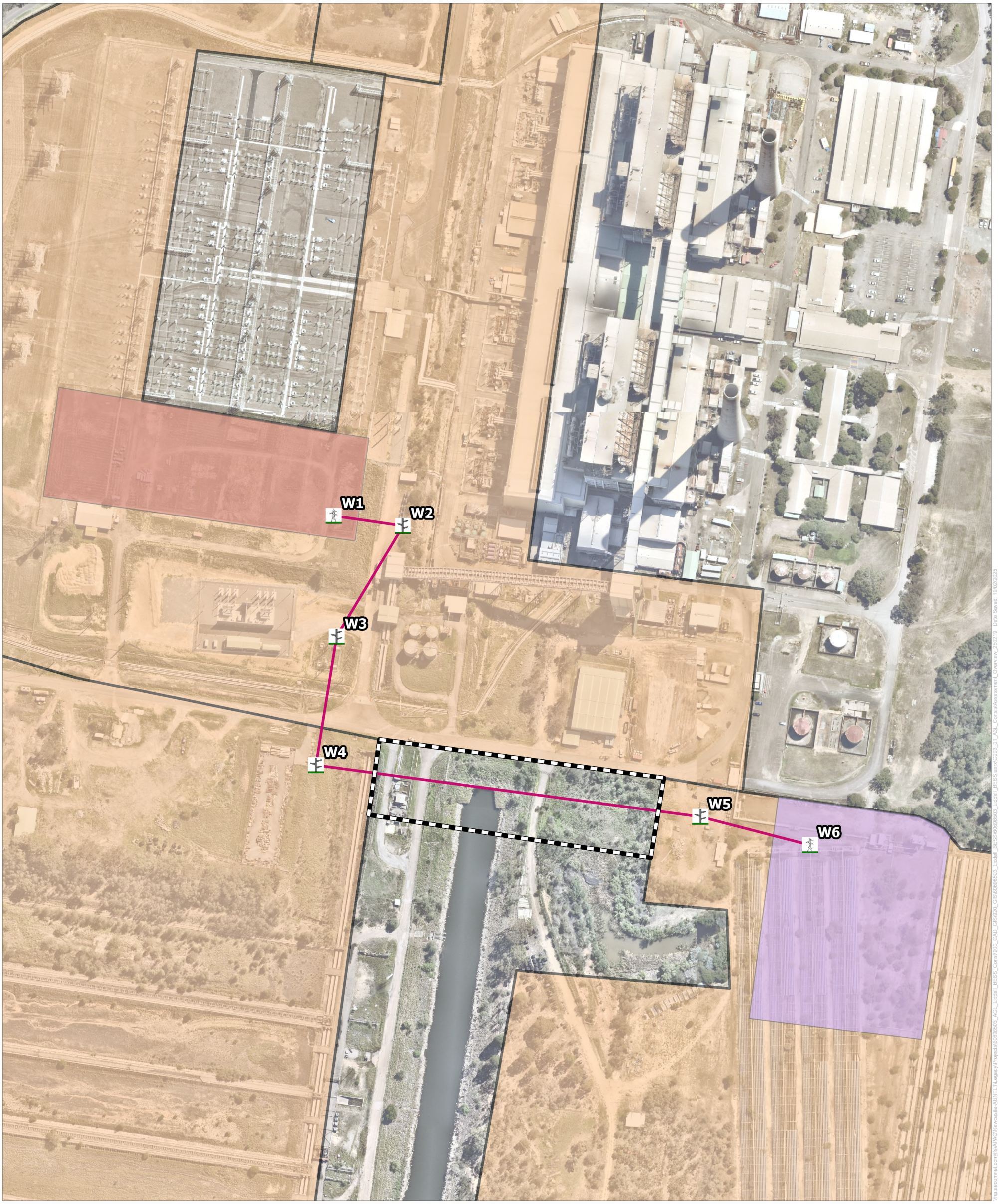
Periodic vegetation management will be managed under the AGLM's Ground and Vegetation Disturbance Approval (GVDA) Procedure (AGLM-HSE-PRO-008.01), which applies to all land owned or managed by AGLM (refer to Appendix A).

The GVDA procedure ensures that the AGLM Environment Team and other key stakeholders are notified of all work involving:

- Land disturbance (includes excavations, scrub or grass clearing)
- Tree trimming or removal
- Work within 40m of a waterway or waterbody (installation, development or disturbance works)
- Changes to infrastructure (buildings, utilities, etc).

3.4 Modification of conditions

Changes to the approved consent boundary proposed to accommodate the proposed modification, are as shown in Figure 2.



REVISED DESIGN OF THE HIGH VOLTAGE CONNECTIONS TO LIDDELL BESS

N

0 25 50 m

AECOM

Legend

- Power pole
- Transmission tower
- 330 kV over head power line
- Approved project area
- Proposed modification area
- Proposed Transgrid Substation
- Proposed Transgrid Switchyard Augmentation

Source imagery: Nearmap @2024

PLS-CADD Drawing

17.5 m Horiz. Scale

2.5 m Vert. Scale

Notes:
1. CONDUCTORS DISPLAYED @ TMAX (85 DEGREES).
2. EARTHWIRES DISPLAYED @ TMIN (-5 DEGREES).
3. GROUND CLEARANCE LINE DISPLAYED @ 9.0M.
4. SIDE PROFILE DISPLAYED @ +/-5M.

Ground Clearance for Each Span:
Span 1 between W1&W2: 16.82m
Span 2 between W2&W3: 12.93m
Span 3 between W3&W4: 16.79m
Span 4 between W4&W5: 17.43m
Span 5 between W5&W6: 18.10m

W1
X=309537.71
Y=6416441.16

W2
X=309583.70
Y=6416434.46

W3
X=309538.50
Y=6416361.42

W4
X=309529.43
Y=6416291.43

W5
X=309780.69
Y=6416250.39

W6
X=309853.46
Y=6416222.80

46 86 71 255 78

Figure 3 Transmission line 330kV Liddell BESS connection concept plan and profile (source: Transgrid 2024)

AMENDMENT:

Transgrid

DRAWN
REVIEWED
VERIFIED
APPROVED

© TransGrid

TL-SK-001
TRANSMISSION LINE 330kV
LIDDELL BESS TL CONNECTION
CONCEPT PLAN AND PROFILE

A1

REFERENCE DRAWINGS
APPROVAL STATUS
SCALE
PREFIX - NUMBER - SHEET
AMDT

566x801mm
PLOT ISSUE DATE $$$$$$SYTIME$: $$PLOT_TIME$$
SOURCE DESIGN $$$$$$$$$$$$$$$$$$$$$$DGNSPEC$$$$$$$$$$$$$$$$$$$$$$
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4.0 Statutory Context

4.1 Environmental Planning and Assessment Act 1979

The EP&A Act and the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation) provide the framework for environmental planning in NSW. The EP&A Act aims to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment.

4.1.1 Planning approval pathway

Under section 4.55 of the EP&A Act, an applicant may seek approval to modify a SSD development consent at any time. These modifications may be necessary to improve the design of the project or to vary the conditions of consent.

The proposed modification would be obliged under subsection (1A) - **Modifications involving minimal environmental impact** of the EP&A Act. Where a consent authority may, on application, be made by the applicant or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify the consent if:

(a) it is satisfied that the proposed modification is of minimal environmental impact, and

(b) it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which the consent was originally granted and before that consent as originally granted was modified (if at all), and

(c) it has notified the application in accordance with—

(i) the regulations, if the regulations so require, or

(ii) a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a development consent, and

(d) it has considered any submissions made concerning the proposed modification within any period prescribed by the regulations or provided by the development control plan, as the case may be.

Due to the minor nature of the modification, it is deemed that Section 4.55(1A) of the EP&A Act is applicable. Additional details regarding the potential impacts can be found in Section 6.0 of this report.

4.1.2 Matters of consideration

In determining a development application, the consent authority must take into consideration the matters listed under section 4.15(1) of the EP&A Act as relevant to the development. Table 1 identifies each matter of consideration along with reference to where the matter is addressed in this Modification Report.

Table 1 Matters for Consideration under Section 4.15(1) of the EP&A Act

Section 4.15(1) Matter for Consideration	Comment / Where addressed
(a) the provisions of any of the following documents that apply to the land to which the development application relates:	
(i) any environmental planning instrument	Section 4.1.4
(ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved)	N/A - no draft environmental planning instruments relevant to the site or proposed modification.
(iii) any development control plan	N/A – development control plans do not apply to SSD-

Section 4.15(1) Matter for Consideration	Comment / Where addressed
(iv) any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter under section 7.4	N/A – no known planning agreements applicable to the site or proposed modification.
(v) the regulations (to the extent that they prescribe matters for the purpose of this paragraph)	Section 4.1.3
(b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality	Section 6.0
(c) the suitability of the site for the development	Sections 1.2and 6.0

4.1.3 Environmental Planning and Assessment Regulation 2021

Clause 100(1) of the EP&A Regulation sets out the information required to be included in an application for modification of development consent. Table 2 identifies the information required to be included in the modification application, along with reference to where the matter is addressed in this Modification Report.

Table 2 Requirements for Modification Applications under Clause 100(1) of the EP&A Regulation

Clause 100(1) Requirement	Comment / Where addressed
A modification application must contain the following information:	
(a) the name and address of the applicant	Sections 1.1 and 1.2
(b) a description of the development that will be carried out under the development consent	Section 3.0
(c) the address and folio identifier of the land on which the development will be carried out	Section 1.2
(d) a description of the modification to the development consent, including the name, number and date of plans that have changed, to enable the consent authority to compare the development with the development originally approved	Section 3.4
(e) whether the modification is intended to: (i) merely correct a minor error, misdescription or miscalculation, or (ii) have another effect specified in the modification application	Section 4.1.4
(f) a description of the expected impacts of the modification	Section 6.0
(g) an undertaking that the modified development will remain substantially the same as the development originally approved	Section 4.1.1
(h) for a modification application that is accompanied by a biodiversity development assessment report – the biodiversity credits information	N/A – biodiversity development assessment report is not required.
(i) if the applicant is not the owner of the land – a statement that the owner consents to the making of the modification application	N/A – AGLM is the owner of the land
(j) whether the modification application is being made to – (i) the Court under the Act, section 4.55, or (ii) the consent authority under the Act, section 4.56	Section 4.1.1

4.1.4 Muswellbrook Local Environmental Plan 2009

The proposed modification is located within Muswellbrook LGA on land zoned SP2 – Infrastructure under the Muswellbrook Local Environment Plan 2009 (LEP)

The objectives of the SP2 – infrastructure zone are:

- To provide for infrastructure and related uses
- To prevent development that is not compatible with or that may detract from the provision of infrastructure
- To recognise existing railway land and to enable future development for railway and associated purposes
- To prohibit advertising hoardings on railway land
- To recognise major roads and to enable future development and expansion of major road networks and associated purposes and
- To recognise existing land and to enable future development for utility undertakings and associated purposes.

The proposed modification is considered consistent with the objectives of the SP2 – infrastructure land use zone.

4.2 Other relevant NSW legislation

4.2.1 Protection of the Environment Operations Act 1997

The principal legislation regulating pollution and waste management in NSW is the POEO Act, which specifies the requirements for licences and regulates activities that have the potential to pollute or harm the environment. All scheduled activities as listed in Schedule 1 of the POEO Act require an EPL. An EPL would be required as the BESS is not a scheduled activity under section 3 of the POEO Act.

4.2.2 Biodiversity Conservation Act 2016

The *Biodiversity Conservation Act 2016* (BC Act) introduced mandatory requirements for biodiversity assessment and reporting and established the BAM and Biodiversity Offsets Scheme (BOS), with the key principle of 'no net loss' where any impact of EIS development is assessed and offset, while demonstrating impact avoidance, minimisation and management measures prior to implementing offsets.

Under section 7.9 of the BC Act, any SSD application is to be accompanied by a Biodiversity Development Assessment Report (BDAR) unless it is determined that the proposed development is not likely to have any significant impact on biodiversity values.

As stated in the BDAR of the approved project (Jacobs, 2021), no areas within the approved area were declared to have outstanding biodiversity value in accordance with section 3.1 of the BC Act would be affected. However, a total worst-case direct impact on biodiversity value from the approved project's activities may include up to 42.3 ha of native vegetation, including seven different plant community types (PCT) and one threatened ecological community (TEC) under the BC Act.

A vegetation survey was carried out within the proposed modification area (refer to section 6.0), focusing on documenting the vegetation present within the proposed transmission line easement. No PCTs or TECs listed in BDAR of the approved project were present, finding only non-threatened *Acacia* species and exotic grassland vegetation communities within the proposed modification area. Considering the findings of the vegetation assessment (section 6.0), the proposed operational maintenance of the transmission line easement would not likely have any significant impact on biodiversity values.

4.2.3 Rural Fires Act 1997

The *Rural Fires Act 1997* (Rural Fires Act) facilitates the prevention, mitigation and suppression of bush and other fires in LGAs and parts of NSW considered to be rural fire districts. The proposed modification would be located partially on category 3 (medium) Bush Fire Prone Land (BFPL).

As stated in SSD-8889679 EIS (Jacobs, 2021a), under the Rural Fires Act, the owner or occupier of land is obligated to take precautions to minimise the risk of bushfires starting or spreading within their land. Section 4.41 of the EP&A Act overrides the requirement for a bush fire safety authority to authorise the approved Project under Section 100B of the Rural Fires Act.

The proposed modification would not increase fire risk compared to existing operations. However, maintenance of vegetation below transmission lines is required for safety to ensure that any potential hazards are minimised.

4.3 Commonwealth legislation

4.3.1 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) requires the approval of the Commonwealth Minister for the Environment for actions that may have a significant impact on Matters of National Environmental Significance (MNES), Commonwealth activities or actions on Commonwealth land likely to have a significant impact on the environment. The EPBC Act lists nine MNES that must be addressed.

An EPBC Act Protected Matters Search of MNES was undertaken on 11 October 2025 to determine what MNES may be present within a 10 km radius of the proposed modification. The results of the search are contained in Appendix B and summarised in Table 3.

The proposed modification is not expected to have a significant impact on relevant MNES. Accordingly, the proposed modification would not need to be referred to the Commonwealth Minister for the Environment for approval.

Table 3 Consideration of MNES under the EPBC Act

MNES Matter	Comment
Australia's World Heritage properties	There are no World Heritage properties within 10 km of the site.
National Heritage Places	There are no National Heritage Places within 10 km of the site.
Ramsar wetlands of international importance	No Ramsar wetlands are located within 10 km of the site. The nearest Ramsar wetlands are in the Hunter Estuary Wetlands, located approximately 50-100 km upstream of the site.
Nationally threatened species and ecological communities	The Protected Matters Search identified 7 Commonwealth-listed threatened ecological communities and 48 Commonwealth-listed threatened species that may occur within 10km of the site. Given the minor extent of works proposed, with no ground disturbance and low scale vegetation disturbance required, impacts to Commonwealth-listed threatened species or ecological communities would be unlikely to occur.
Migratory species listed under the EPBC Act	The Protected Matters Search identified 10 Commonwealth-listed migratory species that may occur within 10km of the site. Given the minor extent of the work proposed, with no ground disturbance and low-scale vegetation management required, impacts on Commonwealth-listed migratory species would be unlikely to occur.
Commonwealth marine areas	The proposed modification is not located within or adjacent to a Commonwealth marine area. There would be no direct or indirect impact upon a Commonwealth marine area.
Great Barrier Reef Marine Park	The proposed modification is not located within or adjacent to the Great Barrier Reef Marine Park. There would be no direct or indirect impact upon the Great Barrier Reef Marine Park.
Nuclear actions, including uranium mining	The proposed modification would not involve a nuclear action.
Water resources impacted on by a coal seam gas or large coal mining development	The proposed modification would not involve coal seam gas or coal mining.

5.0 Engagement

Since AGLM conducted thorough consultations for the approved project and the proposed modification is only minor, AGLM does not consider that additional consultation is required for the proposed modification.

AGLM briefed DPHI on 11 October 2024 and subsequently held a meeting to discuss the proposed modification.

Transgrid operates the Liddell switchyard and would operate the transmission line associated with the proposed modification. Therefore, ongoing discussions with Transgrid, a key stakeholder, have continued regarding the proposed modification.

A meeting was held between AGLM, Transgrid and AECOM on 26 March 2024. An outcome of this meeting was for AGLM to explore potential permissibility pathways for maintaining vegetation under the proposed transmission line as Transgrid expected that this vegetation management would be managed by AGLM. Subsequently, Transgrid advised that under the Ring-fencing Guideline Electricity Transmission (Australian Energy Regulator, 2023), it cannot seek approval under Part 5 of the EP&A Act for contestable portions of work. The transmission line was considered contestable, and as such, Transgrid enacting it's self-determination rights under Part 5 of the EP&A Act was concluded as not being a viable planning approvals pathway. Therefore, Transgrid would operate the transmission line and AGLM would maintain vegetation beneath the transmission line in accordance with this Modification Report.

6.0 Environmental Assessment

A qualitative assessment was undertaken of the potential impacts of the proposed modification on a range of other environmental factors, as outlined in Table 4.

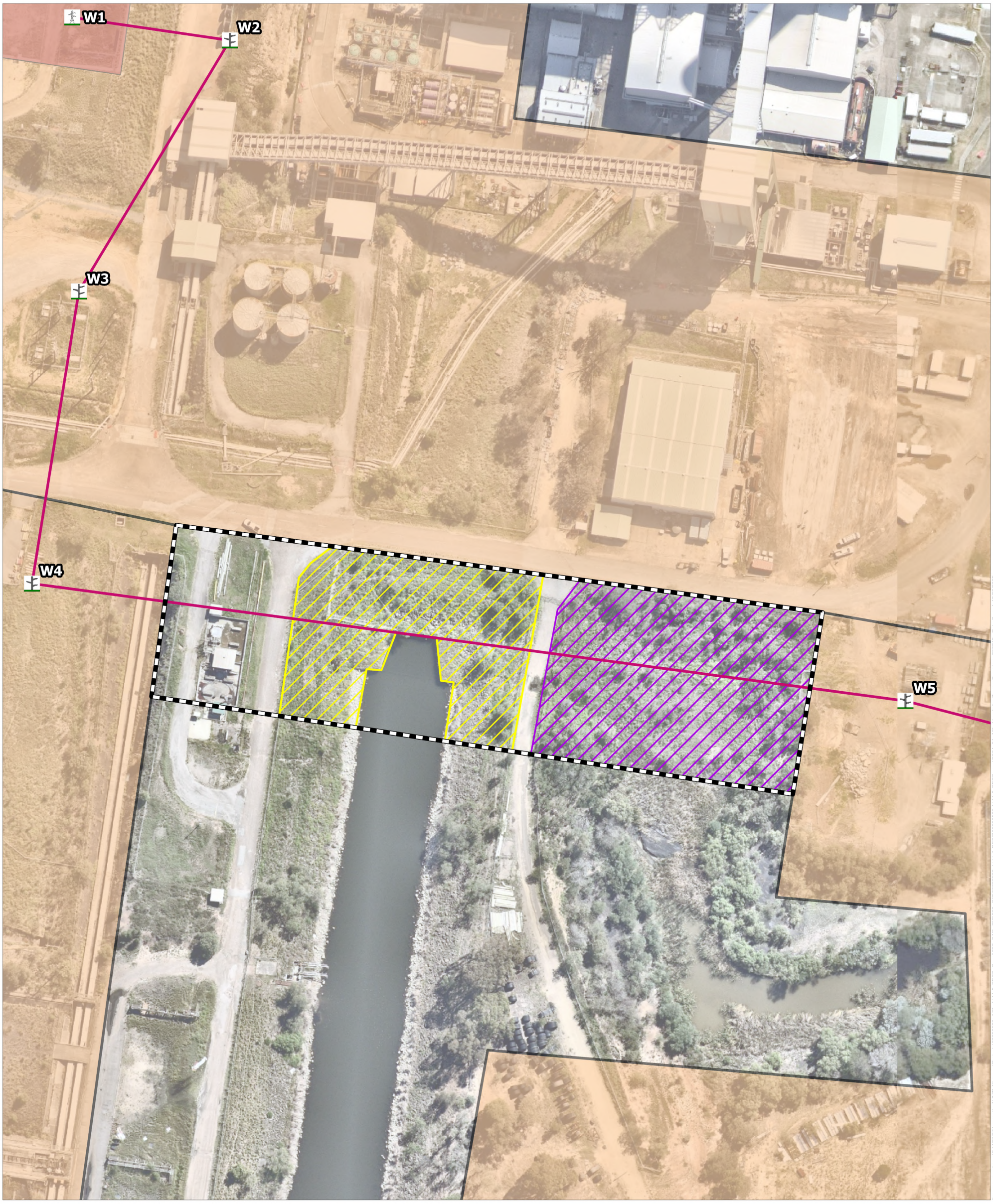
Table 4 Environmental assessments

Environmental Factor	Consideration
Hazards and risk	The proposed modification would not introduce new dangerous goods to be stored on site and would not involve an increase in the volume of dangerous goods stored on site. The proposed modification is located within BFPL of Category 3 (medium risk). There are areas of vegetation in Category 1 (high risk) and Category 2 (low risk) surrounding the proposed modification. The proposed modification could potentially increase the impact of fire risk due to vegetation growing in close proximity to power lines. This risk arises from the possibility of vegetation coming into contact with the power lines, which could lead to sparks and subsequent fires. To mitigate this risk, vegetation would be managed to ensure safe clearance distances are maintained at all times. Electromagnetic fields (EMF) are produced by electricity and electrical equipment, being strongest near wires and equipment and decreasing with distance. Consistent with the SSD-8889679 EIS (Jacobs, 2021a), the proposed modification may alter the EMF on the site and the potential exposure to EMF, which would need to be considered for AGLM staff and contractors as part of health and safety management. The proposed modification area is located in a non-publicly accessible area. Overall, the proposed modification would not introduce any new hazards and risks.

Environmental Factor	Consideration
Air quality	Fifteen sensitive receivers are identified in proximity to the proposed modification, with the nearest being Lake Liddell Recreation Area, about 2 km north. Given the distance to the nearest sensitive receivers and the minor nature of the proposed modification, air quality impacts are not expected.
Greenhouse gases	The proposed modification would not introduce additional greenhouse gas (GHG) sources.
Noise and vibration	The proposed modification is located in an area heavily influenced by industrial activities. The nearest sensitive receiver is Lake Liddell Recreation Area, and the nearest residential receiver is Lake Liddell Recreation Area's owner's residence, which is approximately 2 km north of the proposed modification. The proposed modification would not introduce any new construction noise activities. The minor increase in operational activity to maintain the transmission line easement vegetation is not expected to result in increased operational noise impacts. Given the distance to the nearest sensitive receivers, no noise impacts are expected.
Traffic and transport	Given that the proposed modification would not increase the scope of construction or operational works, noting that these works were always planned only the location has altered, there is not expected to be an increase in traffic movements or impacts on the local traffic network.
Biodiversity	The BDAR of the EIS SSD-8889679 (Jacobs, 2021), described the approved area as consisting of a highly disturbed landscape with low ecological value and limited intact native vegetation. Most of the site is either pre-developed or previously cleared, which helps minimise direct impacts on biodiversity. The native vegetation that will be disturbed is mostly of poor to moderate quality, and no areas are declared as having outstanding biodiversity value. It included potential impact on plant community types (PCTs), some impact on threatened species habitats, one threatened ecological community (TEC) under the BC Act and one under the EPBC Act would potentially be impacted, but no significant impacts to EPBC Act-listed vegetation communities would be expected under the approved project. However, the proposed modification area was found not to contain any threatened ecological communities or species. A Vegetation Assessment (AECOM, 2024) was prepared to assess the type and nature of vegetation currently present within the proposed modification area, outlining the species present and providing the results of research into typical mature growth heights. This assessment was prepared to determine potential operational maintenance required for the vegetation. For the vegetation assessment the proposed modification area was split into two zones, as per Figure 4. **Zone 1** - the vegetation within this zone has been historically cleared, with all current vegetation being regrowth. Aerial photography over the past 15 years indicates ongoing active vegetation management. In 2009, the zone had minimal vegetation, consisting mostly of groundcover and a few mature trees. By January 2020, the area was

Environmental Factor	Consideration
	mostly cleared, likely to prevent contact with overhead power lines. A mature eucalyptus tree was felled between February 2018 and January 2019 and left on the ground. The largest tree in 2020 was an African Olive along the northern fence line, which remained present during the May 2024 survey. **Zone 2** - like Zone 1, has been historically cleared, with all current vegetation being regrowth. Aerial photography over the past 15 years indicates active vegetation management. In 2009, the zone had minimal vegetation, consisting mostly of groundcover and a few juvenile trees, likely *Acacia salicina* and *Acacia falcata*, which are still present. By January 2020, the area was mostly cleared, with a small group of mature or semi-mature *Acacia salicina* trees in the northeast corner, which remained present during the May 2024 survey. The vegetation was identified as consisting of both native and exotic (including a priority and environmental weeds) regrowth vegetation. The three species of Acacia present are not listed as threatened, with all three known to be common along the coast and ranges of NSW. The normal height ranges of the mid-storey and canopy species identified during the survey were between 1.5 m and 13 m. However, the worst-case scenario includes specimens reaching up to 20 m for one *Acacia* species, and 15 m for an exotic weed recorded during the survey. Given these heights, operational maintenance would be required, as any vegetation growing above 8.43 m would encroach the recommended vertical clearance of nine metres (refer to Figure 3). Vegetation management will be conducted under existing Liddell management systems and licenses.
Land and contamination	The proposed modification area is mostly flat, with some localised steeper sections along the road embankment and the sides of the canal. The proposed modification does not involve any ground disturbance works outside of the approved project area. Therefore, the proposed modification is not expected to result in any new potential soil or contamination impacts.
Aboriginal heritage	Previous archaeological assessments have been undertaken for Liddell and the surrounding region. These assessments demonstrate that the area has been subject to past disturbance, which has impacted the Aboriginal heritage of the area. As part of the SSD-8889679 EIS (Jacobs, 2021a), an extensive search of the Aboriginal Heritage Information Management System (AHIMS) was carried out on 13 October 2020 for the approved project area with a 200 m buffer and an archaeological survey was carried out on 23 and 24 November 2020, covering all areas where impacts are proposed. No sites were identified within close proximity to the proposed modification area. The proposed modification would not require additional ground disturbance outside the approved project area and is, therefore, not expected to impact any Aboriginal heritage items.

Environmental Factor	Consideration
Non-aborginal heritage	Conducting a search on the NSW State Heritage Inventory (State of NSW, 2025) the closest non-Aboriginal item is listing 147 within the Muswellbrook LGA, approximately 3.8 km north-east of the proposed modification. The proposed modification would not require additional ground disturbance outside the approved project area and, therefore, is not expected to impact any heritage items.
Visual amenity	The proposed modification is located within an established industrial area dominated by mining and power generation. The closest residential area is Antiene subdivision located approximately 4 km to the north. The closest social infrastructure is the Lake Liddell Recreation Area and the nearest residential receiver is the owner's residence of the Lake Liddell Recreation Area approximately 2 km north. Given the small scale of the proposed modification, the proposed modification would not add to or decrease visual amenity impacts. The proposed modification impact on all four viewpoints stated in the SSD-8889679 EIS (Jacobs, 2021a) would be consistent, remaining negligible.
Waste	The only additional waste from the proposed modification would evolve from the vegetation maintenance required during operation. This would only be very minor and as required throughout operation. This waste stream would be managed in accordance with existing procedures for Liddell and is not expected to result in an additional impact on waste management. No additional waste streams are expected during construction.
Water	The nearest waterways to the proposed modification are the Bayswater Creek and Tinkers Creek outlets into Lake Liddel to the west of the proposed modification. The proposed modification area is mostly flat, with some localised steeper sections along the road embankment and the sides of the man-made canal. The broader area generally slopes downward to the south and southeast towards the canal which is located directly within the proposed modification area (see Figure 4). The proposed modification would not require additional land clearing, would not increase impervious surfaces, and would not increase surface water flows from the site. Therefore, no water impacts are anticipated. Potential construction-related risks to water would be managed with standard management measures.
Socio and economic	Muswellbrook and Singleton LGAs are important for power generation, coal mining, agriculture, and tourism. Given the small scale of the proposed modification, no socio-economic impacts are anticipated.



VEGETATION ZONES WITHIN THE PROPOSED MODIFICATION AREA

Legend

- Power pole
- Transmission tower
- 330 kV over head power line
- Approved project area
- Proposed modification area
- Proposed Transgrid Switchyard Augmentation

Vegetation zones

- Zone 1
- Zone 2

N

0 25 50 m

AECOM

Source imagery: Nearmap @2024

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7.0 Summary of Management Measures

No additional management or mitigation measures have been recommended throughout this Modification Report. The proposed modification does not introduce any new impacts that cannot be managed by the environmental management measures identified in the EIS for SSD-8889679 or existing operation and maintenance procedures.

8.0 Justification and Conclusion

This Modification Report presents details of the proposed modification and assesses its potential environmental impacts.

The proposed modification seeks to amend Development Consent SSD-8889679 to allow for the construction of a new 330 kV OHL segment between transmission towers W4 and W5, replacing the existing 33 kV OHL. This modification would improve the efficiency and reliability of the BESS grid connection to the Transgrid switchyard at Liddell.

While transmission towers W4 and W5 are within the approved project area, the proposed 330 kV transmission line easement between these two towers crosses an area outside the approved project area boundary. AGLM is seeking an adjustment to the approved project area to encompass the transmission line easement for construction. Once operational, vegetation management will be required within the easement to maintain safe vegetation clearance distances. These activities will be managed under AGLM's existing GVDA Procedure.

The proposed modification is a critical enhancement to the approved project, ensuring the BESS can function optimally to support grid stability and renewable energy integration. It aligns with the strategic objectives of the NSW Climate Change Policy Framework, the Net Zero Plan Stage 1: 2020–2030, and the Hunter Regional Plan 2041 by supporting the transition to renewable energy infrastructure and ensuring the efficient integration of BESS technology into the National Energy Market.

No increase to the approved project's workforce, operational hours, traffic loads, or noise limits would be required. The proposed modification would not significantly alter the overall land use or operational scope of the approved project. A qualitative assessment of environmental factors has determined that potential impacts associated with the proposed modification would result in a 'minimal environmental impact' compared to the approved project and approval is therefore sought under Section 4.55(1A) of the EP&A Act.

The proposed modification area consists of previously cleared and disturbed vegetation with no significant biodiversity value. Standard vegetation management practices would mitigate any potential environmental impacts associated with the proposed modification and would unlikely result in additional environmental impacts (see section 6.0) beyond those already assessed in the approved project.

Existing site management measures are suitable for the ongoing management of potential environmental impacts. Existing AGLM's Liddell operational environmental controls, vegetation management procedures, inspection and quality control protocols, safety measures, and compliance requirements will continue to be implemented during the operation of the proposed modification.

9.0 References

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Appendix A

Ground and Vegetation Disturbance Approval (GVDA)

Appendix A Ground and Vegetation Disturbance Approval (GVDA)

Health Safety
& Environment

Look. Think. Act.

Ground and Vegetation Disturbance Approval Procedure

AGLM-HSE-PRO-008.01

Version	Date	Reviewed by	Approved by	Date approved	Next Review	Comments
1.0	18/10/2017	Matthew Parkinson				For approval
2.0	04/09/2019	Qaiser Hassan	Summer Steward	15/10/2019	15/10/2021	Records section added. Approval Form updated.

Table of Contents

1. Introduction

The Ground and Vegetation Disturbance Approval (GVDA) process ensures that AGL Macquarie (AGLM) Environment Team and other key stakeholders are notified of work which will involve:

- Land disturbance (includes excavations, scrub or grass clearing);
- Tree trimming or removal;
- Work within 40m of a waterway or waterbody (installation, development or disturbance works); or
- Changes to infrastructure (buildings, utilities etc)

Works involving the above are to be assessed for potential impacts to ensure that appropriate controls are planned and implemented for the works.

2. Scope

The GVDA process applies to:

- all areas of land owned or managed by AGL Macquarie;
- Rehabilitation areas, except for rehabilitation maintenance works where approval has been obtained from the AGLM Environment Team; and
- In areas where there is real or potential risk of environmental impacts.

This procedure applies to work undertaken by AGL employees and contractors at Bayswater and Liddell Power Stations (including buffer lands), Ravensworth and the Barnard Scheme (including the transmission line).

3. Accountabilities and Responsibilities

3.1 General Manager AGL Macquarie

The General Manager is responsible for:

- Ensuring the PTW and GVDA Procedures are fully implemented and adequately resourced to provide an effective means of managing and coordinating work.

3.2 Head of Site

The Head of Site is the owner of site based PTW System and is responsible for the ongoing maintenance and review of the System to ensure it remains fit-for-purpose. The Head of Site is responsible for:

- Allocating adequate resources to all PTW roles and activities; and
- Ensuring an appropriate training program is in place to confirm the competency of roles.

3.3 Team Leaders, Supervisors and Managers

Team Leaders, Supervisors, and Managers are responsible for ensuring:

- This Procedure is implemented within areas of their responsibility; and
- Contractor JSEAs, or risk assessment documentation, are reviewed for suitability prior to the commencement of work.

3.4 Permit Applicant (PA)

The Permit Applicant is responsible for:

- Obtaining a GVDA prior to undertaking ground or vegetation disturbance or non-routine works within 40m of a waterway;
- Where applicable ensure that the GVDA Limit of Disturbance Boundary (LDB) is marked (unless the limit can be clearly described by physical structures) and identified;
- Controls noted in the GVDA are to be included in the work risk assessment and JSEA or equivalent; and
- Ensuring that the disturbance occurs within the dates specified on the GVDA.

3.5 Environment Team

The Environment Team is responsible for:

- Coordinating the processing, approval and distribution of the GVDAs;
- Liaising with the PA and PA Leader to define/confirm the content of the GVDA application;
- Undertake a desktop assessment of the GVDA application area;
- Ensuring that the GVDA application is considered with respect to the following
    - Land management and property boundaries;
    - Approval boundaries;
    - Cultural heritage sites/areas;
    - Flora and fauna;
    - Drainage impacts;
    - Monitoring sites;
    - Water management, groundwater and surface water impacts;
    - Air quality impacts;
    - Infrastructure services and easements;
    - Community impacts;
    - Visual impacts;
    - Rehabilitation impacts; and
    - Additional approvals such as development consents and controlled activity approvals.
- Liaise with the required Approval Bodies;
- Issue the approved GVDA to the PA and PA Leader;
- Record the details of the GVDA in the GVDA register;
- Providing training on the GVDA process; and
- Undertake compliance and close-out inspections on a sample of GVDAs.

3.6 Recipient In Charge (RIC)

- Ensure that all clearing is undertaken in accordance with the conditions set out in the GVDA;
- Ensure that all personnel involved in the project (including contractors) are aware of the conditions within the GVDA;
- Ensure that a copy of the Approved GVDA is held at the work site (at the location of the proposed activities);
- Ensure that approval for any proposed change to the original GVDA application is obtained through a formal amendment;
- Sign the GVDA form and return it to the Environment Team upon completion of the work;
- Notify of any environmental incidents (should they occur) in relation to the work; and
- Stop work immediately should materials be encountered that are suspected to be of Aboriginal origin, the Environment Team must be notified immediately.
- Maintaining a copy of the approved GVDA form at the site of the proposed works;
- Ensuring all conditions set out in the GVDA are adhered to.

3.7 Work Party Members

Works personnel and contractors are responsible for:

- Notifying the Environment Team, RIC and/or contract manager of any incidents;
- Notifying Environment Team is suspected Aboriginal Cultural Heritage artefacts are encountered; and
- Notifying the Environment Team if suspected rare or endangered species of flora and fauna area encountered.

4. Actions

When is a GVDA required?

An approval is required if you intend to do any work, including but not limited to:

- Land disturbance (includes excavations, scrub or grass clearing);
- Tree trimming or removal;
- Work within 40m of a waterway or waterbody (installation, development or disturbance works); or
- Changes to infrastructure (buildings, utilities etc)

When in doubt, please contact the Environment Team for advice.

The work permitted is to be clearly described in the “Description of Work on the PTW. Any work outside the description will require a new application to be submitted.

GVDAs are issued for specific purposes so it should not be assumed that work can occur because the area is already covered by a GVDA.

4.1 Approval Process

4.1.1 PTW Ground and Vegetation Disturbance Approval Workflow

For works that involve any of the items listed above, the PTW workflow is shown in Figure 1 below.

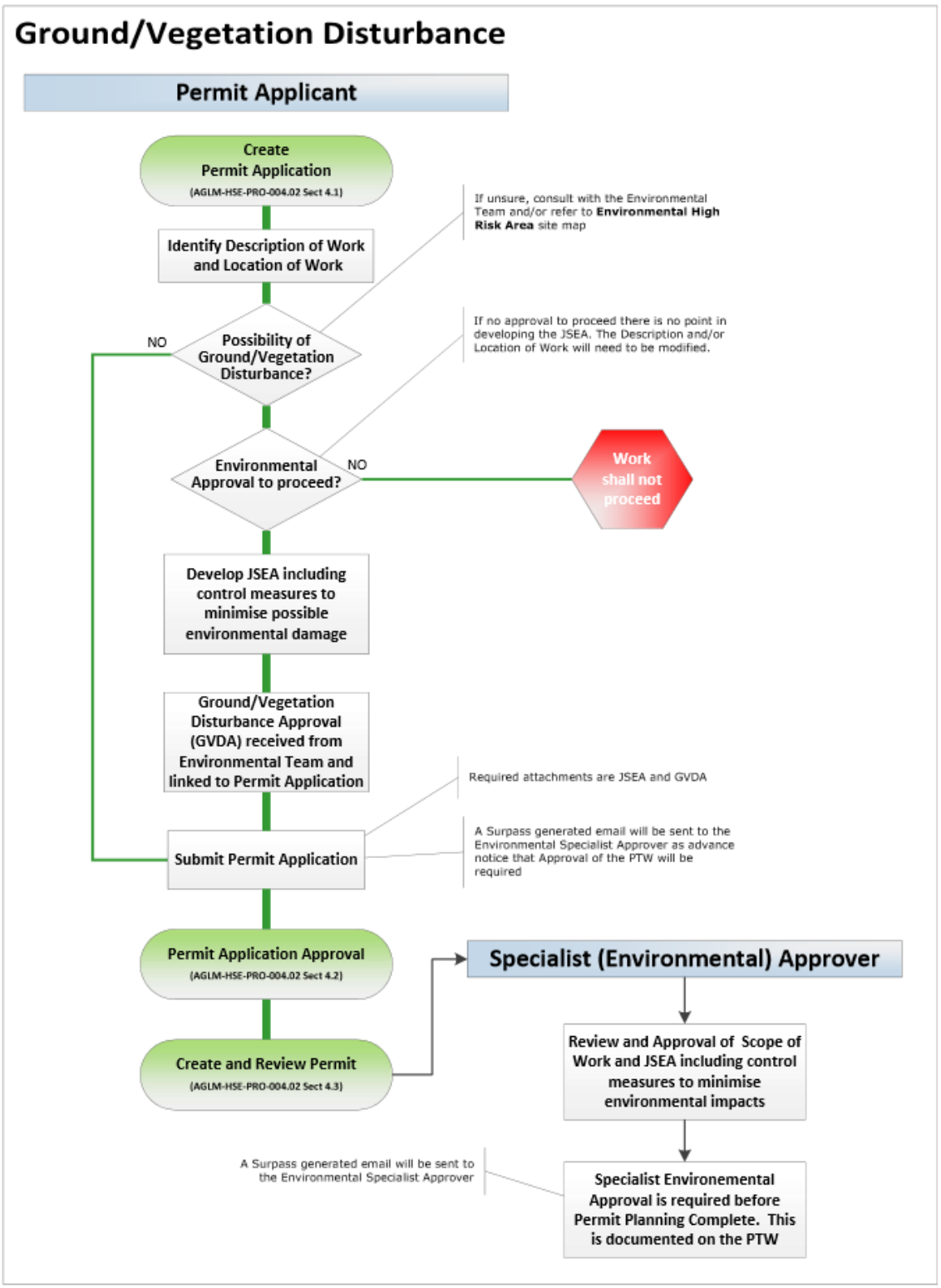

Figure 1: Ground and Vegetation Disturbance Approval Workflow

4.1.2 GVDA Application

Prior to the commencement of works a GVDA must be sought. The PA must complete the GVDA application form (available on the SharePoint site) and forward to the site Environment Team. The application should include:

- Accurate representation of the proposed area of disturbance including the Limit of Disturbance Boundary. To expedite the approvals process and ensure accurate capture of the required area, electronic mapping files (where possible) should be submitted by the PA (such as Google KML, dxf, cad).
- Full details of the proposed works in answer to the prompts contained in the GVDA Application Form.
- Signature of the GVDA Applicant and the GVDA Applicant's Leader. Where the GVDA Applicant's Leader has not signed, the Representatives approving the GVDA are entitled to assume that the GVDA Applicant's Leader is aware of, and has approved the detail of the GVDA Application.
- Desired start date and proposed expiry date.

Where clarification of possible environmental impacts may assist prior to submission of an application, discussion of the proposed works with the Environment Team is encouraged. Early identification of areas of risk can assist in timely approval.

The GVDA applicant must be directly involved in the works as the Recipient in Charge (RIC). If the works involved are handed over to another party, the new GVDA Applicant must transfer the PTW and sign off the GVDA. It is also the GVDA Applicant's responsibility to ensure that all relevant information regarding the GVDA and GVDA application is passed on to the new GVDA Applicant.

4.1.3 Assessment of the GVDA Application

Following submission of the application, a series of desktop assessments are undertaken to assess the proposed works in the context of, but not limited to the following:

- Land management and property boundaries;
- Approval boundaries;
- Compliance with Conditions of Consent;
- Interactions with Aboriginal Cultural Heritage sites (ACH sites);
- Interactions with Environmental Monitoring Programs and associated monitoring sites;
- Interactions with known flora and fauna;
- Drainage impacts;
- Water management, groundwater and surface water impacts;
- Air quality impacts;
- Infrastructure services and easements;
- Potential impacts upon community or other sensitive receptors (including by noise or dust);
- Rehabilitation impacts; and
- Any other approvals required.

Assessments are undertaken by the Environment Team or their delegates. Where appropriate a field inspection of the area and surrounds is undertaken by the Environment Team to ground truth issues of concern and inform implementation of effective controls (GVDA Conditions).

4.1.4 Final Signoff and Issue of the Approved GVDA

Following approval and designation of any Conditions, the application is signed off as approved by the Specialist (Environmental) Approver.

Issue of the GVDA is via email and includes a PDF copy of the approved GVDA and where appropriate a dxf/cad/KML file of the approved limit of disturbance boundary and covering statement from the issuing Environment Advisor. The Approved GVDA is issued to the PA and the PA's Leader.

The PA is responsible for compliance with all conditions stipulated within the GVDA during the course of any work occurring under the approval. Where confusion or ambiguity exists as the requirements of the GVDA, clarification from the Environment Team must be sought.

4.1.5 Exclusions

Works in some areas may be excluded from the requirement to obtain a GVDA. Seek advice from the Environment Team prior to lodging the Application to clarify. The Environment Team will need to advise as to whether a GVDA is necessary.

4.1.6 Amendments to the GVDA

If at any time during the proposed works the RIC determines that changes to the original GVDA application area and original scope of works are required, the RIC must contact the Environment Team for a formal amendment. A formal amendment will proceed through the same approval process as an original GVDA and may take a minimum of three weeks to approval depending on the nature of the works.

4.2 Timing

4.2.1 Normal Timing

The Environment Team require at least three weeks to process a properly filled GVDA application. Delays may occur during periods of heavy demand. PAs are advised to liaise with the Environment Team as early as possible when undertaking projects which may require a GVDA.

Where complex issues are identified or further investigations or approvals are required, the time required to process the GVDA will be lengthened and in some circumstances, will be governed by external approval bodies such as local council, Department of Planning and Environment and the Department of Primary Industries Water.

4.2.2 Fast-track Approval

An accelerated GVDA pathway is available for instances where critical operational requirements necessitate a GVDA with limited lead time. To initiate a Fast-track GVDA the PAs Manager or equivalent must initiate the fast-track process with the Environment Business Partner. Initiation in this manner allows explicit identification of all stakeholder requirements and enables appropriate resource allocation and oversight of GVDA progression to approval.

The Environment Team may require approximately one week to process a Fast-track GVDA.

4.2.3 Special Periods and Restrictions

Note that there are site-specific requirements which may restrict the times of year at which vegetation clearing can be undertaken. Dependent upon the location of the disturbance activity, clearing restrictions may apply. Further detail will be included in the GVDA conditions around clearing restriction where applicable for the GVDA.

4.3 Site Demarcation

Where applicable, the GVDA area may be required to be appropriately pegged and identified. This will be stipulated in the GVDA conditions.

If demarcation is required, the Limit of Disturbance Boundary must be pegged prior to the commencement of any work, unless the limit can be clearly described by physical structure, such as a road or fence line. No clearing is to occur outside this Limit.

4.4 Inspections and Project Completion

GVDA Compliance inspections may be undertaken at any time during the course of the works and may be undertaken by the Environment Team or their delegate. The RIC must ensure that all personnel involved in the project, including contractors are familiarized with the GVDA conditions, and that the compliance with these conditions occurs. Non-compliance with GVDA conditions may result in cessation of work and may require the raising of an Environmental Incident in the AGL incident management system.

Following completion of the work, the RIC is to sign the GVDA form and return it to the Environment Team. Signing the form indicates that all conditions have been met and that the GVDA can be closed. Close-out inspections of a sample of GVDAs will be undertaken to confirm compliance with associated conditions.

4.5 Records

Copies of issued GVDAs should be stored at sharepoint and the Environment Work Approval Register (AGLM-HSE-REG-009.01.1) should be updated by the approver. Besides it, the soft copies of closed approvals along with other relevant documents such as inspection records, drawings, work package etc. should be stored in Environmental Sharedrive by the approver for auditing purpose.

5. Definitions

Term	Definition
Approval Body	AGL department which assesses the proposed work within the context of their accountabilities. An approval body may stipulate conditions or make recommendations as to how the work is to be undertaken to ensure that their accountabilities are met. Where the works require external approval for example, development approval the external body will be considered as an approval body.
Approval boundaries	Spatial limits associated with approval instruments which are relevant in the context of the proposed work. Instruments include although are not limited to Environment Protection license (EPL), Development Consent, Mining Operations Plan (MOP) and AGLM ownership boundaries.

Controlled activity (works within 40m of a waterway)	The erection of a building or carrying out of work (within the meaning of the *Environmental Planning and Assessment Act 1979*), or the removal of material (whether or not extractive material) or vegetation from land, whether by way of excavation or otherwise, or the deposition of material (whether or not extractive material) on land, whether by way of landfill operations or otherwise or the carrying out of any other activity that affects the quantity or flow of water in a water source.
Desktop Assessment	Office based assessment of information relevant to the GVDA application.
Disturbance Activities	Activities or actions that will result in ground and vegetation disturbance. Examples include: clearing vegetation, digging holes, grading new tracks, dumping topsoil etc.
Drainage impacts	Impact upon surface water systems which may result from the proposed disturbance. Impacts include altered catchment characteristics, changed water quality parameters, and the removal of water management infrastructure. Drainage impact is a key assessment during the GVDA approval process.
Fast-track approval	Accelerated GVDA approval pathway. For fast-track approval the PAs Manager must initiate fast-track via the Environment Business Partner.
GVDA (Ground and vegetation disturbance approval)	Approval that must be obtained prior to any; • land disturbance (including excavations, scrub or grass clearing) • tree trimming or removal; • work within 40m of a waterway or waterbody; and • Changes to infrastructure (buildings, utilities etc).
GVDA application area	The total area that the PA has identified as having to be disturbed/impacted under the GVDA. If a polygon of the proposed disturbance is not to be used the GVDA Application area must include all access tracks, proposed machinery lay down and storage areas, safe park-up areas and machinery operations areas.
GVDA Approved Disturbance Areas Plan	Map which allows for disturbance to occur without a GVDA.
GVDA Application Form	Application to commence the GVDA process. The form should be completed with reference to the instructions on the form including signoff by the PA and PAs Manager.
GVDA Compliance Inspection	An inspection to determine compliance with the conditions of the GVDA. A compliance inspection may be undertaken by the AGLM Environment Team or delegate at any time during the course of the works to which the approval relates and/or at the completion of the work. Identified non-

	compliance with the conditions of the approval may be formally reported as Environmental Incidents in the AGL incident management system.
GVDA Conditions	Any condition which is imposed on the work by an Approving Body or which is standard inclusion for all approvals. Conditions are noted in the approval and must be complied with during the work.
GVDA Expiry Date	The date the proposed works must be completed by. The PA may apply for an extension to this date.
GVDA Register	A tool for tracking details of all GVDAs. The register includes all approved and issued approvals, in addition to approvals which are in-process or were not approved.
GIS	Geographical Information System.
Job Coordinator	Person or persons conducting the disturbance works.
Limit of Disturbance Boundary	The delineated area of disturbance as approved in the GVDA. This area must be pegged unless otherwise stated in the GVDA by the Environment Team or unless the limit can be clearly described by physical structures, such as roads and boundary fences, as agreed by survey. No disturbance can extend beyond this limit. Unapproved features, such as tracks and holes are not to feature on Plans.
Mapinfo	The GIS software program used by AGLM to create a map/plan of the GVDA application area.
Monitoring sites	Locations identified in monitoring programs which address AGLM operational or non-operational sites. Programs may include monitoring for Consent and/or License compliance, research projects and operational trials (e.g. air, water and vegetation monitoring).
GVDA Applicant	The person applying for the GVDA and responsible for the works. Where the PA is not a manager or equivalent, PA's Leader must sign the Application Form prior to the commencement of the approval process.
GVDA Applicant's Leader	The Leader of the person or persons applying for the GVDA.
Permit Applicant (PA)	The person creating the Permit Application in Sage Surpass
Proposed Works	The proposed disturbance activities as set out by the PA in the GVDA application form.
Recipient In Charge (RIC)	The person in receipt of the PTW for the Ground/Vegetation Disturbance work.
Representatives	Persons acting as an Approval Body and providing formal signoff against their accountabilities. Primary representatives are listed on the GVDA

	when issued as ‘Approved’ and include representatives of the Environment Team or their delegates.
Rehabilitated area	All areas of land that have been regenerated after mining (Ravensworth) or other disturbance.

6. Referenced Documents

Document Number	Document Title
AGLM-HSE-PRO-004.02	Permit to Work Procedure
AGLM-HSE-FRM-009.01.2	Ground and Vegetation Disturbance Approval Form

Appendix B

Matters of National Environmental Significance (MNES)

Appendix B Matters of National Environmental Significance (MNES)

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 11-Feb-2025

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	7
Listed Threatened Species:	48
Listed Migratory Species:	10

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	1
Commonwealth Heritage Places:	None
Listed Marine Species:	21
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	1
Nationally Important Wetlands:	None
EPBC Act Referrals:	32
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	1
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar Wetlands) [Resource Information]

Ramsar Site Name	Proximity	Buffer Status
Hunter estuary wetlands	50 - 100km upstream from Ramsar site	In feature area

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Central Hunter Valley eucalypt forest and woodland	Critically Endangered	Community likely to occur within area	In feature area
Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland	Endangered	Community may occur within area	In buffer area only
Hunter Valley Weeping Myall (Acacia pendula) Woodland	Critically Endangered	Community may occur within area	In feature area
Lowland Rainforest of Subtropical Australia	Critically Endangered	Community likely to occur within area	In buffer area only
River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria	Critically Endangered	Community may occur within area	In feature area
Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions	Endangered	Community may occur within area	In buffer area only
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat known to occur within area	In feature area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat may occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat known to occur within area	In feature area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat known to occur within area	In feature area
Erythrotriorchis radiatus Red Goshawk [942]	Endangered	Species or species habitat may occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat known to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat known to occur within area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat known to occur within area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat may occur within area	In feature area
FROG			
Litoria aurea Green and Golden Bell Frog [1870]	Vulnerable	Species or species habitat known to occur within area	In feature area
Litoria booroolongensis Booroolong Frog [1844]	Endangered	Species or species habitat may occur within area	In buffer area only
MAMMAL			
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Endangered	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dasyurus maculatus maculatus (SE mainland population)			
Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area	In feature area
Notamacropus parma			
Parma Wallaby [89289]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Nyctophilus corbeni			
Corben's Long-eared Bat, South-eastern Long-eared Bat [83395]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Petauroides volans			
Greater Glider (southern and central) [254]	Endangered	Species or species habitat may occur within area	In buffer area only
Petaurus australis australis			
Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Petrogale penicillata			
Brush-tailed Rock-wallaby [225]	Vulnerable	Species or species habitat may occur within area	In feature area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)			
Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat known to occur within area	In feature area
Potorous tridactylus tridactylus			
Long-nosed Potoroo (northern) [66645]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Pseudomys novaehollandiae			
New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pteropus poliocephalus			
Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
PLANT			
Androcalva procumbens			
[87153]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Asperula asthenes Trailing Woodruff [14004]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Cynanchum elegans White-flowered Wax Plant [12533]	Endangered	Species or species habitat may occur within area	In feature area
Dichanthium setosum bluegrass [14159]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Eucalyptus glaucina Slaty Red Gum [5670]	Vulnerable	Species or species habitat known to occur within area	In feature area
Euphrasia arguta [4325]	Critically Endangered	Species or species habitat may occur within area	In feature area
Lepidium aschersonii Spiny Peppercress [10976]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Ozothamnus tesselatus [56203]	Vulnerable	Species or species habitat known to occur within area	In feature area
Picris evae Hawkweed [10839]	Vulnerable	Species or species habitat may occur within area	In feature area
Pomaderris brunnea Rufous Pomaderris, Brown Pomaderris [16845]	Vulnerable	Species or species habitat may occur within area	In feature area
Prasophyllum sp. Wybong (C.Phelps ORG 5269) a leek-orchid [81964]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pterostylis gibbosa Illawarra Greenhood, Rufa Greenhood, Pouched Greenhood [4562]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Rhodamnia rubescens			
Scrub Turpentine, Brown Malletwood [15763]	Critically Endangered	Species or species habitat known to occur within area	In buffer area only
Thesium australe			
Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat likely to occur within area	In feature area
REPTILE			
Aprasia parapulchella			
Pink-tailed Worm-lizard, Pink-tailed Legless Lizard [1665]	Vulnerable	Species or species habitat known to occur within area	In feature area
Delma vescolineata			
Hunter Valley Delma [92599]	Endangered	Species or species habitat known to occur within area	In feature area

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Migratory Terrestrial Species			
Hirundapus caudacutus			
White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Motacilla flava			
Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Calidris acuminata			
Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris melanotos			
Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Gallinago hardwickii			
Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pandion haliaetus			
Osprey [952]		Species or species habitat likely to occur within area	In feature area
Tringa nebularia			
Common Greenshank, Greenshank [832]	Endangered	Species or species habitat may occur within area	In feature area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State	Buffer Status
Communications, Information Technology and the Arts - Telstra Corporation Limited		
Commonwealth Land - Australian Telecommunications Commission [12615]	NSW	In buffer area only

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis			
Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
[Chalcites osculans as Chrysococcyx osculans](#) Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area	In feature area
[Gallinago hardwickii](#) Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area
[Haliaeetus leucogaster](#) White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	In feature area
[Hirundapus caudacutus](#) White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
[Lathamus discolor](#) Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
[Merops ornatus](#) Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
[Monarcha melanopsis](#) Black-faced Monarch [609]		Species or species habitat likely to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Motacilla flava](#) Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
[Myiagra cyanoleuca](#) Satin Flycatcher [612]		Species or species habitat known to occur within area overfly marine area	In feature area
[Neophema chrysostoma](#) Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area overfly marine area	In feature area
[Pandion haliaetus](#) Osprey [952]		Species or species habitat likely to occur within area	In feature area
[Pterodroma cervicalis](#) White-necked Petrel [59642]		Species or species habitat may occur within area	In feature area
[Rhipidura rufifrons](#) Rufous Fantail [592]		Species or species habitat likely to occur within area overfly marine area	In feature area
[Rostratula australis as Rostratula benghalensis (sensu lato)](#) Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
[Tringa nebularia](#) Common Greenshank, Greenshank [832]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area

Extra Information

Regional Forest Agreements [Resource Information]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State	Buffer Status

RFA Name	State	Buffer Status
North East NSW RFA	New South Wales	In feature area

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Ashton Coal Operations Ravensworth Underground Mine	2022/09208		Post-Approval	In buffer area only
Bowmans Creek Wind Farm	2020/8631		Post-Approval	In buffer area only
Extension of Liddell open cut coal mining operations, NSW	2013/6908		Post-Approval	In buffer area only
Hunter Transmission Project	2024/09874		Assessment	In buffer area only
Hunter Valley Coal Mining Operations North - State approved mining, NSW	2016/7640		Post-Approval	In buffer area only
Hunter Valley Operations (HVO) North Open Cut Coal Continuation Project	2023/09651		Completed	In buffer area only
Hunter Valley Operations (HVO) North Open Cut Coal Continuation Project	2022/09207		Completed	In buffer area only
Liddell Future Land Use and Enabling Works Project	2022/09330		Assessment	In feature area
Mara Team Testing Release 37 - Allira	2024/09835		Assessment	In feature area
Maxwell Coal Mine, Hunter Valley, NSW	2018/8287		Post-Approval	In buffer area only
Muswellbrook Solar Farm	2022/09303		Assessment	In buffer area only
Controlled action				
Bayswater Power Station Water Infrastructure Upgrade	2020/8623	Controlled Action	Proposed Decision	In buffer area only
Drayton South Coal Project	2011/5911	Controlled Action	Completed	In buffer area only
Drayton South Coal Project, NSW	2014/7402	Controlled Action	Completed	In buffer area only
Gas Transmission Pipeline	2011/5917	Controlled Action	Completed	In buffer area only
Mt Arthur Coal Extension Project Hunter Valley NSW	2011/5866	Controlled Action	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Mt Arthur Coal open cut mine modification, Muswellbrook, NSW	2014/7377	Controlled Action	Post-Approval	In buffer area only
Mt Owen continued coal mining operation	2013/6978	Controlled Action	Post-Approval	In buffer area only
Queensland Hunter Gas Pipeline, approximately 825 km in length	2008/4483	Controlled Action	Completed	In buffer area only
Ravensworth Operations Project	2010/5389	Controlled Action	Post-Approval	In buffer area only
Thomas Mitchell Drive Upgrade, Muswellbrook, NSW	2012/6533	Controlled Action	Completed	In buffer area only
Not controlled action				
Clearance of 35 ha in Ravensworth State Forest for extension of Mt Owen coal mining operations	2004/1369	Not Controlled Action	Completed	In feature area
clearing of GWB Woodland for residential development	2004/1771	Not Controlled Action	Completed	In buffer area only
Construction of a new power line	2011/5930	Not Controlled Action	Completed	In buffer area only
Hunter Valley Coal Mining Operations South - Modification 5	2016/7641	Not Controlled Action	Completed	In buffer area only
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
Liddell Battery, Decoupling and Bayswater Ancillary Works	2020/8844	Not Controlled Action	Completed	In feature area
Production specialty steels for aerospace and machinery industry	2002/554	Not Controlled Action	Completed	In buffer area only
Queensland Hunter Gas Pipeline, approximately 833 km in length	2008/4620	Not Controlled Action	Completed	In buffer area only
Sodium Chlorate Plant	2001/258	Not Controlled Action	Completed	In buffer area only
Not controlled action (particular manner)				
Aerial baiting for wild dog control	2006/2713	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Referral decision				
Bayswater B 2000 MW Power Station	2009/5201	Referral Decision	Completed	In buffer area only

Bioregional Assessments

[Resource Information]

SubRegion	BioRegion	Website	Buffer Status
Hunter	Northern Sydney Basin	BA website	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data is available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on the contents of this report.

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions when time permits.

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded breeding sites; and
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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