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APEM Group

Murchs Corner Battery Energy Storage System (BESS)

Flora and fauna assessment

Final Report

Prepared for Ebare Pty Ltd

24 February 2026

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Document information

Report to:	Ebare Pty Ltd c/- Robert Luxmoore Project Management
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Biosis project no.:	43019
File name:	43019.Murchs.Corner.BESS.FFA.FIN04.20260224
Citation:	Biosis 2026. Murchs Corner Battery Energy Storage System (BESS): Flora and fauna assessment. Report prepared for Ebare Pty Ltd. Authors: Sime H, Russell W, Biosis Pty Ltd, Melbourne Project no. 43019

Document control

Version	Internal review	Date issued
Draft version 01	MSG	22/08/2025
Final version 01	MSG	02/10/2025
Final version 02	MSG	13/10/2025
Final version 03	MSG	14/12/2025
Final version 04	HS	24/02/2026

Acknowledgements

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

- Robert Luxmoore project management: Will Reed
- EBARE Pty Ltd: Clive Jamieson
- Victorian Government Department of Environment, Energy and Climate Action for access to the Victorian Biodiversity Atlas and NatureKit.
- Australian Government Department of Climate Change Energy the Environment and Water for access to the Protected Matters Search Tool

Biosis staff involved in this project were:

- Hayley Sime & Wyn Russell (reporting and fieldwork)
- Philip Gidley (mapping)
- Matthew Gibson (quality assurance)

Biosis acknowledges the Aboriginal and Torres Strait Islander peoples as Traditional Custodians of the land on which we live and work.

We pay our respects to the Traditional Custodians and Elders past and present and honour their connection to Country and ongoing contribution to society.

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Biosis Pty Ltd was commissioned by Ebare Pty Ltd to undertake a flora and fauna assessment of an area of land proposed for the construction of a battery energy storage system (BESS) and associated infrastructure such as a transmission station and substation. The study area is located on a single landholding and an adjacent roadside, approximately four kilometres south-west of Darlington. The study area encompasses approximately 160 hectares of private land and approximately five hectares of the adjacent road reserve. The anticipated development area is expected to be approximately 31 hectares.

Ecological values

Key ecological values identified within the study area are as follows:

- 9.13 hectares of a Department of Energy, Environment and Climate Action mapped wetland (wetland number: 32245).
- Potential habitat for two flora species listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act):
  - Salt-lake Tussock-grass *Poa sallacustris*
  - Swamp Fireweed *Senecio psilocarpus*
- Potential habitat for three EPBC Act listed fauna species:
  - Latham's Snipe *Gallinago hardwickii*
  - White-throated Needletail *Hirundapus caudacutus*
  - Growling Grass Frog *Litoria raniformis*
- Potential habitat for an additional four flora species listed under the *Flora and Fauna Guarantee Act 1988* (FFG Act).
  - Pale Swamp Everlasting *Coronidium gunnianum*
  - Salt Blown-grass *Lachnagrostis robusta*
  - Purple Blown-grass *Lachnagrostis semibarbata var. semibarbata*
  - Wind-blown Tussock-grass *Poa physoclina*
- Potential habitat for an additional five fauna species listed under the FFG Act.
  - Brolga *Antigone rubicunda*
  - Black Falcon *Falco subniger*
  - Tussock Skink *Pseudemoia pagenstecheri*
  - Southern Toadlet *Pseudophryne semimarmorata*
  - Hairy Burrowing Crayfish *Engaeus sericatus*
- Two unnamed streams intersect the study area. Both streams drain into Mount Emu Creek south of the study area. The Eastern-most stream is known colloquially as Mt Fyans drain.
- One threatened ecological community may occur within the study area:

- Seasonal Herbaceous Wetlands (freshwater) of the Temperate Lowland Plains.

- The Western District Lake Complex Ramsar site occurs approximately 13 kilometres from the study area.

Government legislation and policy

An assessment of the project in relation to key biodiversity legislation and policy is summarised below.

Legislation/policy	Relevant ecological feature on site	Permit / approval required	Notes
***Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)**	Two flora species and three fauna species are considered likely to occur within the study area: • Salt-lake Tussock-grass • Swamp Fireweed • Latham's Snipe • White-throated Needletail • Growling Grass Frog One threatened ecological community may also occur within the study area: • Seasonal Herbaceous Wetlands (freshwater) of the Temperate Lowland Plains One Ramsar site occurs within 13 km of the study area.	An EPBC Act referral is unlikely to be required for the project, if significant impacts to Matters of National Environmental Significance (MNES) are avoided. Significant impacts to MNES can be avoided by placing the BESS footprint outside the creeks, wetlands and the adjacent vegetation.	• Habitat for the two threatened flora species and the threatened ecological community occur along the margins of the two unnamed creeks that intersect the study area. • The unnamed creeks are avoided by the current proposed footprint. • The EPBC Act significant impact guidelines for the Growling Grass Frog (DEWHA 2009) outlines that impacts to overwintering or dispersal habitat for an important population within 200 m of a waterway or wetland may constitute a significant impact to the species. • If impacts to aquatic habitat or refuge sites for Growling Grass Frog (aquatic vegetation, dense fringing vegetation, rocks, and logs) within 200 meters of the unnamed creeks are likely to occur, a significant impact assessment for the species is recommended to be undertaken, and targeted surveys may be recommended if the preliminary assessment identifies that a significant impact may be likely. • Impacts are proposed to the boundary of the western dam for the construction of a transmission tower. Despite the works being proposed within the 200m buffer are of several wetlands and occurring on the boundary of a dam, it is unlikely to significantly impact any EPBC Act listed species. This includes Growling Grass Frog, as the area proposed for impact is not likely to provide suitable overwintering habitat. • The project will require the installation (or relocation) of transmission lines to connect the proposed transmission station to the existing lines. The installation or relocation of transmission lines (to connect existing lines to the transmission station) is unlikely to result in significant impacts to threatened

Legislation/policy	Relevant ecological feature on site	Permit / approval required	Notes
			birds if the following recommendations can be implemented: ○ Attach devices (typically flappers, balls or spirals) to electricity transmission lines to increase their visibility. ○ Design or insulate poles and wires to reduce the risk of electrocution of birds or bats from contact. ○ Design measures to reduce the vertical spread of lines, and Increase visibility of lines, and/or decrease the span length.
***Flora and Fauna Guarantee Act 1988* (FFG Act)**	Five flora species and seven fauna species are considered likely to occur within the study area: • Salt-lake Tussock-grass • Pale Swamp Everlasting • Salt Blown-grass • Purple Blown-grass • Wind-blown Tussock-grass • White-throated Needletail • Growling Grass Frog • Brolga • Black Falcon • Tussock Skink • Southern Toadlet • Hairy Burrowing Crayfish	A FFG Act protected flora permit is unlikely to be required.	• Avoidance of direct impacts to the creeks, wetlands and the adjacent vegetation will avoid impacts to these species. • The FFG Act listed flora and fauna species considered likely to occur within the study area are not likely to occur within the public roadside adjacent the study area. As such, their suitable habitat is limited to private property. • The current impact footprint is likely to avoid significantly impacting these species.
***Planning & Environment Act 1987* (P&E Act)**	The mapped wetland that occurs within and adjacent the unnamed creek to the east of the study area.	A planning permit may be required to remove native vegetation, depending on the proposed location of the BESS and associated infrastructure.	• The proposed location of the BESS and associated infrastructure will not require the direct removal of any native vegetation identified within the study area. • Furthermore, the proposed BESS location avoids impacts to the DEECA mapped wetland that occurs within the study area.

Legislation/policy	Relevant ecological feature on site	Permit / approval required	Notes
***Catchment and Land Protection Act 1994* (CaLP Act)**	Four CaLP Act listed species occur within the study area: • Saffron Thistle *Carthamus lanatus* • Spear Thistle *Cirsium vulgare* • Soursob *Oxalis pes-caprae* • Variegated Thistle *Silybum marianum*	It is unlikely that a permit under the CaLP Act will be required.	It is the responsibility of the landholder, the proponent and contractors undertaking on-ground works to prevent the growth and spread of noxious weeds as far as possible.
Water Act 1989	The unnamed Creeks that intersect the study area and the Emu Creek which occurs downstream of the study area.	If the proposed BESS placement will result in direct or indirect impacts to the two unnamed creeks that intersect the site, a permit from the Glenelg Hopkins CMA may be required.	• The proposed location of the BESS and the related infrastructure occurs at least 200 metres from the unnamed Creeks and the mapped wetlands within the property. As such, direct impacts to the Creeks will be avoided. • Implementation of a site specific Construction Environment Management Plan (CEMP) during the construction and operation of the BESS will minimise the indirect impacts to the neighbouring unnamed Creeks. • We recommend that consultation with the Glenelg Hopkins CMA occurs to determine whether any indirect impacts to the unnamed Creeks are likely to require a permit.
Fisheries Act 1995	Protected aquatic biota that may be impacted upon by the development include: • Hairy Burrowing Crayfish (FFG Act Vulnerable).	Providing mitigation measures outlined in this report are adhered to and impacts to habitat are avoided, the potential for protected aquatic biota as listed above, to be injured, damaged or destroyed is considered to be negligible and no permit is required from DEECA.	• The *Fisheries Act 1995* provides a legislative framework for the regulation, management and conservation of Victorian fisheries including aquatic habitats. • A person must not take, injure, damage, destroy or release any protected aquatic biota, including FFG Act listed aquatic invertebrates.

Recommendations

The current proposed BESS impact footprint avoids impacts to habitat for threatened flora and fauna, as well as direct impact to native vegetation. Indirect impacts to these creeks should also be avoided where possible. This will require the production and implementation of a site specific construction Environment Management Plan (CEMP). Other potential indirect impacts to the adjacent creeks include stormwater run-off, flow rate increases etc.

The project will require the installation (or relocation) of transmission lines to connect the proposed transmission station to the existing lines. The installation or relocation of transmission lines (to connect existing lines to the transmission station) is unlikely to result in significant impacts to threatened birds if the following recommendations can be implemented:

- Attach devices (typically flappers, balls or spirals) to electricity transmission lines to increase their visibility
- Design or insulate poles and wires to reduce the risk of electrocution of birds or bats from contact
- Design measures to reduce the vertical spread of lines, and increase visibility of lines, and/or decrease the span length.

1 Introduction

1.1 Project background

Biosis Pty Ltd was commissioned by Ebare Pty Ltd project management (RLPM) to undertake a flora and fauna assessment of an area of land proposed for the construction of a battery energy storage system (BESS) and associated infrastructure such as a transmission station and substation. The study area is located on a single landholding and an adjacent roadside, approximately four kilometres south-west of Darlington.

Biosis previously provided Ebare Pty Ltd with preliminary advice on the siting of the BESS in relation to the potential impacts to Brolga *Antigone rubicunda* (Biosis 2025).

1.2 Scope of assessment

The objectives of this investigation are to:

- Describe the vascular flora (ferns, conifers, flowering plants), vertebrate fauna (mammals, birds, reptiles, frogs, fishes) and decapod crustacea (e.g. burrowing crayfish) observed within the study area.
- Map native vegetation and other habitat features within the study area.
- Conduct a vegetation quality assessment.
- Review the implications of relevant biodiversity legislation and policy, including Victoria's Guidelines for the removal, destruction or lopping of native vegetation ('the Guidelines') (DELWP 2017a).
- Identify potential implications of the proposed development and provide recommendations to assist with development design.
- Recommend any further assessments of the study area that may be required.

1.3 Location of study area

The study area is located approximately four kilometres south-west of Darlington (Figure 1). It encompasses approximately 160 hectares of private land and approximately five hectares of the adjacent road reserve. The entire study area is currently zoned Farming Zone (FZ) and is not subject to any overlays that are relevant to biodiversity.

The study area is within the:

- Victorian Volcanic Plain Bioregion
- Hopkins River Basin
- Management area of Glenelg Hopkins Catchment Management Authority (CMA)
- Moyne Shire Council
- Traditional lands of the Eastern Maar

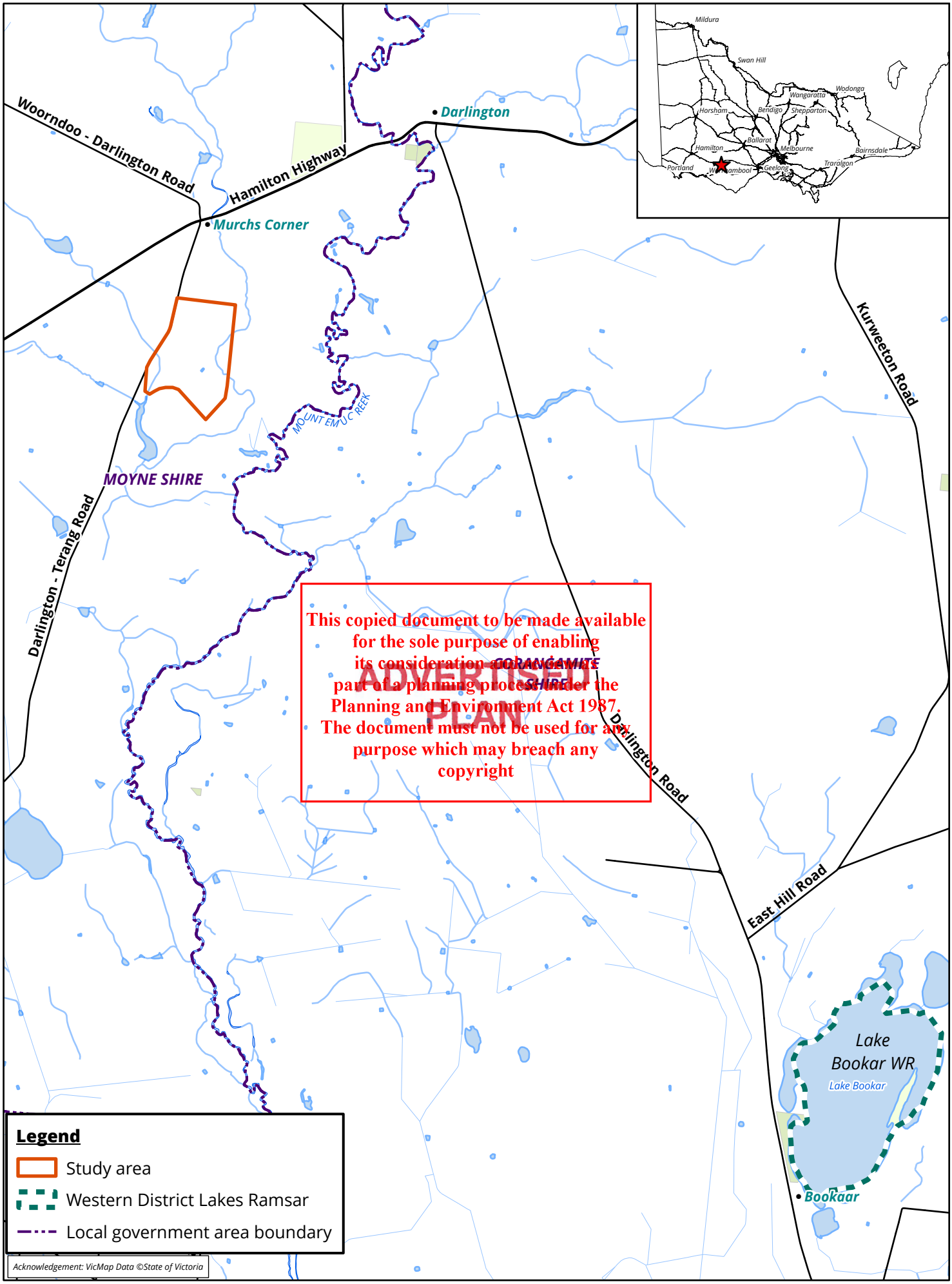

Figure 1 Location of the study area - Murchs Corner, Victoria

Matter: 43019,
Date: 13 October 2025 ,
Prepared for: HS, Prepared by: PG, Last edited by: pgidley
Layout: 43019_F1_Locality
Project: P:\43000s\43019\Mapping\43019_MurchsCornerBESS_FFA.aprx

0 1 2 3 4
Kilometres

Scale: 1:75,000 @ A4
Coordinate System GDA2020 MGA Zone 55

N

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2 Methods

2.1 Database review

In order to provide an ecological context for the study area, information on flora and fauna from within 10 kilometres of the study area (the 'local area') was obtained from relevant biodiversity databases, many of which are maintained by the Victorian Government Department of Energy, Environment and Climate Action (DEECA) or the Australian Government Department of Climate Change, Energy, the Environment and Water (DCCEEW). Records from the following databases were collated and reviewed:

- DEECA's Victorian Biodiversity Atlas (VBA), including the 'VBA_FLORA25, FLORA100 & FLORA Restricted' and 'VBA_FAUNA25, FAUNA100 & FAUNA Restricted' datasets (DSE 2009)
- DCCEEW's Protected Matters Search Tool for matters protected by the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)

Other sources of biodiversity information were examined including:

- DEECA's NatureKit mapping tool
- DEECA's Habitat Importance maps
- DEECA's Native Vegetation Regulations (NVR) Map online application tool
- DEECA's Ensym NVR Tool Support team was provided with site-based spatial information in order to generate a Native Vegetation Removal Report for the study area
- Planning Scheme zones including any precinct structure plans, overlays and particular provisions relevant to biodiversity based on http://planningschemes.dpcd.vic.gov.au

2.2 Definitions of threatened species and communities

Threatened species and communities are listed under the EPBC Act and/or Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act). The conservation status of a species or ecological community is determined by its listing status under Commonwealth or State legislation/policy (Table 1).

Table 1 Conservation status of threatened species and ecological communities

Level of significance	Conservation status
National	Listed as nationally critically endangered, endangered or vulnerable under the EPBC Act
State	Listed as extinct, extinct in the wild, critically endangered, endangered, vulnerable or conservation dependent in Victoria under the FFG Act

Lists of threatened species generated from the databases are provided in Appendix 1 (flora) and Appendix 2 (fauna). Each species has been assessed to determine its likelihood of occurrence as follows.

2.3 Determining likelihood of occurrence of threatened species

Likelihood of occurrence indicates the potential for a species or ecological community to occur within the study area. It is based on expert opinion, information in relevant biodiversity databases and reports, and an assessment of habitats on the site. Likelihood of occurrence is ranked as negligible, low, medium, high or

recorded. The rationale for the rank assigned is provided for each species in Appendix 1 (flora) and Appendix 2 (fauna). Those species for which there is little or no suitable habitat within the study area are assigned a likelihood of low or negligible and are not considered further.

Only those species listed under the EPBC Act or the FFG Act (hereafter referred to as 'threatened species') are assessed to determine their likelihood of occurrence. The habitat value for threatened species is calculated by Habitat Importance Modelling produced by DEECA (DELWP 2017b). Where threatened species are recorded in the study area this is noted in Appendix 1 (flora) and Appendix 2 (fauna).

Threatened species that have at least a medium likelihood of occurrence are given further consideration in this report. The need for targeted survey for these species is also considered.

2.4 Site investigation

2.4.1 Flora assessment

Flora assessment was undertaken on 5 August 2025 by Hayley Sime (Botanist). A list of flora species was compiled and will be submitted to DEECA for incorporation into the Victorian Biodiversity Atlas (VBA). Planted species were not recorded unless they were naturalised.

Native vegetation is defined in the Victoria Planning Provisions as 'plants that are indigenous to Victoria, including trees, shrubs, herbs, and grasses' (Clause 73.01).

The Guidelines classify native vegetation into two categories (DELWP 2017a):

- A **patch** of native vegetation (measured in hectares) is one of the following:
  - An area of vegetation, with or without trees, where at least 25% of the total perennial understorey cover is native.
  - An area with three or more native canopy trees where the drip line (i.e. the outermost boundary of a tree canopy) of each tree touches the drip line of at least one other tree, forming a continuous canopy.
  - Any mapped wetland included in the Current wetlands map, available in DEECA systems and tools.
- A **scattered tree** is defined as a native canopy tree that does not form part of a patch.

Patch vegetation is classified into ecological vegetation classes (EVCs), which are the standard unit for classifying vegetation types in Victoria. They are described through a combination of floristics, lifeforms and ecological characteristics, and through an inferred fidelity to particular environmental attributes. Each EVC contains one or more floristic (plant) communities. EVC benchmarks are standard descriptions that allow the vegetation quality on a given site to be determined under the Guidelines (DELWP 2017a).

A canopy tree is a mature tree that is greater than three metres in height and is normally found in the upper layer of a vegetation type. Ecological vegetation class benchmarks provide a list of typical canopy species.

A scattered tree is defined as either large or small, and the size class is determined using the large tree benchmark for the relevant EVC. The extent of a large scattered tree is a circle with a 15-metre radius (i.e. 0.070 hectares) and a small, scattered tree is the area of a 10-metre radius circle (i.e. 0.031 hectares). A condition score is applied to each scattered tree based on DEECA's NVR Map.

Vegetation Quality Assessment (VQA) was undertaken for all patches of native vegetation based on DEECA's habitat hectare method (DSE 2004) and the Guidelines (DELWP 2017a). For the purposes of this assessment

the limit of the resolution for identification of a patch of native vegetation was taken to be 0.001 habitat hectares (Hha). If a discrete patch of native vegetation had sufficient cover but its condition and extent would not result in the identification of at least 0.001 habitat hectares the vegetation patch was not mapped.

Species nomenclature for flora follows the Victorian Biodiversity Atlas (VBA).

2.4.2 Fauna assessment

Fauna assessment was undertaken on 5 August 2025 by Wyn Russell (Senior Zoologist) to determine the fauna habitat values of the study area. These were determined primarily on the basis of the types and qualities of habitat(s) present. All species of fauna observed during the assessment were noted and active searching for fauna was undertaken. This included direct observation, examination of burrows, tracks and scats, and identifying calls. Particular attention was given to searching for significant species and their habitats.

Fauna species were recorded with a view to characterising the values of the site and the investigation was not intended to provide a comprehensive survey of all fauna that have potential to utilise the site over time. Fauna records will be submitted to DEECA for incorporation into the VBA.

2.4.3 Permits

Biosis undertakes flora and fauna assessments under the following permits and approvals:

- Wildlife Authorisation issued by DEECA under the Victorian *Wildlife Act 1975* (Permit Number 10011235).
- Permit to Take/Keep Protected Flora issued by DEECA under the FFG Act (Permit Number 10011236).
- Permit to Take Protected Fish issued by DEECA under the FFG Act (Permit Number 10011237).
- Permit to Conduct Research in areas managed by the Parks Victoria issued by DEECA under the Victorian *National Parks Act 1975*, *Crown Land (Reserves) Act 1978* and *Parks Victoria Act 2018* (Permit Number AA-0002306).
- Permit to catch and release fish issued by the Victorian Fisheries Authority under the Victorian *Fisheries Act 1995* (Permit Number RP1220, Personal File Number 13041).
- Approvals 27.24 and 28.24 issued by the Wildlife and Small Institutions Animal Ethics Committee of the Victorian Government.
- Scientific Procedures Fieldwork Licence issued by the Victorian Government Wildlife and Small Institutions Animal Ethics Committee (Licence Number 20020).

2.5 Qualifications

Ecological surveys provide a sampling of flora and fauna at a given time and season. There are several reasons why not all species may be detected at a site during survey, such as low abundance, patchy distribution, species dormancy, seasonal conditions, and migration and breeding behaviours. In many cases these factors do not present a significant limitation to assessing the overall biodiversity values of a site.

The current flora and fauna assessment was conducted in winter. While this is not an optimal time for surveys, it is considered unlikely to have significantly impacted the results of the survey. This is because most of the study area has been cleared to support agriculture (such as grazing and pasture). A survey during a more optimal season (such as spring) is unlikely to result in a significant difference in the results.

2.6 Legislation and policy

Implications for the project in relation to key biodiversity legislation and policy were assessed including:

- Matters listed under the EPBC Act, associated policy statements, significant impacts guidelines, listing advice and key threatening processes
- Threatened taxa, communities and threatening processes listed under Section 10 of the FFG Act and associated action statements and listing advice
  - Appendix 2 to the Handbook for development of renewable energy in Victoria (DEECA 2025) was reviewed (species-specific guidance for impact of onshore wind energy facilities to Victorian Brolga), however, the guidance is not directly applicable to this project as it is only relevant for wind energy facilities and electricity transmission lines directly associated with connecting wind energy facilities or solar facilities to the electricity network. The advice within these guidelines regarding buffering of potential breeding wetlands was considered during this assessment and in the assessment of areas of low ecological constraints (Figure 3).
- Guidelines for the removal, destruction or lopping of native vegetation (DELWP 2017a)
- *Planning and Environment Act 1987*, specifically Clauses 12.01-2, 52.17 and 66.02 and Overlays in the Moyne Planning Scheme
- Noxious weed and pest animal lists under the *Catchment and Land Protection Act 1994* (CaLP Act)
- *Fisheries Act 1995*
- *Water Act 1989*

2.7 Mapping

Robert Luxmoore project management supplied an initial investigation area followed by a BESS layout and connection plan (RevB) on 28 November 2025.

Mapping was conducted using hand-held GPS-enabled tablets and aerial photo interpretation. The accuracy of this mapping is therefore subject to the accuracy of the tablets (generally ±7 metres) and dependent on the limitations of aerial photo rectification and registration.

Mapping has been produced using a Geographic Information System (GIS). Electronic GIS files which contain our flora and fauna spatial data are available to incorporate into design concept plans. However, this mapping may not be sufficiently precise for detailed design purposes.

3 Results

The ecological features of the study area are described below and mapped in Figure 2.

Species recorded during the flora and fauna assessment are listed in Appendix 1 (flora) and Appendix 2 (fauna). Unless of particular note these species are not discussed further.

Threatened species recorded or predicted to occur in the local area are also listed in these appendices, along with an assessment of the likelihood of the species occurring within the study area.

3.1 Vegetation and fauna habitat

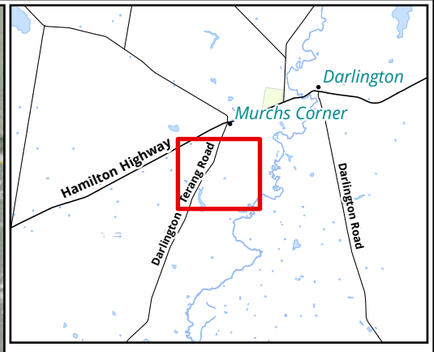
The Murchs corner BESS investigation area occurs on a property with a history of disturbance. Most of the property has been cleared (historically) to support agricultural activities such as pasture and crop production.

Both the northern and southern halves of the study area are positioned within paddocks that no longer support native vegetation. These paddocks are dominated by introduced species such as Brown-top Bent *Agrostis capillaris,* Barley Grass *Hordeum* sp. and Cocksfoot *Dactylis glomerata*. Signs of historical rock removal are evident throughout these paddocks, as embedded and surface rocks are infrequently observed. Grazing pressure appears high in the paddocks that have not recently been sown, with the vegetation height maintained well below 10 centimetres. Native species were not recorded throughout these grazed paddocks. While species such as Wallaby Grass *Rytidosperma* spp. may occur sporadically, patches of native vegetation (as define in the Guidelines) do not occur throughout the paddocks.

An unnamed creek (referred to as the Mt Fyans Drain) intersects the study area along the eastern boundary of the southern and northern halves of the study area (See Figure 2). Native vegetation with a cover high enough to qualify as a patch was only recorded within and directly adjacent this Creek. Creekline Tussock Grassland Ecological Vegetation Class (EVC) 654 occurs adjacent the Creek, while the Creek itself supports several wetland species including Common Water-ribbons *Cycnogeton procerum* and Common Spike-sedge *Eleocharis acuta.* This vegetation occurs within an area mapped as part of the Victorian wetland inventory (Current) (shown in Figure 2). The vegetation adjacent this creek may provide suitable habitat for six threatened flora species.

Vegetation within the roadside of Darlington-Terang Road is disturbed and appears to have been subject to historical rock removal. The vegetation is dominated by introduced species such as Towoomba Canary-grass *Phalaris aquatica,* Onion Grass *Romulea rosea* and Common Vetch *Vicia sativa.* The roadside approximately 1.5 kilometres south of the study area supports native patch vegetation and is of a high conservation value (roadsides supporting high biodiversity values are signed). This higher quality vegetation only occurs in areas where embedded rock is also present, indicating limited historical soil disturbance. Since rock removal appears to have occurred within the roadside adjacent the study area, it is likely that previous management such as pasture sowing has occurred. However, this is difficult to determine and has not occurred in recent years according to an assessment of aerial imagery. The historical disturbance that is likely to have occurred within the roadside adjacent the project area has reduced the quality of the vegetation for threatened flora and fauna.

Photos are provided in Appendix 3.



Legend

- Study area
- Current parcel boundary
- Contour 10m interval
- Planted shelterbelts
- Transmission line
- Site access location
- Burrowing Crayfish - *Engaeus spp.*

Ecological vegetation class

- (VVP_0654) Creekline Tussock Grassland

Hydrology

- DEECA mapped wetland
- Lake/Dam
- Watercourse area (natural double sided stream)
- Drain/channel
- River or creek

Figure 2 Ecological features of the study area

0 100 200 300 400 500

Metres

Scale: 1:10,000 @ A3

Coordinate System: GDA2020 MGA Zone 54

N

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Matter: 43019,
Date: 02 December 2025 ,
Prepared for: HS, Prepared by: PG, Last edited by: pgidley
Layout: 43019_F2_Ecofeatures
Project: P:\43000s\43019\Mapping\43019_MurchsCornerBESS_FFA.aprx

Table 2 Vegetation and habitat types within the study area

Vegetation or habitat type	Description	Location	Significant values
Vegetation adjacent and within the unnamed Creek on the eastern boundary of the study area (known colloquially as Mt Fyans Drain).	The vegetation adjacent the creek is likely to be classified as Creekline Tussock Grassland. It supports a dominant cover of Australian Salt-grass *Distichlis distichophylla.* Other native species such as herbs or summer growing grasses may also occur within this patch of vegetation, however they were not recorded during the current assessment. Native vegetation also occurs within the creek including Common Spike-sedge and Common Water-ribbons. The water within the creek appeared cloudy due to sedimentation, which may be a result of sheep readily accessing the creek.	Adjacent the unnamed creek that runs along the eastern boundary of the study area and intersects with the northern and southern parts of the study area.	Northern extent with fringing vegetation likely to provide occasional foraging and roosting habitat for Latham's Snipe and Southern Toadlet and may act as movement corridor for Growling Grass Frog. Low-lying areas adjacent to creek provide habitat for Hairy Burrowing Crayfish, which connect borrows to the water table.
Constructed dam	A large dam has been constructed in what may have been a previously natural wetland surrounding an unnamed creek. The significant ground-disturbance associated with dam construction has led to a loss of suitable habitat for native species. Large, dead tussock grasses occur within a (currently) dry part of the dam. These may have been native species (such as Common Tussock Grass *Poa labillardierei* prior to the construction of the dam). It is not possible to identify these grasses to determine if they were native or introduced	Along the eastern and southern boundaries of the study area.	Negligible current value for threatened fauna, however, if aquatic vegetation establishes over time, it may be utilised as habitat for Latham's Snipe, Growling Grass Frog, and Brolga.
Planted vegetation	Planted shelterbelts occur along the southern and eastern boundaries of the study area. These shelterbelts vary in their species composition with some areas consisting of native trees and shrubs only, a mix of native and non-native species (such as Radiata Pine *Pinus radiata*) and just Radiata Pine or Monterey Cypress *Hesperocyparis macrocarpa.*		Marginal occasional foraging and nesting habitat for birds. Unlikely to be regularly utilised or relied on by threatened birds or bats. May provide nesting habitat for Black Falcon.

Vegetation or habitat type	Description	Location	Significant values
Grazed and/or cropped paddocks	Paddocks currently being used for grazing are dominated by introduced species and show signs of embedded rock removal and historical or current pasture sowing. As such, no native vegetation was identified during the current assessment.	Most of the paddocks within the study area, in both the northern and southern halves of the study area.	Negligible habitat value for threatened fauna.
Slashed and/or burnt roadside grassland	Roadside reserve, dominated by non-native species. Lack of surface or embedded rock indicates that historical rock removal and potentially cultivation occurred.	Western extent of the study area, adjacent to Darlington-Terang Road.	Potential marginal habitat for Tussock Skink.

3.2 Landscape context

The study area occurs within a landscape of properties cleared for agriculture. Grazing, cropping and pasture production are all prominent land uses within the vicinity of the study area. Modelled native vegetation extent (DELWP 2005) is limited throughout the paddocks utilised for agriculture, particularly to the south and east of the study area.

Creekline Grassy Woodland Ecological Vegetation Class (EVC) 68 is modelled to occur along the banks of the Mount Emu Creek which occurs approximately 1 kilometre south-east of the study area. The two unnamed Creeks that intersect the study area drain into two large, wetlands south of the study area and then into Mount Emu Creek, which flows into the Hopkins River near Warrnambool.

Several wetlands within the landscape are modelled as suitable habitat for Brolga *Grus rubicunda* (Figure 4). While the modelled habitat wetlands within the study area may be utilised as foraging or roosting habitat for Brolgas, particularly while inundated, they are unlikely to provide suitable nesting habitat, due to the lack of sufficiently large areas of wetland with suitable aquatic vegetation to construct nests.

3.3 Threatened species and ecological communities

Listed threatened species recorded or predicted to occur within 5 kilometres of the study area or from the relevant catchment (aquatic species) are listed in Appendix 1 (flora) and Appendix 2 (fauna). An assessment of the likelihood of these species occurring in the study area and an indication of where within the site (i.e. which habitats or features of relevance to the species) is included. A summary of those species recorded or with a medium or higher likelihood of occurring in the study area is provided in Table 3.

Table 3 EPBC Act and FFG Act listed species with a medium or higher likelihood of occurrence in the study area

Species name	Listing status		Area of value within the study area	Likelihood of significant impact
	EPBC Act	FFG Act		
Flora				
Salt-lake Tussock-grass ***Poa sallacustris***	VU	cr	Vegetation adjacent the unnamed creek (colloquially known as Mt Fyan's drain) close to the eastern boundary of the study area.	Negligible. Proposed development avoids removal of the vegetation that may provide habitat for these threatened species (i.e. the vegetation adjacent the eastern creek).
Swamp Fireweed ***Senecio psilocarpus***	VU			
Pale Swamp Everlasting ***Coronidium gunnianum***		cr		
Salt Blown-grass ***Lachnagrostis robusta***		e		
Purple Blown-grass		e		

Species name	Listing status		Area of value within the study area	Likelihood of significant impact
	EPBC Act	FFG Act		
Lachnagrostis semibarbata var. semibarbata				
Wind-blown Tussock-grass ***Poa physoclina***		e		
Fauna				
Latham's Snipe ***Gallinago hardwickii***	VU		Foraging and roosting habitat in the unnamed creek adjacent ungrazed vegetation in the north-east extent of the study area.	Low. Proposed development area avoids direct impact to potential foraging or roosting habitat and minimises indirect impacts through buffering. Species does not breed within Australia.
White-throated Needletail ***Hirundapus caudacutus***	VU	v	Widespread predominantly aerial species. Likely to forage in airspace above the study area. Unlikely to regularly utilise terrestrial habitat.	Negligible. Terrestrial development that does not pose a notable collision risk. White-throated Needletail are unlikely to fly low enough to be significantly impacted by the new/relocated transmission lines.
Growling Grass Frog ***Litoria raniformis***	VU	v	Unnamed creek in the northern extent of the study area and adjacent ungrazed vegetation may provide some foraging and overwintering habitat and act as a movement corridor within the local area. No suitable breeding habitat within the study area.	Low. Proposed development area avoids direct impact to potential habitat. Unlikely to impact dispersal or overwintering habitat.
Brolga ***Antigone rubicunda***		e	Unnamed creek in the northern and southern extent of the study area and open paddocks may provide some foraging habitat. No suitable nesting wetland habitat within the study area.	Low. Proposed development area avoids direct impact to wetland foraging habitat and is unlikely to disrupt local movement patterns or breeding success. Study area is unlikely to support suitable nesting habitat. Recommendations to avoid bird impacts with the new transmission lines should be complied with (Section 5).
Black Falcon ***Falco subniger***		cr	Potential nesting habitat in planted trees. Foraging habitat throughout the local area.	Negligible. Proposed development avoids removal of potential habitat trees and is unlikely to significantly impact prey availability.
Tussock Skink ***Pseudemoia pagenstecheri***		e	Potential habitat in grassland road reserve.	Negligible. Proposed development is restricted to cropped and heavily grazed paddocks unlikely to be utilised as habitat by the species.

Species name	Listing status		Area of value within the study area	Likelihood of significant impact
	EPBC Act	FFG Act		
Southern Toadlet ***Pseudophryne semimarmorata***		e	Unnamed creek in the northern extent of the study area and adjacent ungrazed vegetation.	Low. Proposed development area avoids direct impact to potential habitat.
Hairy Burrowing Crayfish ***Engaeus sericatus***		v	Low-lying areas adjacent to Unnamed creek in the northern and southern extent of the study area (Figure 3, Photo 1). Restricted to low-lying areas as burrows require connection to the water table.	Low. Proposed development area avoids direct impact to low-lying areas adjacent to wetlands where burrows were recorded and minimises indirect impacts through buffering from wetland and waterways.

3.3.1 Threatened ecological communities

Four EPBC Act listed threatened ecological communities and two FFG Act listed threatened communities are modelled to occur within the study area. Of these, one EPBC Act listed threatened ecological community is considered likely to occur. Vegetation adjacent the unnamed Creek along the eastern boundary of the study area may qualify as *Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains* Figure 2. This vegetation is not currently proposed to be impacted by the works (shown in Figure 5).

3.4 Other ecological values

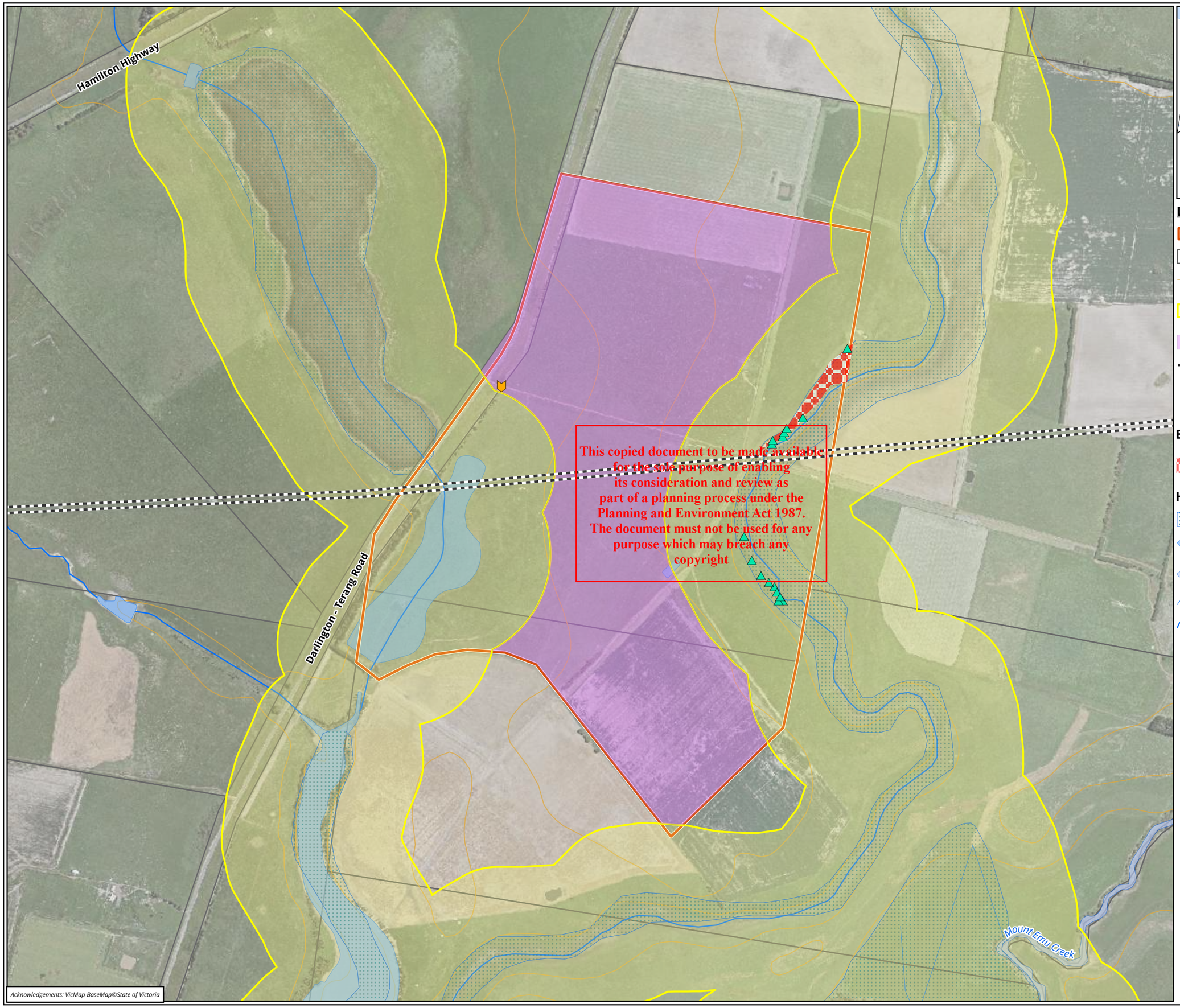
Mount Emu Creek occurs outside the study area to the south-east. Both unnamed Creeks that intersect the study area drain into the Mount Emu Creek.

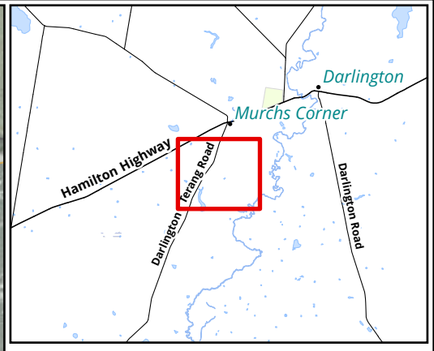
3.5 Further survey recommendations

The construction of the BESS and the related infrastructure occur within the areas of low ecological constraint (as shown in Figure 3). As a result, no targeted surveys for threatened fauna or flora species are recommended.

The EPBC Act significant impact guidelines for the Growling Grass Frog (DEWHA 2009) outlines that impacts to overwintering or dispersal habitat for an important population within 200 m of a waterway or wetland may constitute a significant impact to the species. If impacts to aquatic habitat or refuge sites for Growling Grass Frog (aquatic vegetation, dense fringing vegetation, rocks, and logs) within 200 meters of the unnamed creeks are likely to occur, a significant impact assessment for the species is recommended to be undertaken, and targeted surveys may be recommended if a significant impact may be likely.

The construction of a transmission line adjacent the bank of the western dam is unlikely to result in significant impacts to aquatic habitat or refuge sites for Growling Grass (Figure 5) (despite occurring within the 200 metre buffer zone of a wetland). As a result, further surveys for Growling Grass Frog are not recommended.





Legend

- Study area
- Current parcel boundary
- Contour 10m interval
- 200m buffer of DEECA mapped wetland
- Low ecological constraints
- Transmission line
- Site access location
- Burrowing Crayfish - *Engaeus spp.*

Ecological vegetation class

- (VVP_0654) Creekline Tussock Grassland

Hydrology

- DEECA mapped wetland
- Lake/Dam
- Watercourse area (natural double sided stream)
- Drain/channel
- River or creek

Figure 3 Low ecological constraint locations

0 100 200 300 400 500

Metres

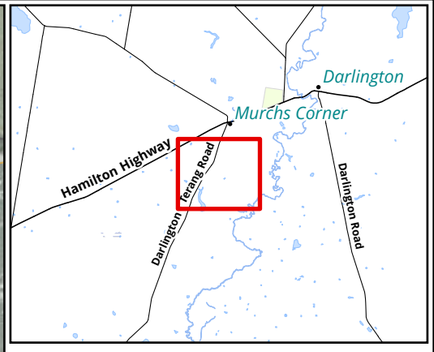
Scale: 1:10,000 @ A3

Coordinate System: GDA2020 MGA Zone 54

N

biosis APEMGroup

Matter: 43019,
Date: 02 December 2025 ,
Prepared for: HS, Prepared by: PG, Last edited by: pgidley
Layout: 43019_F3_LowEcologicalConstraints
Project: P:\43000s\43019\Mapping\
43019_MurchsCornerBESS_FFA.aprx



Legend

- Study area
- Current parcel boundary
- Contour 10m interval
- Modelled Brolga breeding wetlands (DEECA, 2025)
- Planted shelterbelts
- Transmission line
- Site access location
- Burrowing Crayfish - *Engaeus spp.*

Ecological vegetation class

- (VVP_0654) Creekline Tussock Grassland

Hydrology

- DEECA mapped wetland
- Lake/Dam
- Watercourse area (natural double sided stream)
- Drain/channel
- River or creek

Figure 4 Modelled Brolga breeding wetlands

0 100 200 300 400 500

Metres

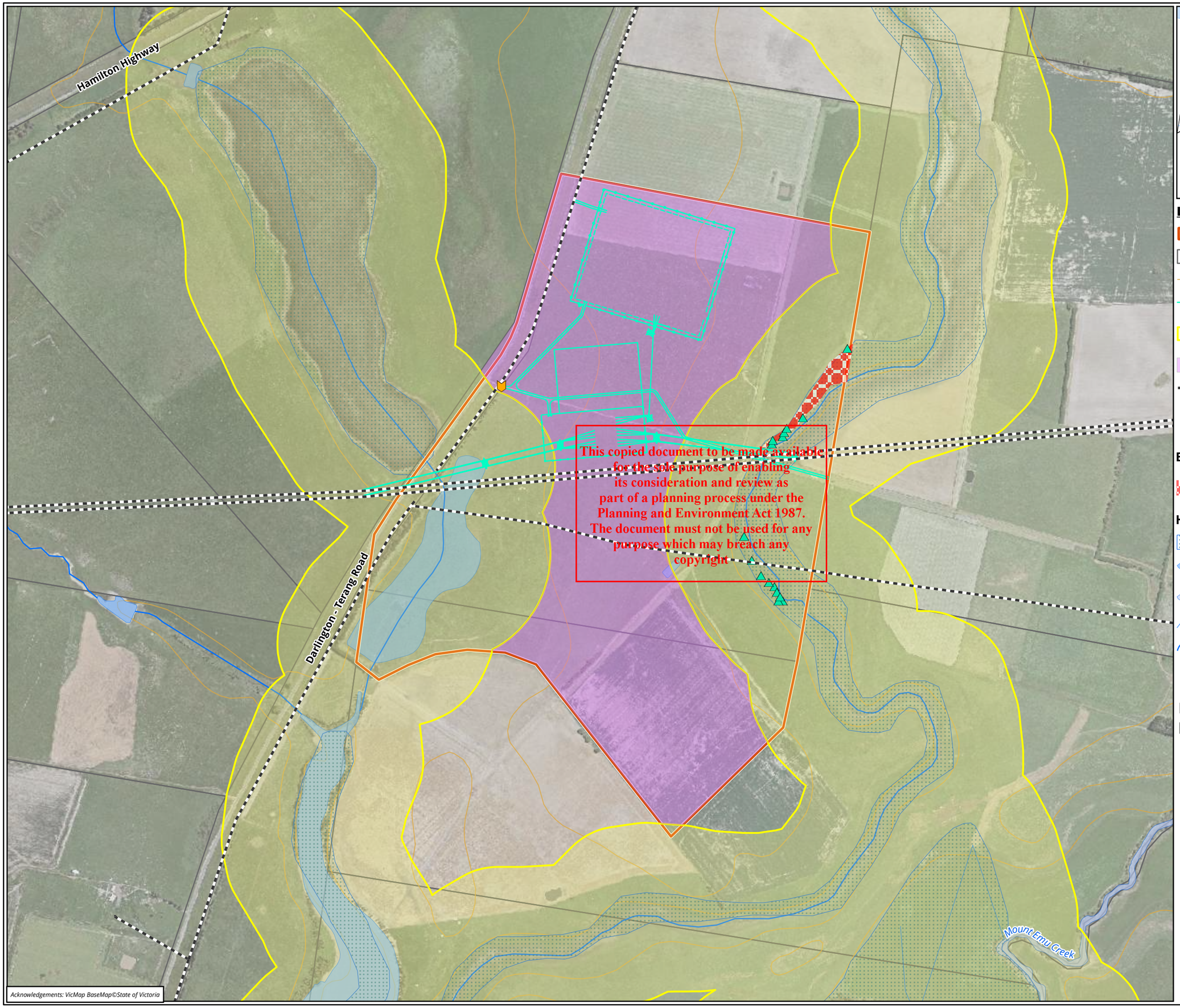
Scale: 1:10,000 @ A3

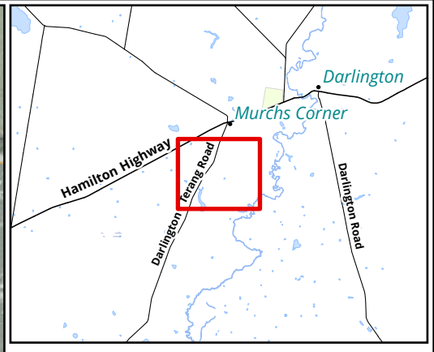
Coordinate System: GDA2020 MGA Zone 54

N

biosis APEMGroup

Matter: 43019,
Date: 02 December 2025 ,
Prepared for: HS, Prepared by: PG, Last edited by: pgidley
Layout: 43019_F4_ModelledBrolga
Project: P:\43000s\43019\Mapping\43019_MurchsCornerBESS_FFA.aprx





Legend

- Study area
- Current parcel boundary
- Contour 10m interval
- Proposed BESS design
- 200m buffer of DEECA mapped wetland
- Low ecological constraints
- Transmission line
- Site access location
- Burrowing Crayfish - *Engaeus spp.*

Ecological vegetation class

- (VVP_0654) Creekline Tussock Grassland

Hydrology

- DEECA mapped wetland
- Lake/Dam
- Watercourse area (natural double sided stream)
- Drain/channel
- River or creek

Figure 5 Proposed BESS location

0 100 200 300 400 500

Metres

Scale: 1:10,000 @ A3

Coordinate System: GDA2020 MGA Zone 54

N

biosis

APEM Group

Matter: 43019,
Date: 02 December 2025 ,
Prepared for: HS, Prepared by: PG, Last edited by: pgidley
Layout: 43019_F5_ProposedBESSLocation
Project: P:\43000s\43019\Mapping\
43019_MurchsCornerBESS_FFA.aprx

4 Biodiversity legislation and government policy

This section provides an assessment of the project in relation to key biodiversity legislation and government policy. It does not describe the legislation and policy in detail. Where available, links to further information are provided.

4.1 Commonwealth

4.1.1 *Environment Protection and Biodiversity Conservation Act 1999*

The EPBC Act applies to developments and associated activities that have the potential to significantly impact on Matters of National Environmental Significance (MNES) protected under the Act.

Further information including a guide to the referral process is available at http://www.environment.gov.au/epbc/index.html

The MNES relevant to the project are summarised in Table 4. It includes an assessment against the EPBC Act policy statements published by the Australian Government which provide guidance on the practical application of EPBC Act.

Table 4 Assessment of project in relation to the EPBC Act

MNES	Project specifics	Assessment against significant impact guidelines
EPBC Act listed species	Two flora species and three fauna species are considered likely to occur within the study area: • Salt-lake Tussock-grass • Swamp Fireweed • Latham's Snipe • White-throated Needletail • Growling Grass Frog One Ramsar site occurs within 13 km of the study area. The likelihood of these species occurring in the study area is assessed in Appendix 1 (flora) and Appendix 2 (fauna).	• Habitat for the two threatened flora species and the threatened ecological community occur along the margins of the two unnamed creeks that intersect the study area. • The unnamed creeks are avoided by the current proposed footprint. • The EPBC Act significant impact guidelines for the Growling Grass Frog (DEWHA 2009) outlines that impacts to overwintering or dispersal habitat for an important population within 200 m of a waterway or wetland may constitute a significant impact to the species. • If impacts to aquatic habitat or refuge sites for Growling Grass Frog (aquatic vegetation, dense fringing vegetation, rocks, and logs) within 200 meters of the unnamed creeks are likely to occur, a significant impact assessment for the species is recommended to be undertaken, and targeted surveys may be recommended if the preliminary assessment identifies that a significant impact may be likely.

MNES	Project specifics	Assessment against significant impact guidelines
		• The installation of a transmission line pylon is proposed adjacent the banks of a constructed dam in the west of the study area. Despite the works being proposed within the 200m wetland buffer area and occurring on the boundary of a dam, it is unlikely to significantly impact any EPBC Act listed species. This includes Growling Grass Frog, as the area proposed for impact is not likely to provide suitable overwintering habitat. • The project will require the installation (or relocation) of transmission lines to connect the proposed transmission station to the existing lines. The installation or relocation of transmission lines (to connect existing lines to the transmission station) is unlikely to result in significant impacts to threatened birds if the following recommendations can be implemented: ○ Attach devices (typically flappers, balls or spirals) to electricity transmission lines to increase their visibility. ○ Design or insulate poles and wires to reduce the risk of electrocution of birds or bats from contact. ○ Design measures to reduce the vertical spread of lines, and Increase visibility of lines, and/or decrease the span length.
EPBC Act listed ecological communities	One Threatened Ecological Community may also occur within the study area: • Seasonal Herbaceous Wetlands (freshwater) of the Temperate Lowland Plains	Habitat for the threatened ecological community occurs along the margins of the two unnamed creeks that intersect the study area. The current BESS location and other associated works (shown in Figure 5) will not result in impacts to this habitat.
Migratory species	Nine migratory species are recorded or predicted to occur in the project search area (Appendix 2).	While some of these species would be expected to use the study area on occasion, such as Latham's Snipe and White-throated Needletail, and some of them may do so regularly, it does not provide important habitat for an ecologically significant proportion of any of these species.
Wetlands of international importance (Ramsar sites).	One Ramsar site occurs within 13 km of the study area: • The Western District Lake Complex Ramsar site	The two unnamed creeks within the study area do not run into the Western District Lake Complex Ramsar site. Given the distance between the study area and the Ramsar site,

MNES	Project specifics	Assessment against significant impact guidelines
		it is considered unlikely that the project will significantly impact it.

The current impact footprint is not located within a location that supports habitat for threatened species or communities listed under the EPBC Act. Indirect impacts to these habitats and vegetation communities are also likely to be avoided and/or minimised by the implementation of a site specific Construction Environment Management Plan.

As a result (based on the current proposed impact footprint) it is not considered likely that a significant impact on a Matter of National Environmental Significance will occur because of the construction of the proposed BESS. As such an EPBC Act referral is not considered likely to be required.

4.2 State

4.2.1 *Flora and Fauna Guarantee Act 1988* (FFG Act)

The FFG Act is a key piece of Victorian legislation on the conservation of threatened species and communities and on the management of potentially threatening processes. Under the Act a permit is required from DEECA to 'take' protected flora species. Permit exemptions under the Act generally apply to the non-commercial removal of protected flora from private land, unless there is 'critical habitat' that has been declared on the land. Authorisation under the Act is required to collect, kill, injure or disturb listed fish on private or public land.

Link for further information: https://www.environment.vic.gov.au/conserving-threatened-species/victorias-framework-for-conserving-threatened-species

The FFG Act defines public land as Crown Land or land owned by, or vested in, a public authority, while private land is defined as any land other than public land. A public authority is defined in the FFG Act as a body established for a public purpose by or under any Act and includes:

- an administrative office
- a government department
- a municipal council
- a public entity
- a State-owned enterprise.

The study area is on private land, does not contain any declared 'critical habitat' for the purposes of the FFG Act and the flora species are not being taken for the purpose of commercial sale. A protected flora permit is therefore not required, however the presence of rare or threatened flora and habitat for threatened fauna will be considered by the Responsible Authority in determining its response to an application for native vegetation removal under Clause 52.17 (see below).

No patches of native vegetation occur within the Darlington-Terang Roadside adjacent the project area (including where crossovers are proposed). The predominantly introduced vegetation is also unlikely to be providing habitat for FFG Act listed fauna. As a result, the construction of entry ways and a vehicle crossover within the public roadside is unlikely to result in impacts to FFG Act listed species or communities.

4.2.2 *Catchment and Land Protection Act 1994* (CaLP Act)

The CaLP Act identifies and classifies certain species as noxious weeds or pest animals and provides a system of controls on noxious species.

Declared noxious weeds identified in the study area are listed in Appendix 1 (Table 6).

The proponent must take all reasonable steps to eradicate regionally prohibited weeds, prevent the growth and spread of regionally controlled weeds, and prevent the spread of and as far as possible eradicate established pest animals. The State is responsible for eradicating State prohibited weeds from all land in Victoria.

Further information is at https://agriculture.vic.gov.au/biosecurity/protecting-victoria/legislation-policy-and-permits/invasive-species-laws-and-the-catchment-and-land-protection-act-1994

4.2.3 *Planning and Environment Act 1987* (incl. Planning Schemes)

The *Planning and Environment Act 1987* controls the planning and development of land in Victoria and provides for the development of planning schemes for all municipalities.

Of particular relevance to the development proposal are controls relating to the removal, destruction or lopping of native vegetation contained within the Moyne Planning Scheme (the Scheme), including permit requirements. The Scheme (Clause 73.01) defines 'native vegetation' as 'Plants that are indigenous to Victoria, including trees, shrubs, herbs, and grasses'. It is an objective of Clause 12.01-2 of the State Planning Policy Framework (Native Vegetation Management) that removal of native vegetation results in no net loss in the contribution made by native vegetation to Victoria's biodiversity.

Clause 52.17 (Native Vegetation) requires a planning permit to remove, destroy or lop native vegetation including some dead native vegetation subject to exemptions. Decision guidelines that must be considered by the referral or responsible authority are contained in Section 7 of the Guidelines and referred to in Clause 52.17-4. Where native vegetation does not meet the definition of a patch or scattered tree as described in Section 3.1 there is no offset requirement under the Guidelines. However, a permit is still required to remove, destroy or lop native vegetation that is not a patch or scattered tree under Clause 52.17 subject to exemptions.

The study area is not covered by any overlays relevant to biodiversity under the Scheme.

Victoria's Guidelines for the removal, destruction or lopping of native vegetation

The Guidelines are incorporated into the Victoria Planning Provisions and all planning schemes in Victoria (DELWP 2017a). The Guidelines replaced the previous incorporated document titled Permitted clearing of native vegetation – Biodiversity assessment guidelines (DEPI 2013) on 12 December 2017.

The purpose of the Guidelines is to guide how impacts to biodiversity should be considered when assessing a permit application to remove, destroy or lop native vegetation. The objective for the guidelines in Victoria is 'No net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation'.

The current proposal will avoid direct removal of native vegetation mapped during the site assessment. Furthermore, impacts to Victorian wetland inventory mapped wetlands are also currently avoided. However, it is understood that impacts to a Victorian wetland inventory wetland may be required to facilitate augmentation of existing Ausnet infrastructure at a later date. An indicative Native Vegetation Removal report

has been provided in Appendix 4 to assist in understanding the potential impacts to an Victorian wetland inventory wetland caused by these augmentation works.

As such, a planning permit for the removal of native vegetation and an assessment under the Guidelines is not required at this stage.

4.2.4 *Environment Effects Act 1978*

The *Environment Effects Act 1978* establishes a process to assess the environmental impacts of a project. If applicable, the Act requires that an Environment Effects Statement (EES) be prepared by the proponent. The EES is submitted to the Minister for Planning and enables them to assess the potential environmental effects of the proposed development.

The general objective of the assessment process is to provide for the transparent, integrated and timely assessment of the environmental effects of projects capable of having a significant effect on the environment (DTP 2023).

The *Ministerial Guidelines for Assessment of Environmental Effects under the Environment Effects Act 1978* (DTP 2023) provide a range of criteria that can be used to determine whether an EES may be required for a project. These criteria relate to individual potential environmental effects and a combination of (two or more) potential environmental effects.

However, the guidelines are not binding, and the decision as to whether an EES is required is ultimately at the discretion of the Minister for Planning.

It is unlikely that an EES will be triggered by impacts associated with the project to biodiversity. Other non-biodiversity-related triggers may be relevant to the project. These have not been assessed in this report.

4.2.5 *Fisheries Act 1995*

The *Fisheries Act 1995* provides a legislative framework for the regulation, management and conservation of Victorian fisheries including aquatic habitats.

A person must not take, injure, damage, destroy or release any protected aquatic biota. Protected aquatic biota includes all species of the family Syngnathidae (seahorses, sea dragons and pipefish), and any fish or aquatic invertebrate or community that is listed under the FFG Act.

Protected aquatic biota that may be impacted upon by the development include:

- Hairy Burrowing Crayfish – FFG Act Vulnerable.

Providing mitigation measures outlined in this report are adhered to and impacts to habitat are avoided, the potential for protected aquatic biota as listed above, to be injured, damaged or destroyed is considered to be negligible and no permit is required from DEECA.

4.2.6 *Water Act 1989*

The primary purpose of the *Water Act 1989* is to provide a framework for the allocation and management of surface water and groundwater throughout Victoria. It provides a principal mechanism for maintenance of ecosystem functions including those of aquatic ecosystems. Under Local Laws created by the relevant Authority under the Act, the authorities regulate the works within and in the vicinity of waterways.

The proposed BESS location will not result in direct impacts to the two unnamed Creeks that intersect the site (including the colloquially named Mt Fyans drain). An assessment of whether the construction or operation of the BESS is likely to indirectly impact the Creeks should be made. A permit from the Glenelg Hopkins CMA may be required if they deem the indirect impacts to the Creeks to be significant. Guidelines and application forms are available from CMAs online.

We recommend that Ebare Pty Ltd consult with the Glenelg Hopkins CMA once the BESS footprint is proposed to understand the permit requirements for indirect impacts to these creeks (and Mount Emu Creek downstream).

4.2.7 *Environment Protection Act 2017*: Environmental Reference Standards

The *Environment Protection Act 2017* (EP Act) provides a legal framework for the systematic and strategic management of potential and realised environmental impacts.

The ERS requires that aquatic ecosystem values be protected. Environmental quality objectives and indicators are defined to protect beneficial uses (i.e. the uses and values of the water environment) and an attainment program provides guidance on protection of the beneficial uses. Impacts on surface water quality resulting from the project must not result in changes that exceed background levels and/or the water quality objectives specified for the Emu Creek to protect surface water uses and values.

To ensure that direct and indirect (e.g. runoff) impacts on surface water quality do not exceed the background levels and/or water quality objectives, it is recommended that a site-specific Construction Environmental Management Plan, which includes all EPA approved erosion control measures prepare and implement. These temporary control measures should be inspected during rainfall events to ensure controls are able to prevent/minimize offsite discharges and longer-term impacts. Sediment control measures selected should also reflect the level of protection required to protect the ecological values within Emu Creek downstream of the project area.

Link to further information: http://www.gazette.vic.gov.au/gazette/Gazettes2021/GG2021S245.pdf

5 Key ecological values and recommendations

This section identifies the key ecological features of the study area, provides an outline of potential implications of proposed development on those values and includes recommendations to assist Ebare Pty Ltd to further minimise impacts on biodiversity.

The current proposed location of the BESS, terminal station, construction of two accessways and a proposed crossover to Darlington-Terang Road will avoid direct impacts to native vegetation and habitat for threatened species. The Darlington-Terang roadside does not appear to support patches of native vegetation or fauna habitat adjacent the project area. While the roadside is of a high ecological value approximately 1.5 km south of the project area, historical disturbances such as rock removal and subsequent invasion of weeds has resulted in the loss of native vegetation from the roadside adjacent the project area. The areas of known ecological value south of the study area were surveyed during this assessment to compare these values to those adjacent the project area. The vegetation adjacent the project area shows clears signs of more significant disturbance (such as rock removal) and a much higher cover of introduced vegetation.

Works may be required to augment the internal access track (to facilitate heavy machinery movements) and the eastern transmission line pylon. Biosis understands these works will be undertaken by AusNet to augment their existing assets within the transmission easement. The exact siting and design of these augmentation works are not yet known, but are likely to be undertaken in accordance with existing AusNet exemptions. An indicative footprint of these works has been created to provide an estimate of the potential impacts to a DEECA mapped wetland, and to demonstrate that impacts to any native vegetation mapped during this assessment are not likely to occur. Impacts and requirements outlined in the indicative Native Vegetation Removal Report (Appendix 4) will be addressed by AusNet when the augmentation works are required.

Should AusNet be required to augment their existing infrastructure (the eastern-most transmission line pylon and the internal access track) it is recommended that these works are undertaken when the wetland is dry and inactive to avoid causing permanent impacts to the soil and vegetation within the mapped wetland extent. An accurate impact footprint will also be required, as the impact footprint shown in the NVR report in Appendix 4 is only indicative.

A new transmission line pylon is currently proposed close to the bank of a large, constructed dam in the west of the study area (Figure 5). This dam is not included within the Victorian wetland inventory and does not appear to support habitat for native fauna or native vegetation given it is constructed and highly disturbed. As a result, impacts to fauna and native flora are not considered likely to occur in association with the placement of this pylon, despite occurring close to constructed dam.

While direct impacts to patches of native vegetation and DEECA mapped wetlands are not proposed by the current project (augmentation of existing AusNet infrastructure may require direct impacts to a DEECA mapped wetland at a later stage), there is a possibility that indirect impacts may occur during construction. Indirect impacts to nearby native vegetation and mapped wetlands can be avoided and/or minimised by implementing a site specific CEMP.

Where possible, it is recommended that the project (during construction and operation) utilise the existing entrances into the property and established internal roads.

All areas of vegetation/habitat nominated in the design plan as 'retained' are to be treated as no-go zones and are not to be encroached upon as development progresses. Any changes to the current design and/or

new impact areas will need to be assessed and may result in impacts to native vegetation and habitat for threatened species.

A summary of potential implications of development of the study area and recommendations to minimise impacts is provided in Table 5.

Table 5 Key ecological values, potential implications of developing the study area and recommendations to minimise impacts.

Relevant ecological feature on site (Figure 2)		Recommendations
Native vegetation	The Victorian wetland inventory mapped wetland that occurs within and adjacent the unnamed creek to the east of the study area. No patches of native vegetation were observed within the Darlington-Terang Roadside adjacent the project area.	A planning permit for the removal of native vegetation is not considered necessary at this stage due to the avoidance of direct removal of native vegetation and DEECA mapped wetlands (at this stage). Any changes to the proposed impact footprint may require further survey.
Threatened species and ecological communities	Two flora species and three fauna species are considered likely to occur within the study area: • Salt-lake Tussock-grass • Swamp Fireweed • Latham's Snipe • White-throated Needletail • Growling Grass Frog One threatened ecological community may also occur within the study area: • Seasonal Herbaceous Wetlands (freshwater) of the Temperate Lowland Plains One Ramsar site occurs within 13 km of the study area. Potential habitat for an additional four flora species listed under the *Flora and Fauna Guarantee Act 1988* (FFG Act). • Pale Swamp Everlasting • Salt Blown-grass • Purple Blown-grass • Wind-blown Tussock-grass Potential habitat for an additional five flora species listed under the FFG Act. • Brolga • Black Falcon • Tussock Skink • Southern Toadlet • Hairy Burrowing Crayfish	The current impact footprint is not likely to result in direct impacts to any habitat for threatened species or threatened communities. This avoidance is achieved by maintaining at least a 200 metre buffer from the unnamed Creeks within the study area. Further avoidance of impacts to ecological values can be achieved by minimising removal of planted shelterbelt vegetation where possible. A site specific CEMP should be produced and adhered to. This will ensure indirect impacts to the Creeks, wetlands and adjacent vegetation are minimised. The project will require the installation (or relocation) of transmission lines to connect the proposed transmission station to the existing lines. The installation or relocation of transmission lines (to connect existing lines to the transmission station) is unlikely to result in significant impacts to threatened birds if the following recommendations can be implemented: • Attach devices (typically flappers, balls or spirals) to electricity transmission lines to increase their visibility. • Design or insulate poles and wires to reduce the risk of electrocution of birds or bats from contact. • Design measures to reduce the vertical spread of lines, and

Relevant ecological feature on site (Figure 2)		Recommendations
		Increase visibility of lines, and/or decrease the span length.
Aquatic habitat features	The unnamed creeks that intersect the study area and the Emu Creek which occurs downstream of the study area.	Avoid/minimise removal of terrestrial and/or aquatic habitat. Place any water treatment and capture facilities associated with fire fighting water collection away from wetlands and waterways, and construct buffering drains to ensure contaminated water does not flow into wetlands or waterways. Direct impacts to the waterways will be avoided by the BESS location, however indirect impacts may occur. It is recommended that Glenelg Hopkins CMA is consulted about the potential indirect impacts and how the implementation of a CEMP will minimise this indirect impact.

Construction and post-construction management

Specific detail relating to preventing impacts on retained native vegetation and aquatic and terrestrial habitat should be addressed in a site-specific Construction Environmental Management Plan. This will include issues relating to contractors such as environmental inductions, installation of temporary fencing/signage, drainage and sediment control.

An Ecological Management Plan should be prepared by an ecological consultant to provide detailed advice on the ongoing protection and long-term management of retained vegetation/habitat, creation of linkages and other habitat features such as wetlands, if proposed.

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Appendices

Appendix 1 Flora

Abbreviations and symbols:

Code	Meaning	Reference
National listings		
EX	Extinct	Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
CR	Critically endangered	
EN	Endangered	
VU	Vulnerable	
PMST	Protected Matters Search Tool	
State listings		
x	Extinct	Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act)
cr	Critically endangered	
e	Endangered	
v	Vulnerable	
t	Threatened	
P	Protected (public land only)	
Weed status		
SP	State prohibited species	Victorian *Catchment and Land Protection Act 1994* (CaLP Act)
RP	Regionally prohibited species	
RC	Regionally controlled species	
R	Restricted species	

Appendix 1.1 Flora species recorded from the study area

Table 6 Flora species recorded from the study area

Status	Scientific Name	Common Name
Indigenous species		
	Cycnogeton procerum (broad erect leaf variant)	Common Water-ribbons
	Distichlis distichophylla	Australian Salt-grass
	Eleocharis acuta	Common Spike-sedge
	Geranium spp.	Crane's Bill
	Rumex spp.	Dock
	Rytidosperma spp.	Wallaby Grass
Introduced species		
	Agrostis capillaris	Brown-top Bent
	Arctotheca calendula	Cape Weed
R	*Carthamus lanatus*	Saffron Thistle
R	*Cirsium vulgare*	Spear Thistle
	Cynosurus echinatus	Rough Dog's-tail
	Dactylis glomerata	Cocksfoot
	Eucalyptus cladocalyx	Sugar Gum
	Hordeum marinum	Sea Barley-grass
	Hesperocyparis macrocarpa	Monterey Cypress
	Hypochaeris radicata	Flatweed
	Lactuca saligna	Willow-leaf Lettuce
	Lolium spp.	Rye Grass
	Malva parviflora	Small-flower Mallow
R	*Oxalis pes-caprae*	Soursob
	Phalaris aquatica	Toowoomba Canary-grass
	Pinus radiata	Radiata Pine
	Plantago lanceolata	Ribwort
	Romulea rosea	Onion Grass
	Rumex spp. (naturalised)	Dock (naturalised)
R	*Silybum marianum*	Variegated Thistle
	Trifolium spp.	Clover
	Vicia sativa	Common Vetch

Appendix 1.2 Listed flora species

The following table lists threatened flora species that have potential to occur within the study area, sourced from the VBA and PMST (accessed on 25 July 2025). Where a year is given for the most recent database record, this refers to the VBA unless otherwise specified. Where no year is given, the PMST predicts the species has potential to occur. Some habitat descriptions are sourced from VicFlora (RBGV 2024).

Table 7 Threatened flora species recorded or predicted to occur within 10 km of the study area

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
National significance								
Amphibromus fluitans	River Swamp Wallaby-grass	VU			PMST	Swampy areas, mainly along the Murray River between Wodonga and Echuca with scattered records from southern Victoria.	**Low**	Suitable habitat is present within the study area (in the southern option), however no records of the species occur within 10 km.
Dianella amoena	Matted Flax-lily	EN	cr	2016		Lowland grassland and grassy woodland, on well-drained to seasonally waterlogged fertile sandy loam soils to heavy cracking clays.	**Low**	Roadside reserve highly disturbed and unlikely to support suitable habitat now.
Dodonaea procumbens	Trailing Hop-bush	VU			PMST	Sandy or clay soils in low-lying, winter-wet areas in grasslands, woodlands, and low-open forest.	**Low**	Suitable habitat is present within the study area (in the northern half of the study area), however no records of the species occur within 10 km.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Glycine latrobeana	Clover Glycine	VU	v		PMST	Grasslands and grassy woodlands, particularly those dominated by Kangaroo Grass.	**Low**	Suitable habitat is present within the study area (in the northern half of the study area), however no records of the species occur within 10 km.
Lachnagrostis adamsonii	Adamson's Blown-grass	EN	e		PMST	Low-lying, seasonally wet or swampy areas of plains communities, often in slightly saline conditions.	**Low**	Suitable habitat is present within the study area (in the northern half of the study area), however no records of the species occur within 10 km.
Lepidium aschersonii	Spiny Peppercress	VU	e		PMST	Heavy clay soils near salt lakes on the volcanic plains; disjunct records near Lake Omeo.	**Low**	Suitable habitat is present within the study area (in the northern half of the study area), however no records of the species occur within 10 km.
Lepidium hyssopifolium	Basalt Pepper-cress	EN			PMST	Basalt plains grassland and woodland communities.	**Low**	Suitable habitat is present within the study area (in the northern half of the study area), however no records of the species occur within 10 km.
Leucochrysum albicans subsp. *tricolor*	White Sunray	EN	e		PMST	Grasslands of the Victorian Volcanic Plains, primarily on acidic clay soils derived from basalt, with occasional occurrences on adjacent sedimentary, sandy-clay soils.	**Low**	Suitable habitat is present within the study area (in the southern half of the study area), however no records of the species occur within 10 km.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Pimelea spinescens subsp. *spinescens*	Spiny Rice-flower	CR	cr	2022		Primarily grasslands featuring a moderate diversity of other native species and inter-tussock spaces, although also recorded in grassland dominated by introduced perennial grasses.	**Low**	Roadside reserve highly disturbed and unlikely to support suitable habitat now.
Poa sallacustris	Salt-lake Tussock-grass	VU	cr	2024		Grasslands and herblands on the sloping verges of saline lakes.	**Medium**	Suitable habitat for this species occurs adjacent the unnamed creek in the northern half of the study area.
Prasophyllum spicatum	Dense Leek-orchid	VU	cr		PMST	Heath and heathy woodlands.	**Negligible**	Suitable habitat not provided by the study area and no records within 10 km.
Prasophyllum suaveolens	Fragrant Leek-orchid	EN	cr	2010		Open species rich grasslands dominated by Kangaroo Grass on poorly draining red-brown soils in western Victoria.	**Low**	Roadside reserve highly disturbed and unlikely to support suitable habitat now.
Pterostylis basaltica	Basalt Rustyhood	EN	cr		PMST	Native grasslands among basalt rocks in stony rises of south west Victoria; known from only one location.	**Low**	Roadside reserve highly disturbed and unlikely to support suitable habitat now.
Pterostylis chlorogramma	Green-striped Greenhood	VU	e		PMST	Heathy woodland; more specific habitat requirements are poorly known.	**Low**	Suitable habitat does not occur within the study area and there are no records within 10 km.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Rutidosis leptorhynchoides	Button Wrinklewort	EN	e		PMST	Higher quality Plains Grassland and Grassy Woodland in Western Victoria, particularly those with fertile soil and light timber cover.	**Low**	Roadside reserve highly disturbed and unlikely to support suitable habitat now.
Senecio macrocarpus	Large-headed Fireweed	VU	cr		PMST	Grassland, shrubland and woodland habitats on heavy soils subject to waterlogging and/or drought conditions in summer.	**Low**	Roadside reserve highly disturbed and unlikely to support suitable habitat now.
Senecio psilocarpus	Swamp Fireweed	VU			PMST	Seasonally inundated herb-rich swamps, growing on peaty soils or volcanic clays.	**Medium**	Suitable habitat for this species occurs adjacent the unnamed creek in the northern half of the study area.
Swainsona murrayana	Slender Darling-pea	VU	e		PMST	Around lakes and on flats that are subject to seasonal inundation.	**Low**	No records within 10 km of the study area.
Thelymitra epipactoides	Metallic Sun-orchid	EN	e		PMST	Moist or dry sandy loams or loamy sands, primarily in coastal heaths, grasslands and woodlands, but also in similar communities at drier inland sites.	**Low**	No records within 10 km and sandy soils aren't expected at this site.
Thelymitra matthewsii	Spiral Sun-orchid	VU	e		PMST	Typically on well-drained soils on slightly elevated sites, but also on coastal sandy flats. Often in open situations following disturbance.	**Low**	No records within 10 km and sandy soils aren't expected at this site.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Thelymitra orientalis	Slender Plum-orchid	CR	cr		PMST	Grows in damp heathy flats and seepage areas usually in peaty white sands.	**Low**	No records within 10 km and sandy soils aren't expected at this site.
Xerochrysum palustre	Swamp Everlasting	VU	cr		PMST	Sedge-swamps and shallow freshwater marshes and swamps in lowlands, on black cracking clay soils.	**Low**	Habitat not likely suitable within the study area and the location is far from other populations.
State significance								
Amphibromus sinuatus	Wavy Swamp Wallaby-grass		e	2013		Confined to permanent swamps in cool sites.	**Low**	No permanent swamps within the study area.
Comesperma polygaloides	Small Milkwort		cr	2013		Grasslands on the western basalt plains; less commonly in grassy woodlands between Bendigo and the Wimmera.	**Low**	Roadside reserve highly disturbed and unlikely to support suitable habitat now.
Coronidium gunnianum	Pale Swamp Everlasting		cr	2019		Widespread and sometimes locally common, particularly in high-rainfall areas of Victoria; often in moist sites in open forests and woodlands.	**Medium**	Suitable habitat for this species occurs adjacent the unnamed creek in the northern half of the study area.
Diuris behrii	Golden Cowslips		e	2010		Grasslands, open grassy woodlands and Box Ironbark Forests.	**Low**	Roadside reserve highly disturbed and unlikely to support suitable habitat now.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Lachnagrostis robusta	Salt Blown-grass		e	2008		Confined to saline swamps and lake edges but widespread across the Victorian Volcanic Plain and occasionally in the southern Wimmera.	**Medium**	Suitable habitat adjacent the unnamed creek in the northern half of the study area
Lachnagrostis semibarbata var. *semibarbata*	Purple Blown-grass		e	1997		Wet marshes and slightly saline swamps and depressions in plains communities.	**Medium**	Suitable habitat adjacent the unnamed creek in the half of the study area option
Poa physoclina	Wind-blown Tussock-grass		e	2011		Occurs in heavy textured soils on the margins of salt lakes, although not in highly saline environments; also in basalt outcrops on the edges of seasonal swamps.	**Medium**	Suitable habitat adjacent the unnamed creek in the half of the study area option
Thelymitra gregaria	Basalt Sun-orchid		cr	2010		Open, species-rich grassland dominated by Kangaroo Grass on poorly draining soils of the volcanic plains.	**Low**	Roadside reserve highly disturbed and unlikely to support suitable habitat now.

Appendix 1.3 Threatened ecological communities

The following listed threatened ecological communities may occur within the project area, compiled with reference to characteristics of FFG Act threatened communities (DEECA 2023) and the Protected Matters Search Tool (accessed on 25 July 2025).

Table 8 Threatened ecological communities that may occur within 10 km of the project area

Community Name	Conservation status	Source	Description
National significance			
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	PMST	No remnant Eucalypts recorded within the study area and pre-1750 mapping suggests the site was previously grassland, not grassy woodland. As such, this community is not considered present in an intact or derived state.
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	PMST	No native grassland vegetation was recorded within the study area (including the adjacent roadside reserve) as such, this community is no longer considered present.
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	Critically Endangered	PMST	This community may occur adjacent the unnamed creek in the northern half of the study area, however targeted surveys will be required to confirm this in Spring.
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered		No remnant eucalypts recorded within the study area and pre-1750 mapping suggests the site was previously grassland, not grassy woodland. As such, this community is not considered present in an intact or derived state.
State significance			
Western (Basalt) Plains Grasslands Community	Threatened		No native grassland vegetation was recorded within the study area (including the adjacent roadside reserve) as such, this community is no longer considered present.
Western Basalt Plains (River Red Gum) Grassy Woodland Floristic Community 55-04	Threatened		No remnant eucalypts recorded within the study area and pre-1750 mapping suggests the site was previously grassland, not grassy woodland. As such, this community is not considered present in an intact or derived state.

Appendix 2 Fauna

Abbreviations and symbols:

Code	Meaning	Reference
National listings		
EX	Extinct	Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
CR	Critically endangered	
EN	Endangered	
VU	Vulnerable	
CD	Conservation dependent	
PMST	Protected Matters Search Tool	
State listings		
x	Extinct	Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act)
cr	Critically endangered	
e	Endangered	
v	Vulnerable	
t	Threatened	
P	Protected (fish only)	
Pest animal status		
PS	Declared pest animal	Victorian *Catchment and Land Protection Act 1994* (CaLP Act)
N	Declared noxious aquatic species	*Victorian Fisheries Act 1995*
Other		
*	Introduced species	Victorian Biodiversity Atlas (VBA) (DEECA 2024)

Appendix 2.1 Fauna species recorded from the study area

Table 9 Vertebrate fauna recorded from the study area

Status	Scientific Name	Common Name
Indigenous species		
	Corvus mellori	Little Raven
	Engaeus spp.	Burrowing Crayfish
	Gymnorhina tibicen	Australian Magpie
	Macropus giganteus	Eastern Grey Kangaroo
	Manorina melanocephala	Noisy Miner
Introduced species		
	Alauda arvensis	Eurasian Skylark
	Lepus europaeus	European Brown Hare

Appendix 2.2 Listed fauna species

The following table includes a list of threatened fauna species that have potential to occur within the study area, sourced from the VBA and PMST (accessed on 25 June 2025) Where years are specified for the most recent database records, these refer to records from the VBA unless otherwise specified. Where no year is specified, the PMST predicts the species has potential to occur.

Table 10 Threatened fauna species recorded or predicted to occur within 5 km of the study area

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC Act	FFG Act					
National significance								
Pedionomus torquatus	Plains-wanderer	CR	cr		PMST	Native grassland with a sparse, open structure.	**Low**	No local records. No suitable native grassland habitat. Study area is outside the species usual distribution within Vic (northern arid grasslands, and occasionally grassland west of Melbourne)
Gallinago hardwickii	Latham's Snipe	VU		2014		A migrant to Australia from July to April occurring in a wide variety of permanent and ephemeral wetlands. Prefers open freshwater wetlands with nearby cover, but also recorded on the edges of creeks and rivers, river-pools and floodplains. Forages in soft mud at edge of wetlands and roosts in a variety of vegetation around	**Medium**	Recent local records. Widespread species known to use a variety of wetland habitats. Some suitable foraging and roosting habitat in the unnamed creek and adjacent low vegetation. Migratory species, does not breed within Australia.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC Act	FFG Act					
						wetlands including tussock grasslands, reeds and rushes, tea-tree scrub, woodlands and forests.		
Rostratula australis	Australian Painted-snipe	EN	cr		PMST	Shallows of well-vegetated freshwater wetlands.	**Low**	No local records. Species rarely recorded within the region. Narrow vegetated drain unlikely to provide suitable habitat.
Botaurus poiciloptilus	Australasian Bittern	EN	cr		PMST	Shallow freshwater and brackish wetlands with abundant emergent aquatic vegetation.	**Low**	No local records. Species rarely recorded within the region. Narrow vegetated drain unlikely to provide suitable habitat.
Falco hypoleucos	Grey Falcon	VU	v		PMST	Lightly timbered plains and Acacia scrub.	**Negligible**	No local records. Species rarely recorded within the region. Distribution within Victoria is largely restricted to northern semi-arid regions.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC Act	FFG Act					
Callocephalon fimbriatum	Gang-gang Cockatoo	EN	e	1978		S Vic to E NSW. Forests and woodlands from coast to alpine areas. Autumn-winter dispersal from highlands to lower elevations. Forages in eucalypts, acacias and some exotic garden trees and shrubs.	**Low**	No recent local records. Some potential marginal foraging habitat in planted flowering trees, however, species is unlikely to regularly utilise or rely on scattered planted trees within the local area.
Neophema chrysostoma	Blue-winged Parrot	VU		1978		A range of coastal, sub-coastal and semi-arid regions throughout south-eastern Australia. Feeds on seeds of a range of native grasses and herbs.	**Low**	No recent local records. Species is rarely recorded within the region. Study area lacks sufficient native grass cover to be regularly utilised or relied on as foraging habitat. No suitable nesting habitat.
Lathamus discolor	Swift Parrot	CR	cr		PMST	A range of forests and woodlands, especially those supporting nectar-producing tree species. Also well-treed urban areas.	**Low**	No local records. Some potential marginal foraging habitat in planted fence line eucalypts, however, species is unlikely to regularly pass through the local area due to lack of woodland or forest habitat.
Hirundapus caudacutus	White-throated Needletail	VU	v	2009		An almost exclusively aerial species within Australia, occurring over most types of habitat, particularly wooded areas.	**Medium**	Widespread almost exclusively aerial species, unlikely to make regular use of terrestrial habitat features. May fly over the study area on occasion.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC Act	FFG Act					
Tringa nebularia	Common Greenshank	EN	e	2010		A variety of ephemeral and permanent inland wetlands and sheltered coastal wetlands.	**Low**	Species occasionally recorded within the region, however records are largely restricted to larger lakes with shallows and mudflats for forging. Some potential occasional foraging habitat at constructed dam, however, study area is unlikely to be regularly utilised or relied on as habitat.
Calidris ferruginea	Curlew Sandpiper	CR	cr	1980		Large intertidal sandflats, banks, mudflats, estuaries, inlets, sewage farms, saltworks, harbours, coastal lagoons and bays.	**Low**	No recent local records. Species is occasionally recorded at larger lakes with shallows and mudflats for forging. Some potential occasional foraging habitat at constructed dam, however, study area is unlikely to be regularly utilised or relied on as habitat.
Calidris acuminata	Sharp-tailed Sandpiper	VU		2014		Prefers muddy edges of shallow fresh or brackish wetlands with inundated or emergent low vegetation. Occasionally use flooded paddocks and other ephemeral wetlands.	**Low**	No recent local records. Species is occasionally recorded at larger lakes with shallows and mudflats for forging. Some potential occasional foraging habitat at constructed dam and flooded paddocks, however, study area

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC Act	FFG Act					
								is unlikely to be regularly utilised or relied on as habitat.
Melanodryas cucullata	Hooded Robin	EN	v		PMST	Woodlands of eucalypt, Mallee, semi-cleared farmland.	**Negligible**	No local records. No suitable woodland within the study area, or surrounding local area.
Aphelocephala leucopsis	Southern Whiteface	VU			PMST	Occurs in a wide range of open woodlands and shrublands, favouring sparsely treed areas with an herbaceous understorey containing grasses and/or shrubs.	**Negligible**	No local records. No suitable woodland or shrubland within the study area, or surrounding local area.
Grantiella picta	Painted Honeyeater	VU	v		PMST	Dry open woodlands and forests. Typically forages for fruit and nectar in mistletoes and in tree canopies.	**Negligible**	No local records. No suitable woodland within the study area, or surrounding local area. No Mistletoes noted within the study area.
Stagonopleura guttata	Diamond Firetail	VU	v		PMST	Open forests and woodlands with a grassy ground layer.	**Negligible**	No local records. No suitable open grassy woodland within the study area, or surrounding local area.
Climacteris picumnus	Brown Treecreeper	VU			PMST	Open eucalypt forests, woodlands and Mallee, often	**Negligible**	No local records. No suitable woodland within the study area, or surrounding local area.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC Act	FFG Act					
						where there are stands of dead trees.		
Dasyurus maculatus maculatus (SE mainland population)	Spot-tailed Quoll	EN			PMST	Rainforest and wet and dry sclerophyll forests and woodlands.	**Negligible**	No local records. No suitable forest within the study area, or surrounding region.
Perameles gunnii Victorian subspecies	Eastern Barred Bandicoot (Mainland)	EN			PMST	Natural temperate grasslands and grassy woodlands. This species is considered extinct within the wild.	**Negligible**	This species is considered to be extinct in the wild.
Dasyurus viverrinus	Eastern Quoll	EN		1930		The Eastern Quoll is a medium-sized carnivorous marsupial that once occupied a broad range of forest, woodland and grassland habitats in Victoria. The species is now restricted to Tasmania and is considered to be extinct from mainland Australia.	**Negligible**	This species is considered to be extinct on mainland Australia.
Petaurus australis	Yellow-bellied Glider	VU	v		PMST	Sclerophyll forest with large hollow-bearing trees, prefers mature eucalypt dominated forest and woodland. Distributed along South-eastern Australia.	**Negligible**	No local records. No suitable forest within the study area, or surrounding local area.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC Act	FFG Act					
Potorous tridactylus trisulcatus	Long-nosed Potoroo	VU	v		PMST	Forest, heathy woodlands and heathlands.	**Negligible**	No local records. No heathland or heathy woodland within the study area, or surrounding local area.
Isoodon obesulus obesulus	Southern Brown Bandicoot	EN	e		PMST	Heathland, shrubland, sedgeland, heathy open forest and woodland; also exotic vegetation, such as blackberry thickets and rank grasses where native vegetation has been removed.	**Negligible**	No local records, or records within the region. Negligible low dense vegetation within the study area, and negligible habitat within the local agricultural region.
Pteropus poliocephalus	Grey-headed Flying-fox	VU	v		PMST	Rainforest, wet and dry sclerophyll forest, woodland and urban areas.	**Low**	No local records. Study area is over 20 km form the nearest known camp at Hexham. Some marginal foraging habitat in planted eucalypts, however, these are unlikely to be regularly utilised or relied on due to their distance from the nearest roost camp.
Miniopterus orianae bassanii	Southern Bent-winged Bat	CR	cr	2009		Woodlands, grasslands, pasture especially near wetlands. Roosts in caves, crevices in cliff faces and in mines.	**Low**	Species occasionally recorded foraging within the area. No roost caves known to occur within the local area. Species may occasionally forage in airspace above study area, but is unlikely to rely on it, or utilise the study area as a roost

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC Act	FFG Act					
Delma impar	Striped Legless Lizard	VU	e		PMST	Natural temperate grassland, grassy woodland and exotic grassland.	**Low**	No local records. Negligible suitable grassland within the study area. Roadside grassland reserve appears to have history of rock removal, and likely subsequent cultivation. Paddock areas highly disturbed and unsuitable as habitat.
Lissolepis coventryi	Swamp Skink	EN	e		PMST	Densely vegetated swamps and associated watercourses, and adjacent wet heaths, sedgelands and saltmarshes.	**Negligible**	No local records, or records within the region. No suitable habitat. Narrow vegetated drain within cleared agricultural landscape is unlikely to provide suitable habitat.
Eulamprus tympanum marnieae	Corangamite Water Skink	EN	e	2012		Basalt rock outcrops and stonewalls associated with remnant vegetation and adjacent to permanent or ephemeral wetlands.	**Low**	No suitable rocky habitat or stone walls adjacent to wetland habitat. Local records largely restricted to rocky shores of permanent wetlands and lakes. One record from Mt Emu Creek north of study area, in fenced area of remnant native vegetation. The unnamed creek within cleared paddocks is unlikely to provide suitable habitat due to lack of suitable

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC Act	FFG Act					
								basking and shelter sites in rocks and logs.
Litoria raniformis	Growling Grass Frog	VU	v	2011		Still or slow-flowing waterbodies and surrounding terrestrial vegetation. Typically breeds in still freshwater wetlands with a mixture of submerged, emergent, and fringing vegetation.	**Medium**	Recent local records, largely restricted to permanent vegetated wetlands. Species is widespread and highly mobile. Study area does not support suitable breeding habitat. Species likely to occasionally pass through the study area, particularly the unnamed creek as a movement corridor.
Prototroctes maraena	Australian Grayling	VU	e		PMST	Adults inhabit cool, clear, freshwater streams.	**Negligible**	No local records. the unnamed creek is small and turbid from local stock access.
Nannoperca obscura	Yarra Pygmy Perch	EN	v		PMST	Lakes, pools and slow-flowing streams with abundant aquatic vegetation.	**Negligible**	No local records. the unnamed creek is small and turbid from local stock access.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC Act	FFG Act					
Synemon plana	Golden Sun Moth	VU	v	2012		Natural temperate grassland, grassy woodland and pasture supporting spear grasses and wallaby grasses and exotic grassland dominated by Chilean needle grass.	**Low**	Grasslands and pasture throughout study area do not support suitable cover or density of required feed grasses.
State significance								
Ardeotis australis	Australian Bustard		cr	1878		Grassland, open dry woodlands of Mallee and mulga, arid heathland saltbush and bluebush.	**Negligible**	No recent local records. Species distribution within Victoria has contracted significantly, and is now rarely recorded outside northern extent of the state. No suitable habitat within the study area,.
Antigone rubicunda	Brolga		e	2024		Shallow freshwater and brackish wetlands, crops, grassland and pasture.	**High**	Recent local records including breeding observations from lakes, dams, creeks and seasonally flooding paddocks within the local area. Suitable foraging habitat throughout the study area, particularly along The unnamed creek. No suitable breeding habitat within the study area, however, local wetlands including the recently constructed dam and The unnamed creek are

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC Act	FFG Act					
								modelled as suitable breeding habitat.
Anseranas semipalmata	Magpie Goose		v	1911		Swamps, lakes, sewage ponds, flooded pasture, dams.	**Low**	No recent local records. Species occasionally recorded foraging at wetlands and flooded paddocks within the region. Unlikely to regularly utilise or rely on the study area as habitat.
Spatula rhynchotis	Australasian Shoveler		v	2013		Variety of wetlands, with a preference for large, permanent freshwater lakes/swamps with dense fringing vegetation.	**Low**	Wetland habitat present is largely unsuitable. Constructed dam is turbid and lacks emergent or fringing vegetation.
Stictonetta naevosa	Freckled Duck		e	2013		Large freshwater wetlands, generally with dense vegetation.	**Low**	Wetland habitat present is largely unsuitable. Constructed dam is turbid and lacks emergent or fringing vegetation.
Oxyura australis	Blue-billed Duck		v	2014		Open or densely vegetated wetlands.	**Low**	Wetland habitat present is largely unsuitable. Constructed dam is turbid and lacks emergent or fringing vegetation.
Biziura lobata	Musk Duck		v	2014		Deep, permanent freshwater wetlands with areas of open	**Low**	Wetland habitat present is largely unsuitable. Constructed dam is turbid and lacks

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC Act	FFG Act					
						water and patches of dense aquatic vegetation.		emergent or fringing vegetation.
Falco subniger	Black Falcon		cr	2019		Woodlands, open country and around terrestrial wetlands areas, including rivers and creeks. Primarily occurs in arid and semi-arid zones in the north, north-west and west of Victoria.	**Medium**	Recent local records, likely to be present within the local area. Some suitable nesting habitat in planted tree lines, and foraging habitat throughout the study area.
Gelochelidon macrotarsa	Australian Gull-billed Tern		e	2014		Floodplains, saltmarsh, claypans and flooded pasture.	**Low**	Occasionally recorded within the local area, with records largely restricted to lakes. May rarely forage within the study area in flooded pasture, but unlikely to regularly utilise or rely on the study area as habitat.
Sminthopsis crassicaudata	Fat-tailed Dunnart		v	1985		Inhabits sparse grasslands and open shrubland habitats, usually where there is a significant component of bare ground and suitable refuge sites such as surface rocks or logs where it constructs nests of grass or other dried plant material.	**Low**	No recent local records. No suitable habitat in cultivated areas. Roadside reserve also unlikely to be utilised due to lack of refuge sites from historical rock removal.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC Act	FFG Act					
Ornithorhynchus anatinus	Platypus		v	2022		A variety of freshwater waterbodies, particularly those with stable banks suitable for burrows, and shallow waters for foraging.	**Low**	Local records restricted to Mt Emu Creek. Wetlands and the unnamed creek within the study area are isolated and disturbed by stock unlikely to be utilised as habitat.
Pseudemoia pagenstecheri	Tussock Skink		e	2005		On the ground in a range of grasslands or sparse grassy woodlands from alps to coast.	**Medium**	Recent local records. Some potential marginal habitat in grassland road reserve.
Pseudophryne semimarmorata	Southern Toadlet		e	1979		A wide variety of woodland, forest and grassland habitats, where it shelters under leaf litter and other debris in moist soaks and depressions. Breeds in swamps and inundated habitats, and along creek lines.	**Medium**	No recent local records, however, species may go undetected in agricultural landscapes without targeted surveys. Study area supports some potentially suitable habitat in northern extent of the creek within the study area where emergent and fringing vegetation is present.
Engaeus sericatus	Hairy Burrowing Crayfish		u		No local database records. Species added manually following site assessment and observation of crayfish burrows within the study area.	Burrows are connected to the water table, typically adjacent to creeks or on floodplains. Although it is widespread in Victoria, most records are found in an area extending from the Otways, west to Port Fairy and north to Ballarat.	**High**	Crayfish burrows recorded within the study area in low-lying areas adjacent to the unnamed creek. Species-level ID cannot be confirmed without destructive excavation, however, *E. sericatus* is the only burrowing crayfish species recorded within the region.

Appendix 2.3 Migratory species (EPBC Act listed)

Table 11 Migratory fauna species recorded or predicted to occur within 10 km of the study area

Scientific name	Common name	Most recent record
Migratory species		
Gallinago hardwickii	Latham's Snipe	2014
Plegadis falcinellus	Glossy Ibis	2008
Hirundapus caudacutus	White-throated Needletail	2009
Apus pacificus	Fork-tailed Swift	2009
Charadrius bicinctus	Double-banded Plover	2013
Tringa nebularia	Common Greenshank	2010
Calidris ferruginea	Curlew Sandpiper	1980
Calidris ruficollis	Red-necked Stint	2013
Calidris acuminata	Sharp-tailed Sandpiper	2014

Appendix 3 Photos of the study area

Photo 1 Example of Burrowing Crayfish burrow in Creekline Tussock Grassland

Photo 2 **Various planted rows and windbreaks occur along the boundaries of the study area. This includes planted rows with native species (as shown in this photo) as well as rows of non-native species such as Radiata Pine.**

Photo 3 **Majority of the study area is heavily grazed and support predominantly introduced vegetation as a result.**

Photo 4 **The public roadside adjacent the study area shows signs of historical disturbance including removal of embedded rocks. Few native species were observed within the roadside.**

Photo 5 **Roadsides south of the study area are a much higher quality. High quality roadside vegetation appears to correlate with locations where embedded rocks remain undisturbed.**

Photo 6 **The unnamed Creek to the east of the study area is highly degraded (as a result of grazing) within the northern half of the study area.**

Photo 7 **Vegetation adjacent the unnamed creek in the east of the study area (in the northern half of the study area) may qualify as Seasonal Herbaceous wetland of the Lowland Plain.**

Photo 8 **The current mapped wetland supports moderate to high quality wetland vegetation within the northern half of the study area. The vegetation shown within and adjacent the creek in this image may provide habitat for several MNES**

Photo 9 **Sowing of pasture/crop was observed in many of the paddocks throughout the study area.**

Appendix 4 Indicative Native Vegetation Removal Report

Native Vegetation Removal Report

NVRR ID: 354_20260204_FYA

This report provides information to support an application to remove, destroy or lop native vegetation in accordance with the *Guidelines for the removal, destruction or lopping of native vegetation* (the Guidelines). This report is **not an assessment by DEECA** of the proposed native vegetation removal. Native vegetation information and offset requirements have been determined using spatial data provided by the applicant or their consultant.

Report details

Date created: 04/02/2026

Local Government Area: MOYNE SHIRE

Shapefile name: 43019_MurchsCornerBESS_Wetland_20260204.shp

Site assessor name: Hayley Sime

Registered Aboriginal Party: Eastern Maar

Coordinates: 143.01252, -38.02709

Address: 2977 HAMILTON HIGHWAY DARLINGTON 3271

Regulator Notes

Removal polygons are located:

- Within a DEECA Mapped Wetland area

Summary of native vegetation to be removed

Assessment pathway	**Basic Assessment Pathway**		
Location category	Location 1 The native vegetation extent map indicates that this area is not typically characterised as supporting native vegetation. It does not meet the criteria to be classified as Location Category 2 or 3. The removal of less than 0.5 hectares of native vegetation in this area will not require a Species Offset.		
Total extent including past and proposed removal (ha) *Includes endangered EVCs (ha): 0*	**0.245**	*Extent of past removal (ha)*	*0*
		Extent of proposed removal - Patches (ha)	*0.245*
		Extent of proposed removal - Scattered Trees (ha)	*0.000*
No. Large Trees proposed to be removed	**0**	*No. Large Patch Trees*	*0*
		No. Large Scattered Trees	*0*
No. Small Scattered Trees	0		

Offset requirements if approval is granted

Any approval granted will include a condition to secure an offset, before the removal of native vegetation, that meets the following requirements:

General Offset amount [1]	**0.053 General Habitat Units**
Minimum strategic biodiversity value score [2]	0.3520
Large Trees	0
Vicinity	Glenelg Hopkins CMA or MOYNE SHIRE LGA

NB: values within tables in this document may not add to the totals shown above due to rounding

The availability of third-party offset credits can be checked using the Native Vegetation Credit Register (NVCR) Search Tool - https://nvcr.delwp.vic.gov.au

1. The General Offset amount required is the sum of all General Habitat Units in Appendix 1.
2. Minimum strategic biodiversity value score is 80 per cent of the weighted average score across habitat zones where a General Offset is required.
3. The Species Offset amount(s) required is the sum of all Species Habitat Units in Appendix 1.

Application requirements

Applications to remove, destroy or lop native vegetation must include all the below information. If an appropriate response has not been provided the application is not complete.

Application Requirement 1 - Native vegetation removal information

If the native vegetation removal is mapped correctly, the information presented in this Native Vegetation Removal Report addresses Application Requirement 1.

Application Requirement 2 - Topographical and land information

This statement describes the topographical and land features in the vicinity of the proposed works, including the location and extent of any ridges, hilltops, wetlands and waterways, slopes of more than 20% gradient, low-lying areas, saline discharge areas or areas of erosion.

Application Requirement 3 - Photographs of the native vegetation to be removed

Application Requirement 3 is not addressed in this Native Vegetation Removal Report. All applications must include recent, timestamped photos of each Patch, Large Patch Tree and Scattered Tree which has been mapped in this report.

Application Requirement 4 - Past removal

If past removal has been considered correctly, the information presented in this Native Vegetation Removal Report addresses Application Requirement 4.

Application Requirement 5 - Avoid and minimise statement

This statement describes what has been done to avoid and minimise impacts on native vegetation and associated biodiversity values.

Application Requirement 6 - Property Vegetation Plan

This requirement only applies if an approved Property Vegetation Plan (PVP) applies to the property
Does a PVP apply to the proposal?

Application Requirement 7 - Defendable space statement

Where the removal of native vegetation is to create defendable space, this statement:

- Describes the bushfire threat; and

- Describes how other bushfire risk mitigation measures were considered to reduce the amount of native vegetation proposed for removal (this can also be part of the avoid and minimise statement).

This statement is not required if, If the proposed defendable space is within the Bushfire Management Overlay (BMO), and in accordance with the 'Exemption to create defendable space for a dwelling under Clause 44.06 of local planning schemes' in Clause 52.12-5.

Application Requirement 8 - Native Vegetation Precinct Plan

This requirement is only applicable if you are removing native vegetation from within an area covered by Native Vegetation Precinct Plan (NVPP), and the proposed removal is not identified as 'to be removed' within the NVPP.
Does an NVPP apply to the proposal?

Application Requirement 9 - Offset statement

This statement demonstrates that an offset is available and describes how the required offset will be secured. The Applicant's Guide provides information relating to this requirement.

Next steps

Applications to remove, destroy or lop native vegetation must address all the application requirements specified in the Guidelines. If you wish to remove the mapped native vegetation you are required to apply for approval from the responsible authority (e.g. local Council). This Native vegetation removal report must be submitted with your application and meets most of the application requirements. The following requirements need to be addressed, as applicable.

Application Requirement 3 - Photographs of the native vegetation to be removed

Recent, dated photographs of the native vegetation to be removed **must be provided** with the application. All photographs must be clear, show whether the vegetation is a Patch of native vegetation, Patch Tree or Scattered Tree, and identify any Large Trees. If the area of native vegetation to be removed is large, provide photos that are indicative of the native vegetation.

Ensure photographs are attached to the application. If appropriate photographs have not been provided the application is not complete.

Application Requirement 6 - Property Vegetation Plan

If a PVP is applicable, it must be provided with the application.

Appendix 1: Description of native vegetation to be removed

General Habitat Units for each zone (Patch, Scattered Tree or Patch Tree) are calculated by the following equation in accordance with the Guidelines

General Habitat Units = extent without overlap x condition score x general landscape factor x 1.5, where the general landscape factor = 0.5 + (strategic biodiversity value score/2)

The General Offset amount required is the sum of all General Habitat Units per zone.

Native vegetation to be removed

Information provided by or on behalf of the applicant							Information calculated by NVR Map				
Zone	**Type**	**DBH (cm)**	**EVC code**	**Bioregional conservation status**	**Partial Removal**	**Condition score**	**Large Tree(s)**	**Polygon extent (ha)**	**Extent without overlap (ha)**	**SBV score**	**General Habitat Units**
w-a	Patch	-	Wetland	not applicable	no	0.200	-	0.245	0.245	0.440	0.053

Appendix 2: Images of mapped native vegetation

1. Property in context

Proposed Removal
Past Removal
Partial Removal
Property Boundaries

N

200 m

2. Aerial photograph showing mapped native vegetation

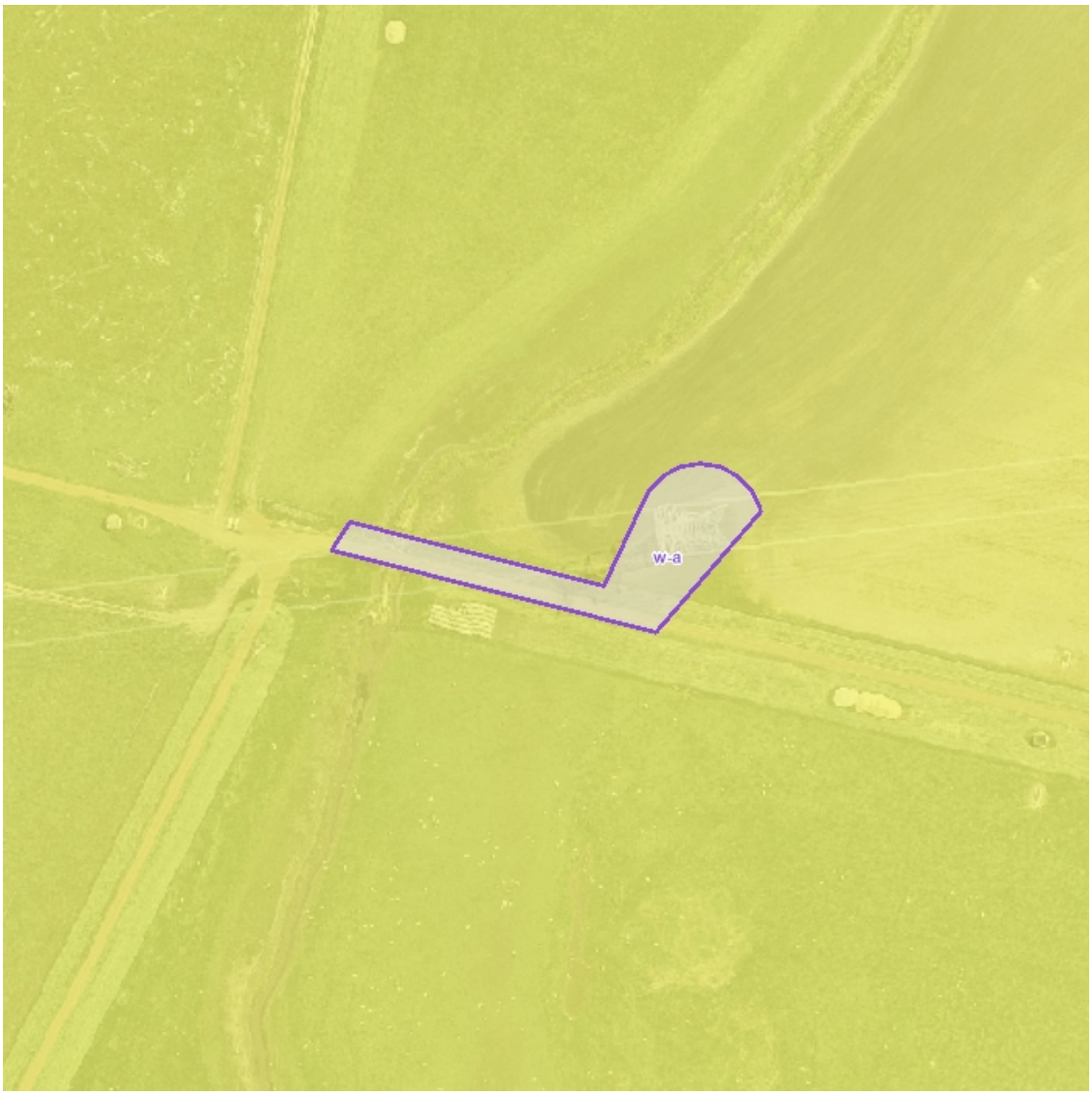
Proposed Removal
Past Removal
Partial Removal

N

50 m

3. Location Risk Map

4. Strategic Biodiversity Value Score Map



5. Condition Score Map

6. Endangered EVCs

Not Applicable

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