



BIODIVERSITY DEVELOPMENT ASSESSMENT REPORT

FOR
A PROPOSED PIG FARM
AT

ONE TREE LANE, LOWESDALE,
NSW 2646

Prepared by
Firebird ecoSultants

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Executive Summary

Introduction

Firebird ecoSultants Pty Ltd has been engaged by PSA Consulting to provide a Streamlined Biodiversity Development Assessment Report (SBDAR) for a proposed pig farm (the proposal) at One Tree Lane, Lowesdale, NSW 2646 (the subject land). The site is 15 ha in size and is zoned as RU1 Primary Production.

The subject site is located on One Tree Lane, Lowesdale, within the Federation Council Local Government Area (LGA). The site encompasses approximately 15 hectares of land currently utilised for agricultural purposes, predominately comprising a wheat plantation with areas of exotic vegetation.

The proposed development involves the construction of a commercial pig farming facility, consisting of six purpose-built sheds with a combined capacity of up to 35,000 pigs, supported by all necessary infrastructure including a wastewater management system. The facility will be established on land currently under wheat cultivation, which will be decommissioned to facilitate the transition to the new land use.

No threatened fauna or flora species were identified during field surveys, and the existing vegetation does not satisfy the diagnostic criteria for any listed threatened ecological community. These findings are consistent with the site's established history of intensive agricultural use, which has resulted in a substantially modified landscape of limited ecological and conservation significance.

The site contains no water bodies or aquatic features.

Broadly, the site forms part of an agricultural landscape mosaic, with some remnant native vegetation persisting within the surrounding area. However, this vegetation is largely fragmented, comprising scattered trees and isolated patches rather than continuous or structurally intact communities. Given that the proposed pig farm will replace land already subject to significant agricultural modification, the development is not anticipated to diminish the ecological value of the area or reduce the availability of habitat for any potentially threatened species.



Abbreviations

Abbreviation	Meaning
AOBV	Areas of Outstanding Biodiversity Value
BAM	Biodiversity Assessment Methodology 2020
BC Act	<i>Biodiversity Conservation Act 2016</i>
BDAR	Biodiversity Development Assessment Report
DCP	Development Control Plan
DEC	Department of Environment and Conservation
DECC	Department of Environment and Climate Change
DECCW	Department of Environment, Climate Change and Water
DEE	Department of Environment and Energy
DoE	Department of Environment
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
Ha	Hectare
LEP	Local Environmental Plan
LGA	Local Government Area
MU	Map Unit
NPWS	NSW National Parks and Wildlife Service
OEH	Office of Environment and Heritage
PCT	Plant Community Type
PFC	Projected Foliage Cover
SAII	Serious and Irreversible Impacts
TBCD	Threatened Biodiversity Data Collection
TEC	Threatened Ecological Community



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1 STAGE 1 – BIODIVERSITY ASSESSMENT

1.1 Introduction

Firebird ecoSultants Pty were engaged by PSA Consulting to provide a Streamlined Biodiversity Development Assessment Report (SBDAR) for a proposed pig farming facility at One Tree Lane, Lowesdale, NSW 2646. The site is 15 ha in size and is zoned as RU1 Primary Production (Figure 1 for the Site Location and Figure 2 for Site Map). This SBDAR has been prepared to satisfy the requirements of the *Biodiversity Conservation Act 2016* (BC Act). This assessment has been undertaken in accordance with the Biodiversity Assessment Method (DPIE, 2020). The definitions of Development footprint and Subject land as per BAM 2020 are given below:

Development footprint: the area of land that is directly impacted by a proposed development, including access roads and areas used to store construction materials. The term development footprint is also taken to include clearing footprint, except where the reference is to a small area development or a major project development.

Subject land: land subject to a development, activity, clearing, biodiversity certification or a biodiversity stewardship proposal. It excludes the assessment area which surrounds the subject land (i.e. the area of land in the 1500 m buffer zone around the subject land or 500m buffer zone for linear proposals). In the case of a biodiversity certification proposal, subject land includes the biodiversity certification assessment area.

In the case of this proposal the development footprint consists of the total subject land.

1.2 Assessment Scope

This SBDAR has been prepared in accordance with the methodology outlined in the Biodiversity Assessment Method Order 2020, with reference to threatened entities listed under the NSW Biodiversity Conservation Act 2016 (BC Act).

Although the proposed development does not involve the removal of any native vegetation, the preparation of an SBDAR is required by virtue of the proposal being classified as State Significant Development (SSD). This classification triggers the application of the Biodiversity Offset Scheme (BOS), under which a formal assessment of the development's potential impacts on biodiversity values is required.

This report includes:

Stage 1 – Biodiversity Assessment – including area limits, mapping of remnant vegetation communities within the location of previously identified threatened species and their habitats, and a list of threatened species, populations and communities with a likelihood of occurrence.



Stage 2 – Impact Assessment – identification of impact avoidance and mitigation measures, and the quantifying of offset requirements in the form of biodiversity credits based upon residual impacts of the proposal.



I.3 Qualifications and Licensing

Qualifications

Fieldwork and report writing for this project was undertaken by Sarah Jones (Ecologist), Edie Bocking and Brayden McDermott (Junior Ecologists). Review was undertaken by Sarah Jones (BAM Accredited Assessor BAAS18020).

Licensing

Research was conducted under the following licences:

- NSW National Parks and Wildlife Service Scientific Investigation Licence SL100533;
- Animal Research Authority (Trim File No: TRIM 11/5655) issued by NSW Department of Primary Industries; and
- Animal Care and Ethics Committee Certificate of Approval (Trim File No: TRIM 11/5655) issued by Department of Primary Industries.

Certification

As the principal author, I, Sarah Jones make the following certification:

- The results presented in the report are, in the opinion of the principal author and certifier, a true and accurate account of the species recorded, or considered likely to occur within the site;
- Commonwealth, state and local government policies and guidelines formed the basis of project surveying methodology, or where the survey work has been undertaken with specified departures from industry standard guidelines, details of which are discussed and justified in Section 2;
- All research workers have complied with relevant laws and codes relating to the conduct of flora and fauna research, including the *Animal Research Act 1995*, *National Parks and Wildlife Act 1974* and the *Australian Code of Practice for the Care and Use of Animals for Scientific Purposes*.

Signature of Principal Author and Certifier:



Sarah Jones

B.Env.Sc., G.DIP.DBPA (Design for Bushfire Prone Areas)

BAM Accredited Assessor BAAS18020

Principal Ecologist / Bushfire Planner



1.4 Description of the Proposal

The proposal involves the establishment of a commercial pig farming facility at One Tree Lane, Lowesdale NSW 2646, on land currently under wheat cultivation. The development will result in the disturbance of approximately 15 hectares of planted non-native wheat crop, which will be decommissioned to facilitate the transition to the proposed land use.

The facility will comprise six purpose-built sheds with a combined capacity of up to 35,000 pigs, together with all necessary supporting infrastructure, including a wastewater management system. Site plans are provided at Appendix A.

1.5 General Site Description

The subject site encompasses approximately 15 hectares and is located within the Federation Council Local Government Area (LGA). The site is currently utilised as a wheat plantation and contains no existing built infrastructure. It is situated within a broader landscape characterised by agricultural land use, with small areas of remnant native vegetation persisting in the surrounding locality. This vegetation is, however, largely fragmented in character, comprising scattered trees and isolated patches rather than continuous or structurally intact communities.

Vegetation within the site itself consists of the aforementioned wheat plantation alongside areas of exotic species. The overall condition of the site is reflective of its long history of agricultural use, with high levels of historical disturbance having significantly modified the landscape from its natural state.

1.6 The Study Area

The study area is the area of land within the site that has been assessed in this report, which is the area of vegetation within the site that is relevant to this SBDAR i.e., the area of vegetation within or potentially impacted by the construction and operational footprint. Land within the site that is not considered to be impacted by the proposal (either directly or indirectly) is considered to be outside the study area. In this case however, the study area encompasses the entire site.

1.7 Information sources

1.7.1 Database Searches

The following database searches were undertaken, in order to compile a list of threatened flora and fauna species predicted to occur in the area:

- Review of threatened fauna and flora records within a 10 km radius of the site, contained in the BioNet Atlas of NSW Wildlife.



- Review of the Matters of National Environmental Significance (MNES) records within a 10 km radius of the site, using the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEW), Protected Matters Search Tool (PMST).

1.7.2 Literature Review

Information sources reviewed included, but were not limited to:

- Aerial Photograph Interpretation (API)
- Relevant vegetation mapping projects including the NSW State Vegetation Type Map (NSW SVTM) DCCEW, "NSW State Vegetation Type Map."
- The project's potential impacts were evaluated in accordance with key biodiversity legislation and policies including:
 - *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).*
 - *Environmental Planning and Assessment Act 1979 (EP&A Act).*
 - *Biodiversity Conservation Act 2016 (BC Act).*
 - *Biosecurity Act 2015 (Biosecurity Act).*
 - *National Parks and Wildlife Act 1974 (NPW Act).*
 - *State Environmental Planning Policy (Biodiversity and Conservation) 2021 (Biodiversity and Conservation SEPP).*
- Relevant ecological survey guidelines, including:
 - Biodiversity Assessment Method (BAM) 2020 DPIE, "Biodiversity Assessment Method 2020."
 - Surveying threatened plants and their habitats: NSW survey guide for the Biodiversity Assessment Method (OEH 2016).
 - Threatened species assessment guidelines: The assessment of significance DPIE, "Surveying Threatened Plants and Their Habitats: NSW Survey Guide for the Biodiversity Assessment Method."
 - *Corowa Local Environmental Plan 2012 (Corowa LEP)*
 - *Corowa Shire Council Development Control Plan 2013 (Corowa DCP).*
- Any relevant recovery plans and;
- Collective knowledge gained from previous ecological assessments in the local area.

Legend

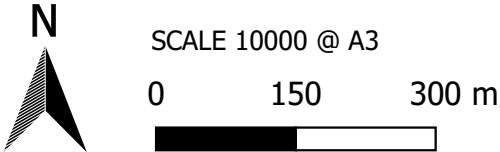
Site Boundary

Cadastral Parcel



FIGURE 2 : LOCALITY MAP
REVISION: A

CLIENT	PSA Consulting
SITE DETAILS	314 One Tree Lane, Lowesdale
DATE	14/10/25



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Legend

Vegetation Site

Boundary

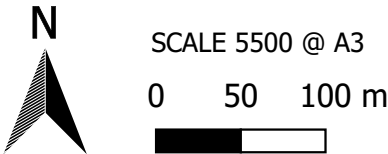
Waterbody

Cadastral Parcel



FIGURE 3 : VEGETATION MAP
REVISION: B

CLIENT PSA Consulting
SITE DETAILS 314 One Tree Lane, Lowesdale
DATE 14/10/25



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1.8 Landscape features

This section details the landscape features occurring on the subject land or within the assessment area (i.e., a 1.5 km buffer) surrounding the subject land; see Table 1.

Table 1: Landscape features

Landscape features	
IBRA Region and Subregion	Dominant landscape forms have been used to divide Australia into bioregions. The site is within the Riverina IBRA bioregion and the Murray Fans IBRA subregion. See Figure 1 for the locations of IBRA regions and subregions within 1.5 km of the site.
Mitchell Landscape	Mitchell Landscapes are used to describe areas in NSW in a broad sense and group together areas with relatively homogenous geomorphology, soils and broad vegetation types and are mapped at a scale of 1:250000. The subject site is within the Murray Scalded Plains landscape, with an estimated cleared fraction of 0.92. See Figure 1 for the locations of Mitchell Landscapes within 1.5 km of the site.
Percent Native Vegetation Cover	All areas of native vegetation cover within the site and within a 1,500 m buffer area surrounding the site, have been mapped. It is estimated, from this mapping that the native vegetation cover within the site would be 0%
Wetlands, Rivers, Streams and Estuaries	No wetlands, rivers or estuaries occur within the site. See Figure 1 for watercourses within 1.5 km of the site.
Connectivity Features	As the site consists of entirely cleared agricultural land there are no connectivity features present. Additionally due to the broader landscape also being predominantly cleared very little connectivity exists within the region.
Areas of Geological Significance and Soil Hazard Features	The site does not support any areas of geological significance or soil hazard features.
Areas of Outstanding Biodiversity Value	Under the BC Act, the Minister for the Environment may declare Areas of Outstanding Biodiversity Value (AOBV). These are special areas that contain irreplaceable biodiversity values that are considered important to NSW, Australia or globally. No listed AOBV occur within the site or within a 1,500 m buffer around the site.



Native vegetation

1.9.1 Native Vegetation Cover Within the Site

The extent of native vegetation to be assessed in this BDAR (i.e., the area of native vegetation within or potentially impacted by the construction and operational footprint) is 0 ha. See **Error! Reference source not found.** for the native vegetation extent within the site.

1.9.2 Patch Size

A patch is defined in the BAM as an area of intact native vegetation that occurs on the subject land. The patch may extend onto adjoining land beyond the footprint of the subject land, and for woody ecosystems, includes native vegetation separated by ≤ 100 metres from the next area of intact native vegetation. For non-woody vegetation, this gap is reduced to ≤ 30 metres. Intact vegetation must contain all structural layers (strata) characteristic of the PCT. Plot data should not be solely relied upon when determining whether vegetation is intact. If all structural growth form groups expected to exist within the community are present within the vegetation zone and/or adjoining off-site native vegetation, then the vegetation meets the definition of intact. For example, if all structural growth form groups except the shrub layer are present in the plots but species that belong to the shrub growth form group occur elsewhere within the vegetation zone, then the shrub growth form group is present, and the vegetation is intact.

As the site contains no native vegetation and there is no connectivity, the patch size is 0 ha.



1.9.2.1 Plot-based Floristic Surveys

Given the absence of native PCTs across the site, attributable to the entirety of the site being occupied by a planted wheat crop, plot-based vegetation surveys were not required. In lieu of this, a flora survey was conducted using Cropper's random meander technique (Cropper, 1993) on 25 August 2025, with the objective of recording flora species present and confirming the absence of any native PCT.

1.9.2.2 Plant Community Types

The vegetation present on the site is limited to a planted wheat crop. No native Plant Community Types (PCTs) were recorded, consistent with the absence of native vegetation across the site. See APPENDIX B for photos.



1.9.3 Vegetation Integrity Assessment

Vegetation Zones

N/A

Table 2: Vegetation zones and patch size classes

PCT	Vegetation Zone (VZ)	Vegetation Zone Description	Patch Size Class
N/A			



Vegetation Integrity Scores

Table 3: Vegetation Integrity Scores

PCT	Vegetation Zone (VZ)	Composition Score	Structure Condition Score	Function Condition Score	Vegetation Integrity Score
N/A					

1.10 Threatened Species

The following has been undertaken in accordance with section 6 of the BAM.

Under the BAM, threatened species are separated into two classes, 'ecosystem' and 'species' credit species. Those threatened species where the likelihood of occurrence of a species or elements of the species' habitat can be predicted by vegetation surrogates and landscape features, or for which a targeted survey has a low probability of detection, are identified as 'ecosystem' credit species. Targeted surveys are not required for ecosystem species and potential impacts to these species are assessed in conjunction with impacts to PCTs.

Threatened species where the likelihood of occurrence of a species or elements of suitable habitat for the species cannot be confidently predicted by vegetation surrogates and landscape features and can be reliably detected by survey are identified as 'species' credit species. A targeted survey or an expert report is required to confirm the presence or absence of these species on the subject land.

For some threatened species, they are identified as both ecosystem and species credit species, with different aspects of the habitat and life cycle representing different credit types. Commonly, threatened fauna species may have foraging habitat as an ecosystem credit, while their breeding habitat represents a species credit.

The following sections outline the process for determining the habitat suitability for threatened species within the subject land, and the results of targeted surveys for candidate threatened species.

The site was assessed for suitability as habitat for native fauna and flora during the site inspection on 25th August 2025.

A streamlined assessment for small areas only requires specific targeted assessment to be carried out for potential threatened ecological communities and/or species at risk of a Serious and Irreversible Impact (SAII). Furthermore, if a threatened species is incidentally recorded on site, further assessment must be undertaken to determine if species credits are required.



1.10.1 Identify Threatened Species for Assessment

Threatened species that require assessment are initially identified based upon the following criteria:

- the distribution of the species includes the IBRA subregion in which the subject land occurs
- the study area is within any geographic constraints of the distribution of the species within the IBRA subregion.
- the species is associated with any of the PCTs identified within the study area
- the native vegetation cover within an assessment area including a 1500m buffer around the study area is equal to or greater than the minimum required for the species.
- the patch size that each vegetation zone is part of is equal to or greater than the minimum required for that species.
- the species is identified as an ecosystem or species credit species in the Threatened Biodiversity Data Collection.

Identification of threatened species meeting the above criteria is undertaken through the BAM Calculator, into which the PCTs identified within the study area, along with patch sizes and native vegetation cover (as outlined in Section 1.9), are entered to generate a preliminary list of threatened species.

As the subject site does not contain any native PCTs, it cannot be entered into the BAM Calculator and accordingly no preliminary species list has been generated through this process. In lieu of this, a Likelihood of Occurrence assessment has been prepared utilising the Protected Matters Search Tool and BioNet Atlas to identify records of threatened species within a 10 km radius of the subject site. The results of this assessment are presented in Table 5.

1.10.2 Ecosystem Credit Species

Ecosystem credit species are those for which the likelihood of occurrence can be predicted by vegetation surrogates and landscape features, or for which targeted survey has a low probability of detection. As outlined in the preceding section, the subject site does not contain any native PCTs and therefore could not be entered into the BAM Calculator in the conventional manner. Consequently, ecosystem credit species were not generated through the standard BAM Calculator process. However, given that ecosystem credit species are assessed against vegetation surrogates and landscape features rather than solely PCT associations, a Likelihood of Occurrence assessment has been undertaken using the Protected Matters Search Tool and BioNet Atlas to identify any ecosystem credit species with recorded presence within a 10 km radius of the subject site. The results of this assessment are presented in Table 5.



Table 4: Ecosystem credit species predicted to occur within the study area

Ecosystem Credit Species	Habitat Constraints	Justification	Sensitivity to gain class	BC Act listing	EPBC Act listing	Recorded within the site Y/N
N/A						

1.10.3 Likelihood of Occurrence Table

The following assessment identifies the list of threatened flora and fauna species recorded within a 10 km radius of the subject site and compares the distribution, habitat and ecology of these species with the habitats identified on the subject site to assess the likelihood of the species occurring on the subject site using the following criteria:

- **Unlikely:** Species with highly restricted geographical ranges not encompassing the proposal footprint, or those requiring specific habitats absent from the site.
- **Low:** Species not previously recorded on or near the site, situated outside their known distribution range, or dependent on specific habitats/resources not available on the site. This category also includes non-cryptic perennial flora species that were specifically targeted during surveys but not detected.
- **Moderate:** Species infrequently recorded on or near the site, utilising specific habitats/resources present but in poor or modified condition. These species may not maintain sedentary populations but could seasonally utilise resources on the site or during migration. It also includes cryptic flowering flora species not seasonally targeted during surveys and not previously recorded.
- **High:** Species frequently recorded on or near the site, utilising abundant and/or well-preserved habitats/resources present on the site. These species are known or likely to maintain resident populations in the vicinity or regularly visit the site during seasonal movements or migration.



Table 5: Likelihood of Occurrence of Threatened Species within the Subject Area, sourced from the Protected Matters Search Tool and BioNet Atlas (Accessed 11/8/2025)

Species / Population	Habitat Description & Known Populations	Likelihood of Occurrence	Potential for Impact
Threatened Flora			
<i>Amphibromus fluitans</i> River Swamp Wallaby-grass (V)	A perennial grass to 0.8 m tall that spreads by both underground and above-ground stems. Flowering stems tend to be somewhat sprawling, except for the flowering portion of the stalk, which is erect and up to 35 mm long. The leaf blade is 2 - 4.5 mm wide, rough to touch and deeply ribbed. The structure that breaks away from the flower-stalk (and contains the seed) is two-toothed, with a straight bristle arising about half way up its back. The species is virtually aquatic, often with only the flower heads above the water. There are many historic collections in the City of Greater Albury. It has been recorded recently in lagoons beside the Murray River near Cooks Lagoon (Shire of Greater Hume), Mungabarina Reserve, East Albury, at Ettamogah, Thurgoona (Charles Sturt University Campus), near Narranderra, and also further west along the Murray River (near Mathoura) and in Victoria. There is a recent record of this species near Laggan in Upper Lachlan Shire. It is also found in Victoria and in Tasmania.	Low No known populations within the nearby area (10x10km search area), OEH, 2025b. Site does not contain preferred habitat for this species.	Low This species was not surveyed on site. Site is utilised for pastureland and is not suitable for this species.
<i>Austrostipa wakoolica</i> (E)	A densely-tufted, perennial spear-grass that grows to 1 m tall. The leaves are flattened or rolled, 1.5 - 2.5 mm wide at their bases, slightly to strongly ribbed, and densely hairy. The flower-heads are spreading and moderately dense, to 36 cm long, comprising gaping spikelets 11 - 15 mm long (excluding the awn). The awn (bristle) is twice-bent and 3.5 - 6 cm long. Confined to the floodplains of the Murray River tributaries of central-western and south-western NSW, with localities including Manna State Forest, Matong, Lake Tooim, Merran Creek, Tulla, Cunninyeuk and Mairjimmy State Forest (now part of South West Woodland Nature Reserve).	Low No known populations within the nearby area (10x10km search area), OEH, 2025b. Site does not contain preferred habitat for this species.	Low This species was not surveyed on site. Site is utilised for pastureland and is not suitable for this species.
<i>Brachyscome muelleroides</i> Mueller Daisy (V)	The Claypan Daisy is an annual herb that grows to 14 cm tall. Its single white flowers, only 4 mm across, are produced from September to November, at the ends of thread-like stems to 3 cm long. The 5.5 cm long leaves, growing from the stem, are also thread-like. The Claypan Daisy occurs in the Wagga Wagga, Narranderra, Tocumwal and Walbundrie areas. Also occurs in north-central Victoria (only along the Murray from Tocumwal to the Ovens River).	Low No known populations within the nearby area (10x10km search area), OEH, 2025b. Site does not contain preferred habitat for this species.	Low This species was not surveyed on site. Site is utilised for pastureland and is not suitable for this species.
<i>Lepidium aschersonii</i> Spiny Peppercress (V)	Erect perennial herb to 30 cm high, hairy and intricately branched, with the smaller branches spinescent. Plants become woody and more spinose in dry conditions. Basal leaves lobed, to 12 cm long, leaves reducing in size up the stem. Flowers small, borne in elongated clusters terminating in a spine. Fruit a 2-celled, flattened circular pod on a spreading stalk, 4 mm long and 2.5 mm wide, with slight wings in the upper half forming a small notch at the apex. <i>Lepidium aschersonii</i> is distinguished from other <i>Lepidium</i> species by the presence of tiny spines which give the mature plants an intricate appearance. Not widespread, occurring in the marginal central-western slopes and north-western plains regions of NSW (and potentially the south western plains). In the north of the State recent surveys have recorded a number of new sites including Brigalow Nature Reserve, Brigalow State Conservation Area, Leard State Conservation Area and Bobbiwaa State Conservation Area. Also known from the West Wyalong in the south of the State. Records from Barmedman and Temora areas are likely to be no longer present. Approximately 50% of the total <i>Lepidium aschersonii</i> recorded for Australia occurs in NSW.	Low Occurs on gilgai clays, which may not be present on site, however, no vegetation habitat preferred is present due to the disturbed nature of the site. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low This species was not surveyed on site. Site is utilised for pastureland and is not suitable for this species.



Species / Population	Habitat Description & Known Populations	Likelihood of Occurrence	Potential for Impact
<i>Lepidium monoplocoides</i> Winged Pepper-cress (E)	Erect annual herb or perennial forb, 15-20 cm high, with angular and striped stems roughened with small warts. Leaves narrow and linear, mostly 2-7 cm long. Flowers small, borne in elongated clusters, the petals minute or absent. Fruit a 2-celled, flattened circular pod on a spreading stalk, 5 mm long and about 4 mm wide, with pointed wings extending to a narrow notch at the tip. Widespread in the semi-arid western plains regions of NSW. Collected from widely scattered localities, with large numbers of historical records but few recent collections. There is a single collection from Broken Hill and only two collections since 1915, the most recent being 1950. Also previously recorded from Bourke, Cobar, Urana, Lake Cargelligo, Balranald, Wanganella and Deniliquin. Recorded more recently from the Hay Plain, south-eastern Riverina, and from near Pooncarie.	Low Site is highly disturbed and is used as a pastureland. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low This species was not surveyed on site. Site is utilised for pastureland and is not suitable for this species.
<i>Myriophyllum porcatum</i> Ridged Water-milfoil (V)	The Ridged Water-milfoil <i>Myriophyllum porcatum</i> is an annual aquatic herb growing to 40 cm in length. The stem is 1–3 mm wide, brittle, and sparsely branching, mainly at the base and towards the stem tip. Leaves are dimorphic: submerged leaves are dark green, 11–16 mm long, pectinate with 10 to 18 pinnae, and occur in whorls of 4–5; emergent leaves are glaucous, elongate, 5–6 mm long and 1.3–1.8 mm wide, have 2–6 lobes at base, and occur in whorls of 3–5. Flowers are sessile, occur in sparsely branched or simple spikes, and are located in leaf axils, with male flowers arranged higher on spike, the female flowers below. Male flowers have a perianth 4-merous, four sepals, eight stamens and four sterile styles with a slightly red tinge. Female flowers lack a perianth and sepals, while the ovary has four loculi. Fruit is cylindrical and ribbed, 1.8–2.1mm long and 0.9–1.2 mm wide (description from Orchard 1981; Walsh & Entwisle 1996). Little is known of the biology or ecology of this species. It occurs in shallow, ephemeral wetlands, and seed may be able to persist in sediment when the wetland dries out, germinating once the wetland refills.	Low Wetland conditions preferred by this species does not occur on site. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low This species was not surveyed on site. Site is utilised for pastureland and is not suitable for this species.
<i>Prasophyllum validum</i> Sturdy Leek-orchid (V)	The Sturdy Leek-orchid is a deciduous, perennial, terrestrial orchid emerging annually from an underground tuber. It has a single, erect, slender green leaf to 45 cm long, which is often withered at flowering. A stout greenish stem to 60 cm tall bears 15–35 fragrant green and white flowers to 15 mm across, in a robust, fairly crowded spike. The dorsal sepal is lanceolate and incurved, while the lateral sepals are long, erect, partially to entirely connate, and the margins are often strongly incurved. The labellum is greenish white with crisped margins, sharply recurved near the middle, and the tip is sharply pointed. The callus is long, light green, raised, warty, channelled towards the base, and extends nearly to the apex of the labellum (description from Jones 2006; Bates & Weber 1990). The Sturdy Leek-orchid is illustrated in Bates and Weber (1990, plates 141 & 142), Bishop (1996, plate 106), Jeanes and Backhouse (2006, p. 279) and Jones (2006, p. 215). <i>Prasophyllum validum</i> occurs across inland Victoria and in South Australia in the Flinders Ranges, in the Victorian Midlands and Flinders Lofty Block IBRA bioregions (<i>sensu</i> DEH 2000) (Figure 1). There is apparently a major disjunction in distribution between Victorian and South Australian populations. Maps showing the distribution of <i>P. validum</i> are available from the Department of Sustainability and Environment (for Victoria), and the Department for Environment and Heritage (for South Australia).	Low No preferred habitat for this species occurs on site. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low This species was not surveyed on site. Site is utilised for pastureland and is not suitable for this species.



Species / Population	Habitat Description & Known Populations	Likelihood of Occurrence	Potential for Impact
<i>Sclerolaena napiformis</i> Turnip Copperburr (E)	Low subshrub to about 30 cm high, branches slender and sparsely covered with short curled hairs. Leaves linear to narrow, 5-15 mm long. Fruit hard and 2-3 mm long, with 5 or 6 widely-spreading stout spines, each 1-4 mm long, radiating outwards with 2 considerably shorter than the others. Known from only a few small populations in remnant grassland in the southern Riverina of NSW and north-central Victoria. NSW populations are confined to the area between Jerilderie and Moama on travelling stock routes and road reserves.	Low No preferred habitat for this species occurs on site. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low This species was not surveyed on site. Site is utilised for pastureland and is not suitable for this species.
<i>Senecio macrocarpus</i> Large-fruit Fireweed (V)	The large-fruit fireweed, also known as the large-fruit groundsel, is a perennial daisy which can grow up to 70 cm high. The leaves are stalkless, linear in shape, 4–12 cm long and 2–5 cm wide. They are covered with fine hairs on both surfaces and tend to be crowded towards the base of the plant. The inflorescence bears 2–10 relatively large flowers up to 18 mm long and 20 mm wide surrounded by linear, pointed bracts. The yellow flowers are in a flattish arrangement with the central or end flowers blooming earliest. The fruits are up to 6 mm long, cylindrical, brown and hairy. The large-fruit fireweed occurs in a variety of habitats, including grasslands, sedgeland, shrublands and woodlands. The species generally grows on sparsely vegetated sites on sandy loam to heavy clay soils, often in depressions that are waterlogged in winter (Sinclair 2010).	Low No preferred habitat for this species occurs on site. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low This species was not surveyed on site. Site is utilised for pastureland and is not suitable for this species.
<i>Swainsona murrayana</i> Slender Darling-pea	A sparsely-downy forb with greyish, thin or tapered, stiffly leathery pods. The pea-like flowers are pink or purple with red stripes on densely and darkly hairy slender stalks. It is distinguished by the strongly twisted hypanthium and keel with retracted tip. Found throughout NSW, it has been recorded in the Jerilderie and Deniliquin areas of the southern riverine plain, the Hay plain as far north as Willandra National Park, near Broken Hill and in various localities between Dubbo and Moree.	Low No preferred habitat for this species occurs on site due to current pastureland use of the site. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low This species was not surveyed on site. Site is utilised for pastureland and is not suitable for this species.
<i>Swainsona plagiotropis</i> Red Darling-pea	Small prostrate forb to about 15 cm high, with densely white-downy stalks. Leaves composed of 13-25 narrow leaflets, each 10-15 mm long and 1-4 mm wide. Flowers reddish-purple or bright red, pea-like with a prominent upwardly-curved keel petal. Pod hairy, 15-25 mm long. Occurs in the upper Murray River valley in the south-western plains of NSW and into Victoria. Most NSW records are from the Jerilderie area, with possible collections from the Louth-Bourke area and a disjunct record in the north-western plains from Buttabone Stud Park 35 km NW of Warren. Also rare in Victoria, restricted to a few sites in the central north, mostly between Bendigo and the Murray River south of Echuca.	Low No preferred habitat for this species occurs on site due to current pastureland use of the site. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low This species was not surveyed on site. Site is utilised for pastureland and is not suitable for this species.
<i>Swainsona recta</i> Small Purple-pea	Small Purple-pea is a slender, erect perennial herb growing to 30 cm tall. The leaves are divided into up to six pairs of 10 mm long, very narrow leaflets, each with a pointed tip. There is also a single leaflet at the end of each divided leaf. It bears one to several sprays of between 10 and 20 purple, pea-shaped flowers, between late September and early December. Flowers are followed by pods up to 10 mm long in summer. Small Purple-pea was recorded historically from places such as Carcoar, Culcairn and Wagga Wagga where it is probably now extinct. Populations still exist in the Queanbeyan and Wellington-Mudgee areas. Over 80% of the southern population grows on a railway easement. It is also known from the ACT and a single population of four plants near Chiltern in Victoria.	Low No preferred habitat for this species occurs on site due to current pastureland use of the site. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low This species was not surveyed on site. Site is utilised for pastureland and is not suitable for this species.
Threatened Birds			



Species / Population	Habitat Description & Known Populations	Likelihood of Occurrence	Potential for Impact
<i>Anthochaera phrygia</i> Regent Honeyeater (CE)	The Regent Honeyeater is a striking and distinctive, medium-sized, black and yellow honeyeater with a sturdy, curved bill. Adults weigh 35 - 50 grams, are 20 - 24 cm long and have a wingspan of 30 cm. Its head, neck, throat, upper breast and bill are black, and the back and lower breast are pale lemon in colour with a black scalloped pattern. Its flight and tail feathers are edged with bright yellow. There is a characteristic patch of dark pink or cream-coloured facial-skin around the eye. Sexes are similar, though males are larger, darker and have larger patch of bare facial-skin. The call is a soft metallic bell-like song; birds are most vocal in non-breeding season. It has recently been placed in the genus <i>Anthochaera</i> along with the wattlebirds and was formerly known by the name <i>Xanthomyza Phrygia</i>. The Regent Honeyeater mainly inhabits temperate woodlands and open forests of the inland slopes of south-east Australia. Birds are also found in drier coastal woodlands and forests in some years. Once recorded between Adelaide and the central coast of Queensland, its range has contracted dramatically in the last 30 years to between north-eastern Victoria and south-eastern Queensland. There are very few breeding regions remaining: north-east Victoria (Chiltern-Albury), and in NSW at Capertee Valley, Mudgee/Wollar, Lower Hunter Valley and the Bundarra-Barraba region. In NSW the distribution is very patchy and mainly confined to the breeding areas and surrounding fragmented woodlands. In some years flocks converge on flowering coastal woodlands and forests.	Low The site does not contain any preferred habitat for this species. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low This proposal does not impact any habitat of this species. No biodiversity valued vegetation was mapped on the site.
<i>Botaurus poiciloptilus</i> Australasian Bittern (E)	The Australasian Bittern is a large, stocky bird, reaching up to 75 cm in length. It has a long, thick neck and a straight, brownish-yellow bill. Its upper surface is mottled brown, and its undersurface is buff, with dark brown stripes, except for a pale throat. The eyes are yellow and there is a pale eyebrow. The feet and legs are pale green. Australasian Bitterns are widespread but uncommon over south-eastern Australia. In NSW they may be found over most of the state except for the far north-west.	Low The site does not contain any permanent wetlands habitat. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low This proposal does not impact any habitat of this species.
<i>Antigone rubicunda</i> Brolga (V)	The Brolga is quite unmistakable in southern Australia. (Australia's only other crane, the Sarus Crane, is found only in far northern Australia.) It is a huge bird - one of Australia's largest flying birds - standing 1.3 metres tall with a wingspan of nearly 2.5 metres. It is pale bright grey with a broad band of bare red skin from the beak round the nape of the neck and a black dewlap under the chin. The long legs are black. Young birds are darker, without the red band or the dewlap. The call is a far-carrying brassy trumpeting. The Brolga was formerly found across Australia, except for the south-east corner, Tasmania and the south-western third of the country. It is still abundant in the northern tropics, but very sparse across the southern part of its range.	Moderate-low Feeds within dry grasslands and ploughed paddocks. Site has potential habitat for this species to occur. One record was recorded in 2005 and occurred approximately 1km South of the site.	Low Site is utilised for pastureland and is not suitable for this species. This proposal does not impact any habitat of this species.
<i>Aphelocephala leucopsis</i> Southern Whiteface (V)	Southern whiteface occur across most of mainland Australia south of the tropics, from the north- eastern edge of the Western Australian wheatbelt, east to the Great Dividing Range (Schodde & Mason 1999) (Map 1). There is a broad hybrid zone between the two subspecies extending north from the western edge of the Nullarbor Plain. The northern boundary extends to about Carnarvon in the west, to the southern Northern Territory in central Australia, but is slightly further south in Queensland where the species is largely confined to the south-west of the Mitchell Grass Downs and along the southern state border (Schodde & Mason 1999).	Low Prefers relatively undisturbed open woodlands and shrublands with an understory of grasses and/or shrubs. The site is very degraded and continues to be degraded as such, does not provide suitable habitat for this species. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low This proposal does not impact any habitat of this species.



Species / Population	Habitat Description & Known Populations	Likelihood of Occurrence	Potential for Impact
<i>Botaurus poiciloptilus</i> Australasian Bittern (E)	The Australasian Bittern is a large, stocky bird, reaching up to 75 cm in length. It has a long, thick neck and a straight, brownish-yellow bill. Its upper surface is mottled brown and its undersurface is buff, with dark brown stripes, except for a pale throat. The eyes are yellow and there is a pale eyebrow. The feet and legs are pale green. Australasian Bitterns are widespread but uncommon over south-eastern Australia. In NSW they may be found over most of the state except for the far north-west.	Low-Moderate Site will not contain preferred habitat of permanent freshwater wetlands, however, may pass through the area. One record occurs approximately 1km West of the site (OEH, 2025b).	Low No habitat of this species will be impacted as a result of this proposal.
<i>Calidris acuminata</i> Sharp-tailed Sandpiper (V)	They are a small to medium sized sandpiper, with a pot-belly and rather drawn-out rear end. They have a small, flat head on top of a short neck. Sharp-tailed sandpipers have a rufous coloured forehead and crown, both of which are streaked black. They have a prominent off-white supercilium, which is also streaked black. Non-breeding adults are duller than breeding adults. Sharp-tailed sandpipers occur within all states of Australia. They are found mostly in the south-east and are widespread in both inland and coastal locations. The species also occurs in both freshwater and saline habitats (Cramp 1985; Higgins & Davies 1996). The species utilises fresh and hypersaline environments, feeding along the edge of water on mudflats, coastal and inland wetlands, and sewage ponds. After rainfall events, the species may also feed on areas of agricultural pasture (Higgins and Davies 1996; Weller et al. 2020). Sharp-tailed sandpipers are omnivorous. Their diet comprises mostly of seeds, worms, molluscs, crustaceans, and insects, which they prey on by pecking and jabbing their beak into muddy substrate (Higgins and Davies 1996). Roosting habitat On migration, the species forages and roosts on rocky and sandy beaches, freshwater habitats, and inland saltwater habitats (Higgins & Davies 1996). (DCCEEW, 2024)	Low Fresh and hypersaline environments do not occur on the site, however, species can use mudflats and sewage ponds for feeding and the site contains a large portion of sewage ponds. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low Site is utilised for pastureland and is not suitable for this species. This proposal does not impact any habitat of this species. No present waterbodies on site for this species to use.
<i>Calidris ferruginea</i> Curlew Sandpiper (CE)	Occurs along the entire coast of NSW, particularly in the Hunter Estuary, and sometimes in freshwater wetlands in the Murray-Darling Basin. Breeds in Siberia and migrates to Australia for the non-breeding period, arriving in Australia between August and November, and departing between March and mid-April. It generally occupies littoral and estuarine habitats, and in New South Wales is mainly found in intertidal mudflats of sheltered coasts (OEH, 2024a).	Low Utilises freshwater wetlands in the Murray-Darling Basin or coastal areas. Site has no features that this species would frequent. Species may pass through the site due to close proximity to the Murray-Darling Basin. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low No habitat of this species will be impacted as a result of this proposal
<i>Callocephalon fimbriatum</i> Gang-gang Cockatoo (E)	In spring and summer, Gang-gang Cockatoo generally found in tall mountain forests and woodlands, particularly in heavily timbered and mature wet sclerophyll forests. In autumn and winter, the species often moves to lower altitudes in drier more open eucalypt forests and woodlands, particularly box-gum and box-ironbark assemblages, or in dry forest in coastal areas and often found in urban areas. The Gang-gang Cockatoo is distributed from southern Victoria through south- and central-eastern New South Wales. In New South Wales, the Gang-gang Cockatoo is distributed from the south-east coast to the Hunter region, and inland to the Central Tablelands and south-west slopes. It occurs regularly in the Australian Capital Territory. It is rare at the extremities of its range, with isolated records known from as far north as Coffs Harbour and as far west as Mudgee (OEH, 2024a).	Low Prefers heavily timbered woodlands, site does not contain dense vegetation for this species to frequent. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low No habitat of this species will be impacted as a result of this proposal



Species / Population	Habitat Description & Known Populations	Likelihood of Occurrence	Potential for Impact
<i>Climacteris picumnus victoriae</i> Brown Treecreeper (eastern subspecies)	The Brown Treecreeper is endemic to eastern Australia and occurs in eucalypt forests and woodlands of inland plains and slopes of the Great Dividing Range. It is less commonly found on coastal plains and ranges. Found in eucalypt woodlands (including Box-Gum Woodland) and dry open forest of the inland slopes and plains inland of the Great Dividing Range; mainly inhabits woodlands dominated by stringybarks or other rough-barked eucalypts, usually with an open grassy understorey, sometimes with one or more shrub species; also found in mallee and River Red Gum (<i>Eucalyptus camaldulensis</i>) Forest bordering wetlands with an open understorey of acacias, saltbush, lignum, cumbungi and grasses; usually not found in woodlands with a dense shrub layer; fallen timber is an important habitat component for foraging; also recorded, though less commonly, in similar woodland habitats on the coastal ranges and plains (OEH, 2024a).	Low One record occurs approximately 2km West and was recorded in October 2000 (OEH, 2025b). Mainly inhabiting woodlands dominated by stringybarks or other rough-barked eucalypts. Hollows are essential for nesting. Site may not offer ideal conditions for this species to inhabit. Species may pass through site.	Low No habitat of this species will be impacted as a result of this proposal
<i>Falco hypoleucos</i> Grey Falcon	Distribution in NSW is nearly continuous from the coast to the far west. Inhabits eucalypt forests and woodlands, especially those containing rough-barked species and mature smooth-barked gums with dead branches, mallee and acacia woodland. Feeds on arthropods gleaned from crevices in rough or decorticating bark, dead branches, standing dead trees and small branches and twigs in the tree canopy (OEH, 2017a).	Low Inhabits eucalypt forests and woodlands, especially those containing rough-barked species and mature smooth-barked gums with dead branches, mallee and Acacia woodland. Site does not offer ideal conditions for this species to inhabit. Species may pass through site.	Low No habitat of this species will be impacted as a result of this proposal
<i>Gallinago hardwickii</i> Latham's Snipe	Latham's snipe is a non-breeding visitor to south-eastern Australia and is a passage migrant through northern Australia (Higgins & Davies 1996). The species has been recorded along the east coast of Australia from Cape York Peninsula through to south-eastern South Australia, including the Adelaide plains, Mount Lofty Ranges, and the Eyre Peninsula. The range extends inland over the eastern tablelands in south-eastern Queensland, and occasionally from <i>Gallinago hardwickii</i> (Latham's snipe) Conservation Advice 4 Rockhampton in the north, and west of the Great Dividing Range in New South Wales (Frith et al. 1977; Blakers et al. 1984; Barrett et al. 2003). The species is widespread in Tasmania (Thomas 1979; Naarding 1983; Barrett et al. 2003) and is found in all regions of Victoria except for the north-west (Blakers et al. 1984; Emison et al. 1987; Barrett et al. 2003). Most birds spend the non-breeding period at sites located south of the Richmond River in New South Wales (Frith et al. 1977). The species is occasionally recorded at sites located to the west of the core range (e.g., in northwestern and south-western Queensland, north-western New South Wales, mid-northern South Australia, the Northern Territory and Western Australia) (Frith et al. 1977; Blakers et al. 1984; Bywater & McKean 1987; Hunt 1993; Barrett et al. 2003).	Low As the site does not contain any waterbodies there is no suitable feeding habitat, additionally as the site is used for agricultural purposes it is unlikely to provide suitable roosting habitat. No records for this species occur within the nearby area (10x10km search area), OEH, 2025b.	Low Site is utilised for pastureland and is not suitable for this species. This proposal does not impact any habitat of this species. No present waterbodies on site for this species to use.
<i>Grantiella picta</i> Painted Honeyeater	Painted Honeyeater inhabits Boree/ Weeping Myall (<i>Acacia pendula</i>), Brigalow (<i>A. harpophylla</i>) and Box-Gum Woodlands and Box-Ironbark Forests. A specialist feeder on the fruits of mistletoes growing on woodland eucalypts and acacias. Prefers mistletoes of the genus <i>Amyema</i> . The Painted Honeyeater is nomadic and occurs at low densities throughout its range. The greatest concentrations of the bird and almost all breeding occurs on the inland slopes of the Great Dividing Range in NSW, Victoria and southern Queensland. During the winter it is more likely to be found in the north of its distribution (OEH, 2024a).	Low Inhabits Boree/ Weeping Myall (<i>Acacia pendula</i>), Brigalow (<i>A. harpophylla</i>) and Box-Gum Woodlands and Box-Ironbark Forests. Woodland characteristics are present nearby to the site however no woodland occurs within the site. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low No habitat of this species will be impacted as a result of this proposal



Species / Population	Habitat Description & Known Populations	Likelihood of Occurrence	Potential for Impact
<i>Hirundapus caudacutus</i> White-throated Needletail	The White-bellied Sea-eagle is distributed around the Australian coastline, including Tasmania, and well inland along rivers and wetlands of the Murray Darling Basin. In New South Wales it is widespread along the east coast, and along all major inland rivers and waterways. Habitats are characterised by the presence of large areas of open water including larger rivers, swamps, lakes, and the sea. It occurs at sites near the sea or sea-shore, such as around bays and inlets, beaches, reefs, lagoons, estuaries and mangroves; and at, or in the vicinity of freshwater swamps, lakes, reservoirs, billabongs and saltmarsh. Terrestrial habitats include coastal dunes, tidal flats, grassland, heathland, woodland, and forest (including rainforest) (OEH, 2024a).	Low The site does not contain suitable roosting or feeding habitat due to the lack of significant water bodies within the nearby area. Additionally, no records for this species occur within a 10 km radius of the study area OEH, 2025b. Given this, the species has a low likelihood of occurring within the study area.	Low Site is utilised for pastureland and is not suitable for this species. No habitat of this species will be impacted as a result of this proposal
<i>Lathamus discolor</i> Swift Parrot	Occurs where eucalypts are flowering profusely or where there are abundant lerp (from sap sucking bugs) infestations. Favoured feed trees include winter flowering species such as <i>E. robusta</i> (Swamp Mahogany), <i>C. maculata</i> (Spotted Gum), <i>E. gummifera</i> (Red Bloodwood), <i>E. sideroxylon</i> (Mugga Ironbark) and <i>E. albens</i> (White Box). Commonly used lerp infested trees include Grey Box <i>E. macrocarpa</i> (Grey Box), <i>E. moluccana</i> (Grey Box) and <i>E. pilularis</i> (Blackbutt). Breeds in Tasmania during spring and summer and migrates to south-eastern Australia during autumn and winter. In NSW, it mostly occurs on the coast and south west slopes (OEH, 2024a).	Low The site does not contain any preferred habitat for this species. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low No habitat of this species will be impacted as a result of this proposal
<i>Lophochroa leadbeateri</i> Pink Cockatoo	An unmistakable cockatoo of the dry inland, the Pink Cockatoo is the only Australian cockatoo that is salmon-pink below and white above. It is also called the wijugla in Wiradjuri Language, and until recently was listed under the name of <i>Cacatua leadbeateri</i> . It is smaller than the Sulphur-crested Cockatoo <i>C. galerita</i> , but slightly larger than a Galah <i>Eolophus roseicapillus</i> . Its most prominent feature is its large white-tipped crest that is banded in red and gold. Its call is a distinctive stammering whinny. The eastern subspecies <i>Lophochroa leadbeateri leadbeateri</i> is listed as Endangered under Commonwealth legislation. It is the only subspecies found in NSW. Found across the arid and semi-arid inland, from south-western Queensland south to north-west Victoria, through most of South Australia, north into the south-west Northern Territory and across to the west coast between Shark Bay and about Jurien. In NSW it is found regularly as far east as about Bourke and Griffith, and sporadically further east than that.	Low The site does not contain suitable habitat due to the lack of mature trees and waterbodies. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low No habitat of this species will be impacted as a result of this proposal
<i>Melanodryas cucullata cucullata</i> South-eastern Hooded Robin (E)	The Hooded Robin is a large Australian robin reaching 17 cm in length. Prefers lightly wooded country, usually open eucalypt woodland, acacia scrub and mallee, often in or near clearings or open areas. Requires structurally diverse habitats featuring mature eucalypts, saplings, some small shrubs and a ground layer of moderately tall native grasses. The Hooded Robin is widespread, found across Australia, except for the driest deserts and the wetter coastal areas - northern and eastern coastal Queensland and Tasmania. However, it is common in few places, and rarely found on the coast. It is considered a sedentary species, but local seasonal movements are possible. The south-eastern form (subspecies <i>cucullata</i>) is found from Brisbane to Adelaide and throughout much of inland NSW, with the exception of the extreme north-west, where it is replaced by subspecies <i>picata</i> . Two other subspecies occur outside NSW (OEH, 2025a).	Low The subject area does not contain the habitat complexity necessary to support this species. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low No habitat of this species will be impacted as a result of this proposal



Species / Population	Habitat Description & Known Populations	Likelihood of Occurrence	Potential for Impact
<i>Neophema chrysostoma</i> Blue-winged Parrot (V)	<i>Neophema chrysostoma</i> breeds on mainland Australia south of the Great Dividing Range in southern Victoria from Port Albert in Gippsland west to Nelson, and sometimes in the far south-east of South Australia, and the north-western, central and eastern parts of Tasmania (Emison <i>et al.</i> 1987; Higgins 1999). A partial migrant, variable numbers of birds migrate across Bass Strait in winter. During the non-breeding period, from autumn to early spring, birds are recorded from northern Victoria, eastern South Australia, south-western Queensland and western New South Wales with some birds reaching south-eastern New South Wales and eastern Victoria, particularly on the southern migration (Higgins 1999). The Blue-winged Parrot inhabits a range of habitats from coastal, sub-coastal and inland areas, right through to semi-arid zones. Throughout their range, they favour grasslands and grassy woodlands. They are often found near wetlands both near the coast and in semi-arid zones. Blue-winged Parrots can also be seen in altered environments such as airfields, golf courses and paddocks (Birdlife Australia, 2024).	Low The site does not contain any preferred habitat for this species. Species may pass through this site. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low Site is utilised for pastureland and is not suitable for this species. No habitat of this species will be impacted as a result of this proposal
<i>Pedionomus torquatus</i> Plains-wanderer (CE)	The vast majority (>99%) of records of Plains-wanderers in NSW over the past 30 years come from an area of the western Riverina bounded by Hay and Narrandera on the Murrumbidgee River in the north, the Cobb Highway in the west, the Billabong Creek in the south, and Urana in the east. Even within its western Riverina stronghold, the Plains-wanderer has a very patchy distribution. Surveys in the 1990s across 5,000km ² of the western Riverina covering 37 properties found only 5% of the total area comprised suitable habitat. The amount of high quality habitat in the Riverina drops to 1-2% during very wet or dry years when grasslands become too dense or are grazed too bare for Plains-wanderers.	Low The subject areas current use as a wheat plantation means that there is no suitable habitat for this species present. No known populations within the nearby area (10x10km search area), OEH, 2025b. Given the lack of habitat and nearby records, there is a low likelihood of this species occurring within the study area.	Low No habitat of this species will be impacted as a result of this proposal
<i>Polytelis swainsonii</i> Superb Parrot (V)	The Superb Parrot is found throughout eastern inland NSW. On the South-western Slopes their core breeding area is roughly bounded by Cowra and Yass in the east, and Grenfell, Cootamundra and Coolac in the west. Birds breeding in this region are mainly absent during winter, when they migrate north to the region of the upper Namoi and Gwydir Rivers. The other main breeding sites are in the Riverina along the corridors of the Murray, Edward and Murrumbidgee Rivers where birds are present all year round. It is estimated that there are less than 5000 breeding pairs left in the wild. Inhabit Box-Gum, Box-Cypress-pine and Boree Woodlands and River Red Gum Forest. In the Riverina the birds nest in the hollows of large trees (dead or alive) mainly in tall riparian River Red Gum Forest or Woodland. On the South West Slopes nest trees can be in open Box-Gum Woodland or isolated paddock trees. Species known to be used are Blakely's Red Gum, Yellow Box, Apple Box and Red Box. May forage up to 10 km from nesting sites, primarily in grassy box woodland. Feed in trees and understorey shrubs and on the ground and their diet consists mainly of grass seeds and herbaceous plants. Also eaten are fruits, berries, nectar, buds, flowers, insects and grain.	Low Site does not contain woodland characteristics that this species prefers. No known populations within the nearby area (10x10km search area, OEH, 2025b). Due to lack of suitable habitat there is a low likelihood of this species occurring within the study area.	Low No habitat of this species will be impacted as a result of this proposal



Species / Population	Habitat Description & Known Populations	Likelihood of Occurrence	Potential for Impact
<i>Pomatostomus temporalis temporalis</i> Grey-crowned Babbler (eastern subspecies) (V)	The Grey-crowned Babbler is the largest of the four Australian babblers, reaching to 30 cm long. Its distinctive bill is scimitar-shaped, long and heavy. The broad white eyebrow and a pale grey crown-stripe are other distinguishing characters. A dark band passes from the bill through the eye, separating the pale throat and brow to giving a 'masked' look. It has dark greyish-brown upperparts and is paler brown on the underparts, grading to a whitish throat. It is distinctive in flight, showing white tips to the tail feathers, and orange-buff patches in the broad, rounded wings. Young birds have dark brown eyes, with the iris becoming paler with age, reaching a yellow colour by about three years. This species has a loud and often repeated 'ya-hoo' call which is a duet between the male and female (the female says 'ya' and the male answers with 'hoo'). It is used to maintain the bond between the pair and as a territorial call. The 'ya-hoo' duet sequence is repeated rapidly, up to thirty times in a row. The Grey-crowned Babbler is distinctly larger than the three other babbler species and is also the only one to possess the distinctive rufous wing patches. The Grey-crowned Babbler has two distinctive subspecies that intergrade to the south of the Gulf of Carpentaria. West of here the subspecies <i>rubeculus</i>, formerly considered a separate species (Red-breasted Babbler) is still widespread and common. The eastern subspecies (<i>temporalis</i> occurs from Cape York south through Queensland, NSW and Victoria and formerly to the south east of South Australia. This subspecies also occurs in the Trans-Fly Region in southern New Guinea. In NSW, the eastern sub-species occurs on the western slopes of the Great Dividing Range, and on the western plains reaching as far as Louth and Balranald. It also occurs in woodlands in the Hunter Valley and in several locations on the north coast of NSW. It may be extinct in the southern, central and New England tablelands.	Low Due to the sites present use as an agricultural wheat plantation, there is no suitable woodland habitat for this species. No known populations within the nearby area (10x10km search area), OEH, 2025b. Given the lack of suitable habitat and records there is a low likelihood of this species occurring within the study area.	Low No habitat of this species will be impacted as a result of this proposal
<i>Rostratula australis</i> Australian Painted Snipe (E)	The Australian Painted Snipe is small freshwater wader, with a long bill that droops slightly at the tip. The female has a chestnut-black hood with a bold white eye-patch and a cream stripe along the middle of the crown. The back and wings are patterned bronzy-greenish-grey with a few cream streaks and the underparts are white. The male is slightly smaller and has greyer, less contrasting patterns, but also has large cream spots on the wings. In the past, the population of Painted Snipe in Australia has been treated as a separate race (<i>australis</i>) of a more widespread species (often called the Greater Painted Snipe <i>Rostratula benghalensis</i>). Recent genetic analysis (Baker <i>et al.</i> 2007) has shown that this has been isolated from other populations for approximately 19 million years and is different enough to be considered a separate species. Recent publications refer to this species as the Australian Painted Snipe (<i>Rostratula australis</i>). The Australian Painted Snipe is restricted to Australia. Most records are from the south east, particularly the Murray Darling Basin, with scattered records across northern Australia and historical records from around the Perth region in Western Australia. In NSW many records are from the Murray-Darling Basin including the Paroo wetlands, Lake Cowal, Macquarie Marshes, Fivebough Swamp and more recently, swamps near Balldale and Wanganella. Other important locations with recent records include wetlands on the Hawkesbury River and the Clarence and lower Hunter Valleys.	Low As the site contains no waterbodies, the habitat conditions for this species is not met. One record occurred South approximately 1km from site (OEH, 2025b). Given the limited records and lack of suitable habitat there is a low likelihood of this species occurring within the study area.	Low Site is utilised for pastureland and is not suitable for this species to roost due to not having adequate wetland or water bodies present. This proposal does not impact any habitat of this species. No present waterbodies on site for this species to use.



Species / Population	Habitat Description & Known Populations	Likelihood of Occurrence	Potential for Impact
<i>Stagonopleura guttata</i> Diamond Firetail (V)	Diamond Firetail is found in grassy eucalypt woodlands, including Box-Gum Woodlands and Snow Gum Eucalyptus pauciflora Woodlands. Also occurs in open forest, mallee, Natural Temperate Grassland, and in secondary grassland derived from other communities. Often found in riparian areas (rivers and creeks), and sometimes in lightly wooded farmland. The Diamond Firetail is endemic to south-eastern Australia, extending from central Queensland to the Eyre Peninsula in South Australia. It is widely distributed in NSW, with a concentration of records from the Northern, Central and Southern Tablelands, the Northern, Central and Southwestern Slopes and the North West Plains and Riverina. Not commonly found in coastal districts, though there are records from near Sydney, the Hunter Valley and the Bega Valley. This species has a scattered distribution over the rest of NSW, though is very rare west of the Darling River (OEH, 2024a).	Low The site does not contain any preferred habitat for this species. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low No habitat of this species will be impacted as a result of this proposal
<i>Tringa nebularia</i> Common Greenshank (E)	They are a large and heavily built wader with a long and slightly upturned bill. The common greenshank is widespread in coastal regions, occurs in all types of wetlands, and has one of the widest distribution of any shorebird in Australia (Higgins & Davies 1996). The common greenshank forages at the edge of wetlands, in soft mud on mudflats, in channels, or within shallows around the edge of waterbodies. These locations are often situated near or among mangroves or other sparse, emergent or fringing vegetation such as sedges or saltmarsh. The bird occasionally feeds amongst seagrass beds. Common greenshanks roost both on the coast and inland, in estuaries and mudflats, mangrove swamps and lagoons, and in billabongs, swamps, sewage farms, and flooded crops (BirdLife Australia 2021). (DCCEE, 2024)	Low The site does not contain any preferred habitat for this species due to a lack of a wetland ecosystem. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low This proposal does not impact any habitat of this species. No present waterbodies on site for this species to use.
Threatened Mammals			
<i>Phascolarctos cinereus</i> Koala (E)	The Koala has a fragmented distribution throughout eastern Australia from north-east Queensland to the Eyre Peninsula in South Australia. In New South Wales, koala populations are found on the central and north coasts, southern highlands, southern and northern tablelands, Blue Mountains, southern coastal forests, with some smaller populations on the plains west of the Great Dividing Range. Inhabit eucalypt woodlands and forests. Feed on the foliage of more than 70 eucalypt species and 30 non-eucalypt species, but in any one area will select preferred browse species (OEH, 2024a).	Low The subject area does not contain any feed or habitat trees for this species. No known populations within the nearby area (10x10km search area), OEH, 2025b. Given the lack of suitable habitat and lack of records, there is a low likelihood of this species occurring within the study area.	Low No habitat of this species will be impacted as a result of this proposal
<i>Pteropus poliocephalus</i> Grey-headed flying-fox (V)	Grey-headed Flying-foxes are generally found within 200 km of the eastern coast of Australia, from Rockhampton in Queensland to Adelaide in South Australia. In times of natural resource shortages, they may be found in unusual locations. Occur in subtropical and temperate rainforests, tall sclerophyll forests and woodlands, heaths and swamps as well as urban gardens and cultivated fruit crops. Roosting camps are generally located within 20 km of a regular food source and are commonly found in gullies, close to water, in vegetation with a dense canopy. Can travel up to 50 km from the camp to forage; commuting distances are more often <20 km. Feed on the nectar and pollen of native trees, in particular Eucalyptus, Melaleuca and Banksia, and fruits of rainforest trees and vines. Also forage in cultivated gardens and fruit crops. (OEH, 2024a).	Low The site does not contain any preferred habitat for this species. No camps are located within the site or buffer. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low No habitat of this species will be impacted as a result of this proposal



Species / Population	Habitat Description & Known Populations	Likelihood of Occurrence	Potential for Impact
<i>Nyctophilus corbeni</i> Corben's Long-eared Bat, South-eastern Long-eared Bat (V)	Overall, the distribution of the south eastern form coincides approximately with the Murray Darling Basin with the Pilliga Scrub region being the distinct stronghold for this species. Inhabits a variety of vegetation types, including mallee, bulloke <i>Allocasuarina leuhmanni</i> and box eucalypt dominated communities, but it is distinctly more common in box/ironbark/cypress-pine vegetation that occurs in a north-south belt along the western slopes and plains of NSW and southern Queensland. Roosts in tree hollows, crevices, and under loose bark (OEH, 2017a).	Low The site does not contain any preferred habitat for this species. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low No habitat of this species will be impacted as a result of this proposal
Threatened Hepetofauna			
<i>Aprasia parapulchella</i> Pink-tailed Worm-lizard (V)	The Pink-tailed Worm-Lizard is only known from the Central and Southern Tablelands, and the South Western Slopes. There is a concentration of populations in the Canberra/Queanbeyan Region. Other populations have been recorded near Cooma, Yass, Bathurst, Albury and West Wyalong. This species is also found in the Australian Capital Territory. Inhabits sloping, open woodland areas with predominantly native grassy groundlayers, particularly those dominated by Kangaroo Grass (<i>Themeda australis</i>). Sites are typically well-drained, with rocky outcrops or scattered, partially-buried rocks (OEH, 2025a).	Low Site does not contain preferred habitat. No known populations within the nearby area (10x10km search area), OEH, 2025b.	Low No habitat of this species will be impacted as a result of this proposal.
<i>Crinia sloanei</i> Sloane's Froglet (E)	Sloane's Froglet are found along the coastal margin from Litabella National Park in south-east Queensland to Kurnell in Sydney. Sloane's Froglet are found in a wide range of habitats, usually associated with acidic swamps on coastal sand plains. They typically occur in sedgeland and wet heathlands. They can also be found along drainage lines within other vegetation communities and disturbed areas, and occasionally in swamp sclerophyll forests (OEH, 2025a).	Low As the site contains no waterbodies, there is no suitable habitat to support this species. No known populations within the nearby area (10x10km search area), OEH, 2025b. Given the lack of habitat, there is a low likelihood of this species occurring within the study area.	Low This proposal does not impact any habitat of this species. No present waterbodies on site for this species to use.
<i>Litoria raniformis</i> Southern Bell Frog (V)	In NSW the species was once distributed along the Murray and Murrumbidgee Rivers and their tributaries, the southern slopes of the Monaro district and the central southern tablelands as far north as Tarana, near Bathurst. Currently, the species is known to exist in isolated populations in the Coleambally Irrigation Area, the Lowbidgee floodplain and around Lake Victoria. A large population is also present in the Murray Irrigation Area. The species is also found in Victoria, Tasmania and South Australia, where it has also become endangered.	Low Due to the lack of waterbodies within the subject area, the site does not contain suitable habitat to support this species. No known populations within the nearby area (10x10km search area), OEH, 2025b. Given the lack of records and suitable habitat, there is a low likelihood of this species occurring within the study area.	Low This proposal does not impact any habitat of this species. No present waterbodies on site for this species to use.
Threatened Insectivora			



Species / Population	Habitat Description & Known Populations	Likelihood of Occurrence	Potential for Impact
<i>Keyacris scurra</i> Key's Matchstick Grasshopper (E)	Key's Matchstick grasshopper was originally distributed from Victoria to Orange (NSW) across the wheat/sheep belt, typically recorded in native grasslands and grassy woodland. Its northern boundaries are poorly defined, with its Victorian distribution most notable in the Omeo district, and it has been found in remnant vegetation with sympathetic management including private land, cemeteries, along railway easements, travelling stock routes and more recently conservation reserves in the ACT. Disturbance appears to be an important determinant of site occupancy and it appears to be absent from sites that are disturbed during inappropriate times of the year (and interrupt the short non-overlapping lifecycle) or have been subjected to erratic management (e.g. periods of over and under grazing). More recently this species has been incidentally recorded within a wider range of habitats than were previously thought to be suitable and further research is required to determine the importance of these locations to the distribution and conservation status of this species. It is also possible that given these newer records are in atypical habitats they may represent a similar but undescribed taxon. Another similar species (<i>Keyacris marcida</i>) occurs to the west of Key's Matchstick Grasshopper and is apparently overlapping. At three places in NSW these species (Key's Matchstick Grasshopper and the related <i>Keyacris marcida</i>) occur within 14-16 km of each other. To the east of its range there is some overlap with a species of Heide (largely occurring in the coastal ranges, but recently recorded at Scotts NR) that is distinguished by its more numerous antennal segments. Its northern boundaries in the NSW Central Tablelands and Slopes are poorly defined with a very low survey effort, with recent records around Bathurst the northernmost, but it ranges southwards into parts of Victoria, notably in the Omeo district.	Low Unlikely to occur on site due to sensitivity to disturbance and site will be constantly disturbed due to maintenance. No known populations within the nearby area (10x10km search area), OEH, 2025b. Given the lack of suitable habitat there is a low likelihood of this species occurring within the study area.	Low No habitat of this species will be impacted as a result of this proposal.
Threatened Ecological Communities			
<i>Acacia melvillei</i> Shrubland in the Riverina and Murray-Darling Depression bioregions (E)	<i>Acacia melvillei</i> Shrubland in the Riverina and Murray-Darling Depression bioregions is the name given to the ecological community that is dominated by <i>Acacia melvillei</i> (Yarran). <i>Acacia melvillei</i> Shrubland typically has an open canopy of shrubs or small trees, sometimes with scattered mid-stratum shrubs, and with a sometimes sparse, but highly variable ground layer dominated by grasses, chenopods and herbs. The structure and species composition of the community varies depending on disturbance history and temporal variability in rainfall. The open stratum of large shrubs or small trees may be reduced to isolated individuals or may be absent as a result of past clearing. The shrub/tree layer is dominated by <i>Acacia melvillei</i> , either in pure stands or with a range of other less abundant trees or tall shrubs. These may include <i>Nelia</i> (<i>Acacia loderi</i>), Western Rosewood (<i>Alectryon oleifolius</i> subsp. <i>canescens</i>), Belah (<i>Casuarina pauper</i>) and Sugarwood (<i>Myoporum platycarpum</i>).	Low Vegetation associated with this ecological community is not present on site. No PCT associated with these communities are present.	Low No habitat associated with this community will be impacted



Species / Population	Habitat Description & Known Populations	Likelihood of Occurrence	Potential for Impact
<i>Allocasuarina luehmannii</i> Woodland in the Riverina and Murray-Darling Depression Bioregions (E)	<i>Allocasuarina luehmannii</i> Woodland in the Riverina and Murray-Darling Depression bioregions is the name given to the ecological community dominated by Buloke (<i>Allocasuarina luehmannii</i>), sometimes with co-occurring tree species. The community typically comprises an open tree canopy with a sparse and highly variable ground layer dominated by grasses and herbs, sometimes with scattered shrubs and/or small trees. The structure and species composition of the community varies depending on disturbance history and temporal variability in rainfall. The species composition of a site will be influenced by the size of the site, recent rainfall or drought conditions and by its disturbance (including grazing, land clearing and fire) history. The number and relative abundance of species will change with time since fire, and may also change in response to changes in fire frequency or grazing regime. The groundcover is highly variable in structure and composition. It is typically sparse, but may be more continuous within patches or following substantial rainfall events.	Low Vegetation associated with this ecological community is not present on site. No PCT associated with these communities are present.	Low No habitat associated with this community will be impacted
<i>Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Penepplain, Nandewar and Brigalow Belt South Bioregions (E)</i>	Inland Grey Box Woodland includes those woodlands in which the most characteristic tree species, <i>Eucalyptus microcarpa</i> (Inland Grey Box), is often found in association with <i>E. populnea</i> subsp. <i>bimbil</i> (Bimble or Poplar Box), <i>Callitris glaucophylla</i> (White Cypress Pine), <i>Brachychiton populneus</i> (Kurrajong), <i>Allocasuarina luehmannii</i> (Bulloak) or <i>E. melliodora</i> (Yellow Box), and sometimes with <i>E. albens</i> (White Box). Shrubs are typically sparse or absent, although this component can be diverse and may be locally common, especially in drier western portions of the community. A variable ground layer of grass and herbaceous species is present at most sites. At severely disturbed sites the ground layer may be absent. The community generally occurs as an open woodland 15–25 m tall but in some locations the overstorey may be absent as a result of past clearing or thinning, leaving only an understorey	Low Vegetation associated with this ecological community is not present on site. No PCT associated with these communities are present.	Low No habitat associated with this community will be impacted
<i>Myall Woodland in the Darling Riverine Plains, Brigalow Belt South, Cobar Penepplain, Murray-Darling Depression, Riverina and NSW South Western Slopes bioregions (E)</i>	This ecological community is scattered across the eastern parts of the alluvial plains of the Murray-Darling river system. The community is also known as Boree particularly in the southern part of its distribution. Typically, it occurs on red-brown earths and heavy textured grey and brown alluvial soils within a climatic belt receiving between 375 and 500 mm mean annual rainfall. The structure of the community varies from low woodland and low open woodland to low sparse woodland or open shrubland, depending on site quality and disturbance history. The tree layer grows up to a height of about 10 metres and invariably includes <i>Acacia pendula</i> (Weeping Myall or Boree) as one of the dominant species or the only tree species present. The understorey includes an open layer of chenopod shrubs and other woody plant species and an open to continuous groundcover of grasses and herbs. The structure and composition of the community varies, particularly with latitude, as chenopod shrubs are more prominent south of the Lachlan River district, while other woody species and summer grasses are more common further north. In some areas the shrub and canopy stratum may have been reduced or eliminated by clearing or heavy grazing, leaving derived grassland that may still constitute this community.	Low Vegetation associated with this ecological community is not present on site. No PCT associated with these communities are present.	Low No habitat associated with this community will be impacted



Species / Population	Habitat Description & Known Populations	Likelihood of Occurrence	Potential for Impact
<i>Sandhill Pine Woodland in the Riverina, Murray-Darling Depression and NSW South Western Slopes bioregions (E)</i>	Sandhill Pine Woodland in the Riverina, Murray-Darling Depression and NSW South Western Slopes bioregions is the name given to the ecological community dominated by White Cypress Pine (<i>Callitris glaucophylla</i>). Sandhill Pine Woodland is characterised by an open tree stratum, which may be reduced to isolated individuals or may be absent as a result of past clearing. The tree layer is dominated by <i>C. glaucophylla</i> , either in pure stands or with a range of other less abundant trees or tall shrubs. The structure and species composition of the community varies depending on disturbance history and temporal variability in rainfall.	Low Vegetation associated with this ecological community is not present on site. No PCT associated with these communities are present.	Low No habitat associated with this community will be impacted
<i>White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner (E)</i>	White Box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and Riverina Bioregions (commonly referred to as Box-Gum Woodland) was listed as a Critically Endangered Ecological Community (CEEC) on July 17, 2020. It is an open woodland community (sometimes occurring as a forest formation), in which the most obvious species are one or more of the following: White Box <i>Eucalyptus albens</i> , Yellow Box <i>E. melliodora</i> and Blakely's Red Gum <i>E. blakelyi</i> . Intact sites contain a high diversity of plant species, including the main tree species, additional tree species, some shrub species, several climbing plant species, many grasses and a very high diversity of herbs. The community also includes a range of mammal, bird, reptile, frog and invertebrate fauna species. Intact stands that contain diverse upper and mid-storeys and groundlayers are rare.	Low Vegetation associated with this ecological community is not present on site. No PCT associated with these communities are present.	Low No habitat associated with this community will be impacted



I.10.4 Species Credit Species (Candidate Species)

Species credit species are those for which the likelihood of occurrence cannot be reliably predicted by vegetation surrogates alone, and for which targeted surveys are required to determine presence or absence. As outlined in the preceding sections, the subject site does not contain any native PCTs and accordingly could not be entered into the BAM Calculator through the standard process. As a result, no species credit species were generated through this pathway. Notwithstanding this, a Likelihood of Occurrence assessment was undertaken using the Protected Matters Search Tool and BioNet Atlas to identify threatened species with recorded presence within a 10 km radius of the subject site, the results of which are presented in Table 5.

No threatened species were recorded during field surveys undertaken at the subject site. Given the highly modified nature of the site and its established history of intensive agricultural use, the likelihood of occurrence of any species credit species is considered low.



Table 6: Candidate species assessment

Species Biodiversity Risk Weighting	Habitat Constraints / Geographic Limitations	Confirmed Candidate Species for Further Assessment	Justification of Habitat Constraints / Geographic Limitations
N/A			



1.10.5 Habitat Assessment

The following describes the habitat attributes of the site:

- The site does not contain any trees that may be utilised as foraging habitat for birds, arboreal mammals, and microbats.
- No hollow bearing trees were observed within the subject land.
- No caves, tunnels, mines or culverts occur within the study area or the site.
- No stick nests were detected within the site.
- No flying fox camps occur within or near the site.
- There are no dams, ponds or other waterbodies within 500 m of the study area which could be potential habitat for amphibians.

1.10.6 Assessment of Threatened Flora and Fauna Species

As no BAM Calculator output could be generated due to the absence of native PCTs within the site, no preliminary species list was produced through this pathway. The Likelihood of Occurrence assessment (Table 5), undertaken using the Protected Matters Search Tool and BioNet Atlas, indicated that all threatened flora species identified within a 10 km radius of the subject site have a low likelihood of occurring within the study area. Given these findings, no targeted surveys for threatened flora or fauna species were considered necessary or undertaken within the study area.



2 STAGE 2 – IMPACT ASSESSMENT

2.1 Avoiding and Minimising Impacts

The following sections 2.1 to 2.1.2.3 describe efforts undertaken to avoid and minimise impacts on biodiversity values in accordance with Chapter 7 of the BAM.

2.1.1 Avoidance of Impacts to the Site's Biodiversity Values

Given that the site is entirely comprised of planted agricultural species, the proposed development is anticipated to result in minimal impact to the site's biodiversity values. While it is acknowledged that some woodland bird species may opportunistically forage within the wheat crop, the site does not provide meaningful habitat for such species in a structural or ecological sense. Suitable foraging and nesting habitat of greater quality is available within the broader landscape, and the loss of the wheat crop is therefore not considered to represent a significant reduction in habitat availability for any such species.

Accordingly, the proposed development is not anticipated to diminish the biodiversity value of the broader region, nor will it result in any material change to the biodiversity value of the subject site.

2.1.2 Minimisation of Impacts

Although the proposed development is anticipated to result in minimal impact to biodiversity values, as outlined in the preceding section, a number of measures have been incorporated into the project design to further minimise any potential impacts to ecological values within and surrounding the subject site.

The proposed infrastructure has been sited and designed to be contained entirely within the subject site, avoiding any encroachment into areas of remnant native vegetation within the broader landscape. Sediment and erosion control measures will be implemented during construction in accordance with best practice guidelines to prevent any adverse impacts to surrounding land and vegetation from runoff or site disturbance.

All vegetation clearing will be limited to the minimum extent necessary to accommodate the proposed infrastructure footprint. Given that the site consists entirely of planted non-native agricultural species, no native vegetation will be removed as a consequence of the development.

All works will be undertaken in accordance with the relevant provisions of the NSW *Biodiversity Conservation Act 2016* and any conditions of development consent.



2.1.2.1 Locating the Proposal to Avoid or Minimise Impacts

While the development area consists of the entire subject site, the site consists of a highly modified and long-established agriculture property with a lack of native flora and fauna. The site consists entirely of a planted wheat crop with no native vegetation, no threatened species habitat, and no features of ecological significance. The selection of this site therefore represents a considered approach to avoiding impacts to areas of higher biodiversity value within the broader landscape.

The proposed infrastructure has been deliberately sited within the bounds of the existing agricultural footprint, ensuring that no encroachment into surrounding areas of remnant native vegetation occurs. The proposal contains all built infrastructure, including the six pig sheds and wastewater management system, within the subject site boundary, minimising the overall disturbance footprint.

Given the absence of any ecologically sensitive features on or immediately adjoining the subject site, the location of the proposal is considered optimal with respect to the avoidance and minimisation of impacts to biodiversity values, both at the site level and within the broader regional landscape.

2.1.2.2 Minimising Impacts on TECs and Threatened Species Habitat

As the site contains no TECs or potential threatened species habitat, the development has no impact on these values.

2.1.2.3 Vegetation Management and Rehabilitation

Given that the subject site consists entirely of a planted wheat crop with no native vegetation, no vegetation management or rehabilitation measures are required as part of the proposed development. All disturbance associated with the construction of the facility will be limited to the existing agricultural footprint, and no native vegetation will be removed or impacted as a consequence of the development.

2.2 Assessment of Impacts

Section 8 of the BAM states that the BDAR “must assess the impacts of the project on native vegetation and habitat”. In addition to this, Sections 9.1.4 and 9.2 require that further assessment be produced for any impact, including biodiversity impacts, expected in land surrounding the Subject land. The following tables provide a summary of measures proposed to avoid and minimise direct, indirect and residual impacts on biodiversity.



Table 7: Direct impact assessment

Aspect Project	Project Phase	Potential Impact	Mitigation	Timing	Responsibility	Risk before mitigation	Risk after mitigation
Impacts to native vegetation	Construction And Operation	No native vegetation is to be removed.	No mitigation required.	N/A	N/A	LR	N/A
Impacts to habitat in the form of tree hollows	Preconstruction and Construction	No tree hollows to be removed.	No mitigation required.	N/A	N/A	LR	N/A
Fauna home range and connectivity	Pre-Construction And Construction	Minimal disturbance to fauna during clearing and construction. This site does not provide any meaningful habitat, and better-quality habitat exists within the broader landscape. Site does not provide connectivity within the landscape.	Installation of appropriate fencing or other clear delineation during clearance and appropriate fencing during the construction of the development to ensure animals are not trapped within the site.	Pre- during and post-development	Project coordinator Construction staff Site manager Project Ecologist	LR	LR
	Operation	Site does not provide meaningful habitat or connectivity and so its removal does not impact on fauna home range/connectivity.	No mitigation required.	N/A	N/A	LR	N/A
Reduction of biodiversity values	Operation and Post Operation	Removal of planted wheat crop causing minor changes to the structure of the existing modified landscape.	Any proposed landscaping within the development will utilise endemic native species suitable for future fauna use.	Pre-, construction and during development	Project coordinator Construction staff Site manager Project Ecologist	LR	LR
	Construction	Potential for sediment run-off into surrounding vegetation areas during clearing and construction activities.	Best practice erosion and sedimentation control methods to be adopted, enforced, and maintained throughout vegetation works, to avoid any movement of sediment resulting from clearing and construction.	During development	Project coordinator Construction staff Site manager Project Ecologist	HR	LR
Habitat of threatened species or ecological communities associated with: (i) Karst, caves, crevices, cliffs and other	N/A	No such impacts are expected.	N/A	N/A	N/A	N/A	N/A



geological features of significance or (ii) rocks, or (iii) human made structures, or (iv) non-native vegetation							
Connectivity of different areas of habitat of threatened species that facilitates the movement of those species across their range	Construction and operation	No threatened species habitat present.	N/A	N/A	N/A	N/A	N/A
Movement of threatened species that maintains their lifecycle	Pre-operational	No such impacts are expected on site. No connectivity within subject site.	N/A	N/A	N/A	N/A	N/A
Water quality, water bodies and hydrological processes that sustain threatened species and threatened ecological communities	N/A	No such impacts are expected on site as there are no waterbodies present.	N/A	N/A	N/A	N/A	N/A
Wind turbine strikes on protected animals	N/A	No wind turbines will be installed on site.	N/A	N/A	N/A	N/A	N/A
Vehicle strikes on threatened species or on animals that are part of a TEC	Construction, operation	Potential for vehicle strikes on fauna species. While it is unlikely for threatened species to occur within the subject site, given the site's location within an agricultural landscape mosaic with remnant native vegetation in	All civil construction staff to be inducted into pre-clearing and clearing protocols and trained to identify and protect environmental features. During the operational phase, low-speed limits are to be enforced on all facility roads.	Project coordinator Construction staff Site manager Project Ecologist	N/A	HR	LR



		the broader surrounds, fauna movement across the site cannot be entirely excluded.					
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Table 8: Indirect impact assessment

Aspect Project	Project Phase	Potential Impact	Mitigation	Timing	Responsibility	Risk before mitigation	Risk after mitigation
Noise	Construction	Noise during construction due to construction works and construction traffic. Unlikely to disturb threatened species due to lack of nearby suitable habitat.	Timing of construction operations will be optimised as per an approved Construction Environmental Management Plan (CEMP) which will include a Noise Mitigation Plan.	During development	Project coordinator Construction staff Site manager	LR	LR
	Operation	Noise due to operation of pig farm facility	All operational noise to be managed in accordance with relevant NSW Environment Protection Authority (EPA) noise guidelines.	During operations	Civil Contractor	LR	LR
Vibration	Construction	Ground vibration generated during construction activities may disturb fauna within the broader landscape, potentially leading to temporary displacement into adjacent areas	Construction operations will be managed and optimised in accordance with an approved CEMP to minimise the duration and intensity of vibration-generating activities.	During construction	Project coordinator, Site manager, Construction staff	LR	LR
Light spill	Construction	Artificial lighting during construction activities may disturb nocturnal fauna within the surrounding landscape, reducing the viability of adjacent habitat areas.	Optimal construction methods as per an approved CEMP will reduce instances of light spill. Measures will include limiting the use of artificial lighting where practicable and directing lights away from surrounding vegetation and habitat areas.	During construction	Site manager Construction staff	LR	LR
	Operation	Permanent artificial lighting associated with the pig farming facility may disturb nocturnal fauna and reduce the viability of adjacent habitat within the broader landscape.	Permanent lighting associated with the facility shall be designed and oriented to minimise light spill into surrounding vegetation and landscape areas.	During operation	Site manager Civil Contractor	LR	LR
Wastewater and Odour	Construction and Operation	Potential for wastewater or effluent associated with the pig farming facility to impact surrounding land and	Implementation and ongoing maintenance of the wastewater management system as part of the facility design. All wastewater	During and post development	Project Coordinator, Site Manager, Civil Contractor	MR	LR



		vegetation if not appropriately managed. Odour generated during operation may also affect the surrounding environment.	management to be undertaken in accordance with relevant EPA guidelines and conditions of development consent.				
Non-native vegetation	Construction	Soil disturbance may lead to proliferation of exotic flora (including invasive weeds) through seeds and vegetation fragments.	As the site is already highly disturbed due to its ongoing use as a wheat plantation, continue to apply weed management principles will ensure this risk is mitigated.	During construction	Project coordinator Site manager Construction staff	MR	LR
Visual amenity and waste management	Construction	Rubbish and waste retained on site during construction may attract native fauna, increasing the risk of fauna-vehicle interactions and exposure to hazardous materials.	Activities on the site will be managed in accordance with an approved CEMP and designed to limit the amount of rubbish and waste onsite through good housekeeping practices.	During construction	Project Coordinator, Site Manager and Construction Staff	LR	LR
	Operation	Rubbish, waste, and feed materials associated with the ongoing operation of the pig farming facility may attract native fauna to the site.	Appropriate fencing to be installed and maintained around the facility to prevent fauna access. Waste and feed materials to be stored and managed in accordance with best practice guidelines to minimise attractants.	During operations	Site Manager	LR	LR
Noise, dust, light spill	Construction	Combined disturbance to local fauna from noise, dust, and light spill generated during construction activities.	Whilst noise, dust, and light spill will occur during construction, these are anticipated to be of low magnitude and short duration as directed by the CEMP, maintaining impacts on local fauna at a low level.	During construction	Project Coordinator, Site Manager, Construction Staff	LR	LR

Table 9: Proposed mitigation measures

Action	Responsibility	Timing	Frequency	Risk of Failure
Pre-construction Phase Measures				
The boundaries of the development footprint will be delineated in the field using bunting / flagging tape to ensure inadvertent clearing / disturbance of the adjacent vegetation does not occur.	Project manager.	Prior to commencement of any excavation or clearing works.	One-off before clearing works	Low
Any site workers / contractors are to be inducted on the ecological sensitivities of the site, including, but not limited to, the importance of avoiding disturbance to the	Project manager in consultation with the project ecologist.	Prior to commencement of any excavation or clearing works.	Construction phase	Low



vegetation / habitat external to the development footprint.				
Erosion and sediment control measures (e.g., silt fences, straw bales wrapped in geotextile etc) must be established before excavation or vegetation clearance begins and are to remain in place until all surfaces have been fully restored and stabilised.	Project manager.	Prior to commencement of any excavation or clearing works.	Construction phase	Medium
Construction Phase Management Actions				
Appropriate weed control measures must be implemented, including for instance: - All weeds removed from the site must be transported in a sealed container or bag and disposed at a waste management facility licenced to accept green waste. - Vehicles, machinery and equipment must be free from weed material (including seeds) before entering the construction corridor.	Project manager.	During excavation, clearing and construction works.	Construction phase	Low
Any spoil storage areas or stockpiles will have appropriate erosion control devices installed to control runoff and prevent sedimentation.	Project manager.	During excavation, clearing and construction works.	Construction phase	Medium
Materials, plant and equipment are not to be stored within the drip-lines of any retained trees at the site or near the site.	Project manager.	During excavation, clearing and construction works.	Construction phase	Low
Topsoil is to be removed from newly cleared areas and then stockpiled for later use in the rehabilitation and/or landscaping works.	Project manager.	During excavation, clearing and construction works.	Construction phase	Low
Cleared vegetation will be mulched and stockpiled for later use in any vegetation restoration/landscaping activities (provided that it doesn't contain weed material). Where possible, any felled trees may be cut into manageable sections and redistributed in the site.	Project manager.	During excavation, clearing and construction works.	Construction phase	



Sediment and erosion control devices will be inspected regularly, maintained to ensure effectiveness over the entire duration of the project, and cleaned out before 30% capacity is reached.	Project manager.	During excavation, clearing and construction works.	Construction phase	Low
Post-construction Phase Management Actions				
All temporary erosion and sediment control devices such as silt-stop fencing will be removed from the site at the completion of the works, but not until the site is fully revegetated/stabilised.	Project manager.	After construction, but not until the site is fully revegetated/stabilised.	After construction	Low



2.3 Assessment of Direct and Indirect Impacts

The following sections 2.2.1 to 2.2.3 provide an assessment of direct and indirect impacts which were unable to be avoided at the development site in accordance with Section 8 of the BAM.

2.3.1 Direct Impacts

As there is no native vegetation present within the subject land there are to be no direct impacts to native vegetation due to the construction of the proposed pig farming facility.

Table 10: Direct impacts to native vegetation

PCT	Vegetation Zone (VZ)	Composition Score	Structure Condition Score	Function Condition Score	Vegetation Integrity Score
N/A					

Table 11: Change in Vegetation Integrity (VI) Scores

PCT	Vegetation Zone (VZ)	Management Zone / Area Impacted	Current VI Score	Future VI Score	Total Change in VI Score
N/A					

2.3.1.1 Assessment of Direct Impacts

The proposed development will have a direct impact by removing 15 of planted nonnative vegetation, which may cause indirect impacts through edge effects, noise, light pollution and dust from construction phase activities and post-development activities.



Table 12: Risk assessment for all identified potential direct impacts

Direct Impact	Development Phase	Risk (pre-mitigation)	Risk (post-mitigation)	Nature	Extent	Frequency	Duration	Timing
Fauna home range and connectivity	Pre- Construction and Construction	Low	Low	Disturbance to fauna habitat during clearing and construction operations.	Within the development footprint.	Daily during construction and sporadically during operation	Daily during construction and sporadically during operation	Potentially long-term impacts
	Operation	Low	Low	Reduction in minor foraging habitat	Within the subject land	During construction and operation	During construction and operation	Potential long term impacts
Reduction of biodiversity values	Operation and post-operation	Low	Low	No removal of biodiversity value from site, aside from potential marginal foraging habitat.	Within the development footprint.	Anytime during construction and operation	Anytime during construction and operation	Potentially long-term impacts
	Construction	High	Low	Sediment run-off into retained vegetation area	On the site and surrounding vegetation	Anytime during construction and operation	Anytime during construction and operation	Potentially long-term impacts
	Post -construction	High	Low	Changes to stormwater evacuation	On the site and surroundings	Anytime during construction and operation	Anytime during construction and operation	Potentially long-term impacts
Connectivity of different areas of habitat of threatened species that facilitates the movement of those species across their range	Construction and operation	Not applicable	Not applicable	Reduction in connectivity will be negligible as the site does not contain native vegetation or habitat features.	Within the subject land	During and after construction and during operations	During and after construction and during operations	Not applicable



Vehicle strikes on threatened species or on animals that are part of a TEC	Construction, operation	High	High	Civil Construction staff to be inducted into preclearing and clearing protocols, and to identify environmental features for protection. During operation, such impacts will be mitigated through the introduction of low-speed limits as well as speed limiting devices on the facilities' roads.	Within the site	Anytime during construction and operation	Anytime during construction and operation	Anytime during construction and operation
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2.3.2 Indirect Impacts

The indirect impacts of the development have been identified and are outlined in Table 8. A risk assessment has been undertaken for any residual impacts likely to remain after the mitigation measures have been applied. Likelihood criteria, consequence criteria and risk matrix are provided in Table 13, Table 14 and Table 15.

Table 13: Likelihood criteria

Likelihood criteria	Description
Almost certain (Common)	Will occur, or is of a continuous nature, or the likelihood is unknown. There is likely to be an event at least once a year or greater (up to ten times per year). It often occurs in similar environments. The event is expected to occur in most circumstances.



Likelihood criteria	Description
Likely (Has occurred in recent history)	There is likely to be an event on average every one to five years. Likely to have been a similar incident occurring in similar environments. The event will probably occur in most circumstances.
Possible (Could happen, has occurred in the past, but not common)	The event could occur. There is likely to be an event on average every five to twenty years.
Unlikely (Not likely or uncommon)	The event could occur but is not expected. A rare occurrence (once per one hundred years).
Remote (Rare or practically impossible)	The event may occur only in exceptional circumstances. Very rare occurrence (once per one thousand years). Unlikely that it has occurred elsewhere; and, if it has occurred, it is regarded as unique.

Table 14: Consequence criteria

Consequence category	Description
Critical (Severe, widespread long-term effect)	Destruction of sensitive environmental features. Severe impact on ecosystem. Impacts are irreversible and/or widespread. Regulatory and high-level government intervention/action. Community outrage expected. Prosecution likely.
Major (Wider spread, moderate to long term effect)	Long-term impact of regional significance on sensitive environmental features (e.g., wetlands). Likely to result in regulatory intervention/action. Environmental harm either temporary or permanent, requiring immediate attention. Community outrage possible. Prosecution possible.
Moderate (Localised, short-term to moderate effect)	Short term impact on sensitive environmental features. Triggers regulatory investigation. Significant changes that may be rehabilitated with difficulty. Repeated public concern.
Minor (Localised short-term effect)	Impact on fauna, flora and/or habitat but no negative effects on ecosystem. Easily rehabilitated. Requires immediate regulator notification.
Negligible (Minimal impact or no)	Negligible impact on fauna/flora, habitat, aquatic ecosystem or water resources. Impacts are local, temporary and reversible. Incident reporting according to routine protocols.



lasting effect)

Table 15: Risk matrix

Consequence	Likelihood				
	Almost certain	Likely	Possible	Unlikely	Remote
Critical	Very High	Very High	High	High	Medium
Major	Very High	High	High	Medium	Medium
Moderate	High	Medium	Medium	Medium	Low
Minor	Medium	Medium	Low	Low	Very Low
Negligible	Medium	Low	Low	Very Low	Very Low

Table 16: Risk assessment for all identified potential indirect impacts

Indirect Impact	Development Phase	Risk (pre-mitigation)	Risk (post-mitigation)	Nature	Extent	Frequency	Duration	Timing
Inadvertent impacts on adjacent habitat or vegetation	Construction and operation	Medium	Low	Potential damage to adjacent habitat or vegetation	Adjacent vegetation	Daily, during construction	During construction	Potentially long-term impacts
Sedimentation and contaminated and/or nutrient rich run-off	Construction and operation	Medium	Low	Potential runoff during construction works	Into downstream areas	During heavy rainfall or storm events	During rainfall events	Potentially long-term impacts
Noise, dust or light spill	Construction and operation	Medium	Low	Noise and dust created from machinery during construction. No night works during	Adjacent vegetation	Daily during construction and sporadically during operation	Daily during construction and sporadically during operation	Short-term impacts during construction phase, long-term impacts during operation



				construction. Minor noise and light during operation				
Transport of weeds and pathogens from the site to adjacent vegetation	Construction and operation	Medium	Low	Potential spread of weed and pathogens from incoming machinery and equipment.	Potential to spread into nearby vegetation	During construction and operation	Ongoing for the life of the development	Potentially long-term impacts
Rubbish dumping	Construction and operation	Low	Low	Potential rubbish dumped by workers and/or residents	Potential for rubbish to spread into areas outside the development footprint	Anytime during construction and operation	Ongoing for the life of the development	Ongoing for the life of the development
Wood collection	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bush rock removal and disturbance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vehicle strike	Construction and operation	Low	Very Low	Potential for native fauna to be struck by working machinery and moving vehicles	Within access roads and within development footprint	Daily, during construction and operational phases	Ongoing for the life of the development	Potential long-term impacts.
Increased risk of fire	Construction and operation	Medium	Low	Potential for fire to spark during construction and operation from any machinery or electrical works	Adjacent vegetation	Anytime during construction and operation	Anytime during construction and operation	Anytime during construction and operation



2.4 Impact Summary

2.4.1 Serious and Irreversible Impacts

Following implementation of the Biodiversity Assessment Method (BAM, 2020), the following impacts have been determined.

Candidate Serious and Irreversible Impacts (SAIIs) are determined by the relevant decision maker (in this instance, Council) for each particular threatened species or ecological community, based upon the four principles outlined within the Guidance and Criteria to Assist a Decision Maker to Determine a Serious and Irreversible Impact (DPIE, 2020). Given the nature of the subject site as an entirely modified agricultural landscape comprising planted wheat with no native vegetation, it is considered highly unlikely that the proposed development would result in a serious and irreversible impact to any threatened species or ecological community.

As outlined throughout this report, no BAM Calculator output could be generated due to the absence of native PCTs within the subject site. Nevertheless, no threatened species were predicted to occur within the subject land due to the highly modified condition of the subject site.

2.4.2 Impacts Which Require an Offset

As the subject site contains no native vegetation and no threatened species habitat occurs, the proposed development will not result in the removal of any native vegetation. Accordingly, Section 10.3 of the BAM is not triggered, as there is no predicted loss in vegetation integrity score or biodiversity risk attributable to the proposed development. No biodiversity offsets are therefore required.



3 BIODIVERSITY CREDIT REPORT

N/A



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APPENDIX A SITE PLANS

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

Ø180 PN16 PE (FIRE SERVICE PIPE)

STORM
WATER
POND

SUCTION POINT (SP) POSITIONED
SUCH THAT PUMPING APPLIANCE
CAN BE POSITIONED ON A HARDSTAND
WITHIN 4m AND LOCATED NO LESS
THAN 10m FROM THE BUILDING (TYP.)

ONE WAY
LOAD OUT

COMPOST LOAD OUT
COMPOST
BAYS
TRACTOR

TRACTOR PARKING /
COMPOST SITE

MATING

MATING OFFICE
& TOILET

DEAD STOCK
PICK-UP POINT

DRY SOW

DEAD STOCK
PICK-UP POINT

FARROWING

FARROWING

GDU

PRESSURE WASHER
STATION

LOAD OUT

35
STAFF VISITOR
PARKING
SPACES

TRUCK WASH

136.75
TELE

Ø180 PN16 PE (FIRE SERVICE PIPE)

ONE TREE LANE

15m TURN RADIUS

- UGPWR
- COMMS
- FLUSH
- WATER
- FIRE SYSTEM
- STORM WATER
- EFFLUENT
- DRAIN OPEN
- QUARANTINE FENCE
- SILLO
- WATER TANK

ONE TREE LANE - LAYOUT PLAN

PROJECT: GREEN FIELD SITES

No.	DATE	REVISION	BY

Rivalea
AUSTRALIA

RIVALEA (AUSTRALIA)
REDLANDS ROAD,
COROWA NSW 2646

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1 OF 1
File No.
RIVLAH-077

PRELIMINARY

NOT TO BE USED FOR CONSTRUCTION

LOAD OUT

COMPOST
WAYS

MATING

DRY SOW

ONE TREE LANE - LAYOUT PLAN

PROJECT: GREEN FIELD SITES

No.	DATE	REVISION	BY

Rivalea
AUSTRALIA

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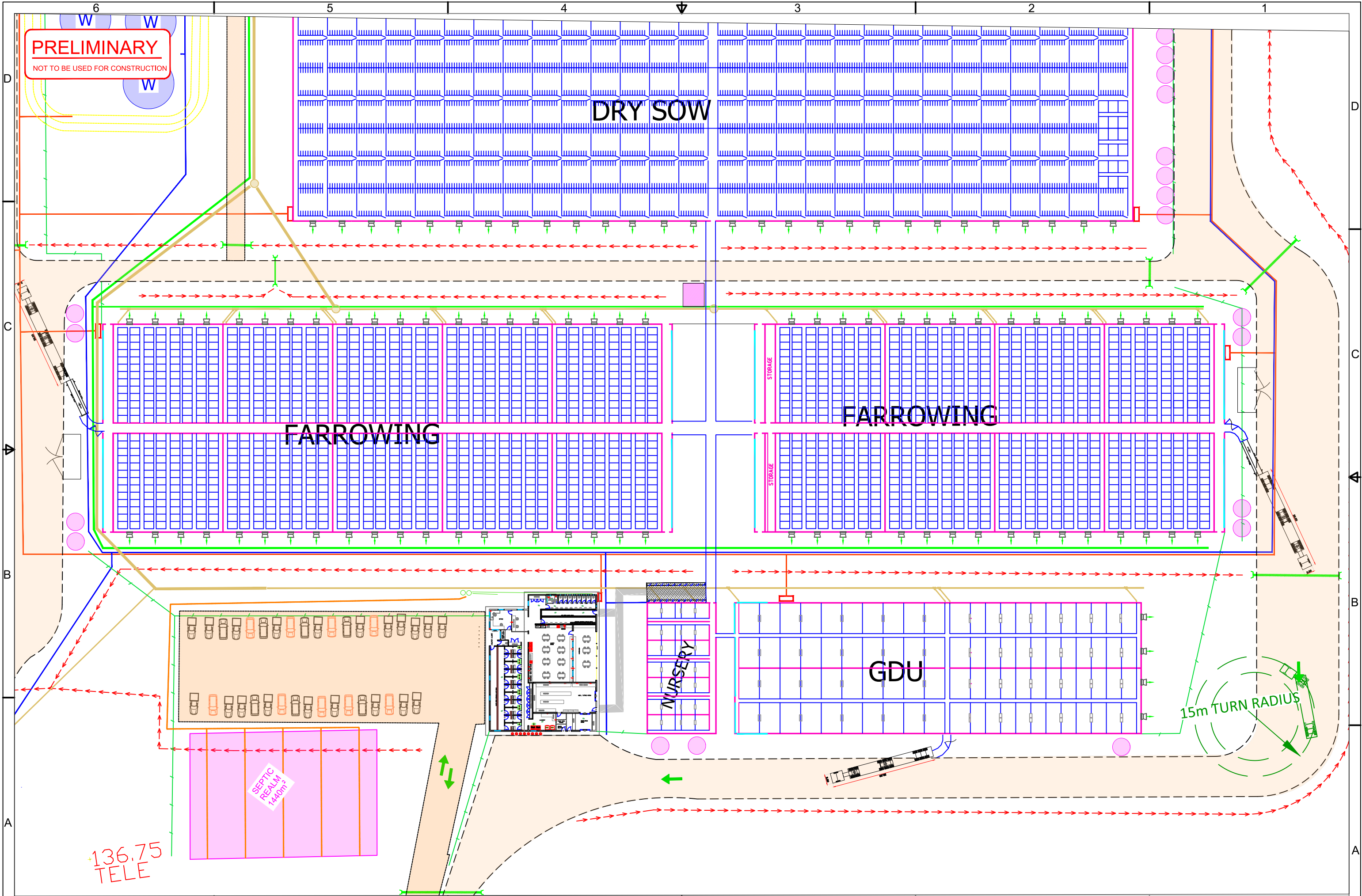
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ONE TREE LANE - LAYOUT PLAN

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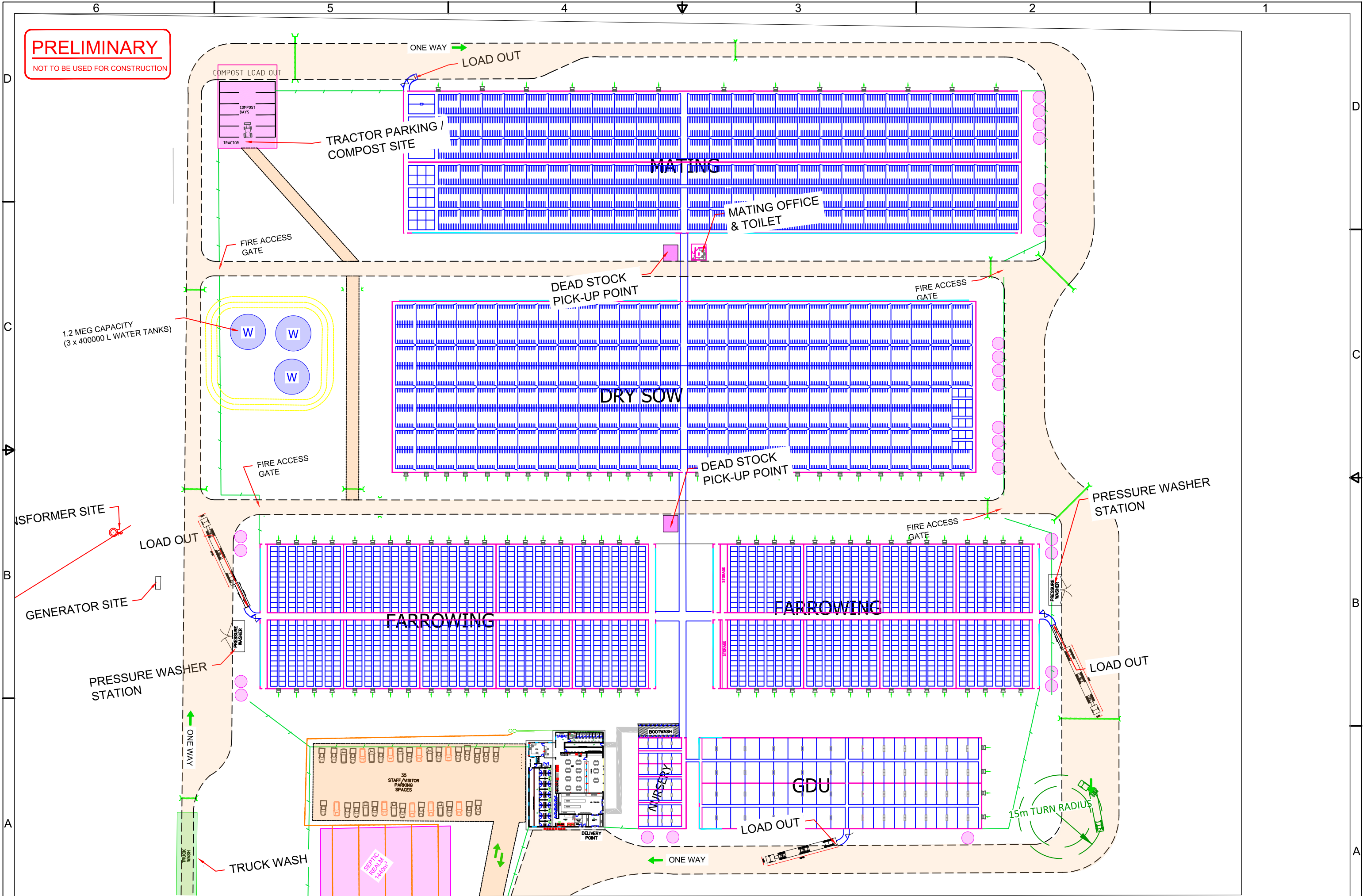
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ONE TREE LANE - LAYOUT PLAN

PROJECT: GREEN FIELD SITES

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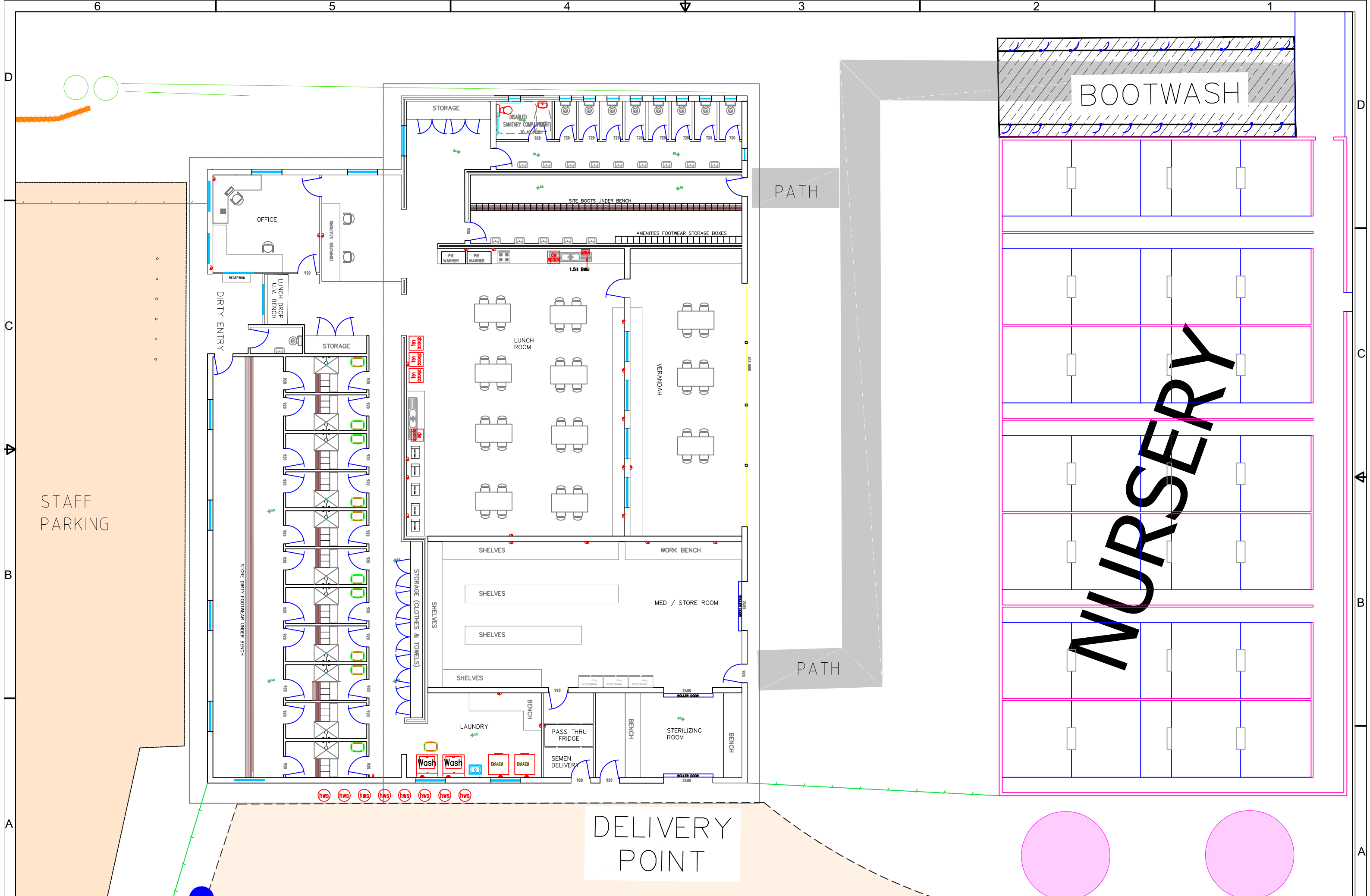
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TYP. AMENITIES - LAYOUT PLAN

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APPENDIX B PHOTOS



APPENDIX C RECORDED SPECIES LIST

Scientific Name	Common Name
Flora	
Fauna	

APPENDIX D BAM SUMMARY REPORTS

N/A

APPENDIX E BAM PLOT DATA

N/A