Flora & Fauna Assessment for the proposed development of a poultry farm Lots 5, 147 & 161 DP 755319 (No 2432) Oxley Highway BECTIVE NSW

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Job No: 12904

October 2024

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Date	16 December 2024		
Version Number	3		

Disclaimer

This report has been prepared in accordance with the proposal provided by the Client and outlined within this report. All findings, conclusions or recommendations contained within this report are based upon the data and results collected under the times and conditions specified in the report and are only applicable for the proposal considered within this report. This report has been prepared for use exclusively by the Client. No responsibility for its use by any other party is accepted by WILDTHING Environmental Consultants.



Summary

Wildthing Environmental Consultants was commissioned by AAM Investment Group to undertake a Flora and Fauna Assessment as part of an Environmental Impact Statement (EIS) for the construction of a poultry broiler farm at Lots 5, 147 & 161 DP 755319 (No. 2432) Oxley Highway, Bective NSW. The proposal is designated as a Designated Development under the NSW Environmental Planning and Assessment Act 1979 (EP&A Act). The Planning Secretary's Environmental Assessment Requirements (SEARS) for the project were issued on 20 May 2024 (SEARS No. 1890).

AAM Investment Group is seeking to develop the poultry broiler farm in the central part of the Bective property. The farm will be comprised of eighteen (18) poultry sheds where meat chicken birds (broilers) will be grown for human consumption. Each shed will accommodate a maximum of 68,675 birds giving the farm a maximum capacity of 1,236,150 birds.

The study area composed of Lots 5, 147 & 161 DP 755319 was 219ha and was located between the Oxley Highway in the north and Soldier Settlement Road in the south approximately 20km northwest of the major centre of Tamworth NSW. The 32.52ha subject land (impact area) contained the proposed poultry farm including two caretaker residences which will be contained in Lot 161. The proposed access to the site is proposed via Soldiers Settlement Road in the south and will run through Lots 161, 5, 147 and part of the road reserve of Soldiers Settler Road.

Historically the study area and impact area have been largely cleared as a result of the past agricultural (Grazing & Cropping) activities. Five (5) vegetation assemblages were identified within the study area, these assemblages were:

- PCT 433 White Box grassy woodland to open woodland on basalt flats and rises in the Liverpool Plains sub-region
- Pasture Grassland
- Cropping Area
- Aquatic Dam
- Brigalow Woodland

Of these five (5) assemblages four (4) were contained within the subject land (impact area) were:

- PCT 433 White Box grassy woodland to open woodland on basalt flats and rises in the Liverpool Plains sub-region (0.03ha);
- Pasture Grassland (0.87ha);
- Cropping Area (31.55ha)
- Aquatic Dam (0.13ha)

The majority of the proposal has been positioned within a highly modified Cropping Areas in the centre of the study area. A large section of the access road from the south (approximately 1.1km) will go through an area of Pasture/Grassland and approximately 16m of roadside reserve along Soldiers Settlement Road containing vegetation most consistent with that of PCT 433 - White Box grassy woodland to open woodland on basalt flats and rises in the Liverpool Plains sub-region. This section of the access driveway could not be realigned to avoid this small section of clearing as it would not meet safe sight distances for vehicular movements due to the road geometry along the site frontage.

PCT 433 - White Box grassy woodland to open woodland on basalt flats and rises in the Liverpool Plains sub-region identified within the road reserve of Soldiers Settlers Road was found to be consistent with the state listed Critically Endangered Ecological Community - 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. A total of 0.03ha of White Box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland is required to be removed within the road reserve of Soldier Settler Road for the access road resulting in a small reduction of this community in the local area. Given the small size and current disturbance, it is considered unlikely that it would significantly adversely affect the extent or substantially and adversely modify the composition



of this Critically Endangered Ecological Community such that its local occurrence is likely to be placed at risk of extinction.

Brigalow Woodland within the study area was found to be consistent with the state listed Endangered Ecological Community (EEC) Brigalow within the Brigalow Belt South, Nandewar and Darling Riverine Plains Bioregions. Almost the entire area of this assemblage was contained within Lot 186 which is a fenced crown reserve dedicated to the protection of this area of Brigalow. One mature specimen of *A. harpophylla* was present nearby outside the fenced area within Lot 161. As this EEC is well outside the impact area and would not be impacted by the proposal such that its local occurrence is likely to be placed at risk of extinction.

No threatened flora species were recorded within the study area during fieldwork. Suitable habitat was considered to be present for 6 of the 11 addressed threatened flora species. Impacted potential habitat for these species would be confined to the small area (0.03ha) of road served along Soldier Settler Road where the access road if proposed to be positioned. The proposal will result in an incremental reduction in habitat, however considering the relatively small impact, previous disturbance, the absence of these species during fieldwork it is considered unlikely that it would significantly affect the life cycle of any of these flora species or place any viable local populations of these species at risk of extinction.

Three threatened fauna species; *Miniopterus orianae oceanensis*, *Saccolaimus flaviventris* and *Falsistrellus tasmaniensis* were recorded within the study area during the bat call survey. The proposal will result in the modification of suitable foraging habitat for all of these threatened microchiropteran bat species. Potential roosting habitat in the form of tree hollows will be impacted for *Saccolaimus flaviventris* and *Falsistrellus tasmaniensis*. Considering the relatively small impact and presence of extensive areas of similar surrounding habitat it is considered unlikely that the proposal would significantly affect the life cycle of *Miniopterus orianae oceanensis*, *Saccolaimus flaviventris* and *Falsistrellus tasmaniensis* or place any viable local populations of these species at risk of extinction.

No other threatened fauna species were recorded during fieldwork. Of the 43 addressed threatened fauna species the site was considered to contain suitable habitat of for 33 species. According to the BioNet Atlas records (DPE, 2024) threatened fauna species found within proximity of the study area included *Phascolarctos cinereus* (Koala) in 2006 (individual record 600m to the west of the study area), *Hieraaetus morphnoides* (Little Eagle) and *Circus assimilis* (Spotted Harrier). Of the addressed threatened fauna species those most likely to utilise the study and impact areas would include a number of the woodland birds and microchiropteran bats. The proposal will result in a small incremental reduction habitat for these 33 species. Given the relatively small impact and large area of similar surrounding habitat it is unlikely that the proposal will have a significant impact on these threatened fauna species such that a local extinction would occur.

Considerations have been made to the Commonwealth Environment Protection and Biodiversity Conservation (EPBC) Act (1999). Plant Community Type (PCT) 433 - White Box grassy woodland to open woodland on basalt flats and rises in the Liverpool Plains sub-region impacted within 0.03ha of the road reserve of Soldiers Settlers Road was found to be consistent with that of the critically endangered ecological community White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland. The assessment undertaken found the proposal is unlikely to have a significant impact this community and would not require referral. Additionally, considering the relatively small impact on habitat in the locality it is unlikely that any of the nationally addressed threatened species or any of the listed migratory species would be significantly affected by the proposal.

Considerations Under State Environmental Planning Policy (Resilience and Hazards) 2021; Chapter 3 Koala Habitat Protection, found whilst potential Koala Habitat was present within the study area, the study area was unlikely to be Core Koala Habitat.

The proposed poultry farm will result in the following direct and potential impacts/losses:

 Removal of 0.03ha of PCT 433 - White Box grassy woodland to open woodland on basalt flats and rises in the Liverpool Plains sub-region within the road reserve of Soldiers Settler Road for the access road;



- Impact to 0.03ha of the state listed Critically Endangered Ecological Community 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 occurring along the line within the road reserve of Soldiers Settler Road for the access road.
- Removal of 0.87ha of highly modified Pasture/Grassland for the proposed access road;
- Removal of 31.55ha of highly modified cropping land for the poultry sheds, two residences, access road and other infrastructure
- Removal of ten (10) trees (Numbers 1, 2, 3, 4, 5, 6, 21, 22, 23 & 24). Of these trees five (4) (Numbers 3, 6, 23 & 24) were native species, five (5) (Numbers 1, 2, 5, 21 & 22) were introduced specimens of *Schinus molle* var. *areira* (Pepper Tree) and one (1) (Tree No. 4) was a dead tree.
- Removal of six (6) hollow-bearing trees 1, 2, 5, 7, 23 & 24;
- Modification of suitable foraging habitat for the threatened microchiropteran bat species *Miniopterus orianae oceanensis* (Eastern Bentwing-bat), *Saccolaimus flaviventris* (Yellowbellied Sheaf-tailed Bat) and *Falsistrellus tasmaniensis* (Eastern False Pipistrelle).
- Impact to potential roosting habitat in the form of tree hollows for the threatened bat species; *Saccolaimus flaviventris* (Yellow-bellied Sheaf-tailed Bat) and *Falsistrellus tasmaniensis* (Eastern False Pipistrelle).
- Removal/modification of a suitable habitat for a number of the addressed threatened flora and fauna species;

In conclusion, the proposed poultry farm will result in a small incremental modification of habitat for a number of threatened species. Given the relatively small size of the impact, current disturbance and mitigation measures the proposal is unlikely to significantly impact any addressed threatened species or community.



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Acronyms and Abbreviations used in this report

AOBV	Area of outstanding Biodiversity Value
BAAS	Biodiversity Assessors Accreditation System
BAM	Biodiversity Assessment Method
BAMC	Biodiversity Assessment Method Calculator
BAR	Biodiversity Assessment Report
BC Act	Biodiversity Conservation Act 2016
BDAR	Biodiversity Development Assessment Report
BOAMS	Biodiversity Offsets and Agreement Management System
BOPC	Biodiversity Offsets Payment Calculator
BOS	Biodiversity Offset Scheme
BOSET	Biodiversity Offsets Scheme Entry Tool
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DPE	Department of Planning and Environment (NSW)
EEC	Endangered Ecological Community
EPBC Act	Environmental Protection & Biodiversity Conservation Act 1999
EP&A Act	Environmental Planning & Assessment Act 1979
IBRA	Interim Biogeographic Regionalisation for Australia
LGA	Local Government Area
LLS Act	Local Land Services Act 2013
NES	Matters of National Significance under the EPBC Act
NPW Act	National Parks & Wildlife Act 1974
OEH	Office of Environment & Heritage (now DPE)
PCT	Plant Community Type
PMST	Protected Matters Search Tool
SAII	Serious and Irreversible Impacts
SEPP	State Environmental Planning Policy
TEC	Threatened Ecological Community



1.0 INTRODUCTION

Flora, fauna and habitat studies have been undertaken for the proposed poultry farm at Lots 5, 147 & 161 DP 755319 (No 2432) Bective NSW. The investigations were in accordance with the requirements of the *Environmental Planning and Assessment Amendment Act 2017* (EP&A Act 2017), the *Biodiversity Conservation Act 2016* (BC Act 2016) and the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act 1999). The results are presented here in the form of a Flora and Fauna Assessment.

1.1 THE STUDY AREA AND SUBJECT LAND

The 219ha study area composed of Lots 5, 147 & 161 DP 755319 was located between the Oxley Highway in the north and Soldier Settlement Road in the south approximately 20km northwest of the major centre of Tamworth NSW. Under the Tamworth Regional Local Environmental Plan 2010, the study area has a zoning of RU1 Primary Production and is surrounded by rural properties, agricultural activities and intensive livestock production including the existing neighbouring poultry farm, Bon Accord, and Maybrook Spelling & Agistment.

Historically the study area and impact area have been largely cleared as a result of the past agricultural (Grazing & Cropping) activities. The 32.52ha subject land (impact area) was located in Lots 5, 147 & 161 DP 755319 and part of the road reserve of Soldiers Settler Road. The poultry farm including two caretaker residences will be positioned entirely within cropping land contained in Lot 161. The proposed access to the site is proposed via Soldiers Settlement Road in the south and will run through Lots 161, 5, 147 and part of the road reserve of Soldiers Settler Road. Here the access road will impact cropping land, pasture/grassland and a small area of native roadside vegetation.

The location map and aerial photo of the study area has been provided in Figure 1.1 and Figure 1.2.

Proposed Poultry Farm 2432 Oxley Highway BECTIVE, NSW





Flora & Fauna Assessment







2.0 THE PROPOSAL

AAM Investment Group is seeking development consent under Part 4 of the Environment Planning and Assessment Act 1979 to develop a poultry broiler farm in the southern part of the Bective property. The farm will be comprised of eighteen (18) poultry sheds where meat chicken birds (broilers) will be grown for human consumption. Each shed will accommodate a maximum of 68,675 birds giving the farm a maximum capacity of 1,236,150 birds.

The proposed sheds will be constructed in two rows running east west across the site. Each shed will be ~152m long, ~22.19m wide with a floor area of ~3,350m². The sheds have a ridge height of ~4.8m and will be constructed with concrete and/or cement treated sealed floors, insulated panel walls and zincalume roofs. The poultry sheds will be fitted with purpose-built infrastructure associated with poultry production including fans, heaters, water and feed lines and lighting. Other ancillary buildings and supporting infrastructure will include grain storage silos, staff amenities, access roads, power supply, gas storage infrastructure, water pipes and pump, and 2 caretaker residences.

Access to the site is proposed via Soldiers Settlement Road in the south. Heavy vehicles access to the site will include a mix of A-Doubles, B-Doubles, Semi-trailer and rigid trucks. Based on similar sized farms, it is expected that day to day operations at the site will generate an average of approximately 18 heavy vehicles per day (9 incoming / 9 outgoing) however some peak periods will occur associated with bird collections, shed clean out and set up at the end of each cycle. This section of the access driveway could not be realigned to avoid this small section of native vegetation clearing as it would not meet safe sight distances for vehicular movements due to the road geometry of Soldiers Settlers Road along the site frontage.

Minimal wastewater is generated in poultry production. A small amount of washdown water is generated within the sheds after depopulation and litter removal at the end of each production cycle site. This cleaning is undertaken using high-pressure hoses to minimise water use and the sheds are left open to allow any excess water to evaporate. Waste water from staff amenities and the manager's residence will be treated by an AWTS on-site septic system.

Stormwater runoff from the sheds and other impervious areas will be directed to swales running between and away from the shed. Stormwater detention basins will be provided to ensure there is no actional nuisance associated with post development flows.

Plans of the proposal are shown in Figures 2.1 and 2.2.







Proposed Poultry Farm 2432 Oxley Highway BECTIVE, NSW







3.0 LEGISLATIVE CONTEXT

The following sections detail the legislative frameworks relevant to this report.

3.1 NSW ENVIRONMENTAL PLANNING AND ASSESSMENT AMENDMENT ACT 2017

The Environmental Planning & Assessment Act 1979 (EP&A Act) was legislated to require the consideration and management of impacts of proposed development and land use change on the environment and the community.

- Part 1 Section 1.7 of the EP&A Act requires consideration of the proposed development under Part 7 of the Biodiversity Conservation Act 2016 (BC Act).
- The EP&A Act is also supported by other statutory environmental planning instruments, including State Environmental Planning Policies (SEPPs).

3.2 NSW BIODIVERSITY CONSERVATION ACT 2016

In accordance with the BC Act, the Biodiversity Assessment Method (BAM) (DPIE 2020a) and entry into the Biodiversity Offsets Scheme (BOS) is applicable to certain development activities based on specific criteria. Preparation of a Biodiversity Development Assessment Report (BDAR) is required for a development application that meets any of the following criteria:

- Part 4 development activities deemed to be 'State Significant' under the NSW Environmental Planning and Assessment Act 1979 (NSW EP&A Act);
- Development activities that have the potential to impact Areas of Outstanding Biodiversity Value (AOBV) as listed under Part 3 of the BC Act.
- Development activities that have the potential to cause a significant impact on a threatened species, population or ecological community, listed under Schedules 1 and 2 of the BC Act, as determined by application of a five-part-test of significance in accordance with Section 7.3 of the BC Act;
- Development activities that have the potential to impact areas mapped as having 'high biodiversity value' as indicated by the NSW Biodiversity Values Map (BV Map); and
- Development activities that involve clearing of native vegetation that exceeds the Biodiversity Offset Scheme thresholds (BOS thresholds) as determined by the NSW BC regulation.

The proposal is Designated Development under the NSW Environmental Planning and Assessment Act 1979 (EP&A Act). The Planning Secretary's Environmental Assessment Requirements (SEARS) for the project were issued on 29 November 2024 (SEARS No. 1826) (Appendix A).



Table 3.1: Criteria for entry into the Biodiversity Offsets Scheme in relation to the proposed development.

CRITERIA FOR ENTRY INTO THE BIODIVERSITY OFFSETS SCHEME (BOS)	SECTION CRITERIA ADDRESSED	ASSESSMENT OF CRITERIA
Part 4 development activities deemed to be 'State Significant' under the NSW Environmental Planning and Assessment Act 1979 (NSW EP&A Act)		As the estimated development cost is expected less than \$30 million the Consent Authority for the project is the Tamworth Regional Council as the project does not meet the thresholds for State Significant Development or Regionally Significant Development outlined in the SEPP (Planning Systems) 2021. As the development involves more than 250,000 birds, the development is classified as Designated Development and requires the preparation of an EIS.
Development activities that have the potential to impact Areas of Outstanding Biodiversity Value (AOBV) as listed under Part 3 of the BC Act.		No declared areas of outstanding biodiversity value were located within or in proximity to the subject land.
Development activities that have the potential to cause a significant impact on a threatened species, population or ecological community, listed under Schedules 1 and 2 of the BC Act, as determined by application of a five-part-test of significance in accordance with Section 7.3 of the BC Act;		A five-part test was undertaken. The five-part test found no significant impact on threatened ecological communities or threatened species.
Development activities that have the potential to impact areas mapped as having 'high biodiversity value' as indicated by the NSW Biodiversity Values Map (BV Map);	Figure 1.8.	The NSW Biodiversity Values Map Version 15.4 was consulted on the 13 August 2024. No areas of biodiversity value were mapped within the subject land or within close proximity. The nearest area of Biodiversity Value
Development activities that involve clearing of native vegetation that exceeds the Biodiversity Offset Scheme thresholds (BOS thresholds) as determined by the NSW BC regulation.		According to the BOSET Report, the clearing threshold for the study area is 1.0ha. Vegetation clearing on category 1 - exempt land will not exceed the threshold.

Proposed Poultry Farm 2432 Oxley Highway BECTIVE, NSW



Figure 3.1 Biodiversity Values Map





3.3 STATE ENVIRONMENTAL PLANNING POLICY (BIODIVERSITY AND CONSERVATION) 2021

The State Environmental Planning Policy (Biodiversity and Conservation) 2021 (Biodiversity and Conservation SEPP) consolidates, transfers and repeals provisions of the following 11 SEPPs (or deemed SEPPs):

- 1. SEPP (Vegetation in Non-Rural Areas) 2017 (Vegetation SEPP)
- 2. SEPP (Koala Habitat Protection) 2020 (Koala SEPP 2020)
- 3. SEPP (Koala Habitat Protection) 2021 (Koala SEPP 2021)
- 4. Murray Regional Environmental Plan No 2-Riverine Land (Murray REP)
- 5. SEPP No 19—Bushland in Urban Areas (SEPP 19)
- 6. SEPP No 50—Canal Estate Development (SEPP 50)
- 7. SEPP (Sydney Drinking Water Catchment) 2011 (Sydney Drinking Water SEPP)

8. Sydney Regional Environmental Plan No 20 – Hawkesbury – Nepean River (No 2 – 1997) (Hawkesbury–Nepean River SREP)

9. Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 (Sydney Harbour Catchment SREP)

10. Greater Metropolitan Regional Environmental Plan No 2 – Georges River Catchment (Georges River REP)

11. Willandra Lakes Regional Environmental Plan No 1 – World Heritage Property (Willandra Lakes REP).

Each consolidated SEPP now makes up a chapter in the SEPP (Biodiversity and Conservation) 2021. The subject land is located within the Mid-Western Regional LGA and is zoned as RU1 and C1. Therefore, the subject land falls under 'Chapter 3 Koala habitat protection' 2020 and 'Chapter 4 Koala habitat protection' 2021 of the SEPP (Biodiversity and Conservation) 2021.

3.3.1 CHAPTER 3 KOALA HABITAT PROTECTION 2020

This Chapter aims to encourage the proper conservation and management of areas of natural vegetation that provide habitat for koalas to ensure a permanent free-living population over their present range and reverse the current trend of koala population decline—

- by requiring the preparation of plans of management before development consent can be granted in relation to areas of core koala habitat, and
- by encouraging the identification of areas of core koala habitat, and
- by encouraging the inclusion of areas of core koala habitat in environment protection zones.

This Chapter applies to land use zones RU1, RU2 and RU3 (or an equivalent land use zone) in LGAs specified in the SEPP (Biodiversity and Conservation) 2021, which includes the Mid-Western Regional LGA. This Chapter has been addressed in Section 8.1 of this report.



3.4 BIOSECURITY ACT 2015

The NSW Biosecurity Act 2015 provides regulatory controls and powers to manage priority weeds in NSW. For weed management this Act divides NSW into regions based on combined LGAs and priority weeds for a region are listed. Some weeds are managed at a state level as they form part of a broader containment strategy. The legislation compliments listed Weeds of National Significance (WoNS).

3.5 COMMONWEALTH ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999

The purpose of the EPBC Act is to ensure that actions likely to cause a significant impact on Matters of National Environmental Significance (MNES) undergo a process of assessment. Under the EPBC Act, an action includes a project, undertaking, development or activity that may impact MNES. An action that 'has, will have or is likely to have a significant impact on a MNES' is deemed to be a 'controlled action' and may not be undertaken without prior approval from the commonwealth minister for the Department of Climate Change, Energy, the Environment and Water (DCCEEW).

MNES categories listed under the EPBC Act are:

- World heritage properties;
- National heritage places;
- Wetlands of international importance (Ramsar wetlands);
- Threatened species and ecological communities (Section 18 and 18A);
- Migratory species;
- Commonwealth marine areas;
- Nuclear actions (including uranium mining); and
- A water resource, in relation to coal seam gas development and large coal mining development.

Initially MNES protected under the EPBC Act are assessed in accordance with the Significant Impact Guidelines 1.1 - Matters of National Environmental Significance (DoE 2013). This is performed to determine if there is likelihood for an action to have a significant impact on MNES. An action will require referral to, and may require the approval of, the commonwealth minister for the Environment (in addition to any local or state government consent or approval) if that action will have, or is likely to have, a significant impact on the environment or on a MNES.

3.6 LICENSING

Fieldwork undertaken by Wildthing Environmental Consultants was carried out under NPWS Scientific Investigation Licence SL100345 and under Animal Care and Ethics Approval: Animal Research Authority Issue by the Department of Primary Industries (Trim File No. 13/251) for Fauna Survey for Biodiversity and Impact Assessment.



4.0 METHODOLOGY

4.1 DESKTOP ASSESSMENT

A site-specific literature and database review was undertaken prior to conducting the field survey and the preparation of this report. A list of the resources reviewed, the date they were accessed and the spatial extent of the search conducted, where relevant, is provided in Table 4.1.

Table 4.1: Desktop Resources

RESOURCE	LAST ACCESS DATE	SPATIAL EXTENT
Biodiversity Values and Landscape Maps		
BioNet Atlas of NSW Wildlife (BioNet) (DPE 2024a)	13 August 2024	10x10km radius of subject land
Commonwealth Protected Matters Search Tool (PMST) (DCCEEW 2024a)	13 August 2024	10x10km radius of subject land
NSW Biodiversity Values Map (DPE 2024b)	13 August 2024	Entire subject land
SIX Maps -Base Map - LPI 1:25,000 digital topographic databases (DTDB) (LPI 2024) -Cadastral data LPI digital cadastral database (DCDB) (LPI 2024)	Various dates	Entire subject land
NSW Government SEED Mapping (NSW Government 2024)	Various dates	Entire subject land
BioNet NSW (Mitchell) Landscapes – Version 3.1 (OEH 2016a)	13 August 2024	Entire subject land
NSW Interim Biogeographic Regions of Australia (IBRA region and sub-regions) – Version 7 (DAWE 2016).	13 August 2024	Entire subject land
Threatened Species and Vegetation Databases		
Commonwealth species profiles and threats database (SPRAT) (DCCEEW 2024a)	Various dates	-
DPE Profiles of threatened species, population, and ecological communities (DPE 2024d)	Various dates	-
DPE BioNet vegetation classification database (DPE 2024c)	Various dates	



4.2 FIELD ASSESSMENT

Fieldwork was undertaken on 15 & 16 August 2024. A summary of the time spent on site during fieldwork and the prevailing weather conditions at the time is contained in Table 4.2.

	, ,			
DATE	ТІМЕ	SURVEY EFFORT (PERSON HOURS)	ACTIVITY	WEATHER
Thursday 15/08/2024	1000 - 1100	0.5	General site inspection Incidental observations	7/8 Cloud, 16.4°C, 97% relative humidity, Wind 9km//hr SE
	1100 - 1500	4.0	Vegetation Survey Tree Survey Incidental observations	
	1530 - 1630	1.0	Deploy Anabats & Remote Cameras Incidental observations	1/8 Cloud, 14°C, 64% relative humidity, Wind 9km//hr SSW
	1630 - 1700	0.5	Avifauna Survey Incidental observations	
Friday 16/08/2024	0800 – 0830		Retrieval of Anabat and Remote Cameras Avifauna Survey Tree Survey Incidental observations	8/8 Fog, 13.1°C, 99% relative humidity, Wind Calm

Table 4.2: Survey Dates,	Times and	Weather	Conditions
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A detailed methodology for the surveys listed within Table 4.2 above have been described in the following Sections 4.2.1 – 4.2.5:

4.2.1 VEGETATION ASSESSMENT

The initial determination of the basic vegetation community boundaries was undertaken through the review of an orthophoto covering the site. Following this, a detailed ground survey was conducted in accordance with the Department of Environment and Conservation's (NSW) Threatened Biodiversity Survey and Assessment Guidelines – Working Draft (Department of Environment and Conservation, 2004). Flora searches were undertaken along the existing fire trail and around the proposed access path.

A list of all flora species identified on site has been provided in Appendix A.

4.2.2 DIURNAL FAUNA SURVEY

Opportunistic sightings of species and secondary indications (scats, scratches, diggings, tracks etc.) of resident fauna were noted and included:

- dedicated searches for avifauna;
- dedicated searches for herpetofauna;
- checks for obvious nests of raptors;
- checking trees (particularly smooth-barked species) for scratches consistent with arboreal mammals.



4.2.3 GENERAL HABITAT FOR NATIVE SPECIES

From the vegetation appraisal, diurnal fauna survey and a general inspection of the site and surrounding areas, a subjective assessment of the general habitat value of this site was made. Considered in this assessment were:

- occurrence of that habitat type in the general vicinity;
- degree of disturbance and degradation;
- area occupied by that habitat on site;
- continuity with similar habitat adjacent to the site, or connection with similar habitat off site by way of corridors; and
- structural and floral diversity.
- -

4.2.4 HABITAT FOR SIGNIFICANT SPECIES

The subject land area was evaluated as potential habitat for each of the threatened species reported on the BioNet (DPE, 2024a) and PMST (DCCEEW, 2024a) databases from within 10km of the site. This evaluation was based on home range, feeding, roosting, breeding, movement patterns and corridor requirements for fauna and hydrology, soil types, aspect and structural formation for flora species. The list of threatened species recorded within these databases is provided within Table 4.3 and an assessment of the likelihood of occurrence of these threatened species within the subject land is provided in Table 5.3.

4.2.5 TREE SURVEY

During the fieldwork, a survey was undertaken to identify all trees impacted by the proposal or occur within proximity. Habitat attributes such as hollows, nests, arboreal termite nests and Ringtail Possum dreys were also recorded for each tree. It must be noted that observations made from ground level may fail to record a small number of hollows that are obscured. Some entrances may also not lead to a cavity. The internal dimensions of the hollows are also impossible in many cases to determine from the ground. Searches for Koala scats around the base of all surveyed trees was also undertaken.

4.3 SIGNIFICANT SPECIES

The following threatened species listed in Table 4.3 have been recorded on the BioNet (DPE, 2024a) and PMST (DCCEEW, 2024a) Databases as occurring within 10km of the subject land. Species marked with an asterisk (*) are listed on the DCCEEW Database as having habitat likely to occur within 10km of the subject land.



Scientific Name	Common Name	BC Act 2016	EPBC
	Flora Species		7101 1000
*Prasophyllum sp. Wybong	A Leek Orchid		CE
*Dichanthium setosum	Bluegrass	V	V
Digitaria porrecta	Finger Panic Grass	E	
Cadellia pentastvlis	Ooline	V	V
*Callistemon pungens			V
Eucalyptus nicholii	Narrow-leaved Black Peppermint	V	V
*Euphrasia arguta	Evebright	E4A	CE
*Lepidium aschersonii	Spiny Peppercress	V	V
Lepidium monoplocoides	Winged Peppercress	E	Е
*Swainsona murravana	Slender Darling-pea	V	V
*Thesium australe	Austral Toadflax	V	V
Tvlophora woollsii	Cryptic Forest Twiner	E	Е
(Vincetoxicum forsteri)		_	_
	Fish		
Maccullochella peelii	Murray Cod		V
	Amphibians		
*Litoria booroolongensis	Booroolong Frog	E1	E
	Reptiles		
*Aprasia parapulchella	Pink-tailed Worm-lizard	V	V
Anomalopus mackayi	Five-clawed Worm-skink	E	V
*Delma impar	Striped Legless Lizard	V	V
Uvidicolus sphyrurus	Border Thick-tailed Gecko	V	V
Hemiaspis damelii	Grey Snake	E	E
	Birds		
*Calidris acuminata	Sharp-tailed Sandpiper		V
*Calidris ferruginea	Curlew Sandpiper	E1	CE & M
*Gallinago hardwickii	Latham's snipe		V
*Rostratula australis	Australian Painted Snipe	E1	E
*Botaurus poiciloptilus	Australian Bittern	E1	E
Oxyura australis	Blue-billed Duck	V	
*Calyptorhynchus lathami	Glossy Black-Cockatoo	V	
*Lathamus discolor		V	
	Swift Parrot	E1	CE
*Neophema chrysostoma	Swift Parrot Blue-winged Parrot	E1 V	CE V
*Neophema chrysostoma Neophema pulchella	Swift Parrot Blue-winged Parrot Turquoise Parrot	E1 V V	CE V
*Neophema chrysostoma Neophema pulchella *Polytelis swainsonii	Swift Parrot Blue-winged Parrot Turquoise Parrot Superb Parrot	V E1 V V V V V	CE V V
*Neophema chrysostoma Neophema pulchella *Polytelis swainsonii Glossopsitta pusilla	Swift Parrot Blue-winged Parrot Turquoise Parrot Superb Parrot Little Lorikeet	E1 V V V V V V V	CE V V
*Neophema chrysostomaNeophema pulchella*Polytelis swainsoniiGlossopsitta pusillaArtamus cyanopterus cyanopterus	Swift Parrot Blue-winged Parrot Turquoise Parrot Superb Parrot Little Lorikeet Dusky Woodswallow	V E1 V V V V V V V V V	CE V V
*Neophema chrysostomaNeophema pulchella*Polytelis swainsoniiGlossopsitta pusillaArtamus cyanopterus cyanopterus*Aphelocephala leucopsis	Swift Parrot Blue-winged Parrot Turquoise Parrot Superb Parrot Little Lorikeet Dusky Woodswallow Southern Whiteface	V E1 V V V V V V V V	CE V V
*Neophema chrysostoma Neophema pulchella *Polytelis swainsonii Glossopsitta pusilla Artamus cyanopterus cyanopterus *Aphelocephala leucopsis Hirundapus caudacutus	Swift Parrot Blue-winged Parrot Turquoise Parrot Superb Parrot Little Lorikeet Dusky Woodswallow Southern Whiteface White-throated Needletail	V E1 V V V V V V V V	CE V V V V
*Neophema chrysostoma Neophema pulchella *Polytelis swainsonii Glossopsitta pusilla Artamus cyanopterus cyanopterus *Aphelocephala leucopsis Hirundapus caudacutus *Melanodryas cucullata cucullata	Swift Parrot Blue-winged Parrot Turquoise Parrot Superb Parrot Little Lorikeet Dusky Woodswallow Southern Whiteface White-throated Needletail Hooded Robin	V E1 V V V V V V V V V V V V V V V V V	CE V V V V V & M
*Neophema chrysostomaNeophema pulchella*Polytelis swainsoniiGlossopsitta pusillaArtamus cyanopterus cyanopterus*Aphelocephala leucopsisHirundapus caudacutus*Melanodryas cucullata cucullata*Climacteris picumnus victoriae	Swift Parrot Blue-winged Parrot Turquoise Parrot Superb Parrot Little Lorikeet Dusky Woodswallow Southern Whiteface White-throated Needletail Hooded Robin Brown Treecreeper	V E1 V	CE V V V V & M
*Neophema chrysostoma Neophema pulchella *Polytelis swainsonii Glossopsitta pusilla Artamus cyanopterus cyanopterus *Aphelocephala leucopsis Hirundapus caudacutus *Melanodryas cucullata cucullata *Climacteris picumnus victoriae *Stagonopleura guttata	Swift Parrot Blue-winged Parrot Turquoise Parrot Superb Parrot Little Lorikeet Dusky Woodswallow Southern Whiteface White-throated Needletail Hooded Robin Brown Treecreeper Diamond Firetail	V E1 V	CE V V V
*Neophema chrysostoma Neophema pulchella *Polytelis swainsonii Glossopsitta pusilla Artamus cyanopterus cyanopterus *Aphelocephala leucopsis Hirundapus caudacutus *Melanodryas cucullata cucullata *Climacteris picumnus victoriae *Stagonopleura guttata Pomatostomus temporalis subsp.	Swift Parrot Blue-winged Parrot Turquoise Parrot Superb Parrot Little Lorikeet Dusky Woodswallow Southern Whiteface White-throated Needletail Hooded Robin Brown Treecreeper Diamond Firetail Grey-crowned Babbler	V E1 V	CE V V V V & M
*Neophema chrysostoma Neophema pulchella *Polytelis swainsonii Glossopsitta pusilla Artamus cyanopterus cyanopterus *Aphelocephala leucopsis Hirundapus caudacutus *Melanodryas cucullata cucullata *Climacteris picumnus victoriae *Stagonopleura guttata Pomatostomus temporalis Subsp. temporalis	Swift Parrot Blue-winged Parrot Turquoise Parrot Superb Parrot Little Lorikeet Dusky Woodswallow Southern Whiteface White-throated Needletail Hooded Robin Brown Treecreeper Diamond Firetail Grey-crowned Babbler	V E1 V	CE V V V V & M
*Neophema chrysostoma Neophema pulchella *Polytelis swainsonii Glossopsitta pusilla Artamus cyanopterus cyanopterus *Aphelocephala leucopsis Hirundapus caudacutus *Melanodryas cucullata cucullata *Climacteris picumnus victoriae *Stagonopleura guttata Pomatostomus temporalis Chthonicola sagittata *Anthochaera phrygia	Swift Parrot Blue-winged Parrot Turquoise Parrot Superb Parrot Little Lorikeet Dusky Woodswallow Southern Whiteface White-throated Needletail Hooded Robin Brown Treecreeper Diamond Firetail Grey-crowned Babbler Speckled Warbler Regent Honeyeater	V E1 V E4A	CE V V V & M
*Neophema chrysostoma Neophema pulchella *Polytelis swainsonii Glossopsitta pusilla Artamus cyanopterus cyanopterus *Aphelocephala leucopsis Hirundapus caudacutus *Melanodryas cucullata cucullata *Climacteris picumnus victoriae *Stagonopleura guttata Pomatostomus temporalis subsp. chthonicola sagittata *Anthochaera phrygia	Swift Parrot Blue-winged Parrot Turquoise Parrot Superb Parrot Little Lorikeet Dusky Woodswallow Southern Whiteface White-throated Needletail Hooded Robin Brown Treecreeper Diamond Firetail Grey-crowned Babbler Speckled Warbler Regent Honeyeater Painted Honeyeater	V E1 V	CE V V V&M CE V
*Neophema chrysostoma Neophema pulchella *Polytelis swainsonii Glossopsitta pusilla Artamus cyanopterus cyanopterus *Aphelocephala leucopsis Hirundapus caudacutus *Melanodryas cucullata cucullata *Climacteris picumnus victoriae *Stagonopleura guttata Pomatostomus temporalis Chthonicola sagittata *Anthochaera phrygia *Grantiella picta Circus assimilis	Swift Parrot Blue-winged Parrot Turquoise Parrot Superb Parrot Little Lorikeet Dusky Woodswallow Southern Whiteface White-throated Needletail Hooded Robin Brown Treecreeper Diamond Firetail Grey-crowned Babbler Speckled Warbler Regent Honeyeater Painted Honeyeater Spotted Harrier	V E1 V	CE V V V&M CE V
*Neophema chrysostoma Image: Standard	Swift Parrot Blue-winged Parrot Turquoise Parrot Superb Parrot Little Lorikeet Dusky Woodswallow Southern Whiteface White-throated Needletail Hooded Robin Brown Treecreeper Diamond Firetail Grey-crowned Babbler Speckled Warbler Regent Honeyeater Painted Honeyeater Spotted Harrier Little Eagle	V E1 V	CE V V V & M CE V
*Neophema chrysostoma Image: Straight of the str	Swift Parrot Blue-winged Parrot Turquoise Parrot Superb Parrot Little Lorikeet Dusky Woodswallow Southern Whiteface White-throated Needletail Hooded Robin Brown Treecreeper Diamond Firetail Grey-crowned Babbler Speckled Warbler Regent Honeyeater Painted Honeyeater Spotted Harrier Little Eagle White-bellied Sea Eagle	V E1 V	CE V V V&M CE V



Scientific Name	Common Name	BC Act 2016	EPBC Act 1999
Falco subniger	Black Falcon	V	
	Mammals		
*Dasyurus maculatus maculatus	Tiger Quoll	V	E
*Phascolarctos cinereus	Koala	E1	V
Petaurus norfolcensis	Squirrel Glider	V	
*Pseudomys novaehollandiae	New Holland Mouse		V
*Pteropus poliocephalus	Grey-headed Flying-fox	V	V
Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	V	
Falsistrellus tasmaniensis	Eastern False Pipistrelle	V	
Miniopterus orianae oceanensis	Large Bentwing-bat	V	
*Nyctophilus corbeni	Corben's Long-eared Bat	V	V
Scoteanax rueppellii	Greater Broad-nosed Bat	V	
*Chalinolobus dwyeri	Large Pied Bat	V	V
Vespadelus troughtoni	Eastern Cave Bat	V	
Endang	ered Ecological Communities		
Artesian Springs Ecological Community in the	e Great Artesian Basin	E4B	
Brigalow within the Brigalow Belt South, Bioregions	Nandewar and Darling Riverine Plains	E3	
Coolibah - Black Box Woodlands of the Dat South Bioregions	ling Riverine Plains and the Brigalow Belt		E
Fuzzy Box Woodland on alluvial Soils of the South Western Slopes, Darling Riverine Plains and Brigalow Belt South Bioregions			
Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia			E
Howell Shrublands in the New England Table	and and Nandewar Bioregions	E3	
Inland Grey Box Woodland in the Riverin Peneplain, Nandewar and Brigalow Belt Sout	na, NSW South Western Slopes, Cobar h Bioregions	E3	
Mount Kaputar high elevation and dry rainforest land snail and slug community in the Nandewar and Brigalow Belt South Bioregions			
Myall Woodland in the Darling Riverine Plains, Brigalow Belt South, Cobar Peneplain, Murray-Darling Depression, Riverina and NSW South Western Slopes bioregions			
Native Vegetation on Cracking Clay Soils of the Liverpool Plains			
Natural grasslands on basalt and fine-textured alluvial plains of northern New South Wales and southern Queensland			CE
New England Peppermint (Eucalyptus nova-anglica) Grassy Woodlands			CE
Poplar Box Grassy Woodland on Alluvial Plains			E
Semi-evergreen Vine Thicket in the Brigalow Belt South and Nandewar Bioregions			
Weeping Mvall Woodlands			Е
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.			
White Box-Yellow Box-Blakely's Red Gun Grassland	n Grassy Woodland and Derived Native		CE

E1/E=Endangered Species E2=Endangered Population E3=Endangered Ecological Community nerable Species V2= Vulnerable Ecological Community E4A/E4B/CE=Critically Endangered M=Migratory Species V=Vulnerable Species



5.0 RESULTS

5.1 SUBJECT LAND CONTEXT

Interim Biogeographic Regionalisation for Australia (IBRA) Bioregions are large, geographically distinct areas of land with common characteristics such as geology, landform patterns, climate, ecological features, and flora and fauna communities. The subject land is located within the Nandewar (SYB) IBRA Bioregion and the Peel IBRA Subregion (DAWE 2016). The entire study area is also contained within the BioNet Landscape (formerly Mitchell Landscapes) (DPIE 2017) Tamworth – Keepit Slopes and Plains.

5.2 GEOLOGY

The local geology consists of complex folded Carboniferous and Devonian sedimentary rocks of the Tamworth Fold Belt. The Devonian geology units include the Baldwin Formation, Keepit Conglomerate, and Mandowa Mudstones (Geological map codes Dub, Duk and Dum respectively). Lithologies in these formations include arenite, polymictic conglomerate, greywacke and mudstone.

5.3 TOPOGRAPHY AND SOILS

Extensive rolling to undulating hills and low hills on Devonian and Carboniferous sedimentary rocks of the Duri Hills. Soils are extremely complex due to rapid changes in underlying lithology. Generally dominated by duplex soils such as moderately deep, moderately well-drained Red and Brown Chromosols (Non-calcic Brown Soils; Red-brown Earths) with minor occurrences of shallow, very well-drained Rudosols (Lithosols) around rock outcrops. Deep, imperfectly drained Red Vertosols (Red Clays) and deep to very deep, imperfectly drained Red and Brown Soils) and possibly some Sodosols (Solodic Soils) occur along drainage lines and on sodic bedrock.

5.4 HYDROLOGY

The study area occurs within the Peel River Catchment. The Peel River occurs approximately 1.6km to the north of study area. Although a number of prescribed streams were present within the locality, no prescribed streams were present within the study area. A number of small waterbodies in the form of constructed dams were present within the study area. Prescribed streams within proximity to the study area are shown in Figures 2.1.

5.5 FLORA ASSEMBLAGES

Historically the study area and impact area have been largely cleared as a result of the past agricultural (Grazing & Cropping) activities. An aerial photo from 1978 (Figure 5.1) shows the study area and impact area to contain similar vegetation to the present.







Five (5) vegetation assemblages were identified within the study area, these assemblages were:

- PCT 433 White Box grassy woodland to open woodland on basalt flats and rises in the Liverpool Plains sub-region
- Pasture Grassland
- Cropping Area
- Aquatic Dam
- Brigalow Woodland

Of these five (5) assemblages four (4) were contained within the subject land (impact area) were:

- PCT 433 White Box grassy woodland to open woodland on basalt flats and rises in the Liverpool Plains sub-region (0.03ha);
- Pasture Grassland (0.87ha);
- Cropping Area (31.55ha)
- Aquatic Dam (0.13ha)

The majority of the proposal has been positioned within a highly modified Cropping Areas in the centre of the study area. A large section of the access road from the south (approximately 1.1km) will go through an area of Pasture/Grassland and approximately 16m of roadside reserve containing vegetation most consistent with that of PCT 433 - White Box grassy woodland to open woodland on basalt flats and rises in the Liverpool Plains sub-region.

A map of the vegetation assemblages within the subject land is shown in Figure 5.2. A full list of the flora species recorded during the fieldwork is listed in Appendix A.

PCT 433 - White Box grassy woodland to open woodland on basalt flats and rises in the Liverpool Plains sub-region

Vegetation most consistent with that of PCT 433 - White Box grassy woodland to open woodland on basalt flats and rises in the Liverpool Plains sub-region was present within a small number of areas within the study area. These areas included a small patch (1.15ha) within Lot 5 and (0.80ha) within the vicinity of the buildings in the north-west of Lot 161. PCT 433 was also present along the road reserve of Soldier Settlers Road in the far south of the subject site where the access road to the poultry farm is proposed to be situated. These occurrences were highly disturbed and generally contained a low proportion of native species. The main canopy species was *Eucalyptus albens* (White Box). Some specimens of *E. albens* also had similarities to that of *Eucalyptus moluccana* (Grey Box) which is known to occur within the area within PCT 516 - Grey Box grassy woodland or open forest of the Nandewar Bioregion and New England Tableland Bioregion. Other tree species present included *Eucalyptus blakelyi* (Blakely's Red Gum) and *Brachychiton populneus* subsp. *populneus* (Kurrajong). The introduced *Schinus molle* var. *areira* (Pepper Tree) was common within this PCT within the study area. Native shrub species were virtually absent within the study area.

Proposed Poultry Farm 2432 Oxley Highway BECTIVE, NSW







The road reserve within the far south of the study area and subject land (impact area) although lacking specimens of *E. albens* within the impact area contained native species including the shrub species *Geijera parviflora* (Wilga) and *Myoporum montanum* (Western Boobialla) The introduced *Schinus molle* var. *areira* (Pepper Tree) was also common. Native ground covers within the road reserve included grasses *Austrostipa verticillata* (Slender Bamboo Grass), *Sporobolus creber* (Slender Rats Tail); herbs; *Cymbonotus lawsonianus* (Bear's Ears), *Mentha satureioides* (Creeping Mint), *Chrysocephalum apiculatum* (Common Everlasting), *Erodium crinitum* (Blue Heronsbill), *Lomandra multiflora* (Many Flowered Mat Rush): ferns; *Cheilanthes sieberi* (Mulga Fern).

The introduced *Hyparrhenia hirta* (Coolatai Grass) was common within the road reserve. Other common introduced species were *Schinus molle* var. *areira* (Pepper Tree), *Lycium ferocissimum* (African Boxthorn), *Lysimachia arvensis* (Scarlet Pimpernel), *Plantago lanceolata* (Plantain), *Galium aparine* (Clevers), *Bidens pilosa* (Cobblers Tack) and *Sonchus oleraceus* (Common Sow Thistle).

Photos of PCT 433 - White Box grassy woodland to open woodland on basalt flats and rises in the Liverpool Plains sub-region from within the study area are shown in Plates 5.1-5.4.



Plate 5.1: Area of PCT 433 - White Box grassy woodland within Lot 5 (outside impact area).





Plate 5.2: Area of PCT 433 - White Box grassy woodland within Lot 161 near sheds (outside impact area).



Plate 5.3: Area of PCT 433 - White Box grassy woodland within impact area of roadside reserve.





Plate 5.4: Area of PCT 433 - White Box grassy woodland within impact area of roadside reserve.

Pasture/Grassland

Areas defined as Pasture/Grassland encompassed almost the entire area of Lots 5 & 147 and a large proportion of the proposed access road. This assemblage had been historically cleared and subject to ongoing historic and continued grazing. Vegetation was kept low to the ground by grazing and consisted primarily of introduced species mixed with a smaller number of native species. Common introduced species were *Trifolium arvense* (Haresfoot Clover), *Medicargo polymorpha* (Burr Medic), *Medicago laciniata* (Cutleaved Medic), *Medicago minima* (Woolly Burr Medic), *Avena fatua* (Wild Oats), *Paspalum dilatatum* (Paspalum), *Hypochaeris radicata* (Catsear) and *Lysimachia arvensis* (Scarlet Pimpernel).

Native ground covers observed included *Cynodon dactylon* (Couch), *Chloris ventricosa* (Tall Windmill Grass) and *Bothriochloa decipens* (Red Grass).

A small number of isolated trees within this area included remnant specimens of *Eucalyptus albens* (White Box) and introduced specimens of *Schinus molle* var. *areira* (Pepper Tree). The impact area does not contain any trees.

Photos of the Pasture/Grassland within the impact area are shown in Plates 5.5 - 5.9.





Plate 5.5: Pasture/Grassland along proposed access road within Lot 5.



Plate 5.6: Close up of Pasture/Grassland along proposed access road within Lot 5.





Plate 5.7: Pasture/Grassland along proposed access road within Lot 147.



Plate 5.8: Close up of Pasture/Grassland along proposed access road within Lot 147.





Plate 5.9: Remnant *Eucalyptus albens* (White Box) (Tree No. 12) within Pasture/Grassland (Lot 5) (outside impact area).

Cropping Area

Almost the entire area of Lot 161 containing the proposal was composed of land used for cropping. At the time of the survey the area was planted with a crop of *Avena sativa* (Oats). Other flora species within the cropping area included *Hordeum leporinum* (Barley Grass), *Silybum marianum* (Variegated Thistle) and *Malva parviflora* (Small-flowered Mallow). A small number of isolated trees within this area included remnant specimens of *Eucalyptus albens* (White Box) and introduced specimens of *Schinus molle* var. *areira* (Pepper Tree).

Photos of the Cropping Area is shown in Plates 5.10 - 5.12.





Plate 5.10: Cropping area within Lot 161.



Plate 5.11: Cropping area within Lot 161.




Plate 5.12: Cropping area within Lot 161 (showing land contour).

Brigalow Woodland;

An area of Brigalow Woodland was present on crown land within the far north-west of the subject land (impact area). This assemblage was dominated by one tree species *Acacia harpophylla* (Brigalow). The ground layer was highly modified and largely consisted of introduced species. Almost the entire area of this assemblage was contained within Lot 186 which is a fenced crown reserve dedicated to the protection of this area of Brigalow. One mature specimen of *A. harpophylla* was present nearby outside the fenced area within Lot 161.

Photos Brigalow Woodland from within the subject site are shown in Plates 5.13 - 5.14.





Plate 5.13: Brigalow Woodland within Lot 186 (outside impact area).



Plate 5.14: Individual Brigalow within Lot 161 (outside impact area).



5.5.1 THREATENED ECOLOGICAL COMMUNITIES

Seventeen threatened ecological communities (TECs) have been recorded within the region according to both the BioNet (DPE, 2024a) and PMST databases, results of the database search conducted for TECs are shown within Table 4.3.

PCT 433 - White Box grassy woodland to open woodland on basalt flats and rises in the Liverpool Plains sub-region identified within the subject site was found to be consistent with the state listed Critically Endangered Ecological Community - 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.

Brigalow Woodland within the study area was found to be consistent with the state listed Endangered Ecological Community Brigalow within the Brigalow Belt South, Nandewar and Darling Riverine Plains Bioregions and is likely to be associated with the nationally listed Brigalow (Acacia harpophylla dominant and co-dominant). The area of Brigalow Woodland was located outside the impact area.

The impact of the proposal on these Threatened Ecological Communities has been undertaken in Sections 7 & 10.



5.5.2 ENDANGERED POPULATIONS

No endangered populations or suitable habitat were present within the site.

5.5.3 THREATENED AND RARE FLORA SPECIES

No threatened flora species were recorded within the subject land during fieldwork. Eleven threatened plant species have been recorded within 10km of the subject land according to the BioNet database (DPE, 2024) or are considered to have suitable habitat on the PMST database. The results of the database search conducted for threatened flora species is shown within Table 4.3. Few threatened plant species were present within the local area. According to the BioNet Atlas (DPE, 2024) the closest record of a threatened flora species was *Dichanthium setosum* (Bluegrass) 7km to the south of the subject site.

5.5.4 PRIORITY WEEDS AND WEEDS OF STATE AND NATIONAL SIGNIFICANCE

Four priority weed species listed under the Biosecurity Act 2015 were identified on site and are listed below in Table 5.2. The site lies within the North West Regional Weed Local Land Services Region.

Table 5.1 Priority Weed species found within the subject site.

WEED Species	Legal Requirements	ADDITIONAL SIGNIFICANCE
Carthamus lanatus Saffron Thistle	General Biosecurity Duty	
<i>Lycium ferocissimum</i> African Boxthorn	General Biosecurity Duty Regional Recommended Measure	Ν
<i>Xanthium spinosum</i> Bathurst Burr	General Biosecurity Duty	

 ${\rm T}-{\rm Listed}$ as a Threatening Process under the NSW BC Act 2016.

N –Weed of National Significance.

*Priorities under the Biosecurity Act 2015

General Biosecurity Duty - any person dealing with plant matter must take measures to prevent, minimise or eliminate the biosecurity risk (as far as is reasonably practicable).

Regional Recommended Measure - The plant should not be bought, sold, grown, carried or released into the environment. Land managers should mitigate the risk of the plant being introduced to their land. Land managers should mitigate spread from their land. Land managers to reduce impacts from the plant on priority assets

Prohibition on dealings - Must not be imported into the State or sold

It is recommended that weed control be included as part of future site management.



5.6 HABITAT APPRASIAL

5.6.1 HABITAT DESCRIPTION AND DISTRIBUTION IN THE VICINITY

The vegetation and landforms present within the site offer potential habitat for a limited number of native species. The broad habitat type within the site consisted of disturbed grassland and aquatic habitat, a detailed description of the habitat value of each broad habitat type has been provided below.

Area of woodland and remnant trees

Mature scattered and clumped trees would provide foraging and refuge for a number of reptile, avifauna and mammal species. Frugivorous, nectivorous, granivorous and insectivorous birds and microchiropteran bat species would find potential foraging resources as part of a larger home range.

Pasture/Grassland

Such habitat provides opportunity for a limited number of avifauna species, including predominantly terrestrial species preferring open highly modified spaces including seed eating birds and several birds of prey, which may hunt over this area in search of potential prey species. Macropods may also frequent such areas whilst grazing. Some species of bats would also forage over this cleared area for insects.

Cropping Land

Such habitat provides opportunity for a limited number of avifauna species, including predominantly terrestrial species preferring open highly modified spaces including seed eating birds and several birds of prey, which may hunt over this area in search of potential prey species. Macropods may also frequent such areas whilst grazing. Some species of bats would also forage over this cleared area for insects.

Aquatic Habitat

Aquatic habitat was represented in the form of constructed dams. This area of habitat would provide foraging and refuge for a number of amphibian, reptile and waterbird species. Some species of 'fishing' Microchiropteran Bats may also hunt over this area for insects. The water present would also provide a drinking resource for a number of native species such as macropods and birds.

5.6.2 TREE SURVEY

A total of 32 trees were recorded within proximity to the subject land (impact area). Of these trees ten (10) trees (Numbers 1, 2, 3, 4, 5, 6, 21, 22, 23 & 24) will require removal for the proposal. Of these trees five (4) (Numbers 3, 6, 23 & 24) were native species, five (5) (Numbers 1, 2, 5, 21 & 22) were introduced specimens of *Schinus molle* var. *areira* (Pepper Tree) and one (1) (Tree No. 4) was a dead tree.. Impacted Trees 1, 2, 5, 7, 23 & 24 were also found to contain hollows.

It is recommended that tree removal be avoided wherever possible. Details of each of the 32 trees, including height, diameter at breast height (DBH), coordinates and fauna habitat attributes such as hollows and are contained in Appendix B. The location of the 32 trees is shown in Figure 5.3. Photos of the impacted native trees are shown in Plates 5.15 and 5.16.

Proposed Poultry Farm 2432 Oxley Highway BECTIVE, NSW





Flora & Fauna Assessment





Plate 5.15: Trees Numbers 1-6 requiring removal within road reserve of Soldier Settler Road.



Plate 5.16: Trees Numbers 23 & 24 requiring removal within cropping area.



5.7 HABITAT FOR SIGNIFICANT SPECIES

An assessment of habitat attributes on site has been undertaken for the significant species listed in Table 4.3. The results of the assessment using definitions shown in Table 5.2 are displayed in Table 5.3. Threatened species identified in this assessment as having potential habitat available on site have been considered further in Section 7.0 of this report.

Table 5.2: Definitions of likelihood of occurrence criteria.

Likelihood of	Threatened Fauna	Threatened Flora
Unlikely	Suitable babitat is absent from the subject land and/or the subject land is outside of the species know	wn distribution
Low	 The species has not been recorded in the locality (10km) within the last five years; and/or Although suitable habitat is present in the subject land the suitable habitat is in a highly modified, limited or degraded state; and/or This species may be an occasional visitor, but habitat similar or of higher quality is widely distributed in the local area. 	 The species has not been recorded in the locality (10km) within the last five years, and/or Although suitable habitat is present in the subject land the suitable habitat is in a highly modified or degraded state
Moderate	 The species has been recorded in the locality (10km) within the last five years; and/or It is unlikely to be dependent on habitat within the subject land (i.e., for breeding or important life cycle periods) or to maintain a permanent resident population. However, the species may seasonally, opportunistically or occasionally use resources within the subject land; and/or Although suitable habitat is present in the subject land the suitable habitat is in a moderately modified, limited or degraded state This category includes fauna species that were targeted by seasonal surveys and were not recorded, wide ranging species which may fly-over' the site, regardless of the habitat types present and generalist species with non-specific habitat requirements 	 The species has been recorded in the locality (10km) within the last five years; and/or. Although potential habitat is present in the subject land the suitable habitat is in a moderately modified or degraded state. This category includes flora species that were targeted by seasonal surveys and were not recorded.
High	 The species has been recorded in the locality (10km) within the last five years; and/or It is highly likely that the species inhabits the subject land and is dependent on identified suitable habitat (i.e., for breeding or important life cycle periods) and is likely to maintain a resident population. This includes species that are known to visit the subject land during regular seasonal movements or migration. 	 The species has been recorded in the locality (10km) within the last five years; and/or It is highly likely to inhabit the subject land and is dependent on identified suitable habitat.
Known	The species was observed in the subject land during the current survey and/or was recorded during a	survey conducted on the site during the last 5 years.



Table 5.3: Habitat Assessment for Significant Species.

SPECIES		STATUS		HABITAT DESCRIPTION AND LOCALLY KNOWN POPULATIONS	LIKELIHOOD OF	
	BC Act 2016	EPB C Act 1999	SAII		OCCURRENCE WITHIN THE SITE	
				FLORA		
<i>Prasophyllum</i> sp. Wybong A Leek Orchid		CE	Yes	Leek orchids are generally found in shrubby and grassy habitats in dry to wet soil (Jones 2006). Known to occur in open eucalypt woodland and grassland.	Unlikely No suitable habitat was present.	
<i>Cadellia pentastylis</i> Ooline	V	V	No	Occurs along the western edge of the North West Slopes from north of Gunnedah to west of Tenterfield. Grows in dry rainforest, semi-evergreen vine thickets and sclerophyll ecological communities.	Unlikely No suitable habitat was present.	
Dichanthium setosum Blue Grass	V	V	No	Occurs on the New England Tablelands, Northwest Slopes and Plains and the Central Western Slopes of NSW, extending to northern Queensland. Associated with heavy basaltic black soils and red-brown loams with clay subsoil.	Low-Moderate Potential habitat was present within the road reserve. No nearby records.	
<i>Digitaria porrecta</i> Finger Panic Grass	E		No	In NSW it is found on the North West Slopes and Plains, from near Moree south to Tambar Springs and from Tamworth/Werris Creek to Coonabarabran. Recorded associated tree species are <i>Eucalyptus albens</i> and <i>Acacia pendula</i> . Common associated grasses and forbs in NSW sites include <i>Austrostipa aristiglumis</i> , <i>Enteropogon acicularis</i> , <i>Cyperus bifax</i> , <i>Hibiscus trionum</i> and <i>Neptunia gracilis</i> .	Low-Moderate Potential habitat was present within the road reserve. No nearby records.	
Callistemon pungens		E	No	Distribution extends from the Stanthorpe area in Queensland, south to Tamworth district and the Oxley Wild Rivers National Park. Grows in or near rocky watercourses, usually in sandy creek beds, wet heath or riparian woodlands on granite or trachyte substrates, less commonly on basalt.	Unlikely No suitable habitat was present.	
<i>Eucalyptus nicholii</i> Narrow-leaved Black Peppermint	V	V	No	Found the New England Tablelands from Nundle to north of Tenterfield. Planted as urban trees, windbreaks and corridors. Typically grows in dry grassy woodland, on shallow soils of slopes and ridges. Found primarily on infertile soils derived from granite or metasedimentary rock.	Unlikely No suitable habitat was present.	
<i>Euphrasia arguta</i> Eyebright	E4A	CE	Yes	Found within the Nundle area reported from eucalypt forest with a mixed grass and shrub understorey; here, plants were most dense in an open disturbed area and along the roadside, indicating the species had regenerated following disturbance.	Low Potential habitat was present. No nearby records.	
Lepidium aschersonii Spiny Peppercress	V	V	No	Occurring in the marginal central-western slopes and north-western plains regions of NSW. Found on ridges of gilgai clays dominated by Brigalow (<i>Acacia harpophylla</i>), Belah (<i>Casuarina cristata</i>), Buloke (<i>Allocasuarina luehmanii</i>) and Grey Box (<i>Eucalyptus microcarpa</i>).	Unlikely No known vegetation associations were present. No nearby records.	



STATUS					
SPECIES	BC Act 2016	EPB C Act 1999	SAII	HABITAT DESCRIPTION AND LOCALLY KNOWN POPULATIONS	LIKELIHOOD OF OCCURRENCE WITHIN THE SITE
Lepidium monoplocoides Winged Peppercress	E	E	No	Found in semi-arid western plains regions of NSW. Occurs on seasonally moist to waterlogged sites, on heavy fertile soils, with a mean annual rainfall of around 300-500 mm. Predominant vegetation is usually an open woodland dominated by Allocasuarina luehmannii (Bulloak) and/or eucalypts, particularly Eucalyptus largiflorens (Black Box) or Eucalyptus populnea (Poplar Box)	Unlikely No suitable habitat was present.
<i>Swainsona murrayana</i> Darling Pea	V	V	No	Grows in a variety of vegetation types and has been collected from clay-based soils, ranging from grey, red and brown cracking clays to red-brown earths and loams.	Low Suitable habitat was present.
Thesium australe Austral Toadflax	V	V	No	Grows in grassland or woodland, often in damp sites.	Low Marginal habitat was present. No nearby records.
Tylophora linearis	V	E	No	Occurs from southern Queensland into central NSW, as far south near Temora. Grows in dry scrub and open forest. Recorded from low-altitude sedimentary flats in dry woodlands of Eucalyptus fibrosa, Eucalyptus sideroxylon, Eucalyptus albens, Callitris endlicheri, Callitris glaucophylla and Allocasuarina luehmannii.	Low Suitable habitat was present.
		÷		FISH	
<i>Maccullochella peelii</i> Murray Cod		V	No	Occurs naturally in the waterways of the Murray–Darling Basin in a wide range of warm water habitats that range from clear, rocky streams to slow flowing turbid rivers and billabongs.	Unlikely No suitable habitat was present.
				FAUNA - AMPHIBIANS	
<i>Litoria booroolongensis</i> Booroolong Frog	E1	Е	No	Restricted to NSW and north-eastern Victoria, predominantly along the western-flowing streams of the Great Dividing Range. Lives along permanent streams with some fringing vegetation cover such as ferns, sedges, or grasses. Adults occur on or near cobble banks and other rock structures within stream margins.	Unlikely No suitable habitat was present.
				FAUNA - REPTILES	
Anomalopus mackayi Five-clawed Worm-skink	E	V	No	Patchy distribution on the North West Slopes and Plains of north-east NSW. Close to or on the lower slopes of slight rises in grassy White Box woodland on moist black soils, and River Red Gum-Coolibah-Bimble Box woodland on deep cracking loose clay soils. May also occur in grassland areas and open paddocks with scattered trees.	Low Suitable habitat was present.
Aprasia parapulchella Pink-tailed Worm-lizard	V	V	No	Is distributed along the western foothills of the Great Dividing Range between Bendigo in Victoria and Gunnedah in northern New South Wales. Generally, occupies sites with a grassy ground layer particularly those dominated by Kangaroo Grass with little or no leaf litter, and relatively low tree and shrub cover. Sites are typically well-drained, with rocky outcrops or scattered, partially buried rocks.	Low Suitable habitat was present. No nearby records.



SPECIES	STATUS			HABITAT DESCRIPTION AND LOCALLY KNOWN POPULATIONS	LIKELIHOOD OF
	BC Act 2016	EPB C Act 1999	SAII		OCCURRENCE WITHIN THE SITE
Delma impar Striped Legless Lizard	E	E	No	Occurs in the Southern Tablelands, the Southwest Slopes, the Upper Hunter and possibly in the Riverina. Populations are known in the Goulburn, Yass, Queanbeyan, Cooma, Muswellbrook and Tumut areas. Found mainly in Natural Temperate Grassland but has also been captured in grasslands that have a high exotic component. Occasionally in open Box-Gum Woodland.	Low Suitable habitat was present. No nearby records.
Uvidicolus sphyrurus Border Thick-tailed Gecko	V	V	No	Found only on the tablelands and slopes of northern NSW and southern Queensland, reaching south to Tamworth and west to Moree. Favours forest and woodland areas with boulders, rock slabs, fallen timber and deep leaf litter	Unlikely No suitable habitat was present.
<i>Hemiaspis daemelii</i> Grey Snake	E	E	No	Habitat includes the margins of ephemeral wetlands within River Red Gum (Eucalyptus camaldulensis) and Black Box (E. largiflorens) vegetation communities and Tangled Lignum (Duma florulenta) swamps. In NSW the species occupies five geographically discrete subpopulations, predominantly associated with the lower reaches of major westerly flowing rivers, including the Gwydir, Namoi, Castlereagh, Macquarie, Lachlan, and Murrumbidgee River systems.	Unlikely No suitable habitat was present.
				FAUNA - BIRDS	
Calidris acuminata Sharp-tailed Sandpiper		V	No	Prefers the grassy edges of shallow inland freshwater wetlands. It is also found around swage farms, flooded fields, mudflats, mangroves, rocky shores and beaches.	Unlikely No suitable habitat was present.
<i>Calidris ferruginea</i> Curlew Sandpiper	E	CE	Yes	Tidal mudflats; saltmarsh; fresh, brackish or saline wetlands; sewage ponds.	Unlikely No suitable habitat was present.
<i>Gallinago hardwickii</i> Latham's Snipe		E	No	Found in freshwater wetlands on or near the coast, generally among dense cover. They are found in any vegetation around wetlands, in sedges, grasses, lignum, reeds and rushes and also in saltmarsh and creek edges on migration. They also use crops and pasture.	Low Suitable habitat was present. Within the vicinity of the dams.
Rostratula australis Australian Painted snipe	E1	E	No	Margins of swamps and streams, chiefly those covered with low and stunted vegetation.	Unlikely No suitable habitat was present.
<i>Botaurus poiciloptilus</i> Australasian Bittern	E1	E	No	The Australasian Bittern lives alone or in loose groups and favours permanent fresh waters dominated by sedges, rushes, reeds or cutting grasses (eg. Phragmites, Scirpus, Eleocharis, Juncus, Typha, Baumea and Gahnia) and feeds on insects, small fish, eels, frogs and other aquatic life, sometimes in rice fields.	Unlikely No suitable habitat was present.



	PECIES BC EPB Act C Act SAII 2016 1999				
SPECIES			SAII	HABITAT DESCRIPTION AND LOCALLY KNOWN POPULATIONS	LIKELIHOOD OF OCCURRENCE WITHIN THE SITE
<i>Oxyura australis</i> Blue-billed Duck	V		No	Endemic to south-eastern and south-western Australia. It is widespread in NSW. Most common in the southern Murray-Darling Basin area. Prefers deep water in large permanent wetlands and swamps with dense aquatic vegetation.	Low Marginal habitat was present. Within the larger dams.
Calyptorhynchus lathami Glossy Black-Cockatoo	V		No	Lowland coastal forests, dense mountain forests, semi-arid woodland and trees bordering watercourses, with (Allo)Casuarina trees for foraging.	Low Suitable habitat was present.
<i>Lathamus discolor</i> Swift Parrot	E1	CE M	Yes	Open Forest to Woodland, also street trees and in parks and gardens, winter flowering eucalypts for feeding. This species nests in Tasmania during the summer months.	Moderate Seasonal foraging habitat was present.
Neophema chrysostoma Blue-winged Parrot	V	V	No	Found in western NSW. 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.	Low Suitable habitat was present.
Neophema pulchella Turquoise Parrot	V		No	Lives on the edges of Eucalypt woodland adjoining clearings and on timbered ridges and creeks in farmland. It has also been recorded utilising roadside verges and orchards. Nests in small hollow branches of Eucalypts.	Moderate Suitable habitat was present.
Polytelis swainsonii Superb Parrot	V	V	No	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. Inhabits Box-Gum, Box-Cypress-pine and Boree woodlands and River Red Gum Forest.	Low-Moderate Suitable habitat was present. Few local records.
Aphelocephala leucopsis Southern Whiteface	V	V	No	Dry open forests and woodland and inland scrubs of mallee, mulga and saltbush, especially areas with fallen timber or dead trees and stumps.	Low Suitable habitat was present.
<i>Glossopsitta pusilla</i> Little Lorikeet	V		No	Tall Open Forests, woodlands, orchards, parks and street trees.	Moderate Foraging and nesting habitat was present.
<i>Hirundapus caudacutus</i> White-throated Needletail		V & M	No	Inhabits the airspace above forests, woodlands, farmlands, plains, lakes, coasts and towns.	Moderate Due to the non-specific habitat requirements of this species habitat was considered to be present.
Artamus cyanopterus cyanopterus Dusky Woodswallow	V		No	The Dusky Woodswallow is found in open forests and woodlands and may be seen along roadsides and on golf courses.	Moderate-High Foraging and roosting habitat was present.



		STATUS				
SPECIES		EPB C Act 1999	SAII	HABITAT DESCRIPTION AND LOCALLY KNOWN POPULATIONS	LIKELIHOOD OF OCCURRENCE WITHIN THE SITE	
Melanodryas cucullata cucullata Hooded Robin (south- eastern form)	V		No	Eucalypt woodlands, Acacia scrublands, Banksia dominated coastal scrubs and open forests.	Moderate Suitable habitat was present.	
<i>Climacteris picumnus victoriae</i> Brown Treecreeper	V		No	This species is a medium sized insectivorous bird that occupies Eucalypt woodlands, particularly open woodlands lacking a dense understorey, River Red Gums on watercourses and around lakeshores. It is sedentary and nests in tree hollows within permanent territories.	Moderate Suitable habitat was present.	
Stagonopleura guttata Diamond Firetail	V		No	Inhabits areas with a grassy, shrubby understorey including Eucalypt woodlands, forests, Acacia scrubs and mallee.	Moderate Suitable habitat was present.	
Pomatostomus temporalis subsp. temporalis Grey-crowned Babbler	V		No	Open forest, woodland, scrubland, farmland and outer suburbs. Prefers woodlands with regenerating trees, tall shrubs, and an intact ground cover of grass and forbs.	Moderate Suitable habitat was present.	
Chthonicola sagittata Speckled Warbler	V		No	Speckled Warblers live in a wide range of eucalypt-dominated vegetation that has a grassy understorey, often on rocky ridges or in gullies. It builds a domed nest of grass, bark shreds and moss, lined with fur on the ground.	Moderate Suitable habitat was present.	
Anthochaera phrygia Regent Honeyeater	E4A	CE M	Yes	Temperate woodlands and open forest, including forest edges, preferring to forage on large- flowered Eucalypts.	Moderate Seasonal foraging habitat was present.	
<i>Grantiella picta</i> Painted Honeyeater	V		No	Nomadic, within a range of generally drier forested areas with mistletoes.	Low Suitable habitat was present.	
<i>Circus assimilis</i> Spotted Harrier	V		No	Occurs throughout the Australian mainland, except in densely forested or wooded habitats of the coast, escarpment and ranges, and rarely in Tasmania. Found in grassy open woodland including Acacia and mallee remnants, inland riparian woodland, grassland and shrub steppe. It is found most commonly in native grassland, but also occurs in agricultural land.	Moderate Suitable habitat was present.	
<i>Hieraaetus morphnoides</i> Little Eagle	V		No	Is found throughout the Australian mainland excepting the most densely forested parts of the Dividing Range escarpment. It occurs as a single population throughout NSW. Occupies open eucalypt forest, woodland or open woodland. Sheoak or acacia woodlands and riparian woodlands of interior NSW are also used.	Moderate Suitable habitat was present.	
Haliaeetus leucogaster White-bellied Sea-Eagle	V	М	No	Occupies habitat characterised by the presence of large areas of open water and feeds opportunistically on a variety of fish, birds, reptiles, mammals and crustaceans. The nests are built in a variety of sites including tall trees, bushes, mangroves, cliffs, rocky outcrops, caves, crevices, on the ground or even in artificial structures.	Unlikely This species is unlikely to utilise the site due to a lack of nearby suitable hunting habitat.	



STATUS			HABITAT DESCRIPTION AND LOCALLY KNOWN POPULATIONS		
	BC Act 2016	EPB C Act 1999	SAII		OCCURRENCE WITHIN THE SITE
<i>Falco hypoleucos</i> Grey Falcon	E1		No	Sparsely distributed in NSW, chiefly throughout the Murray-Darling Basin, with the occasional vagrant east of the Great Dividing Range. Generally restricted to shrubland, grassland and wooded watercourses of arid and semi-arid regions, although it is occasionally found in open woodlands near the coast.	Low Suitable habitat was present.
Falco subniger Black Falcon	V		No	Widely, but sparsely, distributed in New South Wales, mostly occurring in inland regions.	Moderate Suitable habitat was present.
				FAUNA – MAMMALS	
Dasyurus maculatus ssp. maculatus Spotted-tailed Quoll	V	V	No	Inhabits sclerophyll forests, rainforests and coastal woodlands. Nests are made in rock caves and hollow logs or trees, and basking sites are usually found nearby.	Low Suitable habitat was present.
Phascolarctos cinereus Koala	V	V	No	Coastal woodland and open forest containing suitable food trees. A single Koala record from 2006 was present on the BioNet Database (DPE, 2024) approximately 600m west of the impact area.	Low-Moderate Preferred Koala feed tree species were present.
Petaurus norfolcensis Squirrel Glider	V		No	Dry sclerophyll forests and woodlands with exudates for foraging and hollows for nesting.	Low Foraging and roosting habitat was present.
Pseudomys novaehollandiae New Holland Mouse		V	No	Known to inhabit open heathlands, open woodlands with a heathland understorey and vegetated sand dunes.	Low Only marginal habitat was present.
Pteropus poliocephalus Grey-headed Flying-Fox	V	V	No	Wet and Dry Sclerophyll Forests, Rainforest, Mangroves and Paperbark swamps and Banksia Woodlands.	Moderate-High Seasonal foraging habitat was available in the form of flowering myrtaceous canopy species.
Saccolaimus flaviventris Yellow-bellied Sheathtail-bat	V		No	Has been reported from a wide variety of habitats. Roosts in tree hollows, animal burrows, dry clay cracks, under rock slabs and in abandoned Sugar Glider nests.	Known Suitable hunting and roosting habitat were present.
Falsistrellus tasmaniensis Eastern False Pipistrelle	V		No	Inhabits sclerophyll forests and has been observed roosting in holes and hollow trunks of Eucalypts.	Known Suitable hunting and roosting habitat were present.
Miniopterus orianae oceanensis Large Bentwing-bat	V		No	Wet and dry tall open forest, rainforest, monsoon forest, open woodland, paperbark forests and open grasslands, caves or similar structures for roosting. It occasionally uses tree hollows.	Known Suitable foraging habitat was present. Preferred roosting



SPECIES	STATUS		STATUS		STATUS		STATUS HABITAT DESCRIPTION AND LOCALLY KNOWN POPULATIONS		LIKELIHOOD OF
	BC Act 2016	EPB C Act 1999	SAII		OCCURRENCE WITHIN THE SITE				
					habitat in the form of caves was absent.				
Nyctophilus corbeni Corben's Long-eared Bat	V	V	No	Inhabits a variety of vegetation types, including mallee, bull oak Allocasuarina leuhmanni 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.	Moderate Suitable hunting and roosting habitat were present.				
Scoteanax rueppellii Greater Broad-nosed Bat	V		No	Tree-lined creeks, woodland/clearing ecotones and rainforest creeks, roosting mainly in tree hollows.	Moderate Suitable hunting and roosting habitat were present.				
Chalinolobus dwyeri Large Pied Bat	V	V	Yes	Occupies dry sclerophyll forest and woodland. Roosts in caves, abandoned mud-nests of Fairy Martins and mine tunnels.	Low Suitable foraging habitat was present. Preferred roosting habitat was absent.				
<i>Vespadelus troughtoni</i> Eastern Cave Bat	V		Yes	The Eastern Cave Bat is found in a broad band on both sides of the Great Dividing Range from Cape York to Kempsey, with records from the New England Tablelands and the upper north coast of NSW. The western limit appears to be the Warrumbungle Range, and there is a single record from southern NSW, east of the ACT. A cave-roosting species that is usually found in dry open forest and woodland, near cliffs or rocky overhangs; has been recorded roosting in disused mine workings, occasionally in colonies of up to 500 individuals.	Low Suitable foraging habitat was present. Preferred roosting habitat was absent.				



5.8 FAUNA APPRASIAL RESULTS

5.8.1 AMPHIBIANS

One amphibian species *Limnodynastes tasmaniensis* (Spotted Marsh Frog) was heard calling from a number of dams during fieldwork. A small number of dams were found to contain circular foamy masses on the surface containing eggs from *L. tasmaniensis*. A photo of an egg mass from *L. tasmaniensis* is shown in Plate 5.17.



Plate 5.17: Floating eggs mass of Limnodynastes tasmaniensis (Spotted Marsh Frog) within dam.

This amphibian species is not listed as threatened under either the NSW BC Act 2016 and National EPBC Act 1999

5.8.2 REPTILES

One species of reptile *Cryptoblepharus pulcher* (Elegant Snake-eyed Skink) was observed on a number of remnant native trees located outside the impact area.

This reptile species is not listed as threatened under either the NSW BC Act 2016 and National EPBC Act 1999.



5.8.3 AVIFAUNA

Eighteen (18) avifauna species recorded within the subject site during fieldwork, these species were:

- Gymnorhina tibicen (Australian Magpie).
- Eolophus roseicapilla (Galah)
- Corvus coronoides (Australian Raven)
- Sturnus vulgaris (Starling)
- Grallina cyanoleuca (Magpie Lark)
- Psephotus haematonotus (Red-rumped Parrot)
- Ocyphaps lophotes (Crested Pigeon);
- Acanthiza chrysorrhoa (Yellow-rumped Thornbill)
- Malurus cyaneus (Superb Fairywren)
- Platycercus eximius (Eastern Rosella)
- Aquila audax (Wedge-tailed Eagle);
- Pardalotus punctatus (Spotted Pardalote)
- Rhipidura leucophrys (Willy Wagtail)
- Dacelo novaeguineae (Kookaburra)
- Chenonetta jubata (Australian Wood Duck)
- Cacatua sanguinea (Little Corella)
- Falco cenchroides (Australian Kestrel)
- Egretta novaehollandiae (White-faced Heron)

No avifauna species listed as threatened under either the NSW BC Act 2016 and National EPBC Act 1999 were recorded within the study area.

5.8.4 MAMMALS

No native mammal species were observed during fieldwork. Macropod Scats and paw prints consistent with that of *Macropus giganteus* (Eastern Grey Kangaroo) were encountered within the study area.

Introduced mammals recorded within the study area were *Oryctolagus cuniculus* (European Rabbit) and *Vulpes vulpes* (European Red Fox).

Seven microchiropteran bat species *Chalinolobus gouldii* (Gould's Wattled Bat), *Vespadelus vulturnus* (Little Forest Bat), *Chalinolobus morio* (Chocolate Wattled Bat), *Miniopterus orianae oceanensis* (Eastern Bentwing-bat), *Saccolaimus flaviventris* (Yellow-bellied Sheaf-tailed Bat) and *Ozimops ridei*, *Falsistrellus tasmaniensis* (Eastern False Pipistrelle) (likely) were recorded during the bat call survey. Additional calls attributed to the genus *Vespadelus* sp. were either *V. regulus* or *V. darlingtoni*.

Three mammal species *Miniopterus orianae oceanensis*, *Saccolaimus flaviventris* and *Falsistrellus tasmaniensis* are listed as threatened under the NSW BC Act 2016 an have been further addressed in Section 7.0.



5.9 SURVEY LIMITATIONS

As with all reports of this type the main survey limitation is considered to be the very short period of time in which the fieldwork was carried out. Limitations to the likelihood of detecting certain subject species were also encountered during this survey. Such limitations were generally related to the seasonal occurrence of species, be it as a result of known flowering periods for flora or migratory movements by fauna.

These limitations have been overcome by applying the precautionary principle in all cases where the survey methodology may have given a false negative result. This precautionary principle was achieved by recognising that most threatened species are rare and therefore unlikely to be encountered during a survey even if they may utilise the site at other times. These species have been assessed on the basis of the presence of their habitat and the likely significance of that habitat to a viable local population.



6.0 IMPACT ASSESSMENT

6.1 AVOIDANCE AND MINIMISATION OF IMPACTS

The impact area of the poultry farm has been positioned on a historically cleared area of land used for cropping and grazing.

6.2 DIRECT IMPACT

The proposal will result in the following direct and potential impacts/losses:

- Removal of 0.03ha of PCT 433 White Box grassy woodland to open woodland on basalt flats and rises in the Liverpool Plains sub-region within the road reserve of Soldiers Settler Road for the access road;
- Removal of 0.86ha of highly modified Pasture/Grassland for the proposed access road;
- Removal of 31.55ha of highly modified cropping land for the poultry sheds, access road and other infrastructure
- Impact to 0.03ha of the state listed Critically Endangered Ecological Community 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 occurring along the line within the road reserve of Soldiers Settler Road for the access road.
- Removal of ten (10) trees (Numbers 1, 2, 3, 4, 5, 6, 21, 22, 23 & 24). Of these trees five (4) (Numbers 3, 6, 23 & 24) were native species, five (5) (Numbers 1, 2, 5, 21 & 22) were introduced specimens of *Schinus molle* var. *areira* (Pepper Tree) and one (1) (Tree No. 4) was a dead tree..
- Removal of six (6) hollow-bearing trees 1, 2, 5, 7, 23 & 24;
- Modification of suitable foraging habitat for the threatened microchiropteran bat species *Miniopterus orianae oceanensis* (Eastern Bentwing-bat), *Saccolaimus flaviventris* (Yellow-bellied Sheaf-tailed Bat) and *Falsistrellus tasmaniensis* (Eastern False Pipistrelle).
- Impact to potential roosting habitat in the form of tree hollows for the threatened bat species;
 Saccolaimus flaviventris (Yellow-bellied Sheaf-tailed Bat) and Falsistrellus tasmaniensis (Eastern False Pipistrelle).
- Removal/modification of a suitable habitat for a number of the addressed threatened flora and fauna species;

6.3 INDIRECT IMPACTS

The proposal may result in the following indirect and potential impacts:

- Trees and other Native Vegetation
- Impact on native fauna during vegetation removal:
- Erosion and sedimentation
- Introduction of additional priority, and other weed species.



6.4 MITIGATION MEASURES

Mitigation measures have been specified to minimise the impact of the vegetation clearance to protect biodiversity values. The measures will include:

Trees and other Native Vegetation

Trees and native vegetation within the subject land are to be avoided wherever possible within the scope of the proposal. Works should avoid any impact to native vegetation outside the scope of the proposal. This is particularly pertinent to areas of national park within close proximity to the impact area. Where unavoidable, works should minimise impacts to trees as follows:

- clearing limits will be clearly marked on the ground to prevent unnecessary clearing beyond the extent of the proposal;
- trees to be removed are to be clearly marked to prevent any unintentional impact on trees that are to remain untouched;
- the clearing or trimming of any trees should be undertaken in a manner that avoids damaging adjacent vegetation;
- all material stockpiles, vehicle parking and machinery storage will be located outside areas of native vegetation.

Erosion

Temporary erosion and sediment controls (e.g., silt fences) are to be installed to avoid disturbance and degradation of soils and nearby features. These controls should conform to the specifications in Soils and Construction 'Blue Book' (Landcom, 2004) and should be maintained throughout the construction process until soil is successfully stabilised.

Weeds & Pathogens

Before entering the impact areas:

Ensure machinery, vehicles clothing and equipment have been cleaned and inspected prior to
entering the subject land for soil and plant propagules (seeds and fragments of plants), – Areas
to inspect and clean within vehicles include tyres, wheel arches, under carriages, radiator grills,
floor mats, load areas, boots, socks or anywhere that seeds and soil can lodge.

Native Fauna

The removal of hollow-bearing trees is to be supervised by a suitably qualified fauna ecologist to reduce the impact on any fauna which may be present.



7.0 CONSIDERATIONS UNDER SECTION 7.3 OF THE BC ACT 2016

Considerations of the effects of the vegetation removal undertaken for the proposed development under *Section 7.3* of the BC Act (2016) for the concerned threatened species is given below. The species dealt with are those identified during the fieldwork and those identified as having potential habitat available on site in Table 4.3.

For the purposes of the Section 7.3 of the BC Act (2016), the following factors have been taken into account in deciding whether there is likely to be a significant effect on this threatened species, populations or ecological communities, or their habitats:

a) in the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction.

Threatened Flora

No threatened flora species were recorded within the survey area during fieldwork. Suitable habitat was considered to be present for 6 of the 11 threatened flora species listed in Table 4.3. These were:

- Dichanthium setosum
- Digitaria porrecta
- Euphrasia arguta
- Swainsona murrayana
- Thesium australe
- Tylophora linearis

Blue Grass Finger Panic Grass Eyebright Darling Pea Austral Toadflax

Impacted potential habitat for these species would be confined to the small area (0.03ha) of road served along Soldier Settler Road where the access road if proposed to be positioned. Few threatened plant species were present within the local area. According to the BioNet Atlas (DPE, 2024) the closest record of a threatened flora species was *Dichanthium setosum* (Bluegrass) 7km to the south of the subject site. The proposal will result in an incremental reduction in habitat, however considering the relatively small impact, previous disturbance, the absence of these species during fieldwork it is considered unlikely that it would significantly affect the life cycle of any of these flora species or place any viable local populations of these species at risk of extinction.

Threatened Fauna

Three threatened fauna species; *Miniopterus orianae oceanensis*, *Saccolaimus flaviventris* and *Falsistrellus tasmaniensis* were recorded within the subject site during the bat call survey. The proposal will result in the modification of suitable foraging habitat for all of these threatened microchiropteran bat species. Potential roosting habitat in the form of tree hollows will be impacted for *Saccolaimus flaviventris* and *Falsistrellus tasmaniensis*. Considering the relatively small impact and presence of extensive areas of similar surrounding habitat it is considered unlikely that the proposal would significantly affect the life cycle of *Miniopterus orianae oceanensis*, *Saccolaimus flaviventris* and *Falsistrellus tasmaniensis* or place any viable local populations of these species at risk of extinction.



No other threatened fauna species were recorded during fieldwork. Of the 43 addressed threatened fauna species the site was considered to contain suitable habitat of varying quality for 33 species:

- Anomalopus mackayi
- Aprasia parapulchella
- Delma impar
- Gallinago hardwickii
- Oxyura australis
- Calyptorhynchus lathami
- Lathamus discolor
- Neophema chrysostoma
- Neophema pulchella
- Polytelis swainsonii
- Aphelocephala leucopsis
- Glossopsitta pusilla
- Hirundapus caudacutus
- Artamus cyanopterus cyanopterus
- Melanodryas cucullata cucullata
- Climacteris picumnus victoriae
- Stagonopleura guttata
- Pomatostomus temporalis subsp. temporalis
- Chthonicola sagittata
- Anthochaera phrygia
- Grantiella picta
- Circus assimilis
- Hieraaetus morphnoides
- Falco hypoleucos
- Falco subniger
- Dasyurus maculatus ssp. maculatus
- Phascolarctos cinereus
- Petaurus norfolcensis
- Pteropus poliocephalus
- Nyctophilus corbeni
- Scoteanax rueppellii
- Chalinolobus dwyeri
- Vespadelus troughtoni

Five-clawed Worm-skink Pink-tailed Worm-lizard Striped Legless Lizard Latham's Snipe **Blue-billed Duck Glossy Black-Cockatoo** Swift Parrot **Blue-winged Parrot** Turquoise Parrot Superb Parrot Southern Whiteface Little Lorikeet White-throated Needletail **Dusky Woodswallow** Hooded Robin (south-eastern form) **Brown Treecreeper Diamond Firetail** Grey-crowned Babbler Speckled Warbler **Regent Honeyeater Painted Honeyeater Spotted Harrier** Little Eagle **Grey Falcon Black Falcon** Spotted-tailed Quoll Koala Squirrel Glider Grey-headed Flying-Fox Corben's Long-eared Bat Greater Broad-nosed Bat Large Pied Bat Eastern Cave Bat

According to the BioNet Atlas records (DPE, 2024) threatened fauna species found within proximity of the subject land included *Phascolarctos cinereus* (Koala) in 2006 (individual record 600m to the west of the study area), *Hieraaetus morphnoides* (Little Eagle) and *Circus assimilis* (Spotted Harrier). Of the addressed threatened fauna species those most likely to utilise the subject site and impact area would include a number of the woodland birds and microchiropteran bats. The proposal will result in a small incremental reduction habitat for the above species. Given the relatively small impact and large area of similar surrounding habitat it is unlikely that the proposal will have a significant impact on these threatened fauna species such that a local extinction would occur.



- b) In the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:
 - (i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or
 - (ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.

PCT 433 - White Box grassy woodland to open woodland on basalt flats and rises in the Liverpool Plains sub-region identified within the subject site was found to be consistent with the state listed Critically Endangered Ecological Community - 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. A total of 0.03ha of White Box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland is required to be removed within the road reserve of Soldier Settler Road for the access road resulting in a small reduction of this community in the local area. This section of the access driveway could not be realigned to avoid this small section of clearing as it would not meet safe sight distances for vehicular movements due to the road geometry along the site frontage. Given the small size and current disturbance, it is considered unlikely that it would significantly adversely affect the extent or substantially and adversely modify the composition of this Critically Endangered Ecological Community such that its local occurrence is likely to be placed at risk of extinction.

Brigalow Woodland within the study area was found to be consistent with the state listed Endangered Ecological Community Brigalow within the Brigalow Belt South, Nandewar and Darling Riverine Plains Bioregions. This EEC is well outside the impact area and would not be impacted by the proposal.

- c) In relation to the habitat of a threatened species or ecological community:
 - *(i)* the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and

The proposal will result in the following direct and potential impacts/losses:

- Removal of 0.03ha of PCT 433 White Box grassy woodland to open woodland on basalt flats and rises in the Liverpool Plains sub-region within the road reserve of Soldiers Settler Road for the access road;
- Removal of 0.87ha of highly modified Pasture/Grassland for the proposed access road;
- Removal of 31.55ha of highly modified cropping land for the poultry sheds, access road and other infrastructure
- Impact to 0.03ha of the state listed Critically Endangered Ecological Community 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 occurring along the line within the road reserve of Soldiers Settler Road for the access road.

- Removal of ten (10) trees (Numbers 1, 2, 3, 4, 5, 6, 21, 22, 23 & 24). Of these trees five (4) (Numbers 3, 6, 23 & 24) were native species, five (5) (Numbers 1, 2, 5, 21 & 22) were introduced specimens of *Schinus molle* var. *areira* (Pepper Tree) and one (1) (Tree No. 4) was a dead tree..
- Removal of six (6) hollow-bearing trees 1, 2, 5, 7, 23 & 24;
- Modification of suitable foraging habitat for the threatened microchiropteran bat species *Miniopterus orianae oceanensis* (Eastern Bentwing-bat), *Saccolaimus flaviventris* (Yellowbellied Sheaf-tailed Bat) and *Falsistrellus tasmaniensis* (Eastern False Pipistrelle).
- Impact to potential roosting habitat in the form of tree hollows for the threatened bat species;
 Saccolaimus flaviventris (Yellow-bellied Sheaf-tailed Bat) and Falsistrellus tasmaniensis (Eastern False Pipistrelle).
- Removal/modification of a suitable habitat for a number of the addressed threatened flora and fauna species;
 - (ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and

No areas of habitat are likely to become significantly fragmented or isolated from others areas of habitat as a result of the proposal.

(iii) the importance of the habitat to be removed, modified, fragmented or isolated to the longterm survival of the species or ecological community in the locality.

No area of habitat important to the long-term survival of these species and ecological communities will be significantly impacted.

d) whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly).

No declared areas of outstanding biodiversity value were present.

e) whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.

The 'Key Threatening Processes' currently listed under Schedule 4 of the BC Act 2016 that are relevant to the study area have been listed in Table 7.1.



Table 7.1: Key Threatening Processes.

Key Threatening Process	Applicability in regards to the subject land
Clearing of Native Vegetation.	The proposal will result in the removal of native vegetation and may be viewed as being part of this Key Threatening Process. However, the action is unlikely to be responsible for the significant loss of any TEC, endangered population or threatened species provided that recommendations for impact minimisation as listed within Section 6.4 are undertaken.
Loss of Hollow-bearing Trees	The proposal will not require the removal of up to five hollow bearing trees.
Removal of dead wood and dead trees	Any standing dead trees or dead wood on the ground is to be relocated outside the impact area within the road reserve.
Invasion of native plant communities by exotic perennial grasses.	Some exotic grasses such as <i>Hyparrhenia hirta</i> (Coolatai Grass). The proposal has the potential to further introduce perennial grasses into the National Park Areas. All machinery, materials and personal will need to be free of grass propagules when entering the roadside site.
Predation by the <i>Felis catus</i> (Feral Cat)	The Feral Cat was not recorded on site at the time of the survey however this species would be considered to have an impact on native fauna in the local area. The proposal is not likely to result in an increase in feral numbers of this introduced species.
Predation by the <i>Vulpes vulpes</i> (Red Fox)	The dead Red Fox was recorded within the study area during fieldwork. This species would be considered to have an impact on native fauna in the local area. The proposal is not likely to result in an increase in numbers of this introduced species.
Predation and hybridisation by feral dogs, <i>Canis lupus familiaris</i>	The Feral Dog was not recorded on site at the time of the survey however this species may have an impact on native fauna in the local area. The proposal is not likely to result in an increase in numbers of this introduced species.
Aggressive exclusion of birds by noisy miners (<i>Manorina melanocephala</i>)	Noisy miners were recorded within the site during fieldwork. The proposal is unlikely to increase the impacts associated with this species.
High frequency fire resulting in the disruption of life cycle processes in plants and animals and loss of vegetation structure and composition	It is unknown what impact fire has had within the site.
Reduced viability of adjacent habitat due to edge effects	The proposed development will not result in a significant increase in edge effects impacting upon the retained vegetation. The majority of the site has been historically disturbed and as such edge effects have been an ongoing impact to the retained vegetation within the study area.
Alteration to the natural flow regimes of rivers and streams and their floodplains and wetlands.	No streams were present within the subject site.
Infection by <i>Psittacine circoviral</i> (beak and feather) disease affecting endangered psittacine species	No evidence of the disease was observed on psittacine species.
Invasion of native plant communities by African Olive Olea europaea subsp. cuspidata	African Olive was not observed within the subject land, however could become established.
Predation, habitat degradation, competition and disease transmission by feral pigs, <i>Sus scrofa</i>	The Feral Pig was not recorded at the time of the survey however this species would be considered to have an impact on in the local area.
Infection of frogs by amphibian chytrid causing the disease chytridiomycosis.	No evidence of chytrid was observed during fieldwork.
Infection of native plants by Phytophthora cinnamomi	No evidence of Phytophthora was observed during fieldwork.



8.0 CONSIDERATIONS UNDER STATE ENVIRONMENTAL PLANNING POLICY (BIODIVERSITY AND CONSERVATION) 2021

8.1 CHAPTER 3 KOALA HABITAT PROTECTION 2020

The principal aim of this Chapter aims to encourage the proper conservation and management of areas of natural vegetation that provide habitat for koalas to ensure a permanent free-living population over their present range and reverse the current trend of koala population.

Chapter 3 applies to land that the Chapter 4 does not apply to as defined in Schedule 2 of SEPP (Biodiversity Conservation) 2021. This includes land zoned as RU1 in the Mid-Western Regional LGA. This Chapter applies to areas of more than one hectare or an area, which has together with any adjoining land in the same ownership an area of more than 1 hectare, whether or not the development application applies to the whole, or only part of the land. Land zoned as RU1 constitutes an area over 1ha therefore Chapter 3. In addressing this Chapter there are two questions to be considered.

8.1.1 FIRST CONSIDERATION - IS THE LAND 'POTENTIAL KOALA HABITAT'?

'Potential Koala Habitat' is defined in Chapter 3 as, "...an area of native vegetation where trees of the type listed in Schedule 1 (Koala feed tree species) constitute at least 15% of the total number of trees in the upper or lower strata of the tree component".

Only a small number of species; *Eucalyptus albens* (White Box) (some likely hybrids of *E. albens* x *E. moluccana*) were recorded within the study area. These trees would likely constitute 15% of the total number of trees in the upper and lower strata. Therefore, the study area would be considered to be "Potential Koala Habitat" and the second question is considered.

8.1.2 SECOND CONSIDERATION – IS THE LAND CORE KOALA HABITAT?

Core Koala Habitat is defined as "... an area of land with a resident population of Koalas, evidenced by attributes such as breeding females (that is females with young) and recent sightings and historical records of a koala population.

No koalas were identified during site surveys. Despite dedicated searches at the base of all surveyed trees no koala scats were found. According to the BioNet Atlas database search (DPE, 2024a) the closest koala record was an individual approximately 600m to the west in 2006. The next closest was a record from 2006 approximately 11km to the east. Given that no individual koalas or breeding females (female koala with young) were observed within the study area there is insufficient evidence to suggest that the site supports a resident population. Hence the study area is not considered to constitute Core Koala Habitat.



9.0 ASSESSMENT OF SERIOUS AND IRREVERSIBLE IMPACTS

Under the BC Act 2016, a determination of whether an impact is serious and irreversible (SAII) must be made in accordance with the principles prescribed in section 6.7 of the BC Regulation.

The "*Guidance to assist a decision maker to determine a serious and irreversible impact*, 2017, sets out those potential SAII species and ecological communities (known as "potential SAII entities").

The principles for determining serious and irreversible impacts in the Biodiversity Conservation Regulation, 2017 are:

- will cause a further decline of a species or ecological community that is currently observed, estimated, inferred or reasonably suspected to be in a rapid rate of decline, or
- will further reduce the population of a species or ecological community that is currently observed, estimated, inferred, or reasonably suspected to have a very small population size, or
- are impacts on the habitat of a species or area of ecological community that is currently observed, estimated, inferred or reasonably suspected to have a very limited geographic distribution, or
- are impacts on a species or ecological community is unlikely to respond to measures to improve habitat and vegetation integrity and is therefore irreplaceable.

9.1 POTENTIAL SAII ENTITIES

In this case all potential SAII entities are derived from Appendix 2 of the Guide, and are within the BioNet search area (DPE, 2023). The approval authority must take those impacts into consideration and determine whether there are any additional and appropriate measures that will minimise those impacts if approval is to be granted. An Impact evaluation is shown in Table 9.1. Entities include:

- White Box Yellow Box Blakely's Red Gum Woodland
- Fuzzy Box Woodland on alluvial soils of the South Western Slopes, Darling Riverine Plains and Brigalow Belt South Bioregions
- Rhizanthella slateri (Eastern Underground Orchid);
- Lathamus discolor (Swift Parrot);
- Anthochaera phrygia (Regent Honeyeater);
- *Miniopterus australis* (Little Bentwing-bat);
- Chalinolobus dwyeri (Large Pied Bat);
- Vespadelus troughtoni (Eastern Cave Bat);

Table 10.1: SAII impact evaluation

Potential SAII Entities	Impact Evaluation	Impact Thresholds	Serious and Irreversible Impact?
White Box Yellow Box Blakely's Red Gum Woodland	Present within the subject land	No threshold identified.	No
Fuzzy Box Woodland on alluvial soils of the South Western Slopes, Darling Riverine Plains and Brigalow Belt South Bioregions	No present within the subject land		No
Lathamus discolor Swift Parrot	Suitable habitat was present.	Not within a mapped BAM Important Area (DPE, 2023)	No



Potential SAII Entities	Impact Evaluation	Impact Thresholds	Serious and Irreversible Impact?
Anthochaera phrygia Regent Honeyeater	Seasonal foraging habitat was present.	Not within a mapped BAM Important Area (DPE, 2023)	No
Chalinolobus dwyeri Large Pied Bat	Suitable hunting habitat was present. Preferred roosting habitat was absent.		No
Vespadelus troughtoni Eastern Cave Bat	Suitable hunting habitat was present. No preferred roosting habitat was available within the site.		No

One SAII entity the TEC – White Box - Yellow Box - Blakely's Red Gum Woodland (Box Gum Woodland TEC) was identified within the subject land. Considering the assessment in Sections 7.0 and 9.0 the proposal is unlikely to have a significant impact on the SAII entity. No additional listed SAII species were recorded within the study area.



10.0 CONSIDERATIONS UNDER THE COMMONWEALTH ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999

Considerations have been made to the Commonwealth Environment Protection and Biodiversity Conservation (EPBC) Act 1999. Assessments have been made to determine whether or not the proposal or activity has, will have, or is likely to have a significant impact on a matter of National Environmental Significance. The matters of National Environmental Significance and the appropriate responses are listed below:

• World Heritage properties;

The proposal is not likely to have a significant impact to any World Heritage properties.

• wetlands recognised under the Ramsar convention as having international significance;

The proposed works are not likely to have a significant impact to any Ramsar Wetlands.

• listed threatened species and communities;

Six nationally threatened ecological communities were recorded on the DCCEEW database as having potential to occur within 10km of the site, these being:

- Coolibah Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions
- Central Hunter Valley eucalypt forest and woodland
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Weeping Myall Woodlands

Plant Community Type (PCT) 433 - White Box grassy woodland to open woodland on basalt flats and rises in the Liverpool Plains sub-region impacted within 0.03ha of the road reserve of Soldiers Settlers Road was found to be consistent with that of White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland. The assessment undertaken in Section 10.1 found the proposal is unlikely to significantly impact this community.

A total of 53 nationally threatened species were recorded on the DCCEEW database as occurring or having potential habitat available within 10km of the site (excluding pelagic species), these being:

Botaurus poiciloptilus Lepidium aschersonii Hemiaspis damelii Dichanthium setosum Thesium australe Delma impar Aprasia parapulchella Chalinolobus dwyeri Australasian Bittern Spiny Peppercress Grey Snake bluegrass Austral Toadflax Striped Legless Lizard Pink-tailed Worm-lizard Large-eared Pied Bat Proposed Poultry Farm 2432 Oxley Highway BECTIVE, NSW



Litoria booroolongensis Pteropus poliocephalus Eucalyptus nicholii Anomalopus mackayi Euphrasia arguta Grantiella picta Aphelocephala leucopsis Stagonopleura guttata Maccullochella peelii Calyptorhynchus lathami lathami Climacteris picumnus victoriae Melanodryas cucullata cucullata Swainsona murrayana Hirundapus caudacutus Neophema chrysostoma Polytelis swainsonii Lathamus discolor Dasyurus maculatus maculatus Rostratula australis Prasophyllum sp. Wybong (C.Phelps ORG 5269) Anthochaera phrygia Nyctophilus corbeni Uvidicolus sphyrurus Phascolarctos cinereus Calidris ferruginea Gallinago hardwickii Calidris acuminata Lepidium monoplocoides Callistemon pungens Vincetoxicum forsteri Falco hypoleucos Pseudomys novaehollandiae Cadellia pentastylis

Booroolong Frog Grey-headed Flying-fox Narrow-leaved Peppermint Five-clawed Worm-skink **Painted Honeyeater** Southern Whiteface Diamond Firetail Murray Cod South-eastern Glossy Black-Cockatoo Brown Treecreeper (south-eastern) South-eastern Hooded Robin Slender Darling-pea White-throated Needletail **Blue-winged Parrot** Superb Parrot Swift Parrot Spot-tailed Quoll Australian Painted Snipe a leek-orchid **Regent Honeyeater** Corben's Long-eared Bat Border Thick-tailed Gecko Koala **Curlew Sandpiper** Latham's Snipe Sharp-tailed Sandpiper

Winged Pepper-cress

Grey Falcon New Holland Mouse Ooline

No nationally threatened species were recorded during fieldwork. Of the listed national threatened species, those most likely to occur within the site and close proximity would include *Pteropus poliocephalus* (Grey-headed Flying-fox), listed woodland birds, and microchiropteran bats. Suitable feed tree species were also present for *Phascolarctos cinereus* (Koala). A single Koala record from 2006 was present on the BioNet Database (DPE, 2024) approximately 600m west of the impact area. Potential habitat for all of the listed nationally threatened species has been assessed in Table 5.3. The action will result in a small incremental loss/modification of habitat within the locality for these species, however it is not likely to have a significant impact on any of these addressed species.

• migratory species protected under international agreements.

Eleven nationally listed migratory species were recorded on the DCCEEW on-line database as occurring or having potential habitat available within 10km of the study area, these being:

Migratory Terrestrial Species:

- *Hirundapus caudacutus* (White-throated Needletail)
- Monarcha melanopsis (Black-faced Monarch)



- Motacilla flava (Yellow Wagtail)
- *Myiagra cyanoleuca* (Satin Flycatcher)
- Rhipidura rufifrons (Rufous Fantail)

Migratory Wetland Species:

- Actitis hypoleucos (Common Sandpiper)
- Calidris ferruginea (Curlew Sandpiper)
- Calidris melanotos (Pectoral Sandpiper)
- *Gallinago hardwickii* (Latham's Snipe)
- Numenius madagascariensis (Eastern Curlew)

Migratory Marine Birds

• Apus pacificus (Fork-tailed Swift)

Considering the relatively small impact on habitat in the locality it is unlikely that these species or any of the listed migratory species would be significantly affected by the proposal.

• nuclear activities;

The proposal does not involve any type of nuclear activity.

• the Commonwealth marine environment;

The proposal does not involve the modification of the Commonwealth marine environment

10.1 WHITE BOX -YELLOW BOX- BLAKELYS RED GUM GRASSY WOODLAND AND DERIVED NATIVE GRASSLAND

To be considered consistent with the Critically Endangered listing under the EPBC Act, the vegetation must be consistent with the criteria outlined in the EPBC Act policy statement 3.5 – White box – Yellow box – Blakely's red gum grassy woodlands and derived native grasslands (Department of the Environment and Heritage, 2006) and as summarised in Table 10.1.



Table 10.1: Assessment of EPBC Act White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland. Key diagnostic characteristics against Plant Community Type (PCT)

Key diagnostic characteristics as described in in Section 1.5.1 of DotE 2015	Key Diagnostics Met
The ecological community occurs in the following bioregions (IBRA, DoE 2012): Brigalow Belt South, Murray Darling Depression,	Yes, occurs within the Nandewar IBRA Bioregion.
Nandewar, New England Tableland, Threatened Species Scientific Committee Page 14 of 121 White Box - Yellow Box - Blakely's	
Red Gum Grassy Woodland and Derived Native Grassland Conservation Advice NSW North Coast, NSW South Western Slopes,	
Riverina, South Eastern Queensland, South East Corner, South East Coastal Plain, South Eastern Highlands, Southern Volcanic	
Plain, Sydney Basin and Victorian Midlands (TSSC 2006; DECCW 2011; DCCEEW 2022).	
It has, or previously had, an overstorey dominated or co-dominated by:	No, however Eucalyptus albens (white box) has been recorded
• Eucalyptus albens (white box) and/or E. melliodora (yellow box) and/or E. blakelyi (Blakely's red gum) (applicable	within adjoining habitat.
across the entire range of the ecological community); or,	
• in the Nandewar bioregion (IBRA, DoE 2012), any of the above three species and/or E. microcarpa (western grey box)	
and/or <i>E. moluccana</i> (grey box, coastal grey box);	
It has a predominantly native ground layer	Yes, A large portion of the ground layer was composed of native
	species.
Tussock grasses are conspicuous in the ground layer (except in some situations, such as under dense groves of shrubs or	Yes
regenerating trees), usually with several native species from some the following genera: Austrostipa, Bothriochloa, Chloris,	
Cymbopogon, Dichanthium, Microlaena, Poa, Themeda, Rytidosperma or Sorghum.	
Amongst the grass tussocks and sometimes in swathes, a range of broad-leaved forbs and petaloid monocots (e.g. lilies sens.	Yes
lat.) may be a major component of the plant diversity.	
While shrubs may be dominant locally within areas of the ecological community, areas of native vegetation with a more	No
continuous shrub layer, in which the average shrub cover of the whole patch is greater than 30%, is considered to be a shrubby	
woodland and so is not part of the listed ecological community. In assessing this, the effects of disturbance need to be considered,	
for example where heavy grazing may result in high densities of shrubs during a recovery phase	
Does this PCT meet the EPBC Act listing criterion	Yes



The assessment concluded that the vegetation did meet the condition criteria of the EPBC Act listing for White Box – Yellow Box Blakely's Red Gum Grassy Woodland and Derived Native Grasslands. An assessment under the Significant Impact Criteria for this community has been undertaken below

An action is likely to have a significant impact on a critically endangered or endangered ecological community if there is a real chance or possibility that it will:

• reduce the extent of an ecological community

The proposal will result in a small impact to a road reserve, however is unlikely to significantly reduce the extent of this community.

• fragment or increase fragmentation of an ecological community, for example by clearing vegetation for roads or transmission lines

The project involves the removal of 0.03ha within the road reserve of Soldier Settler Road for the access road. This small impact will not likely impede any genetic transfer between areas.

• adversely affect habitat critical to the survival of an ecological community

The project is unlikely to adversely affect habitat considered to be critical to the survival of the community.

• modify or destroy abiotic (non-living) factors (such as water, nutrients, or soil) necessary for an ecological community's survival, including reduction of groundwater levels, or substantial alteration of surface water drainage patterns

The project is unlikely to affect any abiotic processes necessary for the community's survival.

• cause a substantial change in the species composition of an occurrence of an ecological community, including causing a decline or loss of functionally important species, for example through regular burning or flora or fauna harvesting the following criteria:

The proposal is unlikely to result in substantial change in the species composition of this community locally.

• cause a substantial reduction in the quality or integrity of an occurrence of an ecological community, including, but not limited to:

-assisting invasive species, that are harmful to the listed ecological community, to become established, or

 causing regular mobilisation of fertilisers, herbicides or other chemicals or pollutants into the ecological community which kill or inhibit the growth of species in the ecological community, or

Taking the mitigations measures into consideration the proposal is unlikely to assist any invasive species, nor cause any increased mobilisation of fertilisers which would kill or inhibit the growth of species in the ecological community.

• interfere with the recovery of an ecological community.

The proposal is unlikely to interfere with any current recovery programs in the area.

Conclusion

The project is unlikely to significantly impact this community



11.0 CONCLUSION

It is believed that the ecological assessment has been undertaken in accordance with the requirements of the Environmental Planning and Assessment Amendment Act 2017 (EP&A Act 2017), the Biodiversity Conservation Act 2016 (BC Act 2016) and the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act 1999).

The ecological assessment found the proposed construction of a poultry broiler farm at Lots 5, 147 & 161 DP 755319 (No. 2432) Oxley Highway, Bective NSW will result in a small incremental reduction/modification of habitat, however taking into consideration the current disturbance, presence of existing areas of similar habitat and the mitigation measures the proposal is unlikely to have a significant impact on any addressed threatened species, endangered population or threatened ecological community.



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APPENDIX A

TOTAL FLORA LIST



Introduced species are indicated by an asterisk ("*").

The following standard abbreviations are used to indicate subspecific taxa:

- subsp. subspecies
- var.- variety
- x hybrid between the two indicated species

Threatened Species - NSW Biodiversity Conservation Act 2016 (BC Act)

- V Vulnerable
- E1 Endangered
- E2 Endangered Population
- E4A Critically Endangered Population

Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

- V Vulnerable
- E Endangered
- **CE** Critically Endangered

Serious and Irreversible Impact SAII

Regional Significance (Hunter Rare Plants Database – Version 1 2003)

- L endemic to Hunter Region
- **DA** disjunct in the Hunter Region, rare or localized (aggregated)
- DB disjunct in the Hunter Region, widespread and uncommon (broad)
- **R** rare but extends beyond the Hunter Region
- U everywhere uncommon
- **N** at northern distributional limit in the Hunter
- **E** at eastern distributional limit in the Hunter
- **S** at southern distributional limited in the Hunter
- **W** at western distributional limited in the Hunter
- T may be threatened in the Hunter Region
- **S** Probably secure in the Hunter Region

Weeds

Priorities under the Biosecurity Act 2015

- **G** General Biosecurity Duty any person dealing with plant matter must take measures to prevent, minimise or eliminate the biosecurity risk (as far as is reasonably practicable).
- P Prohibition on dealings Must not be imported into the State or sold.
- **R** Regional Recommended Measure Land managers mitigate the risk of the plant being introduced to their land. Land managers reduce impacts from the plant on priority assets. Land managers prevent spread from their land where feasible. The plant or parts of the plant are not traded, carried, grown or released into the environment.

NSW BC Act 2016

T Listed as a Threatening Process under the NSW BC Act 2016.

National

N Weed of National Significance (WoNS)



Table A1 Total Flora List of the subject site

SCIENTIFIC NAME	COMMON NAME	BC ACT	EPBC ACT	SAII	REGIONALLY SIGNIFICANT	BIOSECURITY ACT 2015	
CLASS FILICOPSIDA (Ferns)							
Pteridaceae							
Cheilanthes sieberi ssp. sieberi	Mulga Fern						
CONIFEROPSIDA (Conifers)							
Cupressaceae							
Calitris glaucophylla	White Cypress Pine						
MAGNOLIOPSIDA: Magnoliidae							
LILOPSIDA: (Monocotyledons)							
Asparagaceae							
Lomandra multiflora subsp. multiflora	Many-flowered Mat-rush						
Commelinaceae							
Commelina cyanea	Scurvy Weed						
Cyperaceae							
Carex appressa	Saw Sedge						
Cyperus gracilis	Slender Flat-sedge						
Eleocharis sp.	Tall Spike-rush						
Iridaceae							
*Romulea rosea var. australis	Onion Grass						
Juncaceae							
Juncus usitatus	Common Rush						
Poaceae							
Aristida ramosa var. ramosa	Three-awn Speargrass				W?		
Austrostipa aristiglumis	Plains Grass						
Austrostipa verticillata	Slender Bamboo Grass						
*Avena fatua	Wild Oats						
*Avena sativa	Oats						

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SCIENTIFIC NAME	COMMON NAME	BC	EPBC	SAII	REGIONALLY	BIOSECURITY	
		ACT	ACT		SIGNIFICANT	ACT 2015	
Bothriochloa decipens	Red grass						
Bothriochloa macra	Red Grass						
*Bromus catharticus	Prairie Grass						
*Cenchrus clandestinus syn Pennisetum	Kikuyu						
clandestinum							
Chloris truncata	Windmill Grass						
Chloris ventricosa	Tall Windmill Grass						
Cynodon dactylon	Common Couch						
*Ehrhartia erecta	Panic Veldt Grass						
*Hordeum leporinum	Barley Grass						
*Hyparrhenia hirta	Coolatai Grass						
*Lolium perenne	Perennial Ryegrass						
Microlaena stipoides var. stipoides	Weeping Meadow Grass						
*Paspalum dilatatum	Paspalum						
Paspalum distichum	Water Couch						
*Poa annua	Winter Grass						
Rytidosperma sp.	Wallaby Grass						
*Sorghum halepense	Johnson Grass						
Sporobolus creber	Slender Rats Tail						
MAGNOLIIDAE (Dicotyledons)							
Anacardiaceae							
*Schinus molle var. areira	Pepper Tree						
Apiaceae							
*Cyclospermum leptophyllum	Slender Celery						
Daucus glochidiatus	Native Carrot						
Aquifoliaceae							
llex aquifolium	Common Holly						
Asteraceae							
*Aectotheca calendula	Cape Weed						
* Aster subulatus syn. Aster squamatus	Bushy Starwort						
*Bidens pilosa	Cobblers Pegs						

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SCIENTIFIC NAME	COMMON NAME	BC	EPBC	SAII	REGIONALLY	BIOSECURITY	
		ACT	ACT		SIGNIFICANT	ACT 2015	
Brachycome sp.							
Chrysocephalum apiculatum	Common Everlasting						
*Cirsium vulgare	Spear Thistle						
Cymbonotus lawsonianus	Bear's Ear						
Euchiton sphaericus	Common Cudweed						
*Gamochaeta coarctata syn.Gamochaeta	Spiked Cudweed						
spicata							
*Hypochaeris radicata	Catsear, Flatweed						
Silybum marianum	Variegated Thistle						
*Sonchus asper	Prickly Sowthistle						
*Sonchus oleraceus	Common Sow Thistle						
*Taraxacum officinale	Dandelion						
*Tragopogon porrifolius	Salsify						
Vittadinia cuneata var. cuneata	Fuzzweed						
*Xanthium spinosum	Bathurst Burr						
Boraginaceae							
*Echium plantagineum	Paterson's Curse						
Brassicaceae							
*Capsella bursa-pastoris	Shepherd's Purse						
*Rapistrum rugosum	Turnip Weed, Giant Mustard						
*Sisymbrium erysimoides	Smooth Mustard						
Campanulaceae							
Lobelia concolor	Poison Pratia						
Wahlenbergia gracillis	Sprawling Bluebell						
Wahlenbergia stricta	Australian bluebell						
Caryophyllaceae							
*Cerastium glomeratum	Mouse Ear Chickweed						
*Stellaria media	Common Chickweed						
Chenopodiaceae							
Einadia nutans	Nodding Saltbush						
Maireana microphylla	Small-leaf Bluebush				E?		



SCIENTIFIC NAME	COMMON NAME	BC	EPBC	SAII	REGIONALLY	BIOSECURITY	
Salaralaana hirahii	Colvenies d Burr	ACT	ACT		SIGNIFICANT	ACT 2015	
	Galvanised Bull				EU		
Convolvulação							
Dichondra rapans	Kidnov Wood						
Dichonara repens	Runey Weed						
Fabaceae Subfamily (Faboideae)							
*Medicargo arabica	Spotted Burr Medic						
*Medicago laciniata	Cut-leaved Medic						
*Medicargo polymorpha	Burr Medic						
*Medicago sativa	Lucerne, Alfalfa						
*Trifolium arvense	Haresfoot Clover						
*Trifolium campestre	Hop Clover						
*Trifolium repens	White Clover						
Fabaceae (Subfamily Mimosoideae)							
Acacia harpophylla	Brigalow						
Geraniaceae							
Erodium crinitum	Blue Heronsbill						
Geranium solanderi	Native Geranium						
Lamiaceae							
Mentha satureioides	Creeping Mint						
*Stachys arvensis	Stagger Weed						
Lythraceae							
Lythrum hyssopifolia	Hyssop Loosestrife						
Maluana							
Brachychiton populneus subsp. populneus	Kurrajong						
Marva parvinora	Small-flowered Mallow						
	Red-liowered Mallow						
Myrsinaceae							
Angophora floribunda	Rough-barked Apple						
Fucalyptus albens	White Box						
Eucalyptus albens	White Box						



SCIENTIFIC NAME	COMMON NAME	BC	EPBC	SAII	REGIONALLY	BIOSECURITY	
		ACT	ACT		SIGNIFICANT	ACT 2015	
Eucalyptus blakelyi	Blakely's Red Gum						
Eucalyptus moluccana	Grey Box						
Oxalidaceae							
Oxalis corniculata	Creeping Oxalis						
Oxalis perennans	-						
_							
Papaveraceae							
*Fumaria bastardii	Bastard's Fumitory						
*Fumaria capreolota	White-flower Fumitory						
Plantaginaceae							
*Plantago lanceolata	Plantain						
Polygonaceae							
Persicaria decipens	Slender Knotweed						
Rumex brownii	Swamp Dock						
*Rumex crispus	Curled Dock						
Primulaceae							
*Lysimachia arvensis syn. Anagallis arvensis	Scarlet Pimpernel						
Rubiaceae							
*Galium aparine	Clevers						
Rutaceae							
Geijera parviflora	Wilga						
Scrophulariaceae							
Myoporum montanum	Western Boobialla						
Solanaceae							
*Datura stramonium	Common Thornapple						
*Lycium ferocissimum	African Boxthorn						



SCIENTIFIC NAME	COMMON NAME	BC ACT	EPBC ACT	SAII	REGIONALLY SIGNIFICANT	BIOSECURITY ACT 2015	
Urticaceae							
*Urtica urens	Small Nettle						
Verbenaceae							
*Verbena bonariensis	Purple Top						



APPENDIX B

SURVEYED TREE DATA



Significant Tree Data Key for Table B1.

- ***DBH** Diameter at Breast Height. Tree trunk diameter measured at breast height (1.4 metres above ground level).
- *Tree Height –(m)
- Coordinates GDA 2020, MGA 56
- Habitat/Hollows Class 1 – very large sized hollow openings (i.e., >20cm) suitable for species such as Owls
 Class 2 – large sized hollow openings (i.e., 15-20cm) suitable for species such as Owls and Possums
 - **Class 3** medium sized hollow-openings (i.e., 5-15cm) suitable for species such as Gliders and Possums
 - **Class 4 –** small sized hollow openings (i.e., <5cm) suitable for species such as microchiropteran bats.
 - Spout Hollow opening towards sky offering little protection from the weather
 - Arboreal Termite Nest provides potential nesting opportunities for hollow-dependent birds, such as kingfishers and kookaburras



Table B1: Details of significant trees impacted by the proposal.

Tree No.	Species	COORDINATES GDA – 2020 Easting	COORDINATES GDA – 2020 Northing	*DBH (M)	*Height (M)	Photo No.	Habitat/Comments	Removal Required?
1.	*Schinus molle var. areira	286235	6567089	0.21	4.5	#0156	Forked Tree	Vos
2.	*Schinus molle var. areira Pepper Tree	286228	6567091	0.61 0.40	6	#0161 - #0164	2 x class 2-1 hollows 1 x class 4 hollow Forked Tree	Yes
3.	<i>Geijera parviflora</i> Wilga	286224	6567097	0.45	7	#0165	On fence	Yes
4.	Dead Tree	286222	6567097	0.41 0.43	7		Forked Tree 2 x class 3 hollows 4 x class 4 hollows	Yes
5.	*Schinus molle var. areira Pepper Tree	286218	6567089	0.25 0.24 0.30	6	#0178	1 x class 4 hollow Three stems Birds Nest in canopy	Yes
6.	<i>Geijera parviflora</i> Wilga	286215	6567089	0.15 0.09	3		Small specimen of <i>Brachychiton populneus</i> (Kurrajong) nearby.	Yes
7.	*Schinus molle var. areira Pepper Tree	286172	6567096	0.23	4.5			No
8.	<i>Myoporum montanum</i> Western Boobialla	286171	6567097	0.11	3	#0194		
9.	*Schinus molle var. areira Pepper Tree	286167	6567097	0.42	9			No
10.	<i>Geijera parviflora</i> Wilga	286169	6567102	0.26 0.19	4		1 x class 1 hollow at base	No
11.	*Schinus molle var. areira Pepper Tree	286235	6567294	0.25 0.20 0.19	4	#0261	Area of African Boxthorn on other side of proposed access from Tree No. 11.	No
12.	<i>Eucalyptus albens</i> White Box	286312	6567780	1.20	16	#0283	1 x class 3 hollows 3 x class 4 hollows Stick nest in tree	No
13.	<i>Eucalyptus albens</i> White Box	286196	6567837	1.13	16	#0293	1 x class 3 hollow 3 x class 4 hollows	No
14.	<i>Eucalyptus albens</i> White Box	286263	6567875	0.92	14		3 x class 3 hollows 3 x class 4 hollows	No

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Tree No.	Species	COORDINATES GDA – 2020 Easting	COORDINATES GDA – 2020 Northing	*DBH (M)	*Height (M)	Photo No.	Habitat/Comments	Removal Required?
							Birds stick nest	
15.	<i>Eucalyptus blakelyi</i> Blakely's Red Gum	286263	6567992	0.46 0.30 0.56 0.52	11	#0350	Dead Red Fox under tree	No
16.	*Schinus molle var. areira Pepper Tree	286199	6567984	0.47	4		3 x class 4 hollows	No
17.	Brachychiton populneus Kurrajong	286198	6567978	0.61	8		1 x class 3 hollows 1 x class 4 hollows	No
18.	Brachychiton populneus Kurrajong	286198	6567972	0.26	56			No
19.	Brachychiton populneus Kurrajong	286196	6567968	0.27	8			No
20.	Dead Tree	285973	6568158	0.61	10		1 x class 4 hollows	No
21.	*Schinus molle var. areira Pepper Tree	285851	6568661	0.25	5			Yes
22.	*Schinus molle var. areira Pepper Tree	285849	6568662	0.43	5	#0395	Active Magpie Nest	Yes
23.	<i>Eucalyptus albens</i> White Box	285587	6568852	0.64	6	#0408 #0409	1 x Class 1 hollow through entire centre of the tree	Yes
24.	<i>Eucalyptus albens</i> White Box	285589	6568856	0.67	7	#0410	1 x Class 1 hollow through entire centre of the tree opening 3m up trunk. Scar side of tree.	Yes
25.	<i>Eucalyptus albens</i> White Box (Dead Tree)	286073	6568787	0.44	8	#0414	Bark rubbed off by cattle	No
26.	<i>Eucalyptus blakelyi</i> Blakely's Red Gum	286072	6568792	0.47	10	#0416		No
27.	Brachychiton populneus Kurrajong	286075	6568805	0.27	7	#0419		No
28.	<i>Eucalyptus albens</i> White Box	286080	6569219	0.28	8			No
29.	<i>Eucalyptus albens</i> White Box	286092	6569220	0.69	12		Magpie Nest	No
30.	<i>Eucalyptus blakelyi</i> Blakely's Red Gum	286105	6569219	0.36 0.21	11			No

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Tree No.	Species	COORDINATES GDA – 2020 Easting	COORDINATES GDA – 2020 Northing	*DBH (M)	*Height (M)	Photo No.	Habitat/Comments	Removal Required?
31.	Dead Tree	286111	6569216	0.21	5			No
32.	<i>Eucalyptus albens</i> White Box	286096	6568230	0.7 0.75	14		1 x class 3 hollow 3 x class 4 hollows	No



APPENDIX C SEARS



Department of Planning, Housing and Infrastructure

20 May 2024

Mr David Ireland AAM Investment Group c/o-PAS Consulting PO Box 10824 Adelaide St Brisbane QLD 4000 EF24/6645 SEAR 1890

Dear Mr Ireland

Poultry Farm 2432 Oxley Highway Bective (Lot 161 DP 755319) – Tamworth LGA Planning Secretary's Environmental Assessment Requirements (SEAR) 1890

Thank you for your request for the Planning Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an Environmental Impact Statement (EIS) for the above development proposal. I have attached a copy of these requirements.

In support of your application, you indicated that your proposal is both designated and integrated development under Part 4 of the *Environmental Planning and Assessment Act* 1979 and requires an approval under the *Protection of the Environment Operations Act* 1997, *Rural Fires Act* 1997 and *Roads Act* 1993. In preparing the SEARs, the Department of Planning, Housing and Infrastructure (the Department) has consulted with the Environment Protection Authority, Department of Primary Industries and Transport for NSW. A copy of their requirements is attached.

Unfortunately, NSW Rural Fire Service was unable to respond in time. You must undertake direct consultation with them and address their requirements in the EIS.

If other integrated approvals are identified before the Development Application (DA) is lodged, you must undertake direct consultation with the relevant agencies, and address their requirements in the EIS.

If your proposal contains any actions that could have a significant impact on matters of National Environmental Significance, then it will require an additional approval under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This approval is in addition to any approvals required under NSW legislation. If you have any questions about the application of the EPBC Act to your proposal, you should contact the Commonwealth Department of Climate Change, Energy, the Environment and Water on (02) 6274 1111.

Should you have any further enquiries, please contact Laura Evert, Planning and Assessment, at the Department on (02) 8289 6613 or via <u>laura.evert@dpie.nsw.gov.au</u>.

Yours sincerely

Chris Ritchie Director Industry Assessments as delegate of the Planning Secretary

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Department of Planning, Housing and Infrastructure



Planning Secretary's Environmental Assessment Requirements

Section 4.12(8) of the *Environmental Planning and Assessment Act* 1979. Schedule 3 of the Environmental Planning and Assessment Regulation 2021.

Designated Development

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	 a detailed description of the contingency measures that would be implemented for the mass disposal of livestock in the event of disease outbreak.
	 air quality – including: a description of all potential sources of air and odour emissions during construction and operation a quantitative assessment of the potential cumulative air quality, dust and odour impacts of this development and nearby development, during both construction and operation, in accordance with relevant Environment Protection Authority guidelines, including Approved Methods for Modelling and Assessment of Air Pollutants in NSW 2022. a description and appraisal of air quality impact mitigation and monitoring measures.
	 waste management – including: details of waste handling including transport, identification, receipt, stockpiling and quality control including off-site reuse and disposal detail of waste management including spent litter, manure and disposal of dead birds the measures that would be implemented to ensure that the proposed development is consistent with the aims, objectives and guidelines in the NSW Waste Avoidance and Sustainable Materials Strategy 2041.
	 hazards and risk – including: a preliminary risk screening completed in accordance with State Environmental Planning Policy (Resilience and Hazards) 2021, Chapter 3 and Applying SEPP 33 (DoP, 2011), with a clear indication of class, quantity and location of all dangerous goods and hazardous materials associated with the development. Should preliminary screening indicate that the project is "potentially hazardous" a Preliminary Hazard Analysis (PHA) must be prepared in accordance with Hazardous Industry Planning Advisory Paper No. 6 - Guidelines for Hazard Analysis (DoP, 2011) and Multi-Level Risk Assessment (DoP, 2011).
	 soil and water - including: a description of local soils, topography, drainage and landscapes details of water usage for the proposal including existing and proposed water licencing requirements in accordance with the Water Act 1912 and/or the Water Management Act 2000 an assessment of potential impacts on floodplain management and any impact to flooding in the catchment details of sediment and erosion controls a detailed site water balance an assessment of potential impacts on the quality and quantity of surface and groundwater resources details of the proposed stormwater and wastewater management systems (including sewage), water monitoring program and other measures to mitigate surface and groundwater impacts a description and appraisal of impact mitigation and monitoring measures.
	 traffic and transport – including: details of road transport routes and access to the site road traffic predictions for the development during construction and operation

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	 an assessment of impacts to the safety and function of the road network and the details of any road upgrades required for the development.
	 noise and vibration – including: a description of all potential noise and vibration sources during construction and operation, including road traffic noise a noise and vibration assessment in accordance with the relevant Environment Protection Authority guidelines a description and appraisal of noise and vibration mitigation and monitoring measures.
	 biodiversity – including a description of any potential vegetation clearing needed to undertake the proposal and any impacts on flora and fauna.
	 food safety – including details of how the proposed development would meet the relevant Australia Standards and NSW Food Authority Standards in relation to meat handling and processing
	 visual – including an impact assessment at private receptors and public vantage points.
	heritage – including Aboriginal and non-Aboriginal cultural heritage.
Environmental Planning Instruments and other policies	 The EIS must assess the proposal against the relevant environmental planning instruments, including but not limited to: State Environmental Planning Policy (Transport and Infrastructure) 2021 State Environmental Planning Policy (Primary Production) 2021 Tamworth Regional Local Environmental Plan 2010 relevant development control plans and section 7.11 plans.
Guidelines	During the preparation of the EIS you should consult the Department's Register of Development Assessment Guidelines which is available on the Department's website at <u>https://www.planning.nsw.gov.au/Assess-and- Regulate/Development-Assessment/Industries</u> . Whilst not exhaustive, this Register contains some of the guidelines, policies, and plans that must be taken into account in the environmental assessment of the proposed development.
Consultation	 During the preparation of the EIS, you must consult the relevant local, State and Commonwealth government authorities, service providers and community groups, and address any issues they may raise in the EIS. In particular, you should consult with the: Department of Climate Change, Energy, the Environment and Water, specifically the: Environment Protection Authority Department of Regional NSW, specifically: Department of Primary Industries – Agriculture Transport for NSW NSW Rural Fire Service Tamworth Local Aboriginal Land Council Tamworth Regional Council the surrounding landowners and occupiers that are likely to be impacted by the proposal. Details of the consultation carried out and issues raised must be included in the EIS.
Further consultation after	If you do not lodge an application under Section 4.12(8) of the Environmental Planning and Assessment Act 1979 within 2 years of the issue date of these

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2 years SEARs, you must consult with the Planning Secretary in relation to any further requirements for lodgement.

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APPENDIX D

NATIONAL PMST SEARCH





Australian Government

Department of Climate Change, Energy, the Environment and Water

EPBC Act Protected Matters Report

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

Report created: 13-Aug-2024

Summary Details Matters of NES Other Matters Protected by the EPBC Act Extra Information Caveat Acknowledgements



Summary

Matters of National Environment Significance

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

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	3
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	4
Listed Threatened Species:	39
Listed Migratory Species:	10

Other Matters Protected by the EPBC Act

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

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

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

Commonwealth Lands:	1
Commonwealth Heritage Places:	None
Listed Marine Species:	18
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

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

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	5
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None



Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar Wetlands)		[Resource Information]
Ramsar Site Name	Proximity	Buffer Status
Banrock station wetland complex	1000 - 1100km upstream from Ramsar site	In feature area
Riverland	900 - 1000km upstream from Ramsar site	In feature area
The coorong, and lakes alexandrina and albert wetland	1100 - 1200km upstream from Ramsar site	In feature area

Listed Threatened Ecological Communities	[Resource Information
For threatened ecological communities where the distribution is well known, may	os are derived from recovery
plans, State vegetation maps, remote sensing imagery and other sources. When	e threatened ecological
community distributions are less well known, existing vegetation maps and point	location data are used to
produce indicative distribution maps.	
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC 4	Act

Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Natural grasslands on basalt and fine- textured alluvial plains of northern New South Wales and southern Queensland	Critically Endangered	Community likely to occur within area	In feature area
<u>New England Peppermint (Eucalyptus</u> nova-anglica) Grassy Woodlands	Critically Endangered	Community may occu within area	rIn feature area
Weeping Myall Woodlands	Endangered	Community may occu within area	rIn feature area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area	In feature area

Listed Threatened Species			[Resource Information]
Status of Conservation Dependent and Extinct are not MNES under the EPBC Act. Number is the current name ID.			
Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			



Scientific Name	Threatened Category	Presence Text	Buffer Status
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<u>Botaurus poiciloptilus</u> Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
<u>Calidris ferruginea</u> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
<u>Calyptorhynchus lathami lathami</u> South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<u>Climacteris picumnus victoriae</u> Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<u>Gallinago hardwickii</u> Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area	In feature area
<u>Grantiella picta</u> Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area



Scientific Name	Threatened Category	Presence Text	Buffer Status
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area	In feature area
<u>Melanodryas cucullata cucullata</u> South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat likely to occur within area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area	In feature area
<u>Polytelis swainsonii</u> Superb Parrot [738]	Vulnerable	Species or species habitat may occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
<u>Stagonopleura guttata</u> Diamond Firetail [59398]	Vulnerable	Species or species habitat known to occur within area	In feature area
FISH			
<u>Maccullochella peelii</u> Murray Cod [66633]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
FROG			
<u>Litoria booroolongensis</u> Booroolong Frog [1844]	Endangered	Species or species habitat may occur within area	In buffer area only
MAMMAL			
<u>Chalinolobus dwyeri</u> Large-eared Pied Bat, Large Pied Bat [183]	Endangered	Species or species habitat likely to occur within area	In feature area
Dasyurus maculatus maculatus (SE main Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	land population) Endangered	Species or species habitat known to occur within area	In feature area
<u>Nyctophilus corbeni</u> Corben's Long-eared Bat, South-eastern Long-eared Bat [83395]	Vulnerable	Species or species habitat likely to occur within area	In feature area



Scientific Name	Threatened Category	Presence Text	Buffer Status
Phascolarctos cinereus (combined popula	ations of Qld, NSW and th	<u>e ACT)</u>	
Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat likely to occur within area	In feature area
Pteropus poliocephalus	N/ 1	- · · · ·	
Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
PLANT			
Cadellia pentastylis			
Ooline [9828]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Callistemon pungens			
[55581]	Vulnerable	Species or species habitat may occur within area	In feature area
Dichanthium setosum			
bluegrass [14159]	Vulnerable	Species or species habitat known to occur within area	In feature area
Eucalyptus nicholii			
Narrow-leaved Peppermint, Narrow- leaved Black Peppermint [20992]	Vulnerable	Species or species habitat may occur within area	In feature area
Euphrasia arguta			
[4325]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Lepidium aschersonii			
Spiny Peppercress [10976]	Vulnerable	Species or species habitat may occur within area	In feature area
Lepidium monoplocoides Winged Pepper-cress [9190]	Endangered	Species or species	In feature area
		habitat may occur within area	
Prasophyllum sp. Wybong (C.Phelps OR	<u>G 5269)</u>		
a leek-orchid [81964]	Critically Endangered	Species or species habitat may occur within area	In feature area
Swainsona murrayana			
Slender Darling-pea, Slender Swainson, Murray Swainson-pea [6765]	Vulnerable	Species or species habitat may occur within area	In feature area



Scientific Name	Threatened Category	Presence Text	Buffer Status
<u>Thesium australe</u> Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Vincetoxicum forsteri listed as Tylophora	linearis		
[92384]	Endangered	Species or species habitat may occur within area	In feature area
REPTILE			
Anomalopus mackavi			
Five-clawed Worm-skink, Long-legged Worm-skink [25934]	Vulnerable	Species or species habitat may occur within area	In feature area
Aprasia parapulchella			
Pink-tailed Worm-lizard, Pink-tailed Legless Lizard [1665]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Hemiaspis damelii			
Grey Snake [1179]	Endangered	Species or species habitat may occur within area	In feature area
Lividicolus sobyrurus			
Border Thick-tailed Gecko, Granite Belt Thick-tailed Gecko [84578]	Vulnerable	Species or species habitat known to occur within area	In feature area
Listed Migratory Species		[Reg	source Information
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds	Throatoniou outogory		Buildi Glatao
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Migratory Terrestrial Species			
Hirundapus caudacutus			
White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Motacilla flava			
Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Myiagra cyanoleuca			
Satin Flycatcher [612]		Species or species habitat known to occur within area	In feature area



Scientific Name	Threatened Category	Presence Text	Buffer Status
Rhipidura rufifrons			
Rufous Fantail [592]		Species or species habitat known to occur within area	In buffer area only
Migratory Wetlands Species			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Calidris acuminata			
Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Colidria formazinaa			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidria malanatas			
Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Gallinago hardwickij			
Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area	In feature area

Other Matters Protected by the EPBC Act

Commonwealth Lands		[Resource Information]		
The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due t the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.				
Commonwealth Land Name	State	Buffer Status		
Communications, Information Technology and the Arts - Telstra Corporation Limited				
Commonwealth Land - Australian Telecommunications Commission [129	43]NSW	In buffer area only		

Listed Marine Species		[<u>R</u> e	source Information
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area



Scientific Name	Threatened Category	Presence Text	Buffer Status
<u>Apus pacificus</u> Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
<u>Calidris ferruginea</u> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Chalcites osculans as Chrysococcyx oscu Black-eared Cuckoo [83425]	<u>ulans</u>	Species or species habitat likely to occur within area overfly marine area	In feature area
<u>Gallinago hardwickii</u> Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area



Scientific Name	Threatened Category	Presence Text	Buffer Status		
Merops ornatus					
Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area		
Motacilla flava					
Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area		
<u>Mviagra cyanoleuca</u>					
Satin Flycatcher [612]		Species or species habitat known to occur within area overfly marine area	In feature area		
Neophema chrysostoma					
Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area overfly marine area	In feature area		
Pterodroma cervicalis					
White-necked Petrel [59642]		Species or species habitat may occur within area	In feature area		
Rhipidura rufifrons					
Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area	In buffer area only		
Rostratula australis as Rostratula benghalensis (sensu lato)					
Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area		

Extra Information

EPBC Act Referrals			[Resou	ce Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
One Tree Hill Estate - Stage 13	2003/1142	Controlled Action	Post-Approval	In buffer area only
Operation of Peel River Drought Protection Works	2019/8590	Controlled Action	Post-Approval	In buffer area only

Not controlled action



Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status	
Not controlled action					
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area	
Tamworth Solar Farm	2020/8639	Not Controlled Action	Completed	In buffer area only	
Not controlled action (particular manner)					
Aerial baiting for wild dog control	2006/2713	Not Controlled Action (Particular Manner)	Post-Approval	In feature area	



Caveat

PURPOSE

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

The report contains the mapped locations of:

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

2 DISCLAIMER

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

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

3 DATA SOURCES

Threatened ecological communities

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

Threatened, migratory and marine species

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

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

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

4 LIMITATIONS

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

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

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

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

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

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



Acknowledgements

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

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

-Other groups and individuals

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



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

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