

# BLACKWOOD ECOLOGICAL SERVICES



## Ecological assessment



146-152 Johnston St, Casino  
A Report to Momentum Collective  
November 2023



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# 1 INTRODUCTION

## 1.1 Background

Blackwood Ecological Services has been engaged by Momentum Collective to complete an Ecological Assessment for the proposed development of an affordable housing & commercial space at 146-152 Johnston Street, Casino.

The proposed development will require the removal of an established Forest red gum within part of the site subject to the proposed development.

## 1.2 Subject site

The Subject site refers to the area directly affected by the proposal. The Subject site for this study consists of land within the grounds of 146-152 Johnston Street, Casino. **FIGURE 1** shows the location of the site. **FIGURE 2** shows the area subject to the field survey.

The Subject site is bordered by residential housing to the north, Clark Street to the east, Johnston Street (Bruxner Highway) to the south and commercial buildings to the west.

## 1.3 Study area

The Study area refers to the Subject site together with any additional areas which are likely to be affected by the proposal, either directly or indirectly. The Study area includes areas of vegetation to the south along the Richmond River as well as occasional trees and other vegetation within Albert Park and neighbouring properties.

The Richmond River is located approximately 200m to the south of the Subject site.

No waterbodies are present on the Subject site.

## 1.4 Proposed development

**APPENDIX A** includes the proposed long term master plan for the site and shows the proposed building works associated with the development.

## 2 FLORA

### 2.1 Introduction

This section discusses the methods used in the vegetation assessment and presents the results of the assessment. Relevant databases and reports were reviewed to identify records of locally occurring Threatened and Rare plant species, populations and communities. Site assessments were completed on the 9th of November 2023.

The objectives of the site assessment were:

- To identify vegetation communities and flora species present on the site.
- To complete targeted searches for significant flora species known from the locality and considered possible occurrences based on an assessment of site habitats.
- To identify potential impacts including vegetation removal and trimming likely as a result of the proposed works.

### 2.2 Database searches

#### 2.2.1 NPWS Database search

A search of the NPWS Database revealed records of 7 Threatened flora species within 5km of the Subject site. These species are shown in **TABLE 1**.

**TABLE 1**  
**NPWS DATABASE RECORDS OF THREATENED FLORA**  
**SPECIES WITHIN 5 KM OF THE SUBJECT SITE**

Botanical name	Common name	NSW Status
<i>Archidendron hendersonii</i>	White Lace Flower	V
<i>Desmodium acanthocladum</i>	Thorny Pea	V
<i>Gossia fragrantissima</i>	Sweet Myrtle	E1
<i>Grevillea hilliana</i>	White Yiel Yiel	E1
<i>Melaleuca irbyana</i>	Weeping Paperbark	E1
<i>Rhodomyrtus psidioides</i>	Native Guava	E4A
<i>Sophora fraseri</i>	Brush Sophora	V

#### KEY

E1	Endangered
E4A	Critically endangered
V	Vulnerable

#### 2.2.2 Commonwealth EPBC Act (1999) Database search

A search of the Commonwealth EPBC Act (1999) Database revealed potential suitable habitat for a number of Threatened flora species and Endangered ecological communities (EECs) within 5km of the Subject site. These species are shown in **TABLE 2**. The Commonwealth EPBC Act Protected Matters Report is included in full in **APPENDIX B**.

**TABLE 2**  
**COMMONWEALTH EPBC ACT (1999) DATABASE SEARCH RESULTS**  
**THREATENED FLORA SPECIES WITH POTENTIAL HABITAT**  
**WITHIN 5 KM RADIUS OF THE SUBJECT SITE**

Botanical name	Common Name	Status
<i>Arthraxon hispidus</i>	Hairy-joint Grass	V
<i>Bosistoa transversa</i>	Three-leaved Bosistoa	V
<i>Bulbophyllum globuliforme</i>	Miniature Moss-orchid	V



<i>Clematis fawcettii</i>	Stream Clematis	V
<i>Dichanthium setosum</i>	bluegrass	V
<i>Eucalyptus glaucina</i>	Slaty Red Gum	V
<i>Macadamia integrifolia</i>	Macadamia Nut	V
<i>Macadamia tetraphylla</i>	Rough-shelled Bush Nut	V
<i>Myrsine richmondensis</i>	Purple-leaf Muttonwood	E
<i>Owenia cepiodora</i>	Onionwood	V
<i>Pedleya acanthoclada</i>	Thorny Pea	V
<i>Persicaria elatior</i>	Knotweed	V
<i>Rhodamnia rubescens</i>	Scrub Turpentine	CE
<i>Rhodomyrtus psidioides</i>	Native Guava	CE
<i>Thesium australe</i>	Austral Toadflax	V
<i>Vincetoxicum woollsii</i>		E
<b>EECs</b>		
Coastal Swamp oak forest of NSW and SEQ		E
Coastal Swamp Sclerophyll Forest of NSW and SEQ		E
Lowland Rainforest of Subtropical Australia		CE
Subtropical eucalypt floodplain forest and woodland of NSW and SEQ		E

**KEY**

CE	Critically Endangered
E	Endangered
V	Vulnerable

## 2.3 Site assessment

### 2.3.1 Existing vegetation

This section discusses individual trees and vegetation communities located within the area subject to the proposed development. **FIGURE 2** shows the location of vegetation.

Vegetation within the Subject site consists of a mixed species exotic grassland with a single established Forest red gum (*Eucalyptus tereticornis*) located in the south-east corner of the site. A regenerating Cockspur thorn (*Maclura cochinchinensis*) occurs at the base of the Forest red gum.

Grassland areas are comprised of Rhodes grass and Couch with occasional broad-leaf weeds including Plantain, Clustered dock and Cobblers pegs.

Outside of the Subject site, along the northern boundary fenceline is a hedge planting consisting of Brush cherry, Willow bottlebrush, Weeping bottlebrush, Black tea-tree and occasional fruit trees.



Established Forest red gum in the south-east of the Subject site

### ***2.3.2 Threatened Ecological Communities***

Vegetation communities on the Subject site were compared with descriptions of vegetation communities listed as Threatened Ecological Communities under the NSW Biodiversity Conservation Act (2016) and the EPBC Act (1999).

Vegetation consists of a single Forest red gum, a regenerating Cockspur thorn and exotic open grassland and is not consistent with the description of any TEC.

### ***2.3.3 Significant species***

No Threatened plant species were recorded within the Subject site or are considered likely to occur.

## 3 FAUNA

### 3.1 Introduction

This section discusses the methods used in the fauna assessment and presents the results of the assessment. Relevant databases and reports were reviewed to identify records of locally occurring Threatened fauna species, populations and communities.

The fauna assessment consisted of:

- A review of relevant databases and literature.
- An assessment of site fauna habitats.

Site habitats were assessed in terms of their value for native fauna species. The site assessment was completed in conjunction with the flora assessment. The assessment focused on identifying habitat features associated with Threatened species known from the locality. Particular attention was paid to habitat features such as:

- The presence of mature trees with hollows, fissures and/or other suitable roosting/nesting places.
- Presence of hollow logs/debris and areas of dense leaf litter.
- The presence of Grey-headed Flying Fox camps
- The presence of preferred Koala food tree species.
- The presence of preferred Glossy black cockatoo feed trees.
- Condition, flow and water quality of drainage lines and bodies of water.
- Areas of dense vegetation.
- Presence of fruiting flora species and blossoming flora species, particularly winter-flowering species.
- Vegetation connectivity and proximity to neighbouring areas of vegetation.
- Presence of caves, hollow trees and/or man-made structures suitable as microchiropteran bat roost sites.

### 3.2 Database searches

#### 3.2.1 NPWS Database search

A search of the NPWS Database revealed records of 29 Threatened fauna species within 5km of the Subject site. These species are shown in **TABLE 3**.

**TABLE 3**  
**NPWS DATABASE RECORDS OF THREATENED FAUNA**  
**SPECIES WITHIN 5 KM OF THE SUBJECT SITE**

Botanical name	Common name	NSW Status
<i>Anseranas semipalmata</i>	Magpie Goose	V
<i>Ninox strenua</i>	Powerful Owl	V
<i>Pandion cristatus</i>	Eastern Osprey	V
<i>Tyto longimembris</i>	Eastern Grass Owl	V
<i>Calyptorhynchus lathami lathami</i>	South-eastern Glossy Black-Cockatoo	V
<i>Calidris ferruginea</i>	Curlew Sandpiper	E1
<i>Carterornis leucotis</i>	White-eared Monarch	V
<i>Ephippiorhynchus asiaticus</i>	Black-necked Stork	E1
<i>Falsistrellus tasmaniensis</i>	Eastern False Pipistrelle	V
<i>Haliaeetus leucogaster</i>	White-bellied Sea-Eagle	V
<i>Irediparra gallinacea</i>	Comb-crested Jacana	V



Botanical name	Common name	NSW Status
<i>Ixobrychus flavicollis</i>	Black Bittern	V
<i>Limosa limosa</i>	Black-tailed Godwit	V
<i>Macropus dorsalis</i>	Black-striped Wallaby	E1
<i>Micronomus norfolkensis</i>	Eastern Coastal Free-tailed Bat	V
<i>Miniopterus australis</i>	Little Bent-winged Bat	V
<i>Miniopterus orianae oceanensis</i>	Large Bent-winged Bat	V
<i>Nyctophilus bifax</i>	Eastern Long-eared Bat	V
<i>Oxyura australis</i>	Blue-billed Duck	V
<i>Petaurus norfolcensis</i>	Squirrel Glider	V
<i>Phaethon rubricauda</i>	Red-tailed Tropicbird	V
<i>Phascogale tapoatafa</i>	Brush-tailed Phascogale	V
<i>Phascolarctos cinereus</i>	Koala	E1
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	V
<i>Rostratula australis</i>	Australian Painted Snipe	E1
<i>Scoteanax rueppellii</i>	Greater Broad-nosed Bat	V
<i>Stictonetta naevosa</i>	Freckled Duck	V
<i>Thylogale stigmatica</i>	Red-legged Pademelon	V

**KEY**

E1	Endangered
E4A	Critically endangered
V	Vulnerable

### 3.2.2 Commonwealth EPBC Act (1999) Database search

A search of the Commonwealth EPBC Act (1999) Database revealed potential suitable habitat for a number of Threatened fauna species within 5km of the Subject site. These species are shown in **TABLE 4**.

The Commonwealth EPBC Act Protected Matters Report is included in full in **APPENDIX B**.

**TABLE 4**  
**COMMONWEALTH EPBC ACT (1999) DATABASE RESULTS**  
**THREATENED FAUNA SPECIES WITH POTENTIAL HABITAT**  
**WITHIN 5KM OF THE SUBJECT SITE**

Botanical Name	Common name	Status
<b>Birds</b>		
<i>Anthochaera phrygia</i>	Regent Honeyeater	CE
<i>Botaurus poiciloptilus</i>	Australasian Bittern	E
<i>Calidris ferruginea</i>	Curlew Sandpiper	CE
<i>Calyptorhynchus lathami lathami</i>	South-eastern Glossy Black-Cockatoo	V
<i>Climacteris picumnus victoriae</i>	Brown Treecreeper (south-eastern)	V
<i>Cyclopsitta diophthalma coxeni</i>	Coxen's Fig-Parrot	CE
<i>Dasyornis brachypterus</i>	Eastern Bristlebird	E
<i>Erythroriorchis radiatus</i>	Red Goshawk	E
<i>Falco hypoleucos</i>	Grey Falcon	V
<i>Grantiella picta</i>	Painted Honeyeater	V
<i>Hirundapus caudacutus</i>	White-throated Needle-tail	V
<i>Lathamus discolor</i>	Swift Parrot	CE
<i>Melanodryas cucullata cucullata</i>	South-eastern Hooded Robin	E
<i>Rostratula australis</i>	Australian Painted Snipe	E
<i>Stagonopleura guttata</i>	Diamond Firetail	V
<i>Turnix melanogaster</i>	Black-breasted Button-quail	V

Botanical Name	Common name	Status
<b>Mammals</b>		
<i>Chalinolobus dwyeri</i>	Large-eared Pied Bat	V
<i>Dasyurus maculatus maculatus</i>	Spot-tailed Quoll	E
<i>Notamacropus parma</i>	Parma Wallaby	V
<i>Petauroides volans</i>	Greater Glider (southern and central)	E
<i>Petaurus australis australis</i>	Yellow-bellied Glider (south-eastern)	V
<i>Petrogale penicillata</i>	Brush-tailed Rock-wallaby	V
<i>Phascolarctos cinereus</i>	Koala	E
<i>Potorous tridactylus tridactylus</i>	Long-nosed Potoroo (northern)	V
<i>Pseudomys novaehollandiae</i>	New Holland Mouse	V
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	V
<b>Amphibians</b>		
<i>Mixophyes fleayi</i>	Fleay's Frog	E
<b>Reptiles</b>		
<i>Three-toed snake-toothed skink</i>	Coeranoscincus reticulatus	V
<b>Fish</b>		
<i>Maccullochella ikei</i>	Eastern Freshwater Cod	E
<b>Insects</b>		
<i>Argynnis hyperbius inconstans</i>	Australian Fritillary	CE

**KEY**

- CE Critically endangered
- E Endangered
- V Vulnerable

### 3.3 Fauna assessment

#### 3.3.1 Introduction

This section discusses fauna habitat types within the Subject site. It includes a discussion of the ecological significance of these habitats including the potential for threatened and significant fauna species to occur in the Study area.

#### 3.3.2 Significant species

No Threatened (NSW BC Act 2016, EPBC Act 1999) fauna species were recorded during the site assessment.

#### 3.3.3 Fauna habitats

The Subject site consists of open grassland areas which have limited habitat value for all but the most common native species. Species tolerant of these more open disturbed landscapes may utilise the site for foraging including the Australian magpie, Noisy minor, Black butcher bird and the non-native Common myna.

The established Forest red gum provides habitat for some native species and provides a perch for avifauna. During times of flowering the tree would provide a resource for nectivorous birds such as Rainbow lorikeets and common mammals including Brushtail and Ringtail possums.

Riparian habitats in the vicinity of the site along Richmond River including degraded riparian vegetation and well-established eucalypts provide habitat for a relatively wide range of bird species such as flycatchers, wrens, kingfishers, and birds of prey. These species are unlikely to occur on the site except as flyovers.

Richmond Valley Council does not have a Comprehensive Koala Plan of Management. Forest red gum is a recognised Koala feed tree species. Despite targeted searches, no evidence of Koala activity (scats or scratches) was recorded on site. The NPWS Atlas of NSW Wildlife shows few records of Koalas in the neighbouring area and this species may occur in the Study area at times.

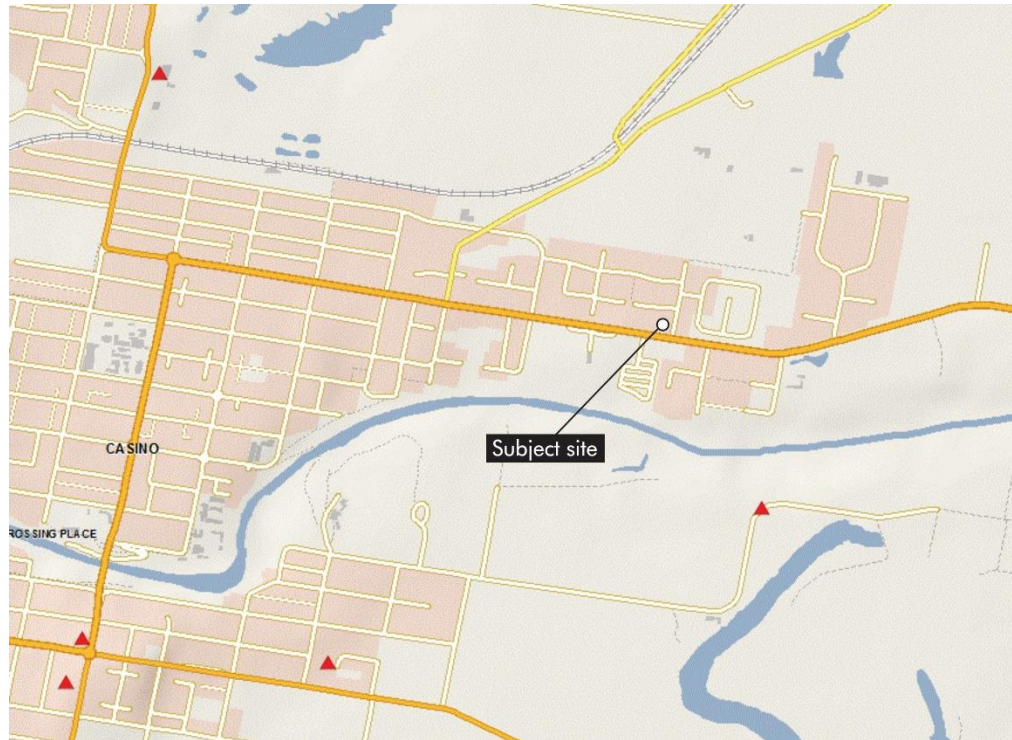


FIGURE 3 NPWS BIONET ATLAS OF NSW WILDLIFE KOALA SIGHTINGS

### 3.3.4 *Wildlife corridors and habitat connectivity*

Movement opportunities for fauna through this highly disturbed landscape are generally limited. Johnston Street severs linkages from the Subject site to areas of habitat along Richmond River. Riparian vegetation along the Richmond River, although sparse in some areas, provides an important movement corridor for fauna and connects to more substantial areas of bushland.

Vegetation within the Study area is likely to be utilised by common mobile fauna species, particularly birds and bats and species tolerant of more open and disturbed habitats.

### 3.3.5 *Potential occurrence of Threatened fauna*

The proposed development will have only minor impacts on native fauna habitats. Based upon this assessment no threatened fauna species are considered to have any degree of reliance on site habitats that may be affected by the proposed development.

## 4 POTENTIAL IMPACTS AND AMELIORATION MEASURES

### 4.1 Introduction

This section discusses potential impacts associated with the proposed development. The development of the Subject site and associated works will require the removal of all vegetation in this part of the site, consisting of:

- 1 Forest red gum
- 1 regenerating Cockspur thorn vine

This vegetation is shown in **FIGURE 2**.

### 4.2 Potential ecological impacts

#### 4.2.1 Flora

##### 4.2.1.1 Direct removal of vegetation

**TABLE 5** provides a summary of vegetation to be removed within the area subject to the covered court.

**TABLE 5**  
**VEGETATION PROPOSED TO BE REMOVED**

Common name	Botanical name	Height (m)	DBH (cm)	Canopy radius (m)
Forest red gum	<i>Eucalyptus tereticornis</i>	14	101cm	6
Cockspur thorn	<i>Maclura cochinchinensis</i>	0.3	n/a	n/a

Vegetation to be removed consists of one established Forest red gum and a regenerating Cockspur thorn.

Forest red gum in their natural state are components of the original native Northern Lowland Red Gum-Swamp Turpentine Grassy Forest of the area. The loss of this tree will make a minor contribution toward the reduction of this community type as well as representing a minor loss of habitat for native fauna.

##### 4.2.1.2 Indirect physical effects on vegetation adjacent to the works area

Due to the open and highly disturbed nature of the Subject site there is little potential for retained trees adjacent to the works footprint to be affected by accidental damage from construction vehicles or by root zone impacts.

##### 4.2.1.3 Creation of edge effects and introduction of weed species to the Study area

The site is open and developed and the proposed works will not result in edge effects being introduced into otherwise intact areas of vegetation.

##### 4.2.1.4 Impacts on significant flora species and TECs

No significant flora species were recorded or are considered likely to be impacted as a result of the proposed works.

Vegetation on the site is not consistent with the description of any TEC listed under NSW or Commonwealth legislation.

## **4.2.2 Fauna**

### **4.2.2.1 Loss of fauna habitat**

Fauna habitat within the site is likely to be utilised by a relatively limited range of fauna species due to historic disturbance and the fragmented nature of surrounding vegetation. Clearance of site vegetation will result in a minor loss of habitat for these species.

### **4.2.2.2 Degradation of neighbouring areas of habitat**

Due to the existing modified nature of site habitats and the absence of substantial native vegetation in close proximity, there is little potential for fauna habitat adjacent to the works area to be affected by accidental damage, sedimentation, introduction of weeds or other indirect effects.

### **4.2.2.3 Direct impacts on fauna**

As the tree to be removed is relatively young and does not provide any tree hollows, there is little potential for native fauna to be killed or injured as a result of tree removal activities or other construction works.

### **4.2.2.4 Impacts on corridor values**

Within the Study area, fauna movement opportunities are provided by occasional street trees, vegetation in recreational parks and areas of vegetation along the Richmond River. Johnston Street severs connectivity from the subject site to the south. The proposed works are unlikely to have any significant impact on fauna movement opportunities and would not sever any important wildlife corridors.

## 5 STATUTORY AND PLANNING ASSESSMENT

### 5.1 Introduction

This section includes assessments of the impacts of the Proposed development with regard to:

- The NSW Biodiversity Conservation Act 2016
- the Commonwealth Environment Protection and Biodiversity Conservation Act (1999).
- State Environmental Planning Policy (SEPP) Biodiversity and Conservation (2021)
- State Environmental Planning Policy (Resilience and Hazards) 2021

### 5.2 Biodiversity offset scheme (BOS) and Biodiversity Assessment Method (BAM)

#### 5.2.1 Introduction

The Biodiversity Offsets Scheme Threshold is a test used to determine when is necessary to engage an accredited assessor to apply the Ecological Assessment Method (the BAM) to assess the impacts of a proposal. It is used for local developments (development applications submitted to councils) and clearing that does not require development consent in urban areas and areas zoned for environmental conservation (under the State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017).

The Biodiversity Conservation Regulation 2017 sets out threshold levels for when the Biodiversity Offsets Scheme will be triggered. The threshold has two elements:

- whether the amount of native vegetation being cleared exceeds a threshold area set out below
- whether the impacts occur on an area mapped on the Biodiversity Values map published by the Minister for the Environment.

If clearing and other impacts exceeds either trigger, the Biodiversity Offset Scheme applies to the proposed development including biodiversity impacts prescribed by clause 6.1 of the Biodiversity Regulation 2017.

#### 5.2.2 Biodiversity offset scheme (BOS) Entry Test Report

The Biodiversity Offsets Scheme Entry Threshold Tool was accessed on 15th November 2023 following an initial site inspection. The BOSET map produced shows that the site does not contain any areas of mapped Biodiversity Values (see **FIGURE 4**).



FIGURE 4 AREAS OF MAPPED BIODIVERSITY VALUE IN THE VICINITY OF THE SITE

Proposed vegetation clearing will not exceed the *Area clearing threshold* trigger or the *Biodiversity values map* trigger.

The Threatened Species ‘test of significance’ is a requirement to be undertaken for local developments below the biodiversity threshold to consider threatened species, ecological communities, and their habitats, through the development assessment process. Following an assessment of site habitats, the proposed development is considered highly unlikely to have a significant impact on any Threatened species or communities.

The Biodiversity Assessment Method (BAM) will not need to be applied.

## 5.3 Commonwealth EPBC Act (1999)

### 5.3.1 Introduction

Under the environmental assessment provisions of the EPBC Act, actions that are likely to have a significant impact on a matter of National Environmental Significance are subject to a rigorous assessment and approval process. An action includes a project, development, undertaking, activity, or series of activities. An action will require approval from the Minister if the action has, will have, or is likely to have, a significant impact on a matter of national environmental significance.

The Act identifies seven matters of national environmental significance:

- World Heritage properties
- National heritage places
- Wetlands of international importance (Ramsar wetlands)

- Threatened species and ecological communities
- Migratory species
- Commonwealth marine areas
- Nuclear actions (including uranium mining)

The EPBC Act Policy Statement 1.1 Significant Impact Guidelines (DEH 2006) outline an assessment process, including detailed criteria, to assist in deciding whether or not referral to the Minister is required. These guidelines replace the EPBC Act Administrative Guidelines of July 2000.

Based upon this assessment, the proposed development is unlikely to result in a significant impact on any matters of National Environmental Significance (NES) as listed under the EPBC Act 1999.

## 5.4 Resilience and Hazards SEPP Coastal Wetlands & Littoral Rainforests

The Resilience and Hazards SEPP outlines a range of development controls that aim to help protect and manage our sensitive coastal environments, manage risks from coastal hazards, and support appropriate urban development. Development controls for the mapped coastal wetlands and littoral rainforests area aim to continue existing protections for these important ecological communities.

There are no mapped areas of Coastal wetland or Littoral rainforest within the vicinity of the Subject site.

## 5.5 State Environmental Planning Policy (Biodiversity & Conservation) 2021

The Subject site includes land zoned as E1 Local Centre and the Biodiversity and Conservation SEPP 2021 applies.

The State Environmental Planning Policy (Biodiversity and Conservation) 2021 replaces and repeals the State Environmental Planning Policy No 44 – Koala Habitat Protection (SEPP 44). The Koala Habitat Protections in the Biodiversity and Conservation SEPP apply to ‘development’ under Part 4 of the NSW Environmental Planning and Assessment Act 1979 (EP&A Act), specifically excluding Part 5 ‘activities’ (which are also excluded from assessment under the Biodiversity Assessment Method).

*Step 1: Is the proposal a Part 4 ‘development’ under the EP&A Act?*

If yes, proceed to step 2. If no, then Biodiversity and Conservation SEPP does not apply.

Yes.

*Step 2: Does a Koala Plan of Management exist for the LGA or the part of the LGA in which the site is located?*

If yes, the requirements of the KPOM are to be addressed. If no, then proceed to step 3.

No, Richmond Valley Council does not have a Koala Management Strategy.

*Step 3: Is the size of the land 1 hectare or more?*



No.

*Step 4: Does the land contain potential Koala habitat?*

Potential koala habitat means areas of native vegetation where trees of the types listed in Schedule 2 constitute at least 15% of the total number of trees in the upper or lower strata of the tree component.

No.

*Step 5: Does the land contain core Koala habitat?*

Core koala habitat means an area of land with a resident population of koalas, evidenced by attributes such as breeding females, being females with young, and recent sightings of and historical records of a population.

No evidence of Koala use was recorded and the site is less than 1 hectare in area. The site does not provide Core Koala Habitat.

## 6 SUMMARY AND CONCLUSIONS

Blackwood Ecological Services has been engaged by Momentum Collective to complete an Ecological Assessment for the proposed development of an affordable housing & commercial space at 146-152 Johnston Street, Casino. The Subject site is bordered by residential housing to the north, Clark Street to the east, Johnston Street (Bruxner Highway) to the south and commercial buildings to the west. The Richmond River is located approximately 200m to the south of the Subject site.

The proposed development will require the removal of an established Forest red gum within part of the site subject to the proposed development.

Site assessments were completed on the 9th of November 2023. The objectives of the site assessment were:

- To identify vegetation communities and flora species present on the site.
- To complete targeted searches for significant flora species known from the locality and considered possible occurrences based on an assessment of site habitats.
- To identify potential impacts including vegetation removal and trimming likely as a result of the proposed works.
- To assess the fauna habitat values of the site.

Vegetation within the Subject site consists of a mixed species exotic grassland with a single established Forest red gum (*Eucalyptus tereticornis*) located in the south-east corner of the site. A regenerating Cockspur thorn (*Maclura cochinchinensis*) occurs at the base of the Forest red gum.

Grassland areas are comprised of Rhodes grass and Couch with occasional broad-leaf weeds including Plantain, Clustered dock and Cobblers pegs. Outside of the Subject site, along the northern boundary fenceline is a hedge planting consisting of Brush cherry, Willow bottlebrush, Weeping bottlebrush, Black tea-tree and occasional fruit trees. Vegetation is not consistent with the description of any TEC. No Threatened plant species were recorded within the Subject site or are considered likely to occur.

No Threatened (NSW BC Act 2016, EPBC Act 1999) fauna species were recorded during the site assessment. Despite targeted searches, no evidence of Koala activity (scats or scratches) was recorded on site. The proposed development will have only minor impacts on native fauna habitats. Based upon this assessment no threatened fauna species are considered to have any degree of reliance on site habitats.

As the Forest red gum tree to be removed is relatively young and does not provide any tree hollows, there is little potential for native fauna to be killed or injured as a result of tree removal activities or other construction works.

Proposed vegetation clearing will not exceed the Area clearing threshold trigger or the Biodiversity values map trigger. The Biodiversity Assessment Method (BAM) will not need to be applied. The proposed development is unlikely to result in a significant impact on any matters of National Environmental Significance (NES) as listed under the EPBC Act 1999.

There are no mapped areas of Coastal wetland or Littoral rainforest within the vicinity of the Subject site. The Subject site includes land zoned as E1 Local Centre and the Biodiversity and



Conservation SEPP 2021 applies. No evidence of Koala use was recorded and the site is less than 1 hectare in area. The site does not provide Core Koala Habitat.

## 7 REFERENCES

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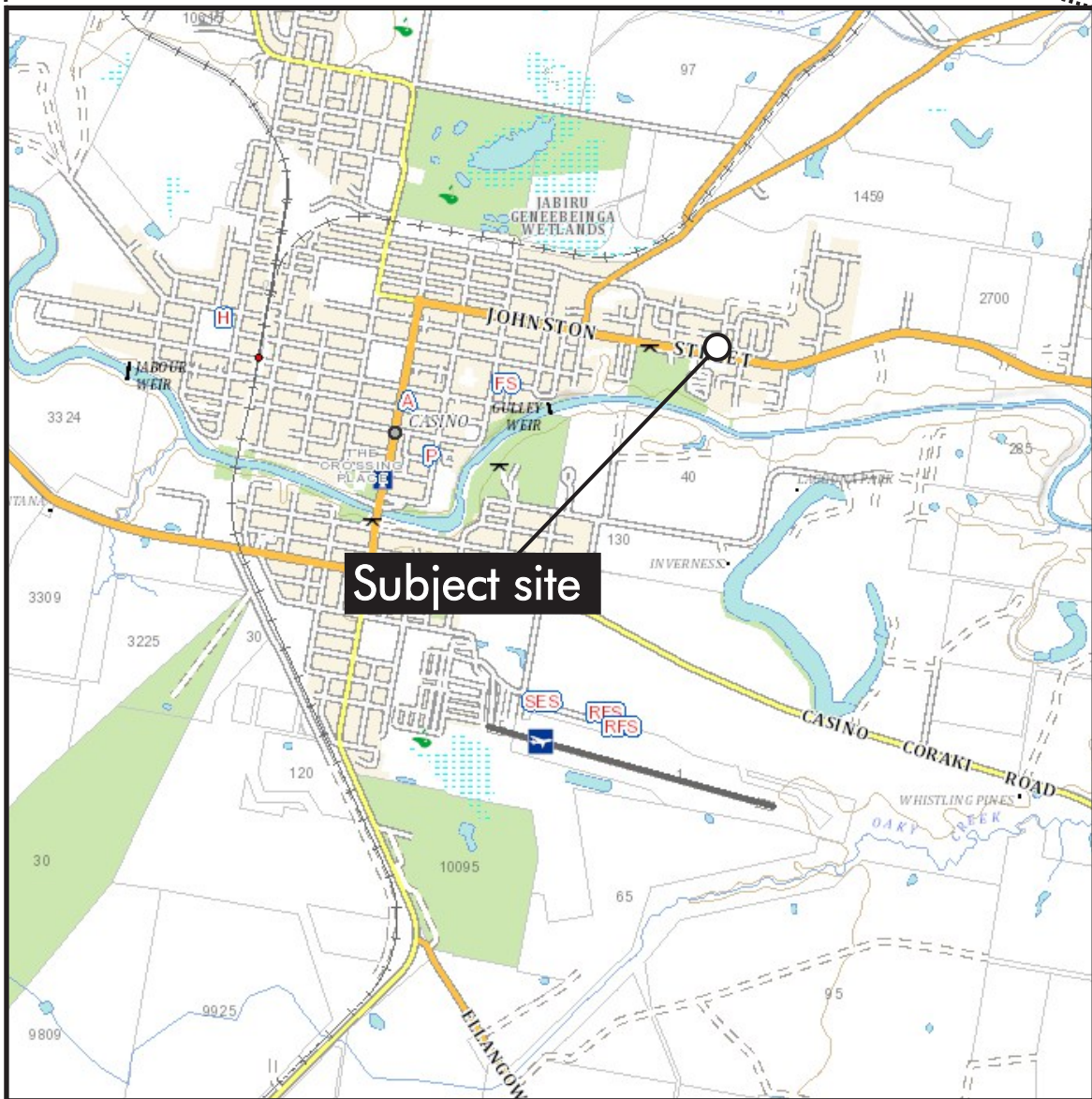
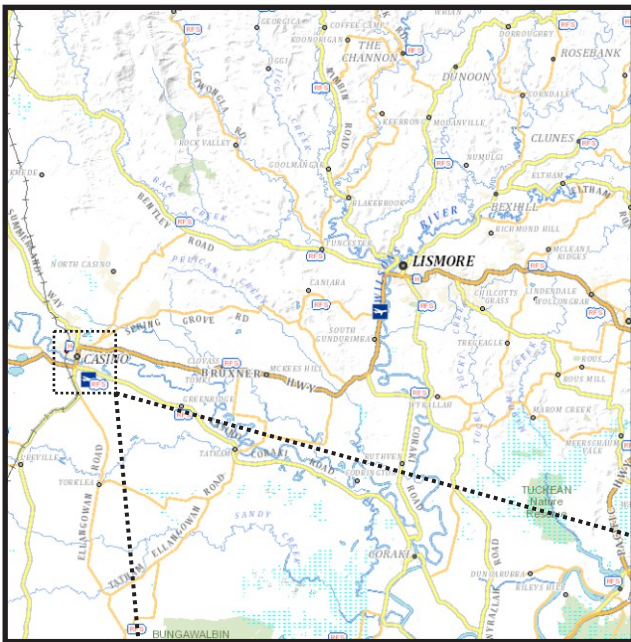
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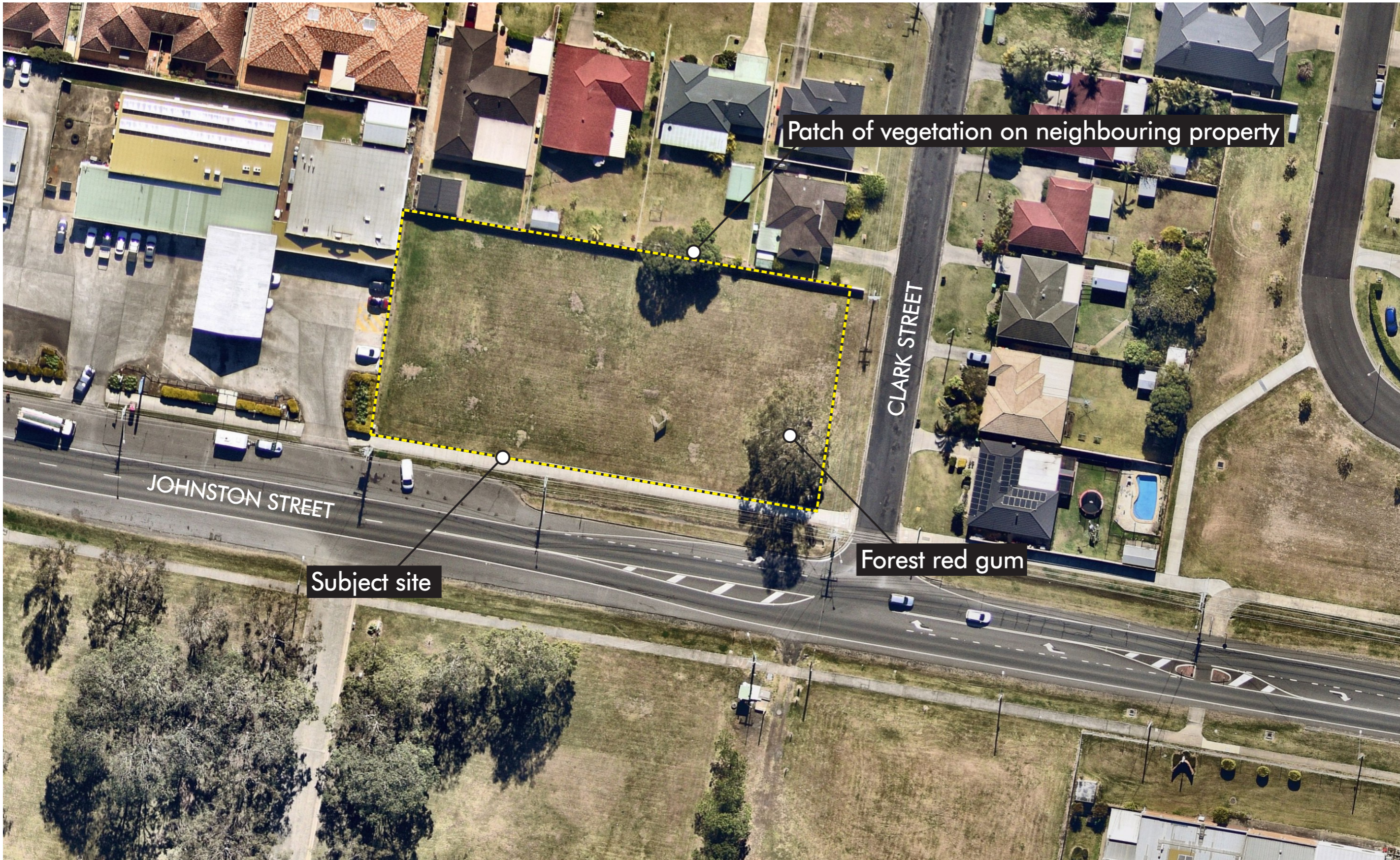
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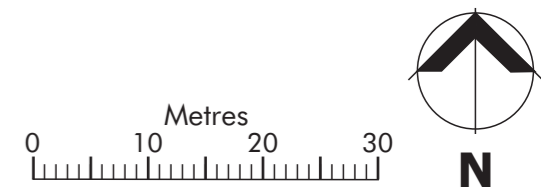
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FIGURES





146-152 Johnston St, Casino



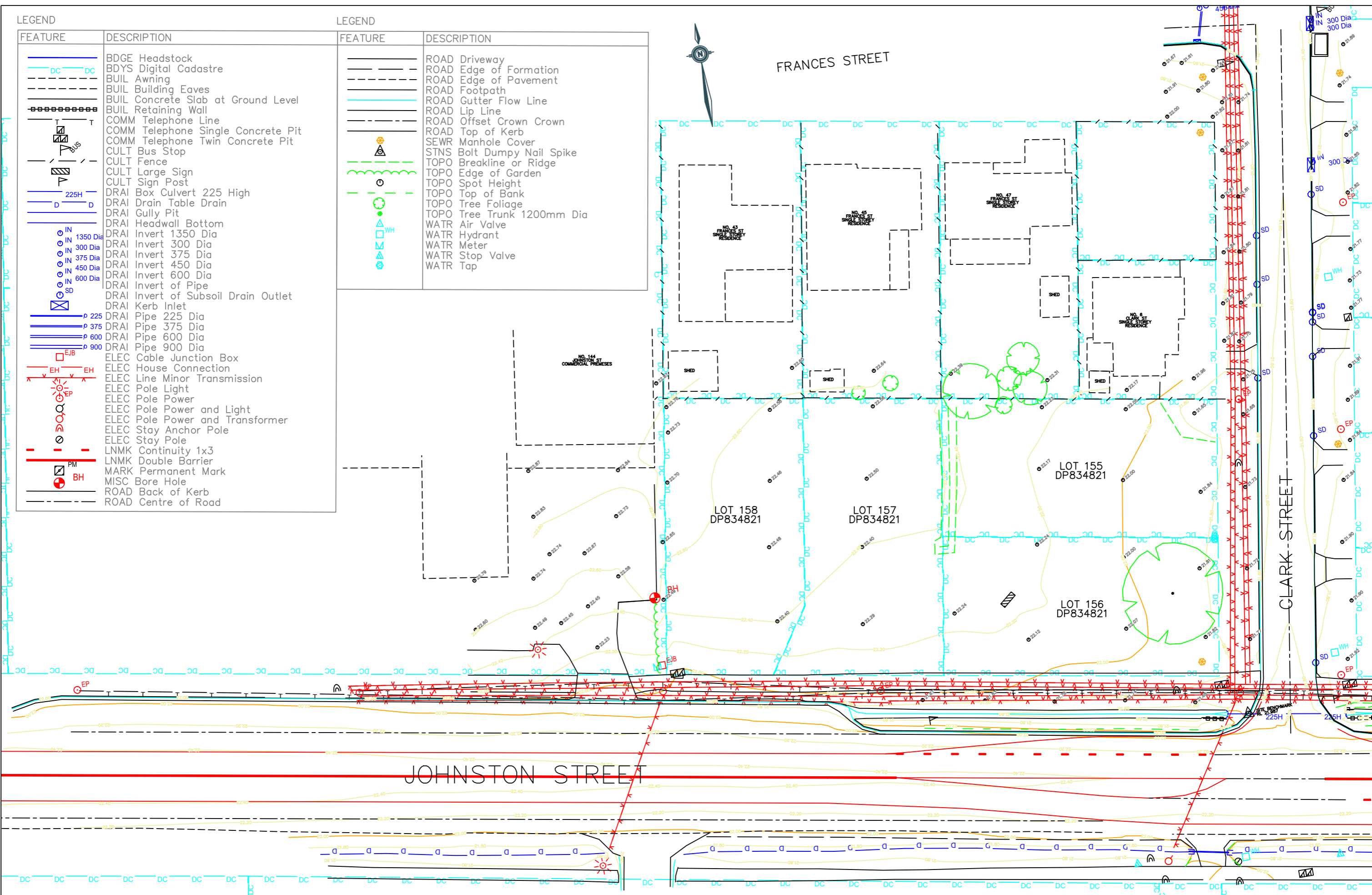


**APPENDIX A  
PROPOSED DEVELOPMENT**

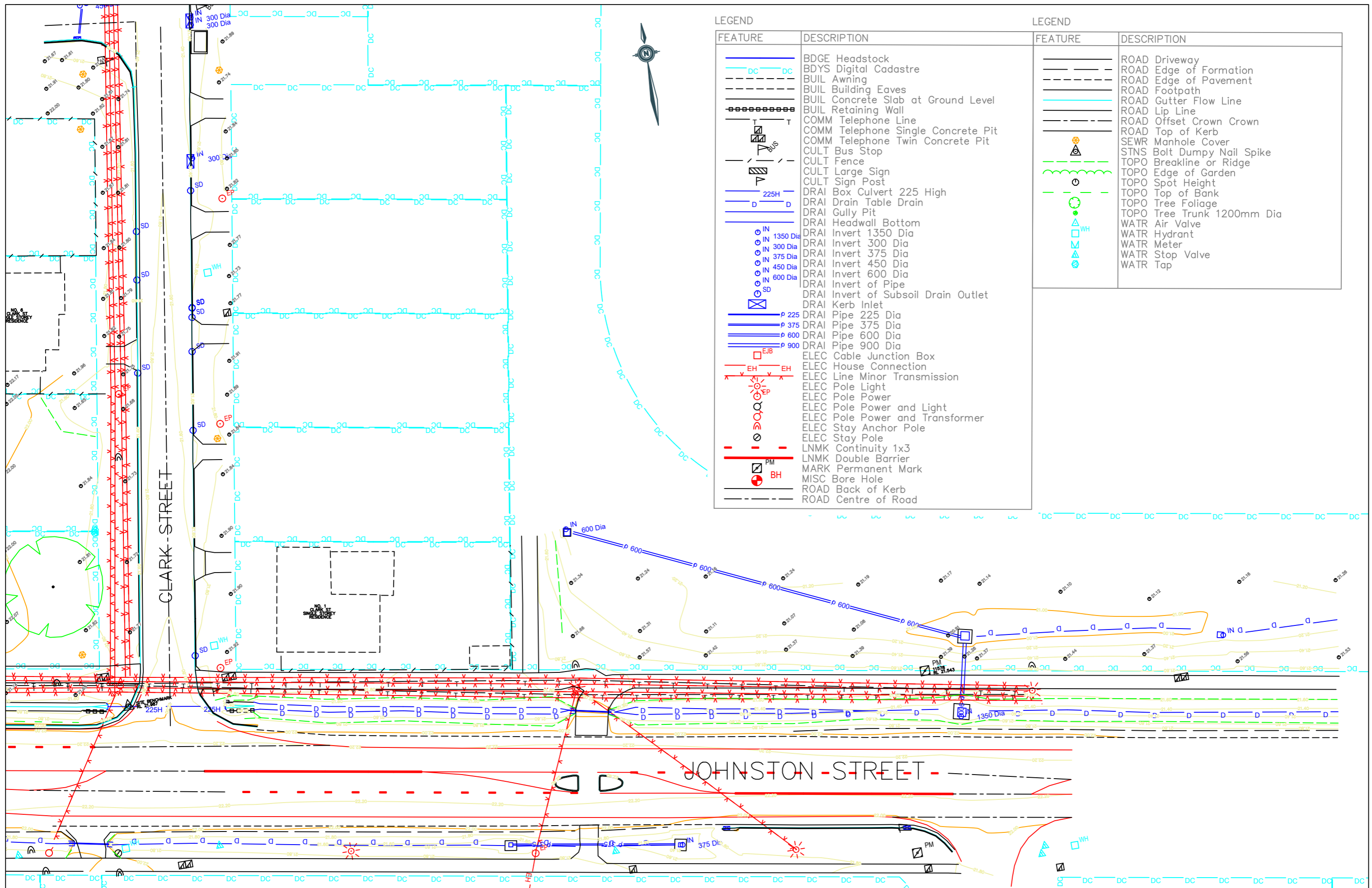


FEATURE	DESCRIPTION
	BDGE Headstock
	BDYS Digital Cadastre
	BUIL Awning
	BUIL Building Eaves
	BUIL Concrete Slab at Ground Level
	BUIL Retaining Wall
	COMM Telephone Line
	COMM Telephone Single Concrete Pit
	COMM Telephone Twin Concrete Pit
	CULT Bus Stop
	CULT Fence
	CULT Large Sign
	CULT Sign Post
	DRAI Box Culvert 225 High
	DRAI Drain Table Drain
	DRAI Gully Pit
	DRAI Headwall Bottom
	DRAI Invert 1350 Dia
	DRAI Invert 300 Dia
	DRAI Invert 375 Dia
	DRAI Invert 450 Dia
	DRAI Invert 600 Dia
	DRAI Invert of Pipe
	DRAI Invert of Subsoil Drain Outlet
	DRAI Kerb Inlet
	DRAI Pipe 225 Dia
	DRAI Pipe 375 Dia
	DRAI Pipe 600 Dia
	DRAI Pipe 900 Dia
	ELEC Cable Junction Box
	ELEC House Connection
	ELEC Line Minor Transmission
	ELEC Pole Light
	ELEC Pole Power
	ELEC Pole Power and Light
	ELEC Pole Power and Transformer
	ELEC Stay Anchor Pole
	ELEC Stay Pole
	LNMK Continuity 1x3
	LNMK Double Barrier
	MARK Permanent Mark
	MISC Bore Hole
	ROAD Back of Kerb
	ROAD Centre of Road

FEATURE	DESCRIPTION
	ROAD Driveway
	ROAD Edge of Formation
	ROAD Edge of Pavement
	ROAD Footpath
	ROAD Gutter Flow Line
	ROAD Lip Line
	ROAD Offset Crown Crown
	ROAD Top of Kerb
	SEWR Manhole Cover
	STNS Bolt Dumpy Nail Spike
	TOPO Breakline or Ridge
	TOPO Edge of Garden
	TOPO Spot Height
	TOPO Top of Bank
	TOPO Tree Foliage
	TOPO Tree Trunk 1200mm Dia
	WATR Air Valve
	WATR Hydrant
	WATR Meter
	WATR Stop Valve
	WATR Tap



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DRAWN: R. Jeffers	SCALE: 1:500				DRAWING TITLE: CONTOUR & DETAIL SURVEY 0.2m INTERVAL	DWG No: 1
SURVEYING: R. Jeffers	SHEET SIZE: A3		TITLE SURVEY PLAN			
COORD. SYSTEM: MGA2020 Zone 56	APPROVED: ANDREW J SMITH BEng RPeng No. 887741-0759					
1 Lot 156 incorrectly labelled - Updated	LEVEL DATUM: AHD71 - Origin PM 11578 RL 21.543					



FEATURE	DESCRIPTION
	BDGE Headstock
	BDYS Digital Cadastre
	BUIL Awning
	BUIL Building Eaves
	BUIL Concrete Slab at Ground Level
	BUIL Retaining Wall
	COMM Telephone Line
	COMM Telephone Single Concrete Pit
	COMM Telephone Twin Concrete Pit
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	DRAI Invert 300 Dia
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	ELEC Pole Power and Light
	ELEC Pole Power and Transformer
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	MARK Permanent Mark
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FEATURE	DESCRIPTION
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	ROAD Edge of Formation
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	TOPO Spot Height
	TOPO Top of Bank
	TOPO Tree Foliage
	TOPO Tree Trunk 1200mm Dia
	WATR Air Valve
	WATR Hydrant
	WATR Meter
	WATR Stop Valve
	WATR Tap

DESIGNED: _____ DRAWN: R. Jeffers SURVEYING: R. Jeffers COORD. SYSTEM: MGA2020 Zone 56	DATE: 08/08/2023 SCALE: 1:500 SHEET SIZE: A3	Copyright MANAGE-DESIGN-ENGINEER PTY LTD RESERVE THE RIGHT TO THE DESIGN AND DOCUMENTATION OF THE WORK. CONTAINED ON THIS DRAWING. THIS WORK IS COVERED BY COPYRIGHT AND CANNOT BE REPRODUCED OR COPIED IN ANY FORM WITHOUT THE WRITTEN PERMISSION OF MANAGE-DESIGN-ENGINEER PTY LTD. ANY LICENSE, EXPRESSED OR IMPLIED, TO THE USE OF THIS DOCUMENT IS RESTRICTED TO THE TERMS OF AGREEMENT BETWEEN THE CLIENT NOTED ON THIS DRAWING AND MANAGE-DESIGN-ENGINEER PTY LTD www.md-engineer.com.au	CLIENT ABODE 2 TITLE SURVEY PLAN	PROJECT 146 - 152 JOHNSTON ST CASINO, NSW LOTS 155 - 158 DP 834821	SURVEY PLAN DRAWING TITLE: CONTOUR & DETAIL SURVEY 0.2m INTERVAL	
					LEVEL DATUM: AHD71 - Origin PM 11578 RL 21.543	APPROVED: ANDREW J SMITH BEng RPeng No. 887741-0759



**APPENDIX B  
EPBC PROTECTED MATTERS DATABASE SEARCH RESULTS**



# 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: 20-Nov-2023

[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](#).

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	None
<a href="#">Wetlands of International Importance (Ramsar)</a>	None
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Area:</a>	None
<a href="#">Listed Threatened Ecological Communities:</a>	4
<a href="#">Listed Threatened Species:</a>	46
<a href="#">Listed Migratory Species:</a>	15

## 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.

<a href="#">Commonwealth Lands:</a>	13
<a href="#">Commonwealth Heritage Places:</a>	1
<a href="#">Listed Marine Species:</a>	22
<a href="#">Whales and Other Cetaceans:</a>	None
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Australian Marine Parks:</a>	None
<a href="#">Habitat Critical to the Survival of Marine Turtles:</a>	None

## Extra Information

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

<a href="#">State and Territory Reserves:</a>	None
<a href="#">Regional Forest Agreements:</a>	1
<a href="#">Nationally Important Wetlands:</a>	None
<a href="#">EPBC Act Referrals:</a>	3
<a href="#">Key Ecological Features (Marine):</a>	None
<a href="#">Biologically Important Areas:</a>	None
<a href="#">Bioregional Assessments:</a>	1
<a href="#">Geological and Bioregional Assessments:</a>	None

# Details

## Matters of National Environmental Significance

### Listed Threatened Ecological Communities

[ [Resource Information](#) ]

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

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

Community Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community</a>	Endangered	Community may occur within area	In feature area
<a href="#">Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland</a>	Endangered	Community likely to occur within area	In buffer area only
<a href="#">Lowland Rainforest of Subtropical Australia</a>	Critically Endangered	Community may occur within area	In feature area
<a href="#">Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions</a>	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
<b>BIRD</b>			
<a href="#">Anthochaera phrygia</a> Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
<a href="#">Botaurus poiciloptilus</a> Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area	In feature area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Calyptorhynchus lathami lathami</a> South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat known to occur within area	In feature area
<a href="#">Climacteris picumnus victoriae</a> Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Cyclopsitta diophthalma coxeni</a> Coxen's Fig-Parrot [59714]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Dasyornis brachypterus</a> Eastern Bristlebird [533]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Erythroriorchis radiatus</a> Red Goshawk [942]	Endangered	Species or species habitat likely to occur within area	In feature area
<a href="#">Falco hypoleucos</a> Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Grantiella picta</a> Painted Honeyeater [470]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Hirundapus caudacutus</a> White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
<a href="#">Lathamus discolor</a> Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
<a href="#">Melanodryas cucullata cucullata</a> South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Rostratula australis</a> Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Stagonopleura guttata</a> Diamond Firetail [59398]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Turnix melanogaster</a> Black-breasted Button-quail [923]	Vulnerable	Species or species habitat may occur within area	In feature area
<b>FISH</b>			
<a href="#">Maccullochella ikei</a> Clarence River Cod, Eastern Freshwater Cod [26170]	Endangered	Species or species habitat may occur within area	In feature area
<b>FROG</b>			
<a href="#">Mixophyes fleayi</a> Fleay's Frog [25960]	Endangered	Species or species habitat may occur within area	In feature area
<b>INSECT</b>			
<a href="#">Argynnis hyperbius inconstans</a> Australian Fritillary [88056]	Critically Endangered	Species or species habitat may occur within area	In feature area
<b>MAMMAL</b>			
<a href="#">Chalinolobus dwyeri</a> Large-eared Pied Bat, Large Pied Bat [183]	Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Dasyurus maculatus maculatus (SE mainland population)</a> Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area	In feature area
<a href="#">Notamacropus parma</a> Parma Wallaby [89289]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Petauroides volans</a> Greater Glider (southern and central) [254]	Endangered	Species or species habitat likely to occur within area	In feature area
<a href="#">Petaurus australis australis</a> Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat likely to occur within area	In feature area



Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Petrogale penicillata</a> Brush-tailed Rock-wallaby [225]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)</a>			
Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat known to occur within area	In feature area
<a href="#">Potorous tridactylus tridactylus</a> Long-nosed Potoroo (northern) [66645]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Pseudomys novaehollandiae</a> New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Pteropus poliocephalus</a> Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area	In feature area
<b>PLANT</b>			
<a href="#">Arthraxon hispidus</a> Hairy-joint Grass [9338]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Bosistoa transversa</a> Three-leaved Bosistoa, Yellow Satinheart [16091]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Bulbophyllum globuliforme</a> Miniature Moss-orchid, Hoop Pine Orchid [6649]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Clematis fawcettii</a> Stream Clematis [4311]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Dichanthium setosum</a> bluegrass [14159]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Eucalyptus glaucina</a> Slaty Red Gum [5670]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Macadamia integrifolia</a> Macadamia Nut, Queensland Nut Tree, Smooth-shelled Macadamia, Bush Nut, Nut Oak [7326]	Vulnerable	Species or species habitat may occur within area	In feature area
<a href="#">Macadamia tetraphylla</a> Rough-shelled Bush Nut, Macadamia Nut, Rough-shelled Macadamia, Rough-leaved Queensland Nut [6581]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Myrsine richmondensis</a> Purple-leaf Muttonwood, Lismore Muttonwood [83888]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Owenia cepiodora</a> Onionwood, Bog Onion, Onion Cedar [11344]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Pedleya acanthoclada listed as Desmodium acanthocladum</a> Thorny Pea [93275]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Persicaria elatior</a> Knotweed, Tall Knotweed [5831]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Rhodamnia rubescens</a> Scrub Turpentine, Brown Malletwood [15763]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
<a href="#">Rhodomyrtus psidioides</a> Native Guava [19162]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
<a href="#">Thesium australe</a> Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area	In feature area
<a href="#">Vincetoxicum woollsii listed as Tylophora woollsii</a> [40080]	Endangered	Species or species habitat may occur within area	In buffer area only
<b>REPTILE</b>			
<a href="#">Coeranoscincus reticulatus</a> Three-toed Snake-tooth Skink [59628]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Listed Migratory Species [ Resource Information ]

Scientific Name	Threatened Category	Presence Text	Buffer Status
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Migratory Marine Birds

<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
---	--	--	-----------------

Migratory Terrestrial Species

<a href="#">Cuculus optatus</a> Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area	In feature area
--	--	--	-----------------

<a href="#">Hirundapus caudacutus</a> White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
--	------------	---	-----------------

<a href="#">Monarcha melanopsis</a> Black-faced Monarch [609]		Species or species habitat known to occur within area	In feature area
--	--	---	-----------------

<a href="#">Motacilla flava</a> Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
---	--	--	-----------------

<a href="#">Myiagra cyanoleuca</a> Satin Flycatcher [612]		Species or species habitat likely to occur within area	In feature area
--	--	--	-----------------

<a href="#">Rhipidura rufifrons</a> Rufous Fantail [592]		Species or species habitat likely to occur within area	In feature area
---	--	--	-----------------

<a href="#">Symposiachrus trivirgatus as Monarcha trivirgatus</a> Spectacled Monarch [83946]		Species or species habitat likely to occur within area	In feature area
---	--	--	-----------------

Migratory Wetlands Species

<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
--	--	--	-----------------

<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area	In feature area
--	--	---	-----------------

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
<a href="#">Gallinago hardwickii</a> Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area	In feature area
<a href="#">Pandion haliaetus</a> Osprey [952]		Species or species habitat known to occur within area	In feature area
<a href="#">Tringa nebularia</a> Common Greenshank, Greenshank [832]		Species or species habitat may occur within area	In feature area

## Other Matters Protected by the EPBC Act

### Commonwealth Lands [\[ Resource Information \]](#)

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

Commonwealth Land Name	State	Buffer Status
<b>Communications, Information Technology and the Arts - Australian Postal Corporation</b>		
Commonwealth Land - Australian Postal Commission [15420]	NSW	In feature area
Commonwealth Land - Australian Postal Commission [11263]	NSW	In buffer area only
<b>Communications, Information Technology and the Arts - Telstra Corporation Limited</b>		
Commonwealth Land - Australian Telecommunications Commission [11260]	NSW	In buffer area only
Commonwealth Land - Australian Telecommunications Commission [11259]	NSW	In buffer area only
Commonwealth Land - Telstra Corporation Limited [11262]	NSW	In buffer area only
<b>Defence</b>		
Commonwealth Land - Defence Service Homes Corporation [11261]	NSW	In buffer area only
Defence - CASINO GRES DEPOT (Army Training Depot) ; 41 RNSWR CASINO [10079]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Defence - CASINO GRES DEPOT (Army Training Depot) ; 41 RNSWR CASINO [10076]	NSW	In buffer area only
Defence - CASINO GRES DEPOT (Army Training Depot) ; 41 RNSWR CASINO [10081]	NSW	In buffer area only
Defence - CASINO GRES DEPOT (Army Training Depot) ; 41 RNSWR CASINO [10082]	NSW	In buffer area only
Defence - CASINO GRES DEPOT (Army Training Depot) ; 41 RNSWR CASINO [10080]	NSW	In buffer area only
Defence - CASINO GRES DEPOT (Army Training Depot) ; 41 RNSWR CASINO [10078]	NSW	In buffer area only
Defence - CASINO GRES DEPOT (Army Training Depot) ; 41 RNSWR CASINO [10077]	NSW	In buffer area only

Commonwealth Heritage Places			[ Resource Information ]
Name	State	Status	Buffer Status
Historic			
<a href="#">Casino Post Office</a>	NSW	Listed place	In buffer area only

Listed Marine Species			[ Resource Information ]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
<a href="#">Actitis hypoleucos</a>			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
<a href="#">Anseranas semipalmata</a>			
Magpie Goose [978]		Species or species habitat may occur within area overfly marine area	In feature area
<a href="#">Apus pacificus</a>			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
<a href="#">Bubulcus ibis as Ardea ibis</a>			
Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
<a href="#">Calidris acuminata</a>			
Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
<a href="#">Gallinago hardwickii</a> Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area overfly marine area	In feature area
<a href="#">Haliaeetus leucogaster</a> White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	In feature area
<a href="#">Hirundapus caudacutus</a> White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
<a href="#">Lathamus discolor</a> Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
<a href="#">Monarcha melanopsis</a> Black-faced Monarch [609]		Species or species habitat known to occur within area overfly marine area	In feature area
<a href="#">Motacilla flava</a> Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Myiagra cyanoleuca</a> Satin Flycatcher [612]		Species or species habitat likely to occur within area overfly marine area	In feature area
<a href="#">Pandion haliaetus</a> Osprey [952]		Species or species habitat known to occur within area	In feature area
<a href="#">Pterodroma cervicalis</a> White-necked Petrel [59642]		Species or species habitat may occur within area	In feature area
<a href="#">Rhipidura rufifrons</a> Rufous Fantail [592]		Species or species habitat likely to occur within area overfly marine area	In feature area
<a href="#">Rostratula australis as Rostratula benghalensis (sensu lato)</a> Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
<a href="#">Sterna striata</a> White-fronted Tern [799]		Migration route may occur within area	In feature area
<a href="#">Symposiachrus trivirgatus as Monarcha trivirgatus</a> Spectacled Monarch [83946]		Species or species habitat likely to occur within area overfly marine area	In feature area
<a href="#">Tringa nebularia</a> Common Greenshank, Greenshank [832]		Species or species habitat may occur within area overfly marine area	In feature area

## Extra Information

### Regional Forest Agreements [\[ Resource Information \]](#)

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

RFA Name	State	Buffer Status
<a href="#">North East NSW RFA</a>	New South Wales	In feature area

## EPBC Act Referrals [ Resource Information ]

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
<b>Controlled action</b>				
<a href="#">330 kV Transmission Line, 205km in Length</a>	2010/5326	Controlled Action	Completed	In feature area
<a href="#">Casino Ipswich Pipeline</a>	2007/3877	Controlled Action	Completed	In feature area
<b>Not controlled action</b>				
<a href="#">Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia</a>	2015/7522	Not Controlled Action	Completed	In feature area

## Bioregional Assessments

SubRegion	BioRegion	Website	Buffer Status
Clarence-Moreton	Clarence-Moreton	<a href="#">BA website</a>	In feature area



# Caveat

## 1 PURPOSE

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

The report contains the mapped locations of:

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

## 2 DISCLAIMER

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

Where data 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

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- [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

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