

Our Ref: 23-06/001275  
CRC Ref: 2308-36408 SRA  
Date: 19 October 2023

Attn: Ms Sue Lockwood  
Department of State Development, Manufacturing, Infrastructure & Planning

**VIA: MyDAS2**

Dear Sue,

**RE: RESPONSE TO INFORMATION REQUEST IN RELATION TO AN APPLICATION FOR A PRELIMINARY APPROVAL FOR MATERIAL CHANGE OF USE INCLUDING A VARIATION REQUEST AND DEVELOPMENT PERMIT FOR RECONFIGURING A LOT (3 LOTS INTO 33 LOTS AND COMMON PROPERTY) AT MITRE STREET AND SAGIBA AVENUE, PORT DOUGLAS**

Planning Plus QLD Pty Ltd acts on behalf of Allaro Homes Cairns Pty Ltd (the 'applicant') in relation to the above-described matter.

We hereby provide the following information in response to SARA's Information Request dated 11 September 2023.

***Matters of state environmental significance (MSES)***

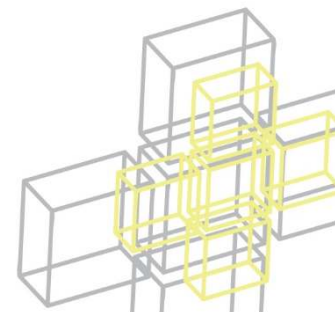
***1. Issue***

***Further information is required to determine if the proposed development complies with performance outcome (PO) PO17 of State code 8: Coastal development and tidal works of the SDAP.***

***The proposed development is mapped within the following MSES:***

- ***Regulated Vegetation (100m from wetland)***
- ***Regulated Vegetation (essential habitat)***
- ***Regulated Vegetation (category B – endangered or of concern)***
- ***Wildlife Habitat (special least concern animal)***
- ***Wildlife Habitat (endangered or vulnerable)***

***It must be demonstrated how the development avoids impacts to MSES to the greatest extent through design, location, etc. Once avoidance has been demonstrated, it should be demonstrated how the works minimise and mitigate impacts to MSES. If there is any remaining residual impact, this should be characterised in hectares (ha).***



***If the validity of the MSES mapping is contested, this should be ground-truthed and it should be demonstrated by a suitably qualified person why the areas of mapped MSES are unlikely to be utilised by the relevant species. If it is proposed the development will not result in an significant residual impact (SRI), an SRI assessment should be undertaken in accordance with the Significant Residual Impact Guideline.***

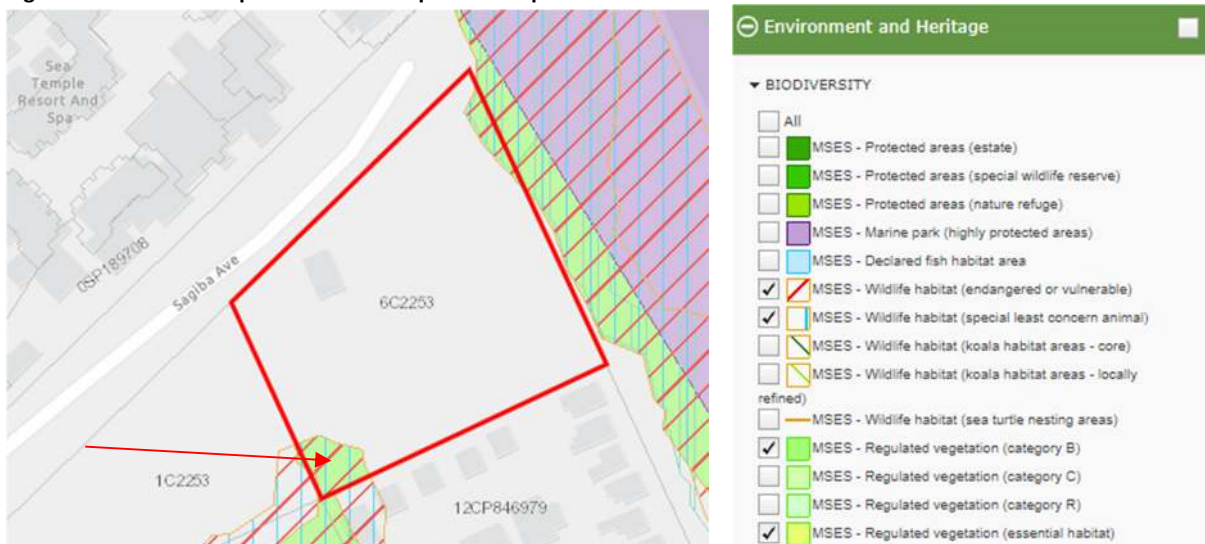
**Action**

***Please provide justification on how the proposed development avoids impacts to MSES to the greatest extent and demonstrate that any residual impact is minimised and/or mitigated to the greatest extent to account for the removal of MSES.***

***It should be clear whether the proposed works will result in a significant residual impact in accordance with the Significant Residual Impact Guideline.***

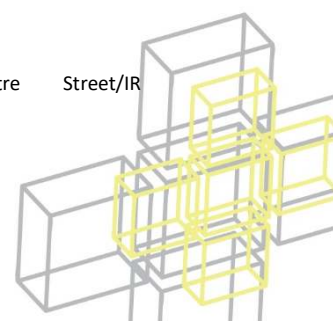
Initially, we note that only a part of the subject site (Lot 6 on C2253) is included within the Coastal Management District (CMD) and only the western extent of this lot is subject to the proposed development. Within this area only a small patch of MSES exists as per Figure 1 below. It is understood that the jurisdiction of this referral trigger is generally limited to this feature.

**Figure 1 – MSES within part of the development footprint within the CMD**



Given flood immunity and drainage requirements, particularly the need to avoid stormwater impacts to the existing aged care facility to the south of the site, the site must be filled to allow for all stormwater to flow to Sagiba Avenue to the north – see proposed earthworks plan included as **Annexure 1**. This filling requirement means that it is not possible to avoid the area of MSES as it will need to be cleared in order to be filled to achieve the overall drainage outcomes required for the site.

To this end, an assessment of Matters of Ecological Significance has been undertaken and a report included as **Annexure 2**. This report identifies the presence of *Myrmecodia beccarii* (Ant Plants) and recommends the translocation of these plants, or offsetting by financial means.



The above report has assessed the whole site, not just the portion within the CMD (i.e. the portion within the jurisdiction of this referral trigger) and concludes that the proposal does not have a significant residual impact on Matters of Environmental Significance. Given the conservation status of *Myrmecodia beccarii*, we understand that any impacted specimens will need to be translocated or financially offset.

### **SDAP State Code 9 Response**

#### **3. Issue**

**The proposed development has triggered for technical assessment for reconfiguring a lot in a wetland protection area and material change of use of premises in wetland protection area.**

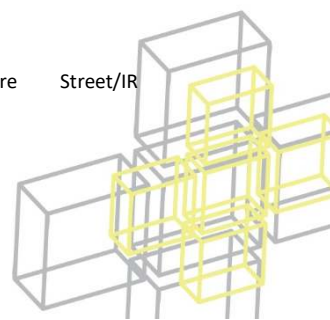
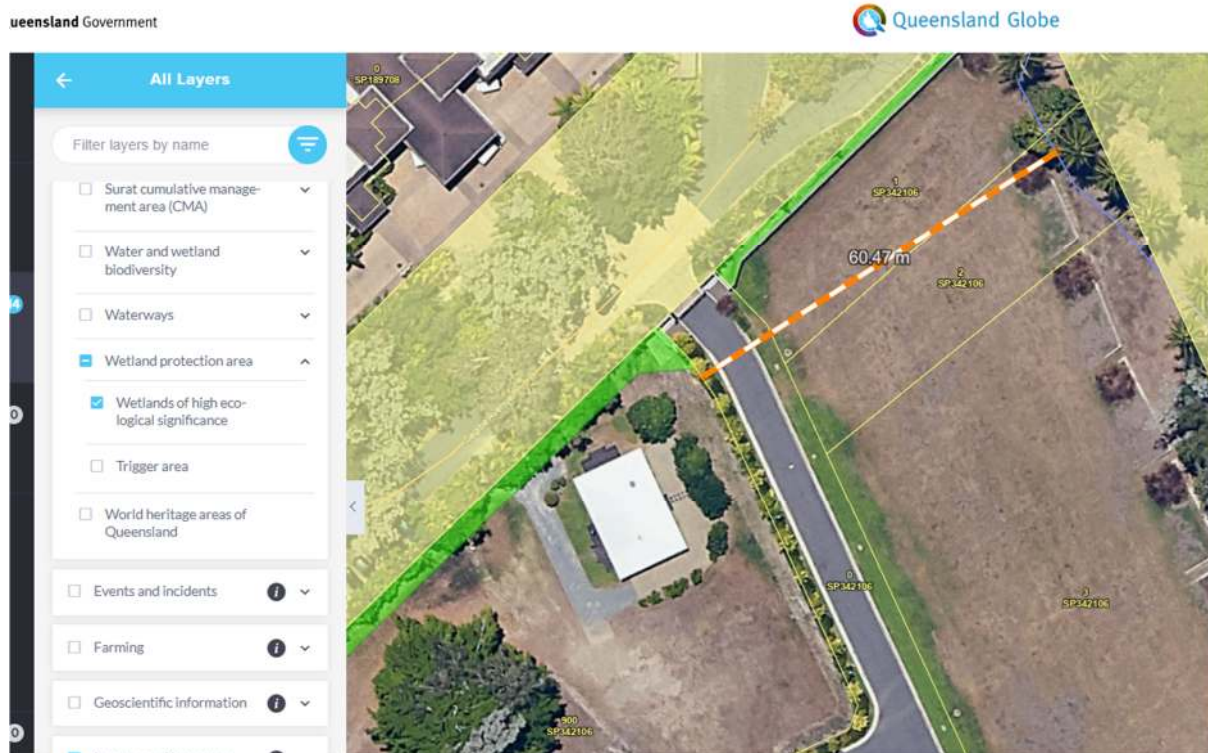
**Subsequently, a response to SDAP State Code 9: Great Barrier Reef wetland protection areas is required. It does not appear one has been provided within the application material.**

#### **Action**

**Please provide a response to SDAP State Code 9. Particular attention must be paid to PO1, PO3 – PO7, PO9 and PO10, including the development considerations set within the performance outcome.**

Please see State Code 9 response included as **Annexure 3**. We note that the proposed development is located approximately 60m from the wetland protection area as per Figure 2 below. Furthermore, an existing approved development consisting of residential lots is located between the proposed development and the wetland protection area.

**Figure 2 – Distance between proposed development and wetland protection area**



## **Earthworks Plans**

### **4. Issue**

**The proposed development has triggered for technical assessment for reconfiguring a lot in a wetland protection area and material change of use of premises in wetland protection area. These triggers are contingent upon the works involving high impact earthworks which is defined in the Planning Regulation 2017 as:**

**high impact earthworks—**

**(a) means operational work that changes the form of land, or involves placing a structure on land, in a way that diverts water to or from a wetland in a wetland protection area and involves excavating or filling—**

**(i) if the work is carried out in the wetland or within 200m of the wetland—more than 100m<sup>3</sup>**

**Subsequently, as the earthworks are to be assessed within this application, earthworks plans are required.**

### **Action**

**Please provide earthworks plans clearly illustrating the proposed cut and fill and the volumes.**

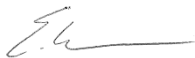
Please see earthworks plan included as **Annexure 1**. It is noted that the proposed development has been designed to drain to Sagiba Avenue to the north.

### **Conclusion**

This letter constitutes the applicant's full response to the information requested.

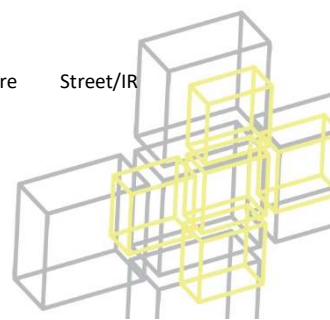
We trust this information is sufficient for your purposes; however should you require any further details or clarification, please do not hesitate to contact the undersigned.

Yours Faithfully



**Evan Yelavich  
Director / Planner  
Planning Plus QLD Pty Ltd**

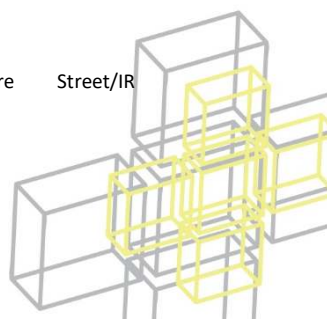
enc.     **Annexure 1: Earthworks Plan  
Annexure 2: Matters of Ecological Significance Report  
Annexure 3: State Code 9 Response**



# Annexure 1: Earthworks Plan

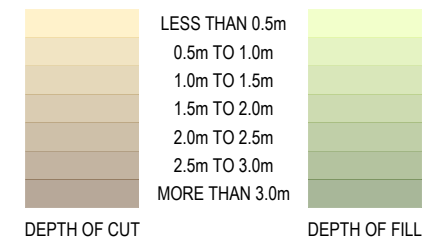
[https://ppqld-my.sharepoint.com/personal/evan\\_planningplusqld\\_com\\_au/Documents/JOBS/23-06 Response/001275.docx](https://ppqld-my.sharepoint.com/personal/evan_planningplusqld_com_au/Documents/JOBS/23-06%20Response/001275.docx)

Cavallaro Mitre Street/IR



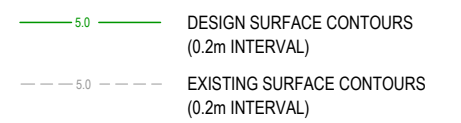


**LEGEND - DEPTH OF EARTHWORKS**



NOTE: DEPTHS ARE MEASURED BETWEEN EXISTING AND FINISHED SURFACES

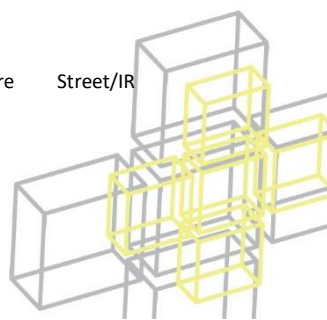
**LEGEND**



# Annexure 2: Matters of Ecological Significance Report

[https://ppqld-my.sharepoint.com/personal/evan\\_planningplusqld\\_com\\_au/Documents/JOBS/23-06-Response/001275.docx](https://ppqld-my.sharepoint.com/personal/evan_planningplusqld_com_au/Documents/JOBS/23-06-Response/001275.docx)

Cavallaro Mitre Street/IR





**EcoRex Report Number 02/09/2023**  
**Matters of Environmental Significance, Lot1C2253, Lot2C2253 and Lot6C2253.**  
 Reconfiguring a Lot, Mitre Street, Port Douglas.  
 Report prepared for Planning Plus Pty Ltd, Redlynch, Queensland.

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This report has been based upon the conditions encountered during the investigation and on the best available information. The accuracy of the advice provided in this report may be limited by reasonably unforeseeable errors or misgivings in searches and information reviewed.

This report does not constitute legal advice and is open to third party and government official interpretation of legislation and may thus be modified and adapted to this regard.

Maps are for illustration only and not of survey or cadastral value.

Plant names follow those listed in the [Census of the Queensland Flora](#). Non-native species are denoted by an asterisk (\*) and are generally included under the comments field. Vegetation descriptions follow that recommended for the National Vegetation Information System (NVIS) Level 5 (COAG,2012) and uses a modified Braun-Blanquet format.

Fauna names follow that of the Australian Fauna Directory (AFD) on the date of this document.

EcoRex, 22 Whale Close, Kewarra Beach, 4879 Queensland  
 Mobile 0499784030 e-mail: [johan@ecorexaustralia.com](mailto:johan@ecorexaustralia.com)

.....

25 September 2023



## Executive Summary

### Findings.

The Area of Interest (AOI) and Impact Area (IA) contains both Matters of State Environmental Significance (MSES) and Matters of National Environmental Significance (MNES). Due to the presence of an EPBC listed plant species, it will necessitate a proposal assessment by SARA, even if the assessing authority happens to be a Local Government Authority (LGA).

### MSES.

- The IA contains approximately 0.6 hectares of Endangered Category B Vegetation as RE 7.2.8 which is also a Palustrine Wetland.
- The AOI contains essential habitat for Conservation Significant Fauna, including two with Endangered Conservation Status, four Vulnerable taxa and twelve Special Least Concern taxa.
- The AOI provides connectivity and habitat for terrestrial requirements of volant marine species.
- The AOI contains the NCA listed plant - *Myrmecodia beccarii* and a species management plan will be required for the development.
- Financial offsets may be required for clearing of Endangered Category B vegetation, Essential Habitat and Wetland vegetation and can be calculated using the State Offsets Calculator.

### MNES.

- The AOI contains the EPBC listed plant - *Myrmecodia beccarii* and EPBC referral will potentially be required after consultation with SARA (State Assessment and Referral Agency).
- A detailed Threatened Plant survey and Threatened Plant Management Plan is required for the development proposal.
- The Nationally Significant weed – *Lantana camara* - occurs as sporadic specimens within the AOI.

### MLES.

- No additional MLES were found, which had not been covered under that of the MSES and MNES.

### Statutory Requirements.

- Due to the presence of Ant Plants within the AOI, the development proposal will have to be discussed with the State Assessment and Referral Agency (SARA) for potential EPBC referral requirements.
- Any clearing done of Category B vegetation must also be reported to the Department of Resources (DNMRE) for Vegetation Management Act mapping updates before clearing commences – even if approved by other approval agencies such as the Local Government or SARA. In which case the approval should accompany the information on planned clearing to DNMRE.

### Recommendations.

- The AOI's proximity to the beach and potential occurrence for associated ground nesting beach fauna, triggers a high requirement for a pre-clearing fauna survey and associated spotter catcher requirements during clearing.
- It is recommended that known and suitable on-site specimens of the fan palm *Livistona muelleri* be considered for use within the landscaping design.

## List of the Acronyms used in this report.

ALA – Atlas of Living Australia.

AOI – Area of Interest.

DES – Queensland Department of Environment and Science.

DNRME - Department of Resources.

DSC – Douglas Shire Council.

EIA – Environmental Impact Assessment.

EPA – Environmental Protection Agency.

EPBC – Environment Protection and Biodiversity Conservation Act 1999.

EVNT – Endangered, Vulnerable and Near Threatened.

FLIR- Forward Looking Infra-Red.

GBO – General Biosecurity Obligations.

GIS – Global Information System.

HERBRECS – Queensland Herbarium Records Database.

IA – Impact Area.

LGA – Local Government Area.

MLES – Matters of Local Environmental Significance.

MNES – Matters of National Environmental Significance.

MSES – Matters of State Environmental Significance.

NCA – Queensland Nature Conservation Act of 1992.

RAL – Reconfiguring a lot.

RE – Regional Ecosystem.

ROAV – Remotely Operated Aerial Vehicle (drone).

RVM – State Regulated Vegetation Mapping

SARA - State Assessment and Referral Agency.

TEC – Threatened Ecological Community

VMA – Queensland Vegetation Management Act of 1999.

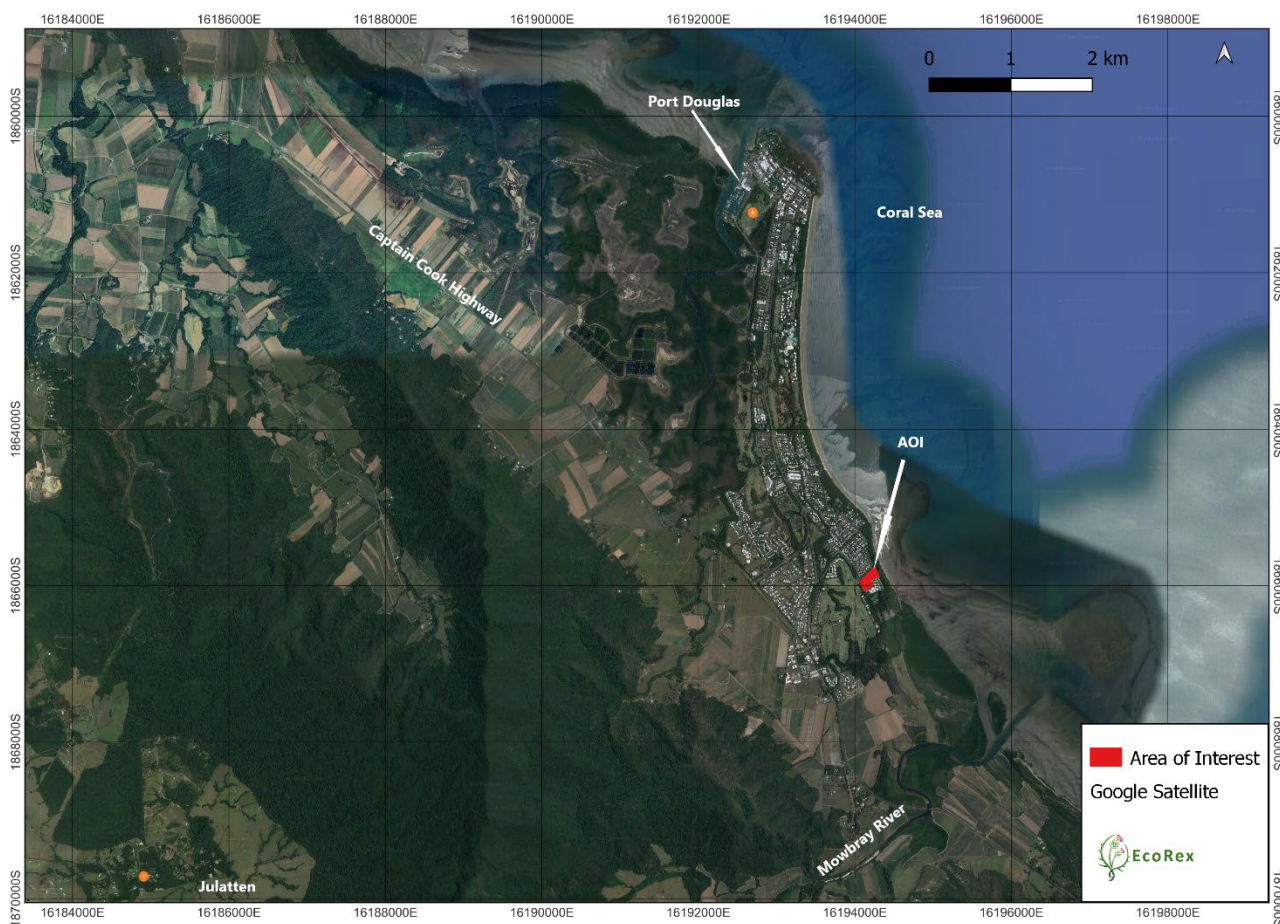
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## 1. Introduction.

Planning Plus Pty Ltd has engaged EcoRex to investigate and report on Matters of Environmental Significance (MES), that could impact upon a town planning project in Port Douglas, Douglas Shire Council (DSC), Local Government Area (LGA), Queensland (Map 1). The Area of Interest (AOI).



*Map 1. Location of the Area of Interest in Port Douglas, Queensland.*

The project involves reconfiguring of three lots (RAL) on Mitre Street, and involves Lot1C2253, Lot2C2253 and Lot6C2253 (Map 2).

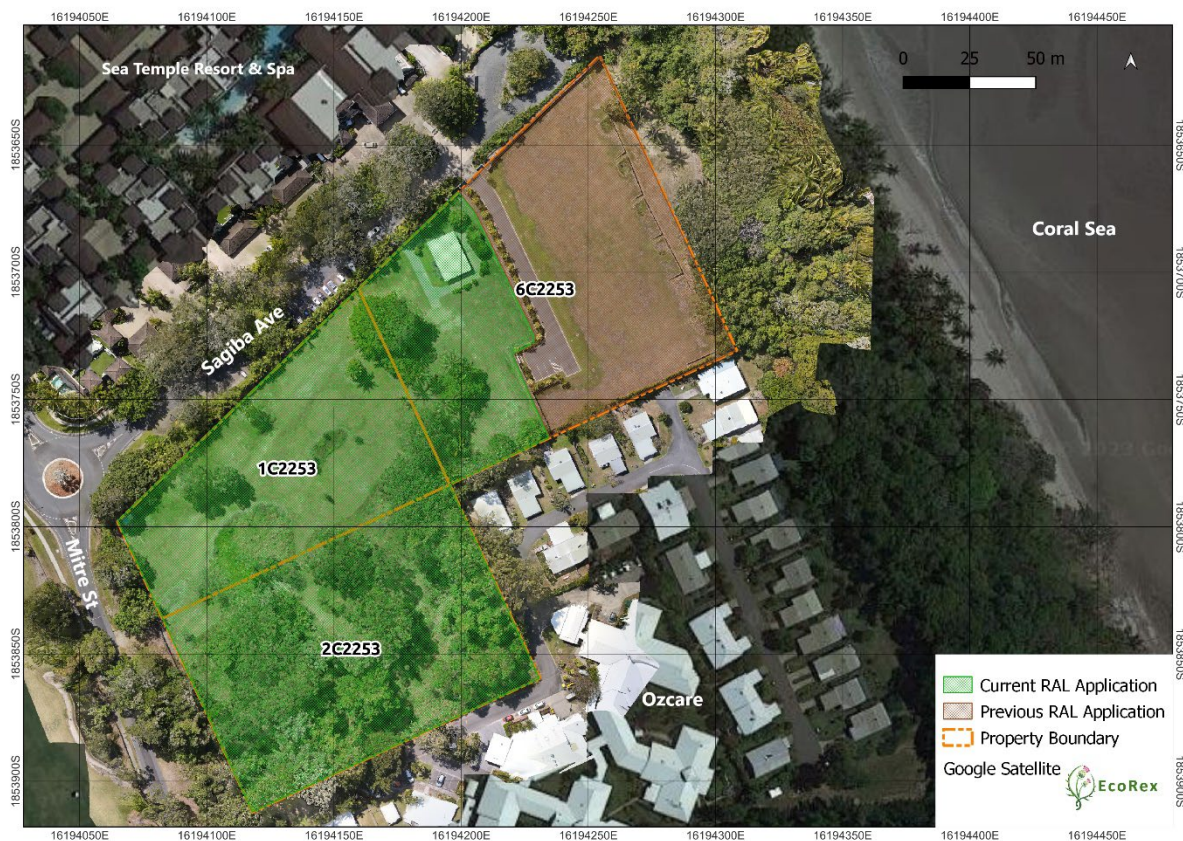
### 1.1. Background.

A previous RAL application has been approved for part of Lot6C2253 (Map 2) and does not form part of this survey and scope.

The current RAL application includes the remainder of Lot6C2253 and - Lot1C2253 and Lot2C2253 (Map 2) into 33 lots and communal access road.

### 1.2. Purpose of this Document.

The purpose of this document is to provide due diligence on Matters of State Environmental Significance (MSES), Matters of National Environmental Significance (MNES) and potential Matters of Local Environmental Significance (MLES) that could potentially impact upon the development proposal.



Map 2. The AOI depicting the proposed RAL application areas.

## 2. Methodology.

The survey methodology follows the accepted sequence of a Desktop survey followed by Site survey.

### 2.1. Desktop Survey.

A review of databases and information relating to the following list was undertaken as a desktop assessment. The results of these searches and reviews of information assist with gaining a better understanding of the ecology and broader landscape of the survey area (AOI).

The following databases and sources of information were reviewed:

- Regional Ecosystem mapping. The most recent version of the DES's remnant regional ecosystem (RE) vegetation mapping (version 6.0) was used to provide an indication of the status and location of remnant vegetation, of the project site. This mapping was overlaid on a digital colour aerial image base sourced from Queensland Globe or Google Maps.
- Queensland Department of the Environment, Wildlife Online database of flora and fauna. This database holds records of plants and animals that have been either sighted or collected within a given radius of the site (a search parameter can be prescribed which limits the search area to a given radius around a central point).
- Protected Matters database of Matters of National Environmental Significance (MNES). This database applies a range of bio-models to predict the presence of species of flora and fauna and other matters of National Environmental Significance cited under the Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act).
- HERBRECS database of plant records. This database provides confirmed records of plant collections made within a specified area, of which voucher specimens are held by the

Environmental Protection Agency's (EPA) Queensland Herbarium. Data from this source provides useful information on the known location of rare and threatened species and expedites targeted surveys for such plants in the field as well as being a valuable source of what plant taxa are generally present on site or nearby.

- Atlas of Living Australia is a centralized searchable database for locally and regionally recorded fauna and flora.
- Literature review noted within the References. A range of scientific papers and other literature were reviewed for each taxon potentially expected within the survey area.
- Queensland Globe – Queensland online mapping and planning services provided by the State Government of Queensland.
- Far North Queensland Regional Organization of Councils (FNQROC) Manual.
- Douglas Shire Council Interactive Mapping.

All database searches were undertaken using a standard 2km buffer surrounding the Project area, using the approximate central point of the AOI (Latitude: -16.5279, Longitude: 145.4746) or Lot and Plan search where appropriate.

Data for obligatory estuarine, oceanic, and pelagic marine taxa is not evaluated for this terrestrial site.

An initial likelihood assessment of species potentially occurring in the project area was conducted prior to this field assessment, based on the results of any initial field surveys, current state vegetation mapping and database records.

Likelihood assessments were undertaken using the known distribution and preferred habitat of the species and the identification of these habitat values from data base searches. The criteria used to assess the likelihood of threatened species occurring within the survey area is presented in Table 1.

*Table 1. Assessment criteria used to evaluate taxa flagged as potentially occurring on site.*

Likelihood	Definition
Known	Taxon was positively identified and recorded in the survey area during a previous field assessment; previous records of occurrence within the project area.
Likely	There are known records within the nearby surrounding area and suitable habitat exists on site.
Potentially	Known records occur within the surrounding area, but habitat in the survey area is sub-optimal, marginal, or degraded.
Unlikely	Habitat in the survey area might be suitable or marginal; however, no known records of the taxon exist within the surrounding area.
Very Unlikely	Obligate habitat taxa with no suitable habitat on site.
None	E.g., Obligate marine taxa not expected in a terrestrial environment.

## 2.2. Flora and Vegetation Field Surveys.

The AOI (Map 2) was visited between 3 September 2023 and 24 September 2023. The visit was conducted for recognisance and such purposes as is required for Ecological, Fauna and Flora Surveys.

### 2.2.1. Vegetation Communities.

Vegetation communities discernible in the field were surveyed using the methodology for recording quaternary type information as defined by the 'Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communities in Queensland' (Nelder et al. 2012).

### 2.2.2. Conservation Significant Flora.

No statutory EVNT Flora survey is required for the AOI under the Nature Conservation Act (1999). However, the vegetation and flora survey were of a robust enough nature to detect any potential EVNT or other protected flora that may occur.

### 2.2.3. Survey Timing

The survey timing was undertaken within the potential flowering/fruited period for all protected flora and other species. Flowering and fruiting data were acquired directly from The Atlas of Living Australia (ALA) and online herbarium record labels (HERBRECS). All taxa involved are very well known to the investigators as local flora and easily identifiable and definable even when not in flower or fruiting.

### 2.2.4. Species Identifications

All the potential flora involved are very well known to the investigators as local flora and easily distinguishable and identifiable even when not in flower or fruiting. When in doubt, taxa are cross referenced and identified using standard keys used in professional identification and electronic copies of the TYPE specimens and an EcoRex proprietary electronic field herbarium.

## 2.3 Fauna Field Survey Methodology.

A fauna trapping program was not deemed necessary and purely non-invasive and non-intrusive methods of data collecting were employed and are in accordance with the Terrestrial Vertebrate Fauna Survey Guidelines for Queensland (2018) and methods discussed by Thompson and Thompson (2017).

These include:

- Aural, acoustic, and ultrasonic surveys.
- Visual and thermal nocturnal and diurnal surveys.
- Utilizing naturally occurring sand traps to document wildlife tracks.
- Scat identification.
- Checking surrounding roads, paths, and tracks for incidental roadkill or crossing wildlife.

Physical observations on the presence of fauna were done in conjunction with the Flora Survey and Vegetation Survey.

Specific fauna identified in the desk top review as potential Matters of National Environmental Significance (MNES) or Matters of State Environmental Significance (MSES), were targeted.

For ultrasonic data collection, an Anabat Walkabout (Titley Scientific products), detector was used over five nights while actively transect searching for nocturnal fauna using FLIR or headlamps.

To complement active surveys, three stationary data collecting sites were set up, each consisting of a Chorus acoustic data collector, Anabat Swift passive ultrasonic detector (Titley Scientific) and eight motion activated trail cameras to augment data collection on animals that vocalise audibly or potentially missed during transect surveys. Each of these sites were deployed for five nights.



Acoustic field data was analysed, using the program – Anabat Insight (Titley Scientific products) and compared to a proprietary reference database kept by EcoRex for this purpose.

#### 2.4. Field Survey Limitations.

The field survey was carried out at the start of the dry season of the Wet Tropics Bioregion and data will be limited by the presence or absence of tropical migratory species and species that require standing water for breeding or active movement.

These would include certain frog and bird taxa, which may be absent due to having aestivated at the time or volant taxa that migrate north during the Wet Tropics “winter”.

### 3. Desktop Review Results and Discussions.

Condensed AOI and related information is given in Table 2.

*Table 2. Condensed AOI information.*

Lot and Plan	1C2253, 2C2253, 6C2253
Local Government(s) (LGA)	Douglas Shire (DSC)
Total AOI Size (ha)	2.946
Bioregion(s)	Wet Tropics
Subregion(s)	Daintree - Bloomfield
Catchment(s)	Mossman

#### 3.1. Site Description and Terrain.

The proposed development is situated along the beach from to the south of Port Douglas City centre.

The AOI consists of three partially developed and cleared lots, bound to the east by beach vegetation and the Coral Sea, to the west by a main road and major golf course, to the north and south by tourist accommodation and a vulnerable, frail, and aged care facility.

The terrain is flat to slightly undulating, sloping very gradually to the east and Coral Sea beach.

##### 3.1.1. Superficial Geology, Soil and Land Zone.

The AOI falls within Land Zone two (Wilson and Taylor, 2012) and consists of coastal dunes and beach ridges of Quaternary coastal sand deposits.

This land zone includes degraded dunes, sand flats, sand plains, swales, lakes, and swamps enclosed by dunes, as well as coral and sand cays.

Soils are predominantly Rudosols and Tenosols (siliceous or calcareous sands), Podosols and Organosols. Soils are typically of low to moderate fertility.

#### 3.2. Matters of State Environmental Significance (MSES).

MSES that may influence the proposed RAL, groundworks, and subsequent land use within the AOI, is summarised in Table 3.

It is noted that elements of State Marine Parks (Great Barrier Reef Marine Park – GBR) falls within a one kilometre buffer of the AOI but not directly in the AOI.

In general, there are very few MSES published that could potentially impact on the proposed works being executed within the AOI.

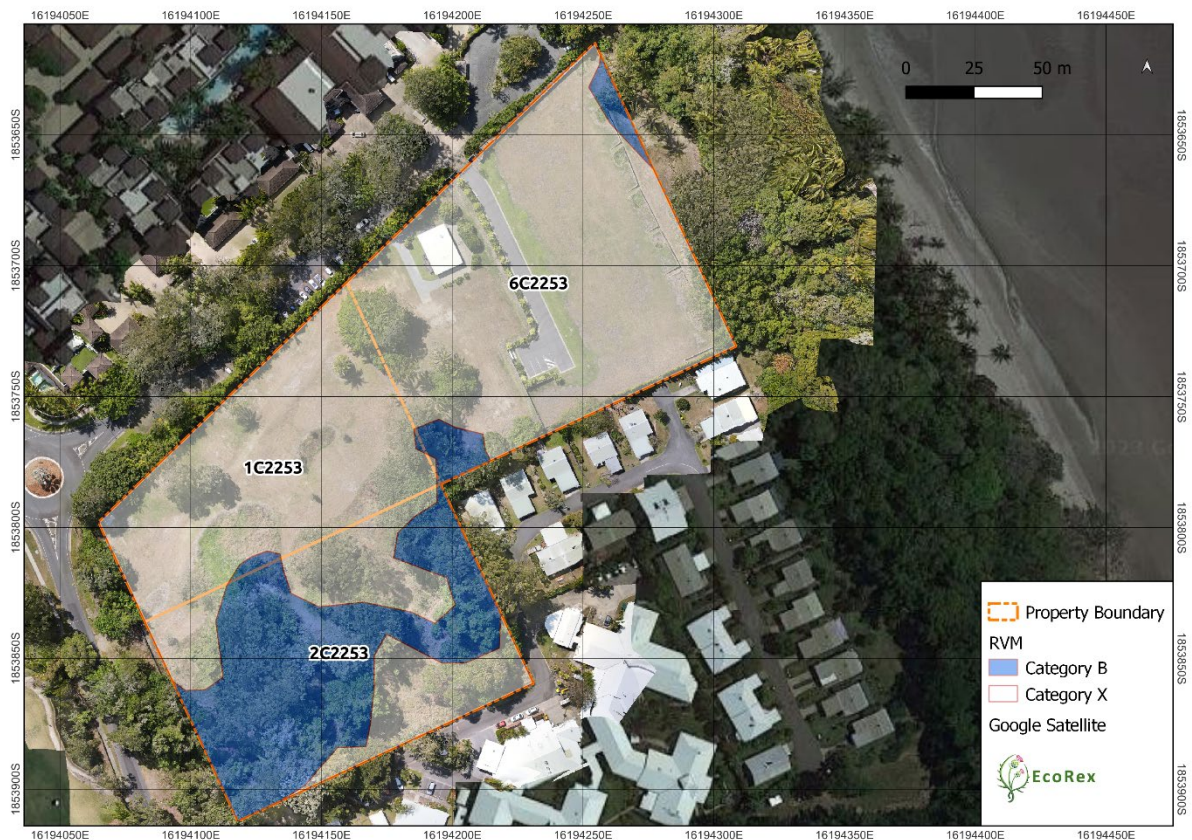
Although there is a mapped occurrence of (point 5)-High Ecological Significance wetlands recorded from the AOI, this does not currently fall within the proposed Impact Area (IA) (Table 3).

The state mapped presence of known Threatened wildlife, known occurrence of Special Least Concern fauna, the presence of Endangered Category B remnant vegetation, Essential habitat, and the presence of the IA within a 100-meter buffer of a Vegetation Management Wetland, are the most obvious constraints on the development proposal and may incur requirements for re-alignment, offsetting, or other mitigation measures to the development application (DA).

Table 3. Synopsis of recorded Matters of State Environmental Significance for the AOI.

MSES	Extent in AOI	Percent of AOI	Percent of Impact (IA)
1a Protected Areas- estates	0.0 ha	0.0%	0.0 %
1b Protected Areas- nature refuges	0.0 ha	0.0 %	0.0 %
1c Protected Areas- special wildlife reserves	0.0 ha	0.0 %	0.0 %
2 State Marine Parks- highly protected zones	0.0 ha	0.0 %	0.0 %
3 Fish habitat areas (A and B areas)	0.0 ha	0.0 %	0.0 %
4 Strategic Environmental Areas (SEA)	0.0 ha	0.0 %	0.0 %
5 High Ecological Significance wetlands on the map of Referable Wetlands	0.02 ha	0.68 %	0.0 %
6a High Ecological Value (HEV) wetlands	0.0 ha	0.0 %	0.0 %
6b High Ecological Value (HEV) waterways	0.0 km	0.0%	0.0 %
7a Known Threatened (endangered or vulnerable) wildlife	0.89 ha	30.02%	29.34 %
7b Known Special least concern fauna	0.89 ha	30.02 %	29.34 %
7c i Koala habitat area - core (SEQ).	0.0 ha	0.0 %	0.0 %
7c ii Koala habitat area - locally refined (SEQ).	0.0 ha	0.0 %	0.0 %
7d Sea turtle nesting areas.	0.0 km	0.0%	0.0 %
8ai Regulated Vegetation - Endangered in Category B (remnant).	0.64 ha	21.7%	21.7 %
8aii 8ai Regulated Vegetation - Of concern in Category B (remnant).	0.0 ha	0.0%	0.0%
8b Regulated Vegetation - Endangered/Of concern in Category C (regrowth).	0.0 ha	0.0%	0.0 %
8c Regulated Vegetation - Category R (GBR riverine regrowth).	0.0ha	0.0%	0.0 %
8d Regulated Vegetation - Essential habitat.	0.64 ha	21.70 %	21.7 %
8e Regulated Vegetation - intersecting a watercourse.	0.0 ha	0.0%	0.0 %
8f Regulated Vegetation - within 100m of a Vegetation Management Wetland.	0.64 ha	21.70 %	21.7 %
9a Legally secured offset areas- offset register areas.	0.0 ha	0.0 %	0.0 %
9b Legally secured offset areas- vegetation offsets through a Property Map of Assessable Vegetation.	0.0 ha	0.0 %	0.0 %
10 Protected Plant Trigger Mapping.	0.0ha	0.0%	0.0%

### 3.2.1. State Regulated Vegetation Mapping.



Map 3. State Regulated Vegetation Mapping of the AOI.

Vegetation regulated by the Vegetation Management Act (1999) within the AOI is represented in Table 3.

The proposed IA involves Category B vegetation and Non-Remnant Category X vegetation.

- Category X vegetation – is vegetation that is generally exempt from requirements under vegetation management laws.
- Category B vegetation – is remnant vegetation shown on a regional ecosystem or remnant map as an endangered regional ecosystem, an of concern regional ecosystem or a least concern regional ecosystem.

The AOI contains 21.7% Category B vegetation and 78.3% Category X vegetation. Of this the development will impact the whole AOI. (Table 3).

It is thus apparent that clearing of the 0.64 hectares has to be reported to the Department of Resources (DNMRE), even if approved by a LGA, so that the department is informed and can amend the State Regulated Vegetation Mapping.

### 3.2.2. Regional Ecosystems.



Map 4. Regional Ecosystem Mapping for the AOI.

Two Regional Ecosystems (RE's) are mapped for the AOI (Map 4), while only one (RE 7.2.8) occurs within the IA for this DA.

The relevant RE 7.2.8 is further discussed in Table 4.

Table 4. Regional Ecosystems within the AOI.

RE	Category	Description	VMA Class	Biodiversity Status	Extent in IA (approximately)
7.2.2a	Cat B	Notophyll vine forests, often with <i>Acacia</i> emergents. Species commonly include <i>Cupaniopsis anacardioides</i> , <i>Diospyros geminata</i> , <i>Canarium australianum</i> , <i>Alphitonia excelsa</i> , <i>Acacia crassicarpa</i> , <i>Pleiogynium timorense</i> , <i>Chionanthus ramiflorus</i> , <i>Mimusops elengi</i> , <i>Polyalthia nitidissima</i> , <i>Millettia pinnata</i> , <i>Geijera salicifolia</i> , <i>Ficus opposita</i> , <i>Sersalisia sericea</i> , <i>Terminalia muelleri</i> , <i>T. arenicola</i> , <i>Drypetes deplanchei</i> , and <i>Exocarpos latifolius</i> . Lowlands on dune sands, of the moist and dry rainfall zones. Not a Wetland.	Of Concern	Endangered	0 ha
7.2.8	Cat B	<i>Melaleuca leucadendra</i> open forest to woodland. Sands of beach origin. Palustrine wetlands.	Of Concern	Endangered	0.61 ha

### 3.2.3. Conservation Significant Flora.

The AOI does not fall within an area that triggers the requirement for a statutory Protected Plant Survey and associated Exemption requirements from the Department of Environment (DES) under the NCA (1992), and there are no official records of any Endangered, Vulnerable and Near Threatened (EVNT) flora that could potentially occur within the AOI, or which have been recorded within a one-kilometre document search buffer of the AOI.

Table 5 addresses potential conservation significant – Protected Least Concern Flora - that may occur within the AOI.

Table 5. List of known Least Concern Protected flora (non-EVNT) flora within a 2 km search buffer and potential for occurring in the AOI.

Taxon	NCA Status	Potential for Occurrence
<i>Stylidium alsinoides</i>	Least Concern	Potentially
<i>Hydrilla verticillata</i>	Least Concern	Very Unlikely
<i>Livistona muelleri</i>	Least Concern	Known

It is strongly recommended that suitable, known specimens of the fan palm *Livistona muelleri* be considered for use within the landscaping design as destruction of these plants are regulated and will require a permit to take and could require further costs to the developer if destroyed.

### 3.2.4. Conservation Significant Fauna.

Conservation significant fauna that has potential for occurring within the AOI are listed in Table 6.

Table 6. List of known Conservation Significant fauna within a 1 km search buffer and potential for occurring in the AOI.

Taxon	NCA Status	Potential for Occurrence
<i>Calidris ruficollis</i>	Special Least Concern	Potentially
<i>Charadrius leschenaultii</i>	Vulnerable	Likely
<i>Charadrius mongolus</i>	Endangered	Likely
<i>Crocodylus porosus</i>	Vulnerable	Very Unlikely
<i>Esacus magnirostris</i>	Vulnerable	Likely
<i>Gelochelidon nilotica</i>	Special Least Concern	Potentially
<i>Hydroprogne caspia</i>	Special Least Concern	Potentially
<i>Limosa lapponica baueri</i>	Vulnerable	Likely
<i>Monarcha melanopsis</i>	Special Least Concern	Potentially
<i>Numenius madagascariensis</i>	Endangered	Likely
<i>Numenius minutus</i>	Special Least Concern	Likely
<i>Numenius phaeopus</i>	Special Least Concern	Likely
<i>Pandion haliaetus cristatus</i>	Special Least Concern	Potentially
<i>Pluvialis fulva</i>	Special Least Concern	Likely
<i>Sterna sumatrana</i>	Special Least Concern	Potentially
<i>Thalasseus bergii</i>	Special Least Concern	Potentially
<i>Tringa brevipes</i>	Special Least Concern	Potentially
<i>Tringa nebularia</i>	Special Least Concern	Potentially

The AOI's proximity to the beach and potential occurrence for associated ground nesting beach fauna and breeding migratory volant fauna, triggers a high requirement for a pre-clearing fauna survey and associated spotter catcher requirements during the duration of clearing.

### 3.2.5. Essential Habitat.

The AOI contains Essential Habitat (Map 5) for most of the taxa listed in Table 6.



Map 5. Essential Habitat map for the AOI.

Essential habitat is – natural habitat, essential for the dispersal and day to day life requirements of a species, including temporary breeding or foraging habitat.

Category X vegetation within the AOI may also contain suitable habitat for volant marine fauna ground nesting requirements.

### 3.2.6 Wetlands.

RE 7.2.8 is a known Palustrine Wetland type.

Palustrine wetlands encompass what is often conventionally envisioned as a wetland type. They consist of vegetated areas that are not part of a river or channel system. Palustrine wetlands include various features such as billabongs, swamps, bogs, springs, and soaks, among others, and they exhibit more than 30% coverage of emergent vegetation. These wetlands hold significant ecological importance within the landscape, serving as essential habitats and breeding grounds for a diverse range of species.

### 3.2.7. Watercourses and Riparian Corridors.

The AOI does not contain any areas mapped as watercourses or riparian corridors.

### 3.2.8. Connectivity.

The AOI provides connectivity and habitat for terrestrial requirements of volant marine species, especially those listed in Table 6.

### 3.2.9. State Wildlife Corridors.

The AOI is located at the outskirts of the expanding urban area of Port Douglas. It lies adjacent to two significant wildlife corridors, namely the Coral Sea beaches and the Mowbray River to the south, which facilitate wildlife movement and connectivity. Additionally, the Mowbray River serves as a conduit to the major wildlife corridors found in the coastal hills and scarps of the Wet Tropics World Heritage Area and the Great Barrier Reef World Heritage Area.

The presence of these natural connections suggests the likelihood of "fauna spillover" from these areas into the AOI. This underscores the importance of conducting a thorough pre-clearing fauna survey and implementing necessary spotter catcher protocols during the clearing process.

### 3.2.10. Koala Priority Areas.

There are no known Koala Priority Areas in this part of Queensland.

## 3.3. Matters of National Environmental Significance (MNES).

MNES that may influence the proposed RAL, groundworks, and subsequent land use within the AOI, is summarised in Table 7.

Table 7. List of MNES considered for the AOI.

MNES	Potential Presence	Notes
1. World Heritage Properties (WHP)	None	Great Barrier Reef and Wet Tropics of Queensland in buffer area.
2. National Heritage Places (NHP)	None	Wet Tropics World Heritage Area (Indigenous Values) in buffer area also note above.
3. RAMSAR Wetlands	None	None in buffer area.
4. Great Barrier Reef Marine Park	None	Zones CP-16-4032 and MNP-16-1051 occurs in the buffer area.
5. Commonwealth Marine Areas	None	None
6. Listed Threatened Ecological Communities	One	Broad leaf tea-tea tree Threatened Ecological Community.
7. Listed Threatened Plant species	13	Terrestrial taxa only, obligate marine taxa excluded.
8. Listed Threatened Fauna species	29	Terrestrial taxa only, obligate marine taxa excluded.
9. Listed Migratory species	25	Terrestrial taxa only, obligate marine taxa excluded.
10. Commonwealth Lands	None	None
11. Commonwealth Heritage Places	None	None
12. Critical Habitat	None	None
13. Commonwealth Terrestrial Reserves	None	None

### 3.3.1. Listed Threatened Ecological Communities.

A search for Threatened Ecological Communities as Vegetation Matters of National Significance, brought to light the potential presence of one EPBC listed TECs within the AOI.

1. Broad leaf tea-tree (*Melaleuca viridiflora*) woodlands in high rainfall coastal north Queensland.

Known RE's from the AOI and comparative equivalents of mapped regional ecosystems to TEC's are shown in Table 8.

Table 8. Comparative equivalents of Threatened Ecological Communities.

Threatened Ecological Community	EPBC Status	Qld Regional Ecosystem Equivalents	Known Site Regional Ecosystems	Likelihood of Occurrence
Broad leaf tea-tree ( <i>Melaleuca viridiflora</i> ) woodlands in high rainfall coastal north Queensland	Endangered	7.3.8a-d., 7.5.4g., 8.3.2a., 8.5.2c., 8.5.6.	7.2.8, 7.2.2a	None

Therefore, the AOI does not contain any TEC's.

### 3.3.2. EPBC Listed Threatened Flora Species.

EPBC listed flora highlighted from the EPBC search tool are listed in Table 9. Thirteen species were considered.

Table 9. Flora Matters of National Environmental Significance that may be of importance to the site.

Taxon	EPBC Status	Habitat	Flowering/Fruiting time	Likelihood of Occurrence
<i>Acriopsis emarginata</i>	Vulnerable	Palustrine Epiphyte	February onwards	Potentially
<i>Bruguiera X hainesii</i>	Critically Endangered	Mangroves	February onwards	Unlikely
<i>Canarium acutifolium</i>	Vulnerable	Forest	February onwards	Unlikely
<i>Cyclophyllum costatum</i>	Vulnerable	Vine Thicket	August onwards	Potentially
<i>Leichhardtia araujacea</i>	Critically Endangered	Forest and Gallery Forest	August onwards	Unlikely
<i>Myrmecodia beccarii</i>	Vulnerable	Coastal Forest	February onwards	Potentially
<i>Phaius pictus</i>	Vulnerable	Swamps	February onwards	Unlikely
<i>Phalaenopsis rosenstromii</i>	Endangered	Gallery Forest	February onwards	Potentially
<i>Phlegmariurus squarrosus</i>	Critically Endangered	Forest	August onwards	Unlikely
<i>Toechima pterocarpum</i>	Endangered	Forest and Gallery Forest	August onwards	Unlikely
<i>Vappodes lithocola</i>	Endangered	Rock pavements	February onwards	Unlikely
<i>Vappodes phalaenopsis</i>	Vulnerable	Palustrine	February onwards	Unlikely
<i>Zeuxine polygonoides</i>	Vulnerable	Forest	February onwards	Unlikely

Most of these taxa can be excluded due to a lack of suitable habitat within the AOI, such as rock pavements or montane mist forests and mangroves.

Epiphytic species known to grow within Palustrine wetlands, Mangroves, Beach scrub and forest or associated with Tea Trees, such as *Acriopsis emarginata* and *Myrmecodia beccarii* probably have the highest probability of occurring within the AOI and must be confirmed in the field survey.



### 3.3.3. EPBC Listed Threatened Fauna Species.

#### 3.3.3.i. General Fauna.

A list of fauna considered for presence on site is provided in Table 10. Most of the taxa are unlikely to occur due to a lack of suitable habitat, or the site not being core habitat.

Table 10. Terrestrial, Fauna of National Significance which were considered for potential occurrence on Site.

Taxon	EPBC Status	Likelihood of Occurrence
<i>Calidris canutus</i>	Endangered	Potentially
<i>Calidris ferruginea</i>	Critically Endangered	Potentially
<i>Casuaris casuaris johnsonii</i>	Endangered	Unlikely
<i>Charadrius leschenaultii</i>	Vulnerable	Unlikely
<i>Charadrius mongolus</i>	Endangered	Unlikely
<i>Dasyurus hallucatus</i>	Endangered	Unlikely
<i>Dasyurus maculatus gracilis</i>	Endangered	Unlikely
<i>Egernia rugosa</i>	Vulnerable	Unlikely
<i>Erythrotriorchis radiatus</i>	Vulnerable	Unlikely
<i>Falco hypoleucos</i>	Vulnerable	Unlikely
<i>Fregetta grallaria grallaria</i>	Vulnerable	Unlikely
<i>Hipposideros semoni</i>	Vulnerable	Unlikely
<i>Hirundapus caudacutus</i>	Vulnerable	Unlikely
<i>Limosa lapponica baueri</i>	Vulnerable	Potentially
<i>Litoria dayi</i>	Vulnerable	Unlikely
<i>Litoria nyakalensis</i>	Critically Endangered	Unlikely
<i>Macroderma gigas</i>	Vulnerable	Unlikely
<i>Mesembriomys gouldii rattoides</i>	Vulnerable	Unlikely
<i>Numenius madagascariensis</i>	Critically Endangered	Likely
<i>Petauroides minor</i>	Vulnerable	Unlikely
<i>Phascolarctos cinereus</i>	Vulnerable	Unlikely
<i>Pteropus conspicillatus</i>	Endangered	Potentially
<i>Rhinolophus robertsi</i>	Vulnerable	Unlikely
<i>Rostratula australis</i>	Endangered	Unlikely
<i>Saccolaimus saccolaimus nudicluniatus</i>	Vulnerable	Potentially
<i>Stiphodon semoni</i>	Critically Endangered	Unlikely
<i>Turnix olivii</i>	Endangered	Unlikely
<i>Tyto novaehollandiae kimberli</i>	Vulnerable	Potentially
<i>Xeromys myoides</i>	Vulnerable	Potentially

Additional species, not dealt with under MSES, include the bat *Saccolaimus saccolaimus* and the Water Mouse (*Xeromys myoides*) which have a significant potential for occurrence on site and must be targeted during the field survey.

#### 3.3.3. ii. Listed Migratory Species.

Non marine migratory fauna species considered for occurrence on site are listed in Table 11. Several of the species have also been dealt under MSES.

Table 11. Listed migratory Fauna of National Significance which were considered for potential occurrence on Site.

Taxon	EPBC Status	Likelihood of Occurrence
<i>Actitis hypoleucos</i>	Migratory	Unlikely
<i>Apus pacificus</i>	Migratory	Unlikely
<i>Calidris acuminata</i>	Migratory	Unlikely
<i>Calidris canutes</i>	Migratory	Unlikely

Taxon	EPBC Status	Likelihood of Occurrence
<i>Calidris ferruginea</i>	Migratory	Unlikely
<i>Calidris melanotos</i>	Migratory	Unlikely
<i>Cecropis daurica</i>	Migratory	Unlikely
<i>Charadrius leschenaultii</i>	Migratory	Likely
<i>Cuculus optatus</i>	Migratory	Unlikely
<i>Gallinago harwickii</i>	Migratory	Unlikely
<i>Hirundapus caudacutus</i>	Vulnerable	Unlikely
<i>Hirundo rustica</i>	Migratory	Unlikely
<i>Limnodromus semipalmatus</i>	Migratory	Unlikely
<i>Limosa lapponica</i>	Migratory	Likely
<i>Monarcha frater</i>	Migratory	Unlikely
<i>Monarcha melanopsis</i>	Migratory	Potentially
<i>Motacilla flava</i>	Migratory	Unlikely
<i>Myiagra cyanoleuca</i>	Migratory	Unlikely
<i>Numenius madagascariensis</i>	Critically Endangered	Unlikely
<i>Pandion haliaetus</i>	Migratory	Unlikely
<i>Rhipidura rufifrons</i>	Migratory	Potentially
<i>Rostratula australis</i>	Endangered	Unlikely
<i>Sternula albifrons</i>	Migratory	Unlikely
<i>Symposiachrus trivirgatus</i>	Migratory	Unlikely
<i>Tringa nebularia</i>	Migratory	Potentially

The Rufous Fantail and Black-faced Monarch could potentially occur in the Palustrine scrub and several shore birds have a high likelihood for roosting, resting, or breeding on site.

### 3.4. Matters of Local Significance (MLES).

The majority of DSC MLES have been covered under the headings of MSES and MNES.

#### 3.4.1. Local Conservation Zoning.

The site does not contain any mapped DSC LGA conservation zones.

#### 3.4.2. Local Protected Areas.

The AOI is not a known locally protected area.

#### 3.4.3. Local Fauna Congregation Areas.

There are no known local fauna congregation areas on the AOI.

#### 3.4.4. Local Fauna Crossing Areas.

There are no known or marked fauna crossings on or around the AOI.

## 4. Field Survey Results.

Field surveys were conducted between 2 September 2023 and 19 September 2023, the surveys were primarily conducted for the purpose of detecting Protected Fauna and Flora species and a vegetation classification survey.

Notes on aquatic and insect fauna were serendipitous and confined to what was evidenced by observations during the execution of meanders to inform on vegetation, flora and fauna targeted by the results of the desktop analysis.

#### 4.1. Summary of Results.

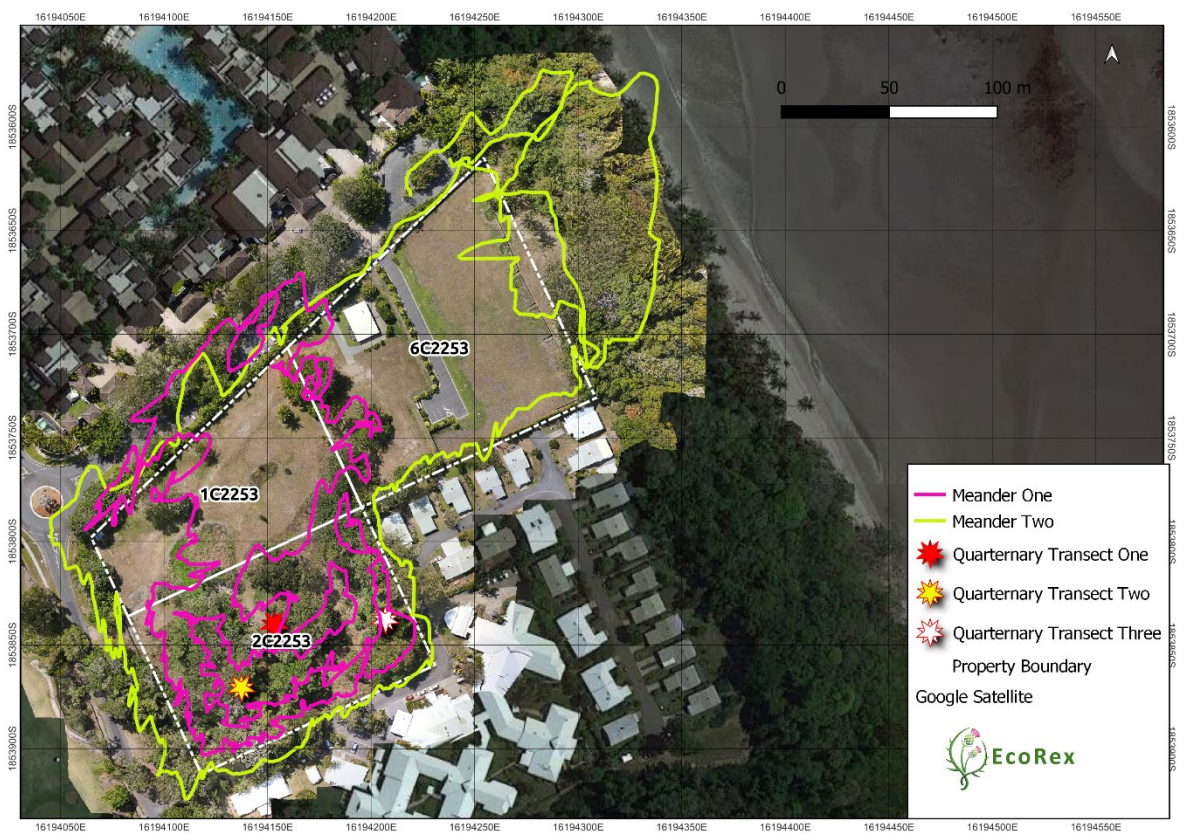
- Vegetation was found to be the same as that mapped for the AOI (Map 4) in State mapping.
- The AOI contains palustrine wetland elements.
- *Myrmecodia beccarii*, an EPBC listed EVNT flora species, was found to be present as epiphytes in the older larger, trees. Both on and surrounding the AOI on adjacent properties. By default, it can also be assumed that the Apollo Jewel Butterfly, which is protected under the NCA (1992) also occurs in the AOI.
- *Lantana camara* is a weed of national significance and is present in the AOI.

#### 4.2. Survey Effort.

##### 4.2.1. Vegetation and Flora Survey Effort.

###### 4.2.1.1. Vegetation Transects.

Three Quaternary Survey Transects were executed (Map 6).



Map 6. Ground Survey Effort.

###### 4.2.1.2. Survey Meanders.

Two diurnal survey meanders were executed (Map 6).

###### 4.2.1.3. Photo Points.

More than 100 photo points were collected showing vegetation, plant species or aerial views of the AOI vegetation.

#### 4.2.2. Fauna Survey Effort.

##### 4.2.2.1. Nocturnal Transects.

Five nocturnal transects were driven and walked within the AOI or its perimeter. Transects generally started at dusk and kept on until 22:00 (10pm) and included all roads and tracks as well as walking transects in vegetated areas.

##### 4.2.2.2. Stationary Fauna Monitoring Sites.

Three stationary monitoring sites, utilising the same locations as the Quaternary Vegetation Survey Sites (Map 6) were set up and monitored over 15 nights to collect data for fauna potentially missed during the diurnal survey meanders and nocturnal Anabat walking transects, specially to monitor for the presence of the Northern Masked Owl (*Tyto novaehollandiae kimberli*).

#### 4.3. Vegetation and Flora.


##### 4.3.1. Vegetation.

The analyses of the three, vegetation transects confirm that there are two distinct vegetation types within the IA.

##### 4.3.1.i. Vegetation Type One (Table 12).

Is dominated by non-remnant species, including common lawn grasses and weeds with some amenity horticulture.

Table 12. Vegetation Type One description.



EcoRex  
Mitre Street  
03.09.2023 14:23  
16.52647, 145.47546  
Altitude: 68m  
22-36 Mitre St, Craiglie QLD 4877


SE

Meander One (Map 6).			
Structural Information			
Tier	Species Composition	Height (m)	Cover
T1	<i>Melaleuca leucadendra</i> , <i>Ficus benjamina</i> , <i>Alphitonia petriei</i> , <i>Cocos nucifera</i> , <i>Melaleuca dealbata</i>	10-25	<5%
S1	<i>Megathyrsus maximus*</i> , <i>Lantana camara*</i> , <i>Stachytarpheta cayennensis*</i> , <i>Chamaechrista rotundifolia*</i> , <i>Triumfetta rhomboidei*</i>	1-3	10-20%
G1	<i>Axonopus compressus*</i> , <i>Urochloa (Brachiaria) decumbens*</i> , <i>Melinis repens*</i> , <i>Tridax procumbens*</i> , <i>Sphagneticola trilobata*</i>	0.5-1	80%

#### 4.3.1. ii. Vegetation Type Two (Table 12).

This vegetation type is associated with palustrine wetland zones within the AOI.

Table 13. Vegetation Type Two description.

			
Transects 1,2 and 3 (Map 6).			
Structural Information			
Tier	Species Composition	Height (m)	Cover
E	<i>Melaleuca leucadendra</i> , <i>Melaleuca dealbata</i> , <i>Terminalia microcarpa</i> , <i>Terminalia arenicola</i> , <i>Mimusops elengi</i>	25-35	<10%
T1	<i>Melaleuca leucadendra</i> , <i>Melaleuca dealbata</i> , <i>Barringtonia calyptata</i> , <i>Dillenia alata</i> , <i>Corymbia tessellaris</i>	10-20	30-50%
S1	<i>Livistona muelleri</i> , <i>Acantophoenix alexandra</i> , <i>Hydriastele wendlandiana</i> , <i>Colubrina asiatica</i> , <i>Macaranga tanarius</i>	1-6	20-30%
G1	<i>Axonopus fissifolius*</i> , <i>Urochloa (Brachiaria) mutica*</i> , <i>Smilax blumei</i> , <i>Acrostichum speciosum</i> , <i>Stenochlaena palustris</i>	0.5-1	<10%

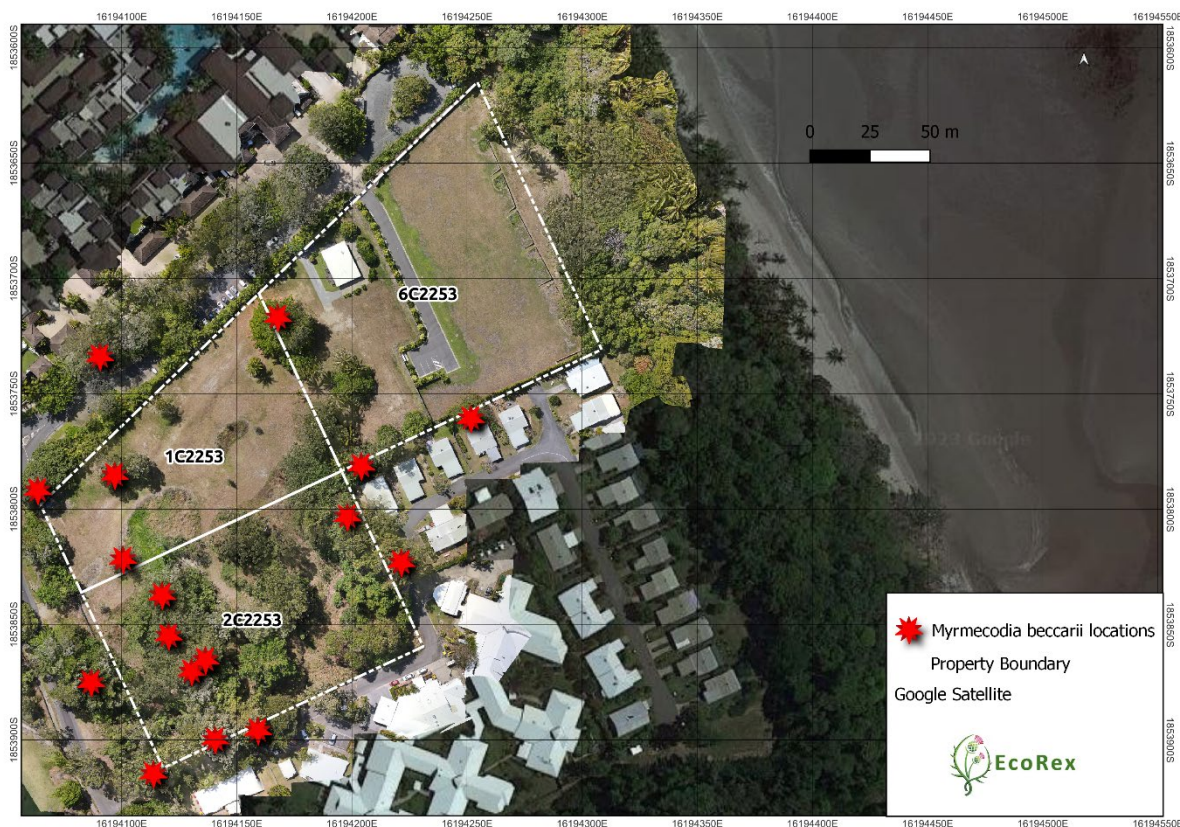
4.3.2. Conservation Significant Vegetation.

Vegetation Type Two can be aligned with vegetation expected on RE 7.2.8, palustrine wetland vegetation and essential habitat for the taxa discussed in 3.2.5. Essential Habitat.

4.3.3. Flora.

4.3.3.1. Conservation Significant Flora.

The field survey found that many of the large emergent trees within both Vegetation Type One and Vegetation Type Two contained Ant Plants (*Myrmecodia beccarii*) (Table 9) (Map 7).



Map 7. Observed Ant Plant locations during this survey.

4.3.3.2. Weeds.

The AOI has a ground cover of many nuisance weedy species throughout both vegetation types, but most notably in Vegetation Type One.

Significant weed species located during the survey is listed in Table 14.

Most notable is the presence of *Lantana camara*\*, a weed of national significance and Sickle Pod (*Senna obtusifolia*\*).

Table 14. Significant weed species found within the AOI.

Taxon	Common Name	National Status	Queensland Status
<i>Lantana camara</i>	Lantana	Declared Weed of National Significance	Restricted Cat 3
<i>Spathodea campanulata</i>	African Tulip Tree	No	Restricted Cat 3
<i>Senna obtusifolia</i>	Sickle Pod	No	Restricted Cat 3
<i>Sphagneticola trilobata</i>	Singapore Daisy	No	Restricted Cat 3

#### 4.4. Fauna.

##### 4.4.1. Threatened Fauna.

No threatened or protected fauna were detected during the survey as was expected. The potential presence of threatened fauna within the AOI is adequately addressed within the desktop survey and will consist of mainly summer/wet season migrants and shore birds.

##### 4.4.2. Bio-acoustic analyses.

Bio-acoustic data did not find the presence of any threatened bat species, with the most detected species being *Miniopterus australis*, *Rhinolophus megaphyllus* and *Austronomus australis* for the AOI.

##### 4.4.3. Insects.

The presence of Ant Plants within the AOI indicates a very high probability that the Apollo Jewel butterfly (*Hypochrysops apollo*) could be present within the AOI. This species could very well be recorded during the wet season and just post wet season and larvae would currently be inside the ant plants being tended by ants.

The Apollo Jewel has a NCA (1992) conservation status of Vulnerable and is dependent on a unique relationship between the Ant Plant and the Golden Ant (*Iridiomyrex cordatus*).

##### 4.4.4. Reptiles.

The survey timing was not optimal for many snake species; however, the onset of the dry season and end of winter does allow for the detection of many skink species, seldom detected during the hot dry summer. The most common species observed included, *Ctenotus spaldingii*, *Carlia longipes*, *Cryptoblepharus virgatus* and *Lepidodactylus lugubris*.

##### 4.4.5. Mammals.

The only mammals detected were the presence of a few (less than 5) Agile Wallabies (*Notamacropus agilis*) and a Northern Brown Bandicoot (*Isodon macrourus*).

##### 4.4.6. Birds.

The most frequently encountered birds were the Blue-faced Honeyeater, Bush Thick-knee, Australian Ibis, Straw-necked Ibis, Orange-footed Megapode and Spotted Dove.

## 5. Impact assessment.

A short impact assessment of the proposed development, based on this report results, is presented in Table 15.

The taking of Ant Plants or their destruction for this development proposal will require a detailed survey of trees with protected plants in them and a proposal as to how the Protected Plants and their host trees will be protected and managed during clearing.

Although no major or residual impact can be foreseen on any MSES or MNES, useful mitigation measures exist that can be applied to mitigate the impact of the development and is discussed further below.

Table 15. Impact Assessment of the proposed development.

Significant Impact Criteria	Likelihood of Occurrence
Will the action lead to a long-term decrease in the size of a threatened taxon.	No
Will the action reduce the area of occupancy of a threatened taxon.	No

Significant Impact Criteria	Likelihood of Occurrence
Will the action fragment an existing threatened taxon population into two or more populations.	No
Will the action adversely affect habitat critical to the survival of a threatened taxon.	No
Will the action disrupt the breeding cycle of a taxon.	No
Will the action modify, destroy, remove, isolate, or decrease the availability or quality of habitat to the extent that the taxon is likely to decline.	No
Will the action result in invasive species that are harmful to a critically endangered or endangered species becoming established in the endangered or critically endangered species' habitat	No
Will the action introduce disease that may cause the taxon to decline.	No
Will the action interfere with the recovery of a threatened taxon.	No

## 6. Mitigation Measures to Consider.

### 6.1. Avoidance Options.

- Reconsider the number of lots and or extent of clearing proposed to Category X Vegetation only.
- Incorporate trees with their Tree Protection Zones (TPZ) into the landscape design and clear only outside the TPZ of any relevant trees containing protected flora.

### 6.2. Translocation Options.

- Translocation of Ant plants to suitable trees within a 100-meter radius of the AOI can be considered if approved by the EPBC.
- With EPBC approval protected plants could be moved to community nurseries or other not for profit organization nurseries for establishment and later re-establishment within the general coastal scrub in suitable positions around Port Douglas, with the developer being responsible for their maintenance.

### 6.3. Financial Offsets.

- A financial offset could be considered based on the number of Ant Plants present on site and that may be lost due to clearing – financial options will normally start at around \$1000-00 per individual plant and will be set by the assessing authority.

## 7. Recommendations.

- The development will have to be reviewed by SARA for approval due to the presence of Ant Plants within the AOI even if approved by an LGA.
- Clearing of trees on the development must take care not to encroach on to the TPZ's of trees containing protected plants along the property boundary and adjacent properties. These TPZ's may extent into the AOI and IA. Damage to host tree TPZ's and subsequent irreversible damage to host trees will be seen as taking of the Ant Plants.
- A qualified and licenced fauna spotter catcher must be present during clearing and tasked with rescuing fauna and conservation significant flora for translocation.



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Approved Conservation Advise for *Myrmecodia beccarii*.

**PTO**

Approved Conservation Advice  
(s266B of the *Environment Protection and Biodiversity Conservation Act 1999*)

**Approved Conservation Advice for**  
***Myrmecodia beccarii***

This Conservation Advice has been developed based on the best available information at the time this Conservation Advice was approved; this includes existing plans, records or management prescriptions for this species.

**Description**

*Myrmecodia beccarii*, Family Rubiaceae, also known as Ant Plant, is a tuberous epiphyte. Tubers are irregularly cylindrical, 30 cm long, 21 cm wide, pale grey and covered in short, stout spines borne on mounds with pore and entrance holes absent. Within the tuber chambers up to 1 cm across occur with 0.5–1.5 cm of tissue between chambers. Several stems arise from the tuber and are freely branched, up to 15 cm long and 3 cm wide. Leaves are fleshy and succulent, elliptic to oblanceolate, 1–9 cm long, 1.4–4.5 cm wide and pale green on stalks 3–45 mm long. Flowers are white, about 1 cm long, with a ring of hairs just below the middle of the tube. Anthers are near the opening of the tube and blue coloured, and the style is 4-lobed. Fruit are white, up to 13 mm long, 5 mm wide and contain four pyrenes (Huxley & Jebb, 1993; Forster, 2000).

This species has a unique association with the Golden Ant (*Iridomyrmex cordatus*) and the Apollo Jewel butterfly (*Hypochrysops apollo apollo*) (Forster, 2000).

**Conservation Status**

*Myrmecodia beccarii* is listed as **vulnerable**. This species is eligible for listing as vulnerable under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (EPBC Act) as, prior to the commencement of the EPBC Act, it was listed as vulnerable under Schedule 1 of the *Endangered Species Protection Act 1992* (Cwlth). *Myrmecodia beccarii* is also listed as vulnerable under the *Nature Conservation Act 1992* (Queensland).

**Distribution and Habitat**

*Myrmecodia beccarii* is known from the coastal woodlands between Cooktown and Ingham in Queensland. This species occurs in open woodland dominated by *Melaleuca viridiflora* or mangroves (Forster, 2000). The species is conserved within the Girringun National Park (NP), Daintree NP and Edmund Kennedy NP. This species has a minimum area of occupancy of 7000 km<sup>2</sup>, a minimum range of 350 km and is known from 10 locations (Landsberg & Clarkson, 2004). This species occurs within the Wet Tropics and Cape York (Queensland) Natural Resource Management Regions.

The distribution of this species is not known to overlap with any EPBC Act-listed threatened ecological community.

**Threats**

The main identified threats to *M. beccarii* are clearing of the lowland paperbark woodlands; localised settlement pressures; and the removal or destruction of plants by plant and butterfly collectors (Forster, 2000; Landsberg & Clarkson, 2004).

### **Research Priorities**

Research priorities that would inform future regional and local priority actions include:

- Design and implement a monitoring program or, if appropriate, support and enhance existing programs.
- More precisely assess population size, distribution, ecological requirements and the relative impacts of threatening processes.
- Undertake survey work in suitable habitat and potential habitat to locate any additional populations/occurrences/remnants.
- Undertake seed germination and/or vegetative propagation trials to determine the requirements for successful establishment, including mycorrhizal association trials.
- Investigate the potential and efficacy of DNA-based or other approaches for the identification of individual plants and/or populations to provide a means for detecting and prosecuting illegal collection from the wild (for example see Palsboll et al., 2006).

### **Regional and Local Priority Actions**

The following regional and local priority recovery and threat abatement actions can be done to support the recovery of *M. beccarii*.

#### **Habitat Loss, Disturbance and Modification**

- Monitor known populations to identify key threats.
- Monitor the progress of recovery, including the effectiveness of management actions and the need to adapt them if necessary.
- Identify populations of high conservation priority.
- Ensure road widening and maintenance activities (or other infrastructure or development activities) involving substrate or vegetation disturbance in areas where *M. beccarii* occurs do not adversely impact on known populations.
- Control access routes to suitably constrain public access to known sites on public land.
- Suitably control and manage access on private land.
- Minimise adverse impacts from land use at known sites.
- Investigate formal conservation arrangements, management agreements and covenants on private land, and for crown and private land investigate inclusion in reserve tenure if possible.

#### **Conservation Information**

- Raise awareness of *M. beccarii* within the local community.

#### **Enable Recovery of Additional Sites and/or Populations**

- Undertake appropriate seed and mycorrhizal fungi collection and storage.
- Investigate options for linking, enhancing or establishing additional populations.
- Implement national translocation protocols (Vallee et al., 2004) if establishing additional populations is considered necessary and feasible.

This list does not necessarily encompass all actions that may be of benefit to *M. beccarii*, but highlights those that are considered to be of highest priority at the time of preparing the conservation advice.

### **Existing Plans/Management Prescriptions that are Relevant to the Species**

- Cape York Back on Track Biodiversity Action Plan (EPA, 2008),
- Wet Tropics Conservation Strategy (WTMA, 2004),
- Sustaining the Wet Tropics: A Regional Plan for Natural Resource Management 2004-2008 (FNQ NRM Ltd. & Rainforest CRC, 2004),
- Cape York Peninsula natural resource management plan (Earth Tech, 2005), and

This Conservation Advice was approved by the Minister / Delegate of the Minister on: 16/12/2008

- Management Program for Protected Plants in Queensland 2006–2010 (EPA, 2006).

These prescriptions were current at the time of publishing; please refer to the relevant agency's website for any updated versions.

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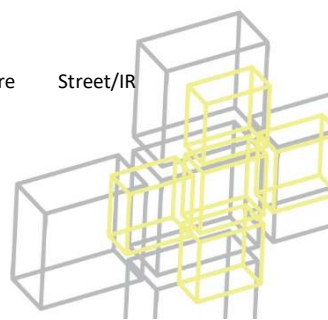
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# Annexure 3: State Code 9 Response

[https://ppqld-my.sharepoint.com/personal/evan\\_planningplusqld\\_com\\_au/Documents/JOBS/23-06 Response/001275.docx](https://ppqld-my.sharepoint.com/personal/evan_planningplusqld_com_au/Documents/JOBS/23-06%20Response/001275.docx)

Cavallaro Mitre Street/IR



# State code 9: Great Barrier Reef wetland protection areas

State Development Assessment Provisions Guideline: State code 9: Wetland protection areas which provides direction on how to address this code.

**Table 9.1: Development with an acceptable outcome**

Performance outcomes	Acceptable outcomes	Response
<b>General</b>		
<b>PO1</b> Development maintains or improves <b>wetland environmental values</b> and native <b>vegetation</b> within the wetland and the <b>buffer</b> .	<b>AO1.1</b> The <b>buffer</b> surrounding a wetland has a minimum width of: 1. 200 metres, where the <b>wetland</b> is located outside a <b>prescribed urban area</b> ; or 2. 50 metres, where the <b>wetland</b> is located within a <b>prescribed urban area</b> .	<b>The proposed development is located within an urban area and is approximately 60m from the wetland.</b>

**Table 9.2: Development with no acceptable outcome**

Performance outcomes	Response
<b>General</b>	
<b>PO2</b> Development is not carried out in a <b>wetland</b> in a <b>wetland protection area</b> .	<b>Proposed development is located approximately 60m from the wetland.</b>
<b>Hydrology</b>	
<b>PO3</b> Development maintains or improves the existing surface and groundwater hydrology in a <b>wetland protection area</b> .	<b>Proposed development drains to Sagiba Avenue and will include stormwater quality improvement measures.</b>
<b>Water quality</b>	
<b>PO4</b> Development does not unacceptably impact the water quality of the <b>wetland</b> in the <b>wetland protection area</b> and in the <b>wetland buffer</b> .	<b>Proposed development drains to Sagiba Avenue and will include stormwater quality improvement measures.</b>
<b>PO5</b> Development does not use the <b>wetland</b> in the <b>wetland protection area</b> for stormwater treatment.	<b>Proposed development drains to Sagiba Avenue and will include stormwater quality improvement measures.</b>
<b>Land degradation</b>	
<b>PO6</b> Development is located and designed to protect the <b>wetland protection area</b> from <b>land degradation</b> .	<b>Proposed development drains to Sagiba Avenue and will include stormwater quality improvement measures.</b>
<b>Fauna management</b>	
<b>PO7</b> Development protects <b>wetland fauna</b> from any impacts associated with noise, light or <b>visual disturbance</b> .	<b>Proposed development is located approximately 60m from the wetland. Other approved development exists between the proposed development and the wetland.</b>

Performance outcomes	Response
<p><b>PO8</b> Development protects the movement of <b>wetland fauna</b> within and through a <b>wetland protection area</b>.</p>	<p><b>Proposed development is located approximately 60m from the wetland. Other approved development exists between the proposed development and the wetland.</b></p>
<p><b>PO9</b> Development does not introduce pest plants, pest animals or <b>exotic species</b> into a <b>wetland</b> and its <b>buffer</b>.</p>	<p><b>Proposed development is located approximately 60m from the wetland. Other approved development exists between the proposed development and the wetland.</b></p>
Matters of state environmental significance	
<p><b>PO10</b> Development outside the <b>wetland</b> is designed and sited to:</p> <ol style="list-style-type: none"> <li>1. avoid impacts on <b>matters of state environmental significance</b>; or</li> <li>2. minimise and mitigate impacts on <b>matters of state environmental significance</b> after demonstrating avoidance is not reasonably possible; and</li> <li>3. provide an <b>offset</b> if, after demonstrating all reasonable avoidance, minimisation and mitigation measures are undertaken, the development results in an acceptable <b>significant residual impact on a matter of state environmental significance</b>.</li> </ol> <p>Statutory note: For Brisbane core port land, an offset may only be applied to development on land identified as E1 Conservation/Buffer, E2 Open Space or Buffer/Investigation in the Brisbane Port LUP precinct plan.</p>	<p><b>Refer to Matters of Environmental Significance Report.</b></p>