



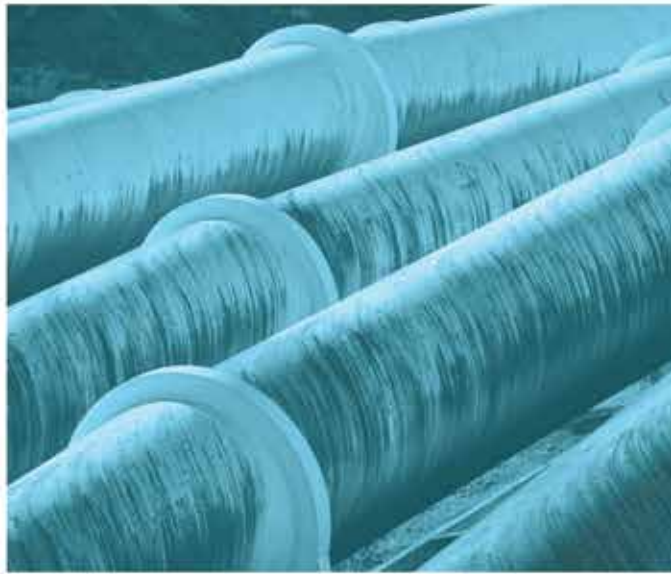
APPENDIX K –
REQUEST TO WAIVER THE REQUIREMENTS FOR A
BIODIVERSITY DEVELOPMENT ASSESSMENT REPORT (BDAR)



Luddenham Quarry Modification Report DA 315-7-2003 MOD5

Request to waiver the requirements for a Biodiversity Development Assessment Report (BDAR)

Prepared for Coombes Property Group & KLF Holdings Pty Ltd
August 2020





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9 April 2020

To: The Department of Planning, Industry and Environment (The Department)
From: Dr Steven Ward
Subject: Request to waiver the requirements for a Biodiversity Development Assessment Report for modification of Luddenham Quarry operations

Dear Planning Officer,

Please find below our request to waive the requirement to lodge a Biodiversity Development Assessment Report (BDAR), as per section 7.9 of the *Biodiversity Conservation Act 2016*, for a proposed modification (MOD5) to the existing development consent (DA No. 315-7-2003) for Luddenham Quarry.

The modification proposes:

- to extend the extraction limit period beyond the current limit of 31 December 2024 for an additional five years to 31 December 2029;
- to extend the stockpile footprint;
- to build a new workshop, equipment laydown area, weighbridge and site office;
- to widen the site access road from Adams Roads; and
- administrative modifications to some consent conditions.

This letter request has been structured as per The Department's guide for requesting a BDAR waiver (Department of Planning, Industry and Environment, 2019). This letter comprises:

- Table 1: BDAR waiver request information requirements;
- Table 2: impacts of the proposed modification on biodiversity values; and
- Appendices: additional supporting documentation.

Based on this documentation, we trust that you will agree we have demonstrated that the proposed modification is not likely to have any significant impact on biodiversity values.

As requested for SSD applications, we will lodge this waiver application at the same time as making the request for Secretary's Environmental Assessment Requirements (SEARs).

Yours sincerely

A handwritten signature in black ink that reads "Steven Ward". The signature is written in a cursive style with a long, sweeping underline that extends to the right.

Dr Steven Ward

Associate Ecologist

sward@emmconsulting.com.au

Table 1 Biodiversity development assessment report waiver request information requirements

Admin	Proponent name	Coombes Property Group/KLF Holdings Pty Ltd
	Contact details	Michael Coombes, Director, Coombes Property Group John Scarlis, KLF Holdings Pty Ltd
	Author of Table 2	Dr Steven Ward, Associate Ecologist, Accredited BAM Assessor. Assisted by Ryl Parker, Ecologist.
Site details	Address	275 Adams Road, Luddenham, NSW 2745 (hereafter referred to as ‘the site’).
	Lot and DP	Lot 3/DP 623799
	LGA	Liverpool
	Existing development site description	The site is a 19 ha property that gently slopes from the south-west to the north-west. The site is bounded to the east by Oaky Creek. An online dam has been constructed on Oaky Creek and collects surface water runoff from the property.
	Location map	See Appendix A.
	Site map	See Appendix B.
Proposed development	Project description	Proposed modifications are: <ul style="list-style-type: none"> to extend the extraction limit period beyond the current limit of 31 December 2024 for an additional five years to 31 December 2029; to extend the stockpile footprint; to build a new workshop, equipment laydown area, weighbridge and site office; to widen the site access road from Adams Roads; and administrative modifications to some consent conditions.
	Proposed site plan	See proposed site plan in Appendix B. These layers show: <ul style="list-style-type: none"> extended stockpile footprint; workshop, equipment laydown area, weighbridge and site office; and Site access road from Adams Road.
Impacts on biodiversity values		See Table 2.

Table 2 **Impacts of the proposed development on biodiversity values**

Biodiversity value	Meaning	Documentation
Vegetation abundance – 1.4(b) BC Regulation	Occurrence and abundance of vegetation the site	<p>Site vegetation and the proposed modification footprint are identified in Appendix B.</p> <p>No native vegetation would be impacted by the proposed modification. Exotic vegetation would only be impacted in areas mapped as “Proposed new disturbance MOD5” (see Appendix B).</p> <p>All other proposed infrastructure will occur inside the existing approved development footprint consent area, and no additional clearing (or any other direct impacts to existing vegetation) will occur.</p> <p>Two trees were mapped within the approved disturbance footprint of existing consent (DA315/7/2003 Mod 3) (within the approved extraction and stockpiling area). The trees are isolated, comprise an exotic understorey and no midstorey, are the most commonly occurring tree species in the local area, and therefore are considered to have negligible biodiversity value. As these trees are within the approved disturbance footprint, potential impact on these trees has been approved by the existing consent. Consideration of the potential impact on these trees not required for the proposed modification and therefore not considered further in this biodiversity waiver application.</p>
Vegetation integrity 1.5(2)(a) BC Act	Degree to which the composition, structure and function of vegetation at the site and the surrounding landscape has been altered from a near-natural state	<p>The existing vegetation integrity at the site is limited to the riparian corridor and a patch of woodland in the north-east corner of the site.</p> <p>As is visible from the aerial imagery in Appendix A, vegetation integrity in the surrounding landscape is also degraded, and largely limited to isolated pockets of woodland, or corridors of riparian vegetation along meandering drainage creeks within a wider agricultural landscape.</p> <p>Prior to being used as a quarry, the site was used as stockyards for horses. The majority of the property was covered by grass or bare earth, with remnant trees mostly located in or near Oaky Creek (Douglas Nicolaisen & Associates 2003).</p> <p>To the immediate east and south of the site, Western Sydney Airport has been approved, and bulk earthworks are currently in progress. The Western Sydney Airport Plan (Commonwealth of Australia 2016) has a narrow Environmental Conservation zone identified along the eastern side of Oaky Creek, but all lands to the immediate south of the site are to be developed as part of the airport.</p>

Table 2 Impacts of the proposed development on biodiversity values

Biodiversity value	Meaning	Documentation
Habitat suitability 1.5(2)(b) BC Act	Degree to which the habitat needs of threatened species are present at the site: (a) Identify any threatened species or ecological communities or their habitat on the development site	<p>A desktop review from the following sources was made on 22 January 2020:</p> <ul style="list-style-type: none"> • BioNet atlas search of a 10x10 km area around the centre of the site; • Protected Matters Search Tool (PMST) report of the extent of the site; • spatial Directory of Important Wetlands in Australia; and • past ecological assessments made of the site. <p>Copies of the BioNet Atlas search and the PMST report, are provided in Appendix C and Appendix D.</p> <p>The desktop review identified 36 threatened species and 4 threatened ecological communities occur in the vicinity of the site according to the PMST report.</p> <p>The 2003 EIS (Douglas Nicolaisen & Associates 2003) recorded no threatened species on the site.</p> <p>The desktop review was followed by site visit by qualified ecologists on 30 January, 24 February, and 27 February 2020, who surveyed the entire study area. The site visits included vegetation mapping, targeted threatened flora searches spaced ten metres apart, searches for Cumberland Plain Land Snail and Dural Land Snail. and targeted nocturnal surveys for microbats, Bush Stone Curlew and Green and Golden bell Frog.</p> <p>The January threatened flora search assessed all flora candidate species whose survey period included January. The February search assessed Bush-stone Curlew, microbats and Green and Golden Bell Frog.</p> <p>The site visit identified two threatened ecological communities (TECs) within the study area, comprising:</p> <ul style="list-style-type: none"> - Swamp Oak Floodplain Forest of the NSW North Coast, Sydney Basin and South East Corner bioregions (BC listed) - Cumberland Plain Woodland in the Sydney Basin Bioregion (BC listed) <p>These TECs are both very poor quality, comprising an exotic ground layer and no midstorey (Appendix B).</p> <p>The proposed modification will not result in direct impacts to native vegetation on the site.</p> <p>In terms of threatened species, Southern Myotis (<i>Myotis macropus</i>) was detected. This species was detected feeding over the two large dams in the northeast of the site and roosting in low numbers under a concrete bridge at the southeast boundary of the site. No other threatened species were detected. A tin shed is present to the west of the existing quarry, and may be removed, but is not considered to be suitable roosting microchiropteran habitat.</p>
	(b) Describe how the proposed development avoids impacts on habitat suitability	<p>The modification avoids impacts to habitat as no additional disturbance is proposed to native vegetation apart from that currently approved.</p> <p>Any vegetation not mapped on site is exotic. The exotic vegetation does not comprise habitat for threatened species, and therefore habitat suitability will not be impacted.</p> <p>Existing tracks will be used. These tracks may receive improvements but will not encroach on areas of native vegetation. The proposed extension to the existing stockpiling area and proposed workshop and equipment laydown area have been sited to avoid impacts on native vegetation.</p>

Table 2 Impacts of the proposed development on biodiversity values

Biodiversity value	Meaning	Documentation
	<p>(c) Identify the likelihood and extent of any remaining impacts including impacts of development on the following:</p> <p>a. Karsts, caves, crevices, cliffs and other geological features of significance</p>	<p>The desktop assessment and site visits identified no geological features of significance on site.</p>
	<p>b. Rocks</p>	<p>For the purposes of this assessment, 'rocks' are assumed to comprise rocks or rocky areas that may provide habitat to threatened species, such as Pink-tailed Worm Lizard. The desktop assessment and site visits identified no 'rocks' on site. Additionally, if any rocks were present and not found, it is unlikely that any threatened species would utilise them due to the degraded nature of the site (ie. exotic groundlayer, absent midstorey, sparse tree structure, modified landscape).</p>
	<p>c. human-made structures</p>	<p>Upgrades to the internal road network will not require the modification of any human-made structures. A tin shed may be removed to accommodate the workshop and equipment laydown area, but is not considered to be suitable microchiropteran bat habitat.</p>
	<p>d. non-native vegetation (prescribed under clause 6.1(1)(a) of the BC Regulation)</p>	<p>The desktop assessment and site visits did not identify any non-native vegetation on site with potential to provide habitat for any potential threatened species.</p>
	<p>(d) Identify any impacts from the removal or modification (eg. noise, light, etc.) of the habitat of threatened species or ecological communities</p>	<p>The site has historically been used as a quarry and thus the proposed usage is consistent with the existing land use. Furthermore, the adjacent Western Sydney Airport development is currently progressing, with earthworks currently underway. The proposed modification is substantially related to the continuation of existing operations. As such, impacts on the site are expected to be much the same to those previously and currently experienced.</p>
Threatened species abundance 1.4(a) BC Regulation	<p>Occurrence and abundance of threatened species or threatened ecological communities, or their habitat, at a particular site. Specifically, identify potential impacts to threatened species by:</p> <p>(a) Vehicle strikes</p>	<p>The proposed modification broadly aims to maintain the currently approved extraction rate of 300,000 tonnes per annum (tpa) for an additional 5 year period. In addition, the modification allows for the existing site access road from Adams Road to be utilised by quarry vehicles.</p> <p>Introducing quarry vehicles to the access road will result in additional traffic increasing the risk of vehicles strike in the along the road. Although it is noted that the access road will replace the currently approved access road that can no longer be accessed as it is within the airport site. The modified access route will be shorter than the approved access route and will not cross through the riparian corridor along Oaky Creek.</p> <p>The proposed mitigation measures to this are:</p> <ul style="list-style-type: none"> maintaining a site speed limit of 20 kph; and implementing regular maintenance of the road by means of managing vegetation on the shoulder to increase visibility. <p>No threatened species are likely to be impacted by vehicle strike.</p>
	<p>(b) Demolition activities</p>	<p>The proposed modification may require the removal of a tin shed to accommodate the workshop and equipment laydown area. This shed has been assessed as being not suitable microchiropteran bat habitat. Therefore, it is unlikely that any future demolition activities would significantly impact any threatened species on the site.</p>
	<p>(c) Non-native vegetation (prescribed by 6.1 (1)a(iv) of the Regulation)</p>	<p>The desktop assessment and site visits did not identify any non-native vegetation on site with potential to provide habitat for any potential threatened species.</p>

Table 2 Impacts of the proposed development on biodiversity values

Biodiversity value	Meaning	Documentation
	(d) Non-natural water bodies (prescribed by 6.1(1)a(iii) of the Regulation)	The proposed modification does not require any changes to non-natural water bodies. Therefore, it is unlikely that there will be any impact to threatened species on the site.
Habitat connectivity 1.4(c) BC Regulation	Degree to which a particular site connects different areas of habitat of threatened species to facilitate the movement of those species across their range	The site provides minimal ecological connectivity. Oaky Creek to the east of the study area has some ecological value as a drainage line, riparian corridor, and associated ecological values. This drainage line is orientated in roughly a north – south direction, with water flowing from the south to the north. However, the southern extent of this riparian corridor is the southern boundary of the study area, and does connect further, with the Western Sydney Airport development present to the south. The proposed modification does not include activities within, or impact to, the Oaky Creek vegetation.
Threatened species movement 1.4(d) BC Regulation	Degree to which a particular site contributes to the movement of threatened species to maintain their lifestyle	The site is unlikely to contribute to threatened species movement. The proposed modification avoids impacts on threatened species movement by utilising existing tracks. The proposed modification is unlikely to reduce threatened species movement.
Flight path integrity 1.4(E) BC Regulation	Degree to which the flight paths of protected animals over a particular site are free from interference	The desktop assessment identified fifteen migratory birds that are predicted to occur within the vicinity of the site. The proposed modification does not require the building of tall structures (such as wind turbines). Therefore, it is unlikely that the proposed modification would significantly impact any flight paths of protected animals. The presence of the Western Sydney Airport development immediately adjacent to the site is also likely to deter protected animals from utilising flight paths near the site.
Water sustainability 1.4(f) BC Regulation	Degree to which water quality, water bodies and hydrological processes sustain threatened species and threatened ecological communities at the site	The modification does not include changes to existing water bodies. As such no impacts greater than that currently approved are proposed. Therefore, it is unlikely that any threatened species utilising the water in or near the site will be impacted by the modification.

A.1 Documentation referenced in this document

Commonwealth of Australia 2016. Western Sydney Airport: Airport Plan.

https://www.westernsydneyairport.gov.au/sites/default/files/Western_Sydney_Airport_Plan.pdf

Development Consent, DA No. 315-7-2003, For Badger Mining Company Pty Limited.

Douglas Nicolaisen & Associates Pty Ltd, 2003, *Environmental Impact Statement – Proposed Clay/Shale Extraction Operation – Lot 3 - 272 Adams Road Luddenham NSW*, prepared for Badger Mining Company Pty Limited 275 Adams Road Luddenham NSW.

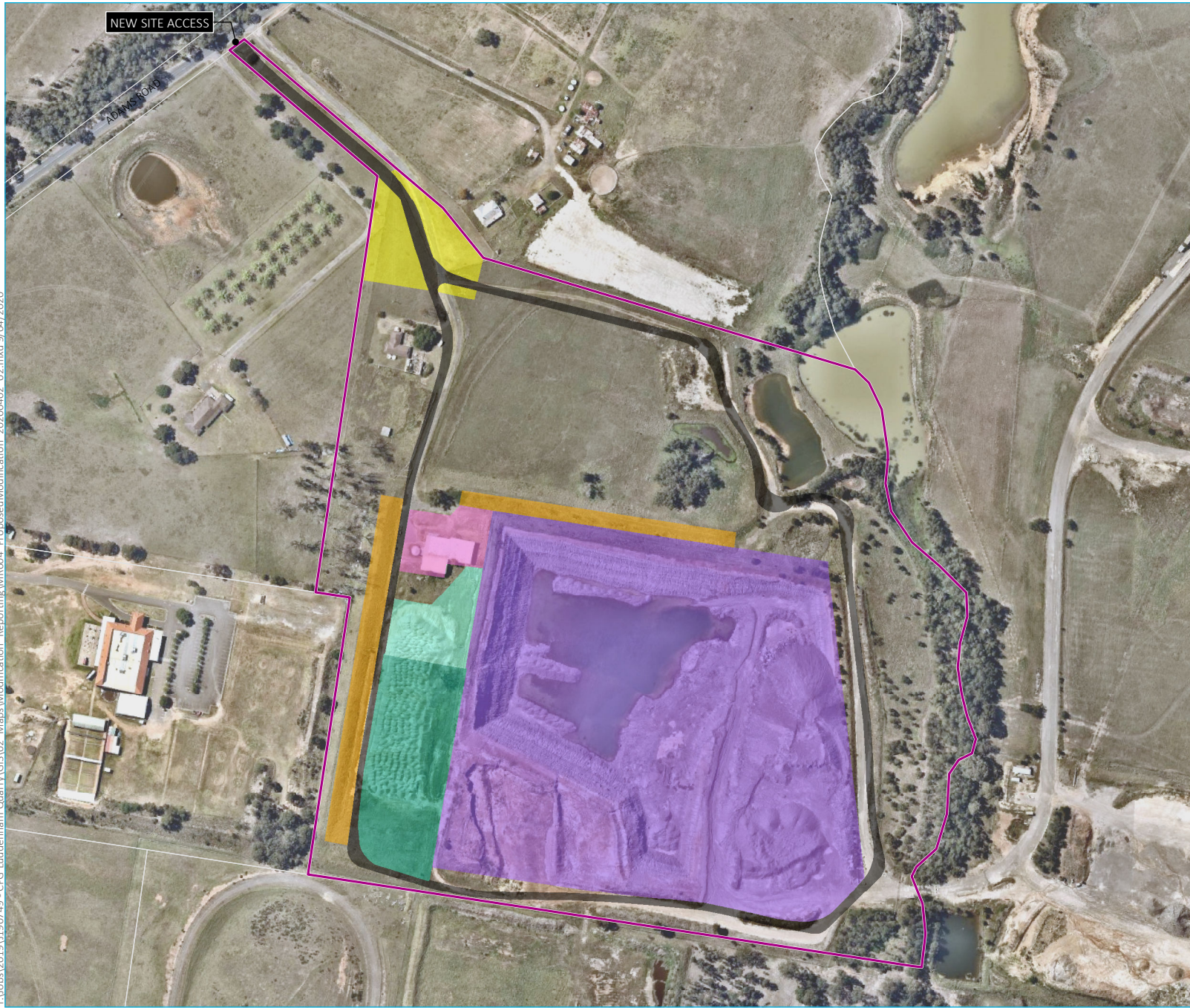


Appendix °

Conceptual site layout



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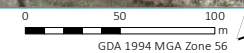


- KEY**
- Study area
 - Cadastral boundary
 - Proposed site modifications
 - Approved extraction footprint
 - Existing noise bunds
 - Existing stockpiling area
 - Extended stockpiling area
 - Internal road
 - Site entry infrastructure (incl. offices, amenities, weighbridge)
 - Workshop and equipment laydown area

Proposed modification

Luddenham Quarry - Modification 5
BDAR Waiver
Figure 1.1

Source: EMM (2020); DFSI (2017); GA (2011); Nearmap (2019)





Appendix B

Conceptual site layout and plant community types



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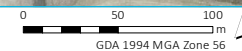
- KEY**
- Study area
 - Proposed road layout
 - Waterbody
 - Cadastral boundary
- Proposed disturbance**
- Approved under DA315/7/2003 (as modified)
 - Proposed new disturbance MOD5
- Threatened ecological community (TEC)**
- Swamp Oak Floodplain Forest of the NSW North Coast, Sydney Basin, South East Corner bioregions
 - Cumberland Plain Woodland in the Sydney Basin Bioregion
- Plant community type (PCT)**
- 1800 - Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter Valley
 - Poor (disturbed)
 - Poor
 - Medium
 - 849 - Grey Box Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion
 - Poor

Conceptual site layout and plant community types

Luddenham Quarry - Modification 5
BDAR Waiver
Figure 1.2



Source: EMM (2020); DFSI (2017); GA (2011); Nearmap (2019)





Appendix

Bionet Atlas Search



Table C.1 **Bionet Atlas search**

Scientific Name	Common Name	NSW Status	Comm Status	Latest record in Bionet
<i>Dillwynia tenuifolia</i>	-	V	-	2018
<i>Grevillea juniperina</i> subsp. <i>juniperina</i>	Juniper-leaved Grevillea	V	-	2018
<i>Pimelea spicata</i>	Spiked Rice-flower	E1	E	2017
<i>Artamus cyanopterus cyanopterus</i>	Dusky Woodswallow	V,P	-	2018
<i>Callocephalon fimbriatum</i>	Gang-gang Cockatoo	V,P,3	-	2018
<i>Calyptorhynchus lathami</i>	Glossy Black-Cockatoo	V,P,2	-	2018
<i>Circus assimilis</i>	Spotted Harrier	V,P	-	2017
<i>Daphoenositta chrysoptera</i>	Varied Sittella	V,P	-	2009
<i>Dillwynia tenuifolia</i>	-	V	-	2015
<i>Grevillea juniperina</i> subsp. <i>juniperina</i>	Juniper-leaved Grevillea	V	-	2009
<i>Haliaeetus leucogaster</i>	White-bellied Sea-Eagle	V,P	C	2019
<i>Hieraetus morphnoides</i>	Little Eagle	V,P	-	2018
<i>Litoria aurea</i>	Green and Golden Bell Frog	E1,P	V	2019
<i>Lophoictinia isura</i>	Square-tailed Kite	V,P,3	-	2019
<i>Marsdenia viridiflora</i> subsp. <i>viridiflora</i>	Marsdenia viridiflora R. Br. subsp. viridiflora population	E2	-	2019
<i>Meridolum corneovirens</i>	Cumberland Plain Land Snail	E1	-	2018
<i>Micronomus norfolkensis</i>	Eastern Coastal Free-tailed Bat	V,P	-	2018
<i>Miniopterus australis</i>	Little Bent-winged Bat	V,P	-	2018
<i>Miniopterus orianae oceanensis</i>	Large Bent-winged Bat	V,P	-	2018
<i>Myotis macropus</i>	Southern Myotis	V,P	-	2019
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	V,P	V	2019
<i>Pultenaea parviflora</i>	-	E1	V	2018
<i>Saccolaimus flaviventris</i>	Yellow-bellied Sheath-tail-bat	V,P	-	2018
<i>Scoteanax rueppellii</i>	Greater Broad-nosed Bat	V,P	-	2018
<i>Stagonopleura guttata</i>	Diamond Firetail	V,P	-	2012
<i>Stictonetta naevosa</i>	Freckled Duck	V,P	-	2018
<i>Dillwynia tenuifolia</i>	-	V	-	2016
<i>Grevillea juniperina</i> subsp. <i>juniperina</i>	Juniper-leaved Grevillea	V	-	2016
<i>Meridolum corneovirens</i>	Cumberland Plain Land Snail	E1	-	1974
<i>Miniopterus orianae oceanensis</i>	Large Bent-winged Bat	V,P	-	1996
<i>Pultenaea parviflora</i>	-	E1	V	2016
<i>Dillwynia tenuifolia</i>	-	V	-	2011
<i>Grevillea juniperina</i> subsp. <i>juniperina</i>	Juniper-leaved Grevillea	V	-	2011
<i>Pultenaea parviflora</i>	-	E1	V	2011
<i>Dillwynia tenuifolia</i>	-	V	-	1992

Table C.1 **Bionet Atlas search**

Scientific Name	Common Name	NSW Status	Comm Status	Latest record in Bionet
<i>Dillwynia tenuifolia</i>	-	V	-	2018
<i>Grevillea juniperina</i> subsp. <i>juniperina</i>	Juniper-leaved Grevillea	V	-	2002
<i>Pimelea spicata</i>	Spiked Rice-flower	E1	E	1999
<i>Pultenaea parviflora</i>	-	E1	V	2002
<i>Daphoenositta chrysoptera</i>	Varied Sittella	V,P	-	2006
<i>Meridolum corneovirens</i>	Cumberland Plain Land Snail	E1	-	2006
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	V,P	V	2015



Appendix D

Protected Matters Search Tool





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.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

Report created: 22/01/20 12:38:33

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

No Image
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This map may contain data which are
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[Coordinates](#)

[Buffer: 1.0Km](#)

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Summary

Matters of National Environmental Significance

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

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	4
Listed Threatened Species:	35
Listed Migratory Species:	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 <http://www.environment.gov.au/heritage>

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

Commonwealth Land:	1
Commonwealth Heritage Places:	None
Listed Marine Species:	21
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None

Extra Information

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

State and Territory Reserves:	None
Regional Forest Agreements:	None
Invasive Species:	46
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	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.

Name	Status	Type of Presence
Castlereagh Scribbly Gum and Agnes Banks Woodlands of the Sydney Basin Bioregion	Endangered	Community may occur within area
Cooks River/Castlereagh Ironbark Forest of the Sydney Basin Bioregion	Critically Endangered	Community may occur within area
Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest	Critically Endangered	Community likely to occur within area
Western Sydney Dry Rainforest and Moist Woodland on Shale	Critically Endangered	Community may occur within area

Listed Threatened Species

[\[Resource Information \]](#)

Name	Status	Type of Presence
Birds		
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
Fish		
Macquaria australasica Macquarie Perch [66632]	Endangered	Species or species habitat may occur within area

Name	Status	Type of Presence
Prototroctes maraena Australian Grayling [26179]	Vulnerable	Species or species habitat may occur within area
Frogs		
Heleioporus australiacus Giant Burrowing Frog [1973]	Vulnerable	Species or species habitat may occur within area
Litoria aurea Green and Golden Bell Frog [1870]	Vulnerable	Species or species habitat may occur within area
Insects		
Synemon plana Golden Sun Moth [25234]	Critically Endangered	Species or species habitat likely to occur within area
Mammals		
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat likely to occur within area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area
Petauroides volans Greater Glider [254]	Vulnerable	Species or species habitat likely to occur within area
Petrogale penicillata Brush-tailed Rock-wallaby [225]	Vulnerable	Species or species habitat may occur within area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Vulnerable	Species or species habitat likely to occur within area
Pseudomys novaehollandiae New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Plants		
Acacia bynoeana Bynoe's Wattle, Tiny Wattle [8575]	Vulnerable	Species or species habitat may occur within area
Acacia pubescens Downy Wattle, Hairy Stemmed Wattle [18800]	Vulnerable	Species or species habitat may occur within area
Allocasuarina glareicola [21932]	Endangered	Species or species habitat may occur within area
Cynanchum elegans White-flowered Wax Plant [12533]	Endangered	Species or species habitat likely to occur within area
Genoplesium baueri Yellow Gnat-orchid [7528]	Endangered	Species or species habitat may occur within area
Haloragis exalata subsp. exalata Wingless Raspwort, Square Raspwort [24636]	Vulnerable	Species or species habitat may occur within area

Name	Status	Type of Presence
Persicaria elatior Knotweed, Tall Knotweed [5831]	Vulnerable	Species or species habitat may occur within area
Persoonia hirsuta Hairy Geebung, Hairy Persoonia [19006]	Endangered	Species or species habitat likely to occur within area
Persoonia nutans Nodding Geebung [18119]	Endangered	Species or species habitat may occur within area
Pimelea spicata Spiked Rice-flower [20834]	Endangered	Species or species habitat likely to occur within area
Pomaderris brunnea Rufous Pomaderris [16845]	Vulnerable	Species or species habitat likely to occur within area
Pterostylis saxicola Sydney Plains Greenhood [64537]	Endangered	Species or species habitat may occur within area
Pultenaea parviflora [19380]	Vulnerable	Species or species habitat known to occur within area
Syzygium paniculatum Magenta Lilly Pilly, Magenta Cherry, Daguba, Scrub Cherry, Creek Lilly Pilly, Brush Cherry [20307]	Vulnerable	Species or species habitat may occur within area
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area

Listed Migratory Species [[Resource Information](#)]

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Migratory Marine Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		
Cuculus optatus Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat likely to occur within area

Migratory Wetlands Species

Name	Threatened	Type of Presence
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pandion haliaetus Osprey [952]		Species or species habitat may occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Land

[\[Resource Information \]](#)

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.

Name

Commonwealth Land -

Listed Marine Species

[\[Resource Information \]](#)

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Birds		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea alba Great Egret, White Egret [59541]		Species or species habitat likely to occur within area
Ardea ibis Cattle Egret [59542]		Species or species habitat may occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species

Name	Threatened	Type of Presence
Calidris melanotos Pectoral Sandpiper [858]		habitat may occur within area Species or species habitat may occur within area
Chrysococcyx osculans Black-eared Cuckoo [705]		Species or species habitat likely to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pandion haliaetus Osprey [952]		Species or species habitat may occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat likely to occur within area
Rostratula benghalensis (sensu lato) Painted Snipe [889]	Endangered*	Species or species habitat likely to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

Extra Information

Invasive Species

[[Resource Information](#)]

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resources Audit, 2001.

Name	Status	Type of Presence
Birds		
Acridotheres tristis Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area
Alauda arvensis Skylark [656]		Species or species habitat likely to occur within area
Anas platyrhynchos Mallard [974]		Species or species habitat likely to occur within area
Carduelis carduelis European Goldfinch [403]		Species or species habitat likely to occur within area
Carduelis chloris European Greenfinch [404]		Species or species habitat likely to occur within area
Columba livia Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Lonchura punctulata Nutmeg Mannikin [399]		Species or species habitat likely to occur within area
Passer domesticus House Sparrow [405]		Species or species habitat likely to occur within area
Passer montanus Eurasian Tree Sparrow [406]		Species or species habitat likely to occur within area
Pycnonotus jocosus Red-whiskered Bulbul [631]		Species or species habitat likely to occur within area
Streptopelia chinensis Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur within area
Turdus merula Common Blackbird, Eurasian Blackbird [596]		Species or species habitat likely to occur within area
Frogs		
Rhinella marina Cane Toad [83218]		Species or species habitat likely to occur within area
Mammals		

Name	Status	Type of Presence
Bos taurus Domestic Cattle [16]		Species or species habitat likely to occur within area
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Feral deer Feral deer species in Australia [85733]		Species or species habitat likely to occur within area
Lepus capensis Brown Hare [127]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Rattus norvegicus Brown Rat, Norway Rat [83]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Alternanthera philoxeroides Alligator Weed [11620]		Species or species habitat likely to occur within area
Anredera cordifolia Madeira Vine, Jalap, Lamb's-tail, Mignonette Vine, Anredera, Gulf Madeiravine, Heartleaf Madeiravine, Potato Vine [2643]		Species or species habitat likely to occur within area
Asparagus aethiopicus Asparagus Fern, Ground Asparagus, Basket Fern, Sprengi's Fern, Bushy Asparagus, Emerald Asparagus [62425]		Species or species habitat likely to occur within area
Asparagus asparagoides Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]		Species or species habitat likely to occur within area
Cabomba caroliniana Cabomba, Fanwort, Carolina Watershield, Fish Grass, Washington Grass, Watershield, Carolina Fanwort, Common Cabomba [5171]		Species or species habitat likely to occur within area
Chrysanthemoides monilifera Bitou Bush, Boneseed [18983]		Species or species habitat may occur within area
Chrysanthemoides monilifera subsp. monilifera Boneseed [16905]		Species or species habitat likely to occur within area
Cytisus scoparius Broom, English Broom, Scotch Broom, Common Broom, Scottish Broom, Spanish Broom [5934]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
Eichhornia crassipes Water Hyacinth, Water Orchid, Nile Lily [13466]		Species or species habitat likely to occur within area
Genista sp. X Genista monspessulana Broom [67538]		Species or species habitat may occur within area
Lantana camara Lantana, Common Lantana, Kamara Lantana, Large-leaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild Sage [10892] Lycium ferocissimum African Boxthorn, Boxthorn [19235]		Species or species habitat likely to occur within area
Nassella neesiana Chilean Needle grass [67699]		Species or species habitat likely to occur within area
Nassella trichotoma Serrated Tussock, Yass River Tussock, Yass Tussock, Nassella Tussock (NZ) [18884]		Species or species habitat likely to occur within area
Opuntia spp. Prickly Pears [82753]		Species or species habitat likely to occur within area
Pinus radiata Radiata Pine Monterey Pine, Insignis Pine, Wilding Pine [20780]		Species or species habitat may occur within area
Rubus fruticosus aggregate Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
Salix spp. except S.babylonica, S.x calodendron & S.x reichardtii Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]		Species or species habitat likely to occur within area
Salvinia molesta Salvinia, Giant Salvinia, Aquarium Watermoss, Kariba Weed [13665]		Species or species habitat likely to occur within area
Senecio madagascariensis Fireweed, Madagascar Ragwort, Madagascar Groundsel [2624]		Species or species habitat likely to occur within area
Ulex europaeus Gorse, Furze [7693]		Species or species habitat likely to occur within area
Reptiles		
Hemidactylus frenatus Asian House Gecko [1708]		Species or species habitat likely to occur within area

Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

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.

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

Where very little information is available for 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 reliable distribution mapping methods are used to update these distributions as time permits.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

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

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

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

Coordinates

-33.870702 150.715732,-33.870693 150.715721,-33.870577 150.715925,-33.871406 150.71717,-33.871753 150.717588,-33.872109 150.717921,-33.872608 150.719659,-33.872715 150.720657,-33.872537 150.720603,-33.873071 150.720968,-33.873766 150.721011,-33.874301 150.721633,-33.874871 150.721483,-33.875281 150.721655,-33.875548 150.721376,-33.87594 150.72129,-33.876136 150.721032,-33.876474 150.721182,-33.876741 150.72114,-33.876064 150.716397,-33.874319 150.716784,-33.874283 150.716526,-33.871967 150.717191,-33.870702 150.715732

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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](#)
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- [-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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Please feel free to provide feedback via the [Contact Us](#) page.



