Appendix H PMST Search – Chalmers Street Substation



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 <u>Environment Assessments</u> and the EPBC Act including significance guidelines, forms and application process details.

Report created: 05/11/19 19:10:46

Summary

Details

Matters of NES
Other Matters Protected by the EPBC Act
Extra Information

Caveat

<u>Acknowledgements</u>



This map may contain data which are ©Commonwealth of Australia (Geoscience Australia), ©PSMA 2010

Coordinates
Buffer: 1.0Km



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 <u>Administrative Guidelines on Significance</u>.

World Heritage Properties:	None
National Heritage Places:	1
Wetlands of International Importance:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	5
Listed Threatened Species:	43
Listed Migratory Species:	24

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 <u>permit</u> 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:	10
Commonwealth Heritage Places:	None
Listed Marine Species:	32
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:	48
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	None

Details

Grantiella picta

Painted Honeyeater [470]

Matters of National Environmental Significance

National Heritage Properties		[Resource Information]
Name	State	Status
Indigenous		
Cyprus Hellene Club - Australian Hall	NSW	Listed place

Listed Threatened Ecological Communities [Resource Information] For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps. Status Type of Presence Castlereagh Scribbly Gum and Agnes Banks Endangered Community may occur Woodlands of the Sydney Basin Bioregion within area Coastal Swamp Oak (Casuarina glauca) Forest of New Endangered Community may occur South Wales and South East Queensland ecological within area community Coastal Upland Swamps in the Sydney Basin Endangered Community may occur within area **Bioregion** Cooks River/Castlereagh Ironbark Forest of the Critically Endangered Community may occur Sydney Basin Bioregion within area Western Sydney Dry Rainforest and Moist Woodland Critically Endangered Community may occur on Shale within area Listed Threatened Species [Resource Information] Name Status Type of Presence Birds Anthochaera phrygia Regent Honeyeater [82338] Critically Endangered Species or species habitat known to occur within area Botaurus poiciloptilus Australasian Bittern [1001] Endangered Species or species habitat known to occur within area Calidris canutus Red Knot, Knot [855] Endangered Species or species habitat may occur within area Calidris ferruginea Curlew Sandpiper [856] Critically Endangered Species or species habitat may occur within area Dasyornis brachypterus Eastern Bristlebird [533] Endangered Species or species habitat likely to occur within area Diomedea epomophora Vulnerable Southern Royal Albatross [89221] Foraging, feeding or related behaviour likely to occur within area Diomedea sanfordi Northern Royal Albatross [64456] Endangered Foraging, feeding or related behaviour likely to occur within area

Vulnerable

Species or species habitat

may occur within

Name	Status	Type of Presence
		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
<u>Limosa lapponica baueri</u> Bar-tailed Godwit (baueri), Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area
<u>Limosa Iapponica menzbieri</u> Northern Siberian Bar-tailed Godwit, Bar-tailed Godwit (menzbieri) [86432]	Critically Endangered	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
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area
Rostratula australis Australian Painted-snipe, Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat may occur within area
<u>Thalassarche cauta cauta</u> Shy Albatross, Tasmanian Shy Albatross [82345]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche cauta steadi White-capped Albatross [82344]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thinornis rubricollis rubricollis Hooded Plover (eastern) [66726]	Vulnerable	Species or species habitat may occur within area
Fish		
Macquaria australasica Macquarie Perch [66632]	Endangered	Species or species habitat may occur within area
Frogs		
Heleioporus australiacus Giant Burrowing Frog [1973]	Vulnerable	Species or species habitat may occur within area
<u>Litoria aurea</u> Green and Golden Bell Frog [1870]	Vulnerable	Species or species habitat known to occur within area
Insects		
Synemon plana Golden Sun Moth [25234]	Critically Endangered	Species or species habitat known to occur within area
Mammale		

Mammals

Name	Status	Type of Presence
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 populat	ion)	
Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area
Isoodon obesulus obesulus		
Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern) [68050]	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
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 may occur within area
Pteropus poliocephalus		
Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Plants		within area
Acacia terminalis subsp. terminalis MS		
Sunshine Wattle (Sydney region) [88882]	Endangered	Species or species habitat may occur within area
Allocasuarina glareicola		
[21932]	Endangered	Species or species habitat may occur within area
Caladenia tessellata		
Thick-lipped Spider-orchid, Daddy Long-legs [2119]	Vulnerable	Species or species habitat likely to occur within area
Cryptostylis hunteriana		
Leafless Tongue-orchid [19533]	Vulnerable	Species or species habitat likely to occur within area
Genoplesium baueri		
Yellow Gnat-orchid [7528]	Endangered	Species or species habitat likely to occur within area
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 may occur within area
Pimelea curviflora var. curviflora		
[4182]	Vulnerable	Species or species habitat may occur within area
Pimelea spicata		
Spiked Rice-flower [20834]	Endangered	Species or species habitat may occur within area
Syzygium paniculatum		
Magenta Lilly Pilly, Magenta Cherry, Daguba, Scrub Cherry, Creek Lilly Pilly, Brush Cherry [20307]	Vulnerable	Species or species habitat likely to occur within area
Thesium australe		
Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area
Reptiles		
Hoplocephalus bungaroides		
Broad-headed Snake [1182]	Vulnerable	Species or species habitat may occur within

Name	Status	Type of Presence
		area
Listed Migratory Species		[Resource Information]
* Species is listed under a different scientific name on		
Name Migratory Marine Birds	Threatened	Type of Presence
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche cauta Tasmanian Shy Albatross [89224]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
<u>Thalassarche steadi</u> White-capped Albatross [64462]	Vulnerable*	Foraging, feeding or related behaviour 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
Monarcha trivirgatus Spectacled Monarch [610]		Species or species habitat may occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat known to 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 known to occur within area
Migratory Wetlands Species 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

Name	Threatened	Type of Presence
Calidris canutus	THIOGEOFFICE	Type of Freedines
Red Knot, Knot [855]	Endangered	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
Limosa lapponica		
Bar-tailed Godwit [844]		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 known to 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 -

Commonwealth Land - Australian Broadcasting Corporation

Commonwealth Land - Australian Postal Commission

Commonwealth Land - Australian Postal Corporation

Commonwealth Land - Commonwealth Bank of Australia

Commonwealth Land - Commonwealth Trading Bank of Australia

Commonwealth Land - Telstra Corporation Limited

Defence - OXFORD ST SYDNEY

Defence - PARKVIEW BUILDING - SYDNEY

Defence - SYDNEY UNIVERSITY REGIMENT - DARLINGTON

Listed Marine Species		[Resource Information]
* Species is listed under a different scientific n	ame on the EPBC Act - Threa	tened 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

Name	Threatened	Type of Presence
Ardea ibis		
Cattle Egret [59542]		Species or species habitat may occur within area
Calidris acuminata		Consider an appaire behitet
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris canutus		
Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
<u>Calidris ferruginea</u>		
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
<u>Diomedea epomophora</u>		
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi	Fudanasıd	
Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Gallinago hardwickii		Charles or appaign habitat
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 known to occur within area
Hirundapus caudacutus		
White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
<u>Lathamus discolor</u>		
Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area
Limosa lapponica		
Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Merops ornatus		Opening an annual at 1 to 1 to 1
Rainbow Bee-eater [670]		Species or species habitat may occur within area
Monarcha melanopsis		Opening an annual at 1 to 1 to 1
Black-faced Monarch [609]		Species or species habitat known to occur within area
Monarcha trivirgatus		
Spectacled Monarch [610]		Species or species habitat may occur within area
Motacilla flava		
Yellow Wagtail [644]		Species or species habitat known to 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

Name	Threatened	Type of Presence
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area
Rostratula benghalensis (sensu lato) Painted Snipe [889]	Endangered*	Species or species habitat likely to occur within area
Thalassarche cauta Tasmanian Shy Albatross [89224]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
<u>Thalassarche eremita</u> Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour likely to occur within area
<u>Thalassarche salvini</u> Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable*	Foraging, feeding or related behaviour likely to occur
Thinornis rubricollis Hooded Plover [59510]		within area Species or species habitat may occur within area
Thinornis rubricollis rubricollis Hooded Plover (eastern) [66726]	Vulnerable	Species or species habitat may 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 Resouces 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

Name	Status	Type of Presence
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
rtook rigeon, rtook bove, boniesto rigeon [000]		likely to occur within area
		c.y to occur this in a co
Lonchura punctulata		
Nutmeg Mannikin [399]		Species or species habitat
		likely to occur within area
December demonstrate		
Passer domesticus		Charles or angeles habitat
House Sparrow [405]		Species or species habitat likely to occur within area
		likely to occur within area
Passer montanus		
Eurasian Tree Sparrow [406]		Species or species habitat
1 1 2 3		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
Spotted Furtie-Dove [700]		likely to occur within area
		intery to occur within area
Sturnus vulgaris		
Common Starling [389]		Species or species habitat
		likely to occur within area
Turdus merula		Ci
Common Blackbird, Eurasian Blackbird [596]		Species or species habitat likely to occur within area
		likely to occur within area
Frogs		
Rhinella marina		
Cane Toad [83218]		Species or species habitat
		known to occur within area
Mammals		
Bos taurus		
Domestic Cattle [16]		Species or species habitat
Bomoode Game [10]		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
Cat, Flouse Cat, Domestic Cat [19]		likely to occur within area
		intery to obtain Million and
Lepus capensis		
Brown Hare [127]		Species or species habitat
		likely to occur within area
Muo muoculuo		
Mus musculus		Charles ar angeles habitet
House Mouse [120]		Species or species habitat likely to occur within area
		incity to occur within alea
Oryctolagus cuniculus		
Rabbit, European Rabbit [128]		Species or species habitat
· · · ·		likely to occur within area
Datting in a marginity		
Rattus norvegicus		Openies
Brown Rat, Norway Rat [83]		Species or species habitat likely to occur
		incry to occur

Name	Status	Type of Presence
		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] Asparagus aethiopicus		Species or species habitat likely to occur within area
Asparagus Fern, Ground Asparagus, Basket Fern, Sprengi's Fern, Bushy Asparagus, Emerald Asparagus [62425]	3	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
Asparagus plumosus		
Climbing Asparagus-fern [48993]		Species or species habitat likely to occur within area
Asparagus scandens Asparagus Fern, Climbing Asparagus Fern [23255]		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
Chrysanthemoides monilifera subsp. rotundata Bitou Bush [16332]		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
Dolichandra unguis-cati Cat's Claw Vine, Yellow Trumpet Vine, Cat's Claw Creeper, Funnel Creeper [85119]		Species or species habitat likely to occur within area
Eichhornia crassipes Water Hyacinth, Water Orchid, Nile Lily [13466]		Species or species habitat likely to occur within area
Genista linifolia Flax-leaved Broom, Mediterranean Broom, Flax Broom [2800]	1	Species or species habitat likely to occur within area
Genista monspessulana Montpellier Broom, Cape Broom, Canary Broom, Common Broom, French Broom, Soft Broom [20126]		Species or species habitat likely to occur within area
Genista sp. X Genista monspessulana Broom [67538]		Species or species habitat may occur within

Name	Status	Type of Presence
Lantana camara		area
Lantana, Common Lantana, Kamara Lantana, Larg leaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild Sa [10892] Lycium ferocissimum	d	Species or species habitat likely to occur within area
African Boxthorn, Boxthorn [19235]		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
Sagittaria platyphylla Delta Arrowhead, Arrowhead, Slender Arrowhead [68483]		Species or species habitat likely to occur within area
Salix spp. except S.babylonica, S.x calodendron & Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]	S.x reichardtii	Species or species habitat likely to occur within area
Salvinia molesta Salvinia, Giant Salvinia, Aquarium Watermoss, Kari Weed [13665]	iba	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

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

 $-33.883744\ 151.20757, -33.884038\ 151.208106, -33.888749\ 151.203139, -33.888732\ 151.202527, -33.888839\ 151.202098, -33.889266\ 151.201733, -33.889631\ 151.201347, -33.889257\ 151.201229, -33.88826\ 151.202152, -33.883744\ 151.20757$

Acknowledgements

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

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

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