

Briefing Note

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From: Umwelt (Australia) Pty Limited
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Date: 24 August 2017
Subject: Impact Assessment to support an EPBC Act Referral for the proposed divestment of Blocks 3 and 15, Section 22, Barton ACT 2600

Purpose

Umwelt (Australia) Pty Limited (Umwelt) is currently preparing a Referral under section 9 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) for the proposed divestment of Blocks 3 and 15, Section 22, Barton, Australian Capital Territory (ACT) 2600 (the Project Area).

This briefing note provides additional assessment information relating to matters of national environmental significance (MNES) protected under the EPBC Act that may occur within the Project Area; and to support the assessment on potential impacts to the 'whole of the environment'.

It is anticipated that this briefing note will be submitted with the EPBC Act Referral to further document the impact assessment process relevant to the proposed action.

Key messages

This assessment identifies two MNES as being likely to be impacted by the proposed action. These are the following:

- critically endangered ecological community: natural temperate grassland of the south eastern highlands (natural temperate grassland); and
- critically endangered species: golden sun moth (*Synemon plana*).

These matters will require further discussion and assessment as part of the EPBC Act Referral. All other MNES as identified by the 'protected matters search tool' (PMST) (DoEE 2017) were assessed as not likely to occur within the Project Area or unlikely to be impacted by the proposed action.

The proposed action is assessed as not likely to have a significant impact on the 'whole of the environment' if certain mitigation and management measures are implemented. These measures will target potential erosion, sedimentation, and air quality (i.e. dust) impacts.

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1. Protected Matters Search Tool Report

1.0 Introduction

Umwelt (Australia) Pty Limited (Umwelt) is currently preparing a Referral under section 9 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) for the proposed divestment of Blocks 3 and 15, Section 22, Barton, Australian Capital Territory (ACT) 2600 (the Project Area). Block 3 is currently National Land, managed by the Department of Finance (Finance) and Block 15 is currently Territory Land, managed by the ACT Government. Accordingly, the proposed action will be undertaken by Finance with agreement from the ACT Government to include Block 15.

The proposed divestment of this land is expected to result in urban development that is consistent with the *National Capital Plan 1990* (as amended). This potential development is not part of the proposed action for the Referral, rather a consequential impact that must be considered in the context of this impact assessment.

Alternatively, if the transfer of Block 15 is not agreed to by the ACT Government, Finance will proceed to divest only Block 3, in a single, open market sale. In this instance, Finance may seek agreement from the ACT Government to allow Block 15 to be used to provide access to and maximise potential future development of Block 3.

To prepare the Project Area for sale, Finance proposes to clear all of the vegetation present and subsequently maintain the site. This will only occur on the Blocks ultimately included in the divestment. Regardless of the extent of clearing, it will occur between exchange and completion of contracts, prior to the finalisation of sale. Once the divestment of land has been formalised, any ongoing maintenance requirements (e.g. sedimentation or erosion controls) will be incorporated into the sale contract or Crown lease and be implemented by the purchaser. As the proponent for this proposed action, Finance will retain responsibility for ensuring that the purchaser implements all required maintenance measures through contractual means until development commences.

The Referral process requires an assessment of potential impacts of the proposed action on matters of national environmental significance (MNES) and to the 'whole of the environment' as defined by the EPBC Act.

This briefing note will be used to support the Referral by providing additional information regarding the following topics:

- Species and ecological communities that were identified by relevant database searches as potentially occurring within the Project Area, therefore potentially being impacted by the proposed action.
- Specific elements of the environment that require consideration as part of the assessment of potential impacts to the 'whole of the environment'.

This additional information is provided with consideration of the Commonwealth's Significant Impact Guidelines 1.1 and 1.2 respectively (Department of the Environment 2013¹; DSEWPac 2013²).

¹ Department of the Environment (2013) *Matters of National Environmental Significance Significant Impact Guidelines 1.1 Environment Protection and Biodiversity Conservation Act 1999*, Commonwealth of Australia, Canberra, accessed online (March, 2017): https://www.environment.gov.au/system/files/resources/42f84df4-720b-4dcf-b262-48679a3aba58/files/nes-guidelines_1.pdf.

² Department of Sustainability, Environment, Water, Population and Communities (DSEWPac) (2013) *Actions on, or Impacting Upon, Commonwealth Land, and Actions by Commonwealth Agencies Significant Impact Guidelines 1.2 Environment Protection and Biodiversity Conservation Act 1999*, Commonwealth of Australia, Canberra, accessed online (March, 2017): http://www.environment.gov.au/system/files/resources/a0af2153-29dc-453c-8f04-3de35bca5264/files/commonwealth-guidelines_1.pdf.

2.0 Description of the Project Area and Surrounding Environment

The Project Area is currently vacant land, located on the corner of Sydney Avenue and National Circuit within the highly developed suburb of Barton in Canberra, ACT. Surrounding land uses include accommodation (hotels), office space, residential (apartments), and major roads.

A majority of the Project Area has been assessed as exotic vegetation, predominantly in the form of grassland. These areas are dominated by Phalaris (*Phalaris aquatica*), hoary mustard (*Hirschfeldia incana*), and wild oats (*Avena* spp.) with some scattered native wallaby grasses (*Rytidosperma laevis* and *R. bipartitum*) (Rowell 2007³). This exotic grassland extends into the higher quality south-east portion of the Project Area where it also includes cocksfoot (*Dactylis glomerata*), fescue species (*Festuca* spp.), and paspalum (*Paspalum dilatatum*) (Umwelt 2016⁴).

The south-east of the Project Area contains 0.32 hectares of natural temperate grassland of the south eastern highlands (natural temperate grassland) an EPBC Act critically endangered ecological community. This area is dominated by spear grass (*Austrostipa bigeniculata*), red-leg grass (*Bothriochloa macra*), various wallaby grasses (*Rytidosperma* spp.), and native forbs (including *Chrysocephalum apiculatum*, *Goodenia pinnatifida*, *Calocephalus citreus*, and *Tricoryne elatior*) (Umwelt 2016). This grassland type is broadly consistent with vegetation association 5: wallaby-grass – tall speargrass – common everlasting tussock grassland of South Eastern Highlands bioregion, as described in the natural temperate grassland approved Conservation Advice (including Listing Advice) (Threatened Species Scientific Committee 2016⁵).

A strip of planted kangaroo grass (*Themeda triandra*) occurs along the south-eastern border of the grassland. This native grass was planted following disturbance as a result of footpath upgrades. Despite being a native, it is considered invasive in this context as it is encroaching on the natural temperate grassland (Umwelt 2016). Exotic grass species: African love-grass (*Eragrostis curvula*) and Chilean needlegrass (*Nassella neesiana*) have previously been mapped between the footpath and road along National Circuit. These values have since been replaced by gravel; as confirmed by an Umwelt site inspection on 6 February 2017.

The north-west of Block 3 is also reported to contain fill from other, historic, off-site developments (Parsons Brinckerhoff 2008⁶). This area is considered highly disturbed and does not support any environmental values. Four exotic tree species also occur within the central portion of the Project Area; and a fence separates the highly disturbed, exotic north-west portion of Block 3 from the native dominated south-east.

The median strips of Sydney Avenue, to the south and south-east of the Project Area are also known to provide habitat for the critically endangered golden sun moth (*Synemon plana*). Given the size and location of these habitat patches, it is considered likely that they rely on the population of golden sun moth that occurs within the Project Area for ongoing viability. In 2009, when they were confirmed as habitat, these patches were considered low quality; however their current condition and vegetation composition is unknown.

³ Rowell, A. (2007) *Survey and Impact Assessment at Golden Sun Moth Synemon plana site, Blocks 3 and 7, Section 22 Barton (York Park)*, unpublished report prepared for Parsons Brinckerhoff, Canberra.

⁴ Umwelt (2016) *Golden Sun Moth and Natural Temperate Grassland Vegetation Management Plan Block 3, Section 22, Barton ACT*, unpublished report prepared for the Department of Finance, Canberra.

⁵ Threatened Species Scientific Committee (2016) *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) (s266B) Approved Conservation Advice (including Listing Advice) for the Natural Temperate Grassland of the South Eastern Highlands (EC 152)*, access online (March, 2017): <http://www.environment.gov.au/biodiversity/threatened/communities/pubs/152-conservation-advice.pdf>.

⁶ Parsons Brinckerhoff (2008) *Natural Temperate Grassland Maintenance Plan Block 3 Section 22 Barton, ACT*, unpublished report prepared for the Department of Finance and Deregulation, Canberra.

3.0 Matters of National Environmental Significance

The EPBC Act identifies nine MNES that must be considered when assessing the likely significance of impacts that are the result of a proposed action. These are the following:

- world heritage properties;
- national heritage places;
- wetland of international importance (i.e. Ramsar wetlands);
- listed threatened species and ecological communities;
- migratory species;
- Commonwealth marine areas;
- the Great Barrier Reef Marine Park;
- nuclear actions (including uranium mines); and
- a water resource, in relation to coal seam gas development and large coal mining development.

The proposed action does not occur within Commonwealth marine areas or the Great Barrier Reef; or involve nuclear actions (including uranium mining), coal seam gas development, or large coal mining development. As such, these MNES are not assessed further in this briefing note.

The 'protected matters search tool' (PMST) (DoEE 2017⁷) was used to identify MNES that may occur within ten kilometres of the Project Area. The following **Sections 3.1 to 3.5** discuss the results of this search and the full report is provided as **Attachment 1**.

3.1 World Heritage Properties

No World Heritage Properties were identified by the PMST as being within ten kilometres of the Project Area.

The proposed action will not impact upon any World Heritage Properties.

3.2 National Heritage Places

Four National Heritage Places were identified by the PMST as being within ten kilometres of the Project Area. These are the following:

- Australian Academy of Science Building;
- Australian War Memorial and the Memorial Parade;
- High Court – National Gallery Precinct; and
- Old Parliament House and Curtilage.

⁷ Department of the Environment and Energy (DoEE) (2017) *EPBC Act Protected Matters Search Tool*, accessed online (23 February 2017): <http://www.environment.gov.au/epbc/pmst/>.

All of these buildings and relevant associated landscapes are considered sufficient distance from the Project Area that the proposed action will not impact them. The approvals process under the *National Capital Plan 1990*, will further ensure that any consequential development as a result of the proposed action will not impact upon National Heritage Places.

3.3 Wetlands of International Importance

The Project Area is within the catchment (Murray Darling Basin) of four wetlands of international importance (Ramsar Wetlands) as identified by the PMST. These are the following:

- Banrock Station wetland complex;
- Hattah-Kulkyne lakes;
- Riverland; and
- the Coorong, and Lakes Alexandrina and Albert wetland.

Due to their location at a substantial distance downstream from the Project Area (these wetlands are in Victoria and South Australia) there is unlikely to be any measurable impact to these wetlands as a result of the proposed action.

3.4 Listed Threatened Species and Ecological Communities

Two threatened ecological communities and 32 threatened species were identified by the PMST as being within ten kilometres of the Project Area. These are listed in **Tables 1** and **2** respectively, which also describe the likelihood that each matter occurs within or surrounding the Project Area.

Justification for these values is provided below.

Table 1 Listed Threatened Ecological Communities identified by the PMST

Community	Status	Likelihood of Occurrence
Natural Temperate Grassland of the South Eastern Highlands	critically endangered	known
White Box – Yellow Box – Blakely’s Red Gum Grassy Woodland and Derived Native Grassland	critically endangered	unlikely

Table 2 Listed Threatened Species identified by the PMST

Species (Scientific name)	Status	Likelihood of Occurrence
BIRD SPECIES		
regent honeyeater (<i>Anthochaera phrygia</i>)	critically endangered	nil
curlew sandpiper (<i>Calidris ferruginea</i>)	critically endangered	nil
painted honeyeater (<i>Grantiella picta</i>)	vulnerable	nil
swift parrot (<i>Lathamus discolor</i>)	critically endangered	unlikely
bar-tailed godwit (<i>Limosa lapponica baueri</i>)	vulnerable	nil
northern Siberian bar-tailed godwit (<i>Limosa lapponica menzbieri</i>)	critically endangered	nil

Species (Scientific name)	Status	Likelihood of Occurrence
eastern curlew (<i>Numenius madagascariensis</i>)	critically endangered	nil
superb parrot (<i>Polytelis swainsonii</i>)	vulnerable	unlikely
Australian painted snipe (<i>Rostratula australis</i>)	endangered	nil
FISH SPECIES		
Murray cod (<i>Maccullochella peelii</i>)	vulnerable	known in nearby Lake Burly Griffin
Macquarie perch (<i>Macquaria australasica</i>)	endangered	known in nearby Lake Burly Griffin
FROG SPECIES		
green and golden bell frog (<i>Litoria aurea</i>)	vulnerable	nil
yellow-spotted tree frog (<i>Litoria castanea</i>)	endangered	nil
INSECT SPECIES		
golden sun moth (<i>Synemon plana</i>)	critically endangered	known
MAMMAL SPECIES		
spotted-tail quoll (<i>Dasyurus maculatus maculatus</i>) (south-east mainland population)	endangered	unlikely
greater glider (<i>Petauroides volans</i>)	vulnerable	nil
koala (<i>Phascolarctos cinereus</i>) (combined populations of Queensland, New South Wales, and the ACT)	vulnerable	unlikely
grey-headed flying-fox (<i>Pteropus poliocephalus</i>)	vulnerable	flyover only
PLANT SPECIES		
Canberra spider orchid (<i>Caladenia actensis</i>)	critically endangered	low
black gum (<i>Eucalyptus aggregata</i>)	vulnerable	nil
Ginninderra peppercress (<i>Lepidium ginninderrense</i>)	vulnerable	unlikely
basalt peppercress (<i>Lepidium hyssopifolium</i>)	endangered	unlikely
hoary sunray (<i>Leucochrysum albicans</i> var. <i>tricolor</i>)	endangered	nil
Omeo stork's-bill (<i>Pelargonium</i> sp. <i>Striatellum</i> (G. W. Carr 10345))	endangered	nil
Tarengo leek orchid (<i>Prasophyllum petilum</i>)*	endangered	unlikely
a leek-orchid (<i>Prasophyllum</i> sp. Wybong (C. Phelps ORG 5269))*	critically endangered	unlikely
button wrinklewort (<i>Rutidosia leptorrhynchoides</i>)	endangered	unlikely
small purple-pea (<i>Swainsona recta</i>)	endangered	unlikely
Austral toadflax (<i>Thesium australe</i>)	vulnerable	unlikely
REPTILE SPECIES		
pink-tailed worm-lizard (<i>Aprasia parapulchella</i>)	vulnerable	nil
striped legless lizard (<i>Delma impar</i>)	vulnerable	unlikely
grassland earless dragon (<i>Tympanocryptis pinguicolla</i>)	vulnerable	unlikely

Threatened ecological communities and species with a likelihood of occurrence of nil, unlikely, or low in **Tables 1** and **2** above are assessed as such due to the following:

- The elevation and surrounding landscape context; which makes it unlikely that ‘white box – yellow box – Blakely’s red gum grassy woodland and derived native grassland’ occurs within the Project Area (Umwelt 2016). Historically, this community would have occurred as a mosaic throughout the area alongside natural temperate grassland (Parsons Brinckerhoff 2008).
- A lack of forest, woodland, or wetland habitat present within the Project Area. This is relevant for all threatened bird and frog species identified, in addition to greater glider and grey-headed flying fox. Grey-headed flying-fox are known to flyover Barton as they move from their roosting site at Commonwealth Park, Canberra City, to foraging habitats throughout the broader Canberra region. The tree species present would not provide feed for this species.
- Individuals of spotted-tail quoll and koala may be recorded throughout the urban areas of Canberra as they move through the landscape. There is no habitat for either species present within or in close proximity to the Project Area, therefore, they are not expected to utilise the blocks if they happen to be in the vicinity.
- Suitable habitat for flora species assessed as ‘nil likelihood of occurrence’ in **Table 2** does not occur within the Project Area as they are all associated with woodland habitats.
- Flora species assessed as having an ‘unlikely or low likelihood to occur’ in **Table 2**, may occur in native grasslands as is present on the Project Area. However, there have been numerous surveys and ecological monitoring events conducted at the blocks since the early 1990s and none of these species has ever been identified (Umwelt 2016).
- The lack of rocky habitat typically associated with this species, pink-tailed worm-lizard is not considered to occur.
- It is likely that striped legless lizard and grassland earless dragon historically occurred within the Project Area. Given the intensity of the surrounding development and disturbance and lack of any records of the species presence, it is considered unlikely that they continue to occupy a small and isolated patch.

Based on the above assessment, a majority (n=29) of threatened species and one threatened ecological community identified by the PMST are considered to not occur, or are unlikely to occur or utilise the habitats present within the Project Area. The following species are known to occur within the Project Area or nearby Lake Burly Griffin:

- natural temperate grassland;
- golden sun moth;
- Murray cod; and
- Macquarie perch.

Indirect impacts of the proposed action are not expected to impact Lake Burly Griffin, therefore Murray cod and Macquarie perch are not considered likely to be significantly impacted.

Natural temperate grassland is known to co-occur with golden sun moth habitat across 0.32 hectares within the Project Area. This constitutes the entire patch of natural temperate grassland in the surrounding landscape.

The Approved Conservation Advice (Threatened Species Scientific Committee 2016) identifies all remaining patches of natural temperate grassland as critical to the survival of the ecological community. The proposed action will therefore not only impact an entire patch, thereby reducing the extent of the threatened ecological community, it will also impact an area critical to the survival of the ecological community. As such, it is considered likely to be a significant impact, in accordance with the MNES Significant Impact Guidelines 1.1 (Department of the Environment 2013).

The golden sun moth habitat (0.32 hectares) that occurs within the Project Area will be directly impacted by the proposed action. The species is also known to occupy two of the Sydney Avenue median strips, directly to the south and south-east of the Project Area (ACT Government 2015). These areas have not been surveyed in detail since 2009, when they were confirmed as occupied (i.e. individual moths were emerging from these sites, as opposed to flying over from the habitat within the Project Area), low quality habitat. Since this time, anecdotal evidence suggests that significant disturbance has occurred in these areas, particularly at the south-eastern verge, as a result of construction activities; which included gravel fill for vehicle parking and material dumping. Similarly, the southern verge appears to have been affected by weed incursion, which may have affected habitat quality and extent (W. Osborne and A. Rowell, 2017 pers. comms. 10 May). As such, the current extent and quality of these habitat areas is unknown.

Regardless of the extent and condition of the Sydney Avenue median strips, given their proximity to the Project Area, it is considered likely that all three areas function as one population. As such, the direct impact to the 0.32 hectares of golden sun moth habitat at the Project Area is expected to also result in an indirect impact to the Sydney Avenue median strips. Thus, the maximum total impact area as a result of the proposed action is considered to be 0.72 hectares; and is expected to result in the total loss of the population.

The impacted habitat is considered to be small and fragmented, therefore, any impact that results in the loss or degradation of habitat is considered significant (DEWHA 2009⁸). As the proposed action is expected to result in the loss of the entire population present and will directly impact 0.32 hectares of habitat and indirectly impact a further 0.4 hectares; it is considered likely to result in a significant impact to the species.

The proposed action is considered likely to result in a significant impact under the EPBC Act to the critically endangered golden sun moth and natural temperate grassland ecological community. It will therefore require appropriate compensation (i.e. offsetting) in accordance with the Commonwealth's Offsetting Policy (DSEWPaC 2012⁹).

3.5 Migratory Species

The PMST identified 14 migratory species as being within ten kilometres of the Project Area. These are listed in **Table 3**.

⁸ Department of the Environment, Water, Heritage and the Arts (DEWHA) (2009) *Significant Impact Guidelines for the Critically Endangered Golden Sun Moth (*Synemon plana*): Nationally threatened species and ecological communities EPBC Act Policy Statement 3.12*, accessed online (May, 2017): <http://www.environment.gov.au/system/files/resources/b945f32e-3f75-4739-a793-9f672893f3bb/files/golden-sun-moth.pdf>.

⁹ Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC) (2012) *Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy*, Commonwealth of Australia, Canberra. Accessed online (March, 2017): http://www.environment.gov.au/system/files/resources/12630bb4-2c10-4c8e-815f-2d7862bf87e7/files/offsets-policy_2.pdf.

Table 3 Migratory Species identified by the PMST

Species (Scientific Name)	Status	Likelihood of Occurrence
fork-tailed swift (<i>Apus pacificus</i>)	migratory marine bird	flyover only
white-throated needletail (<i>Hirundapus caudacutus</i>)	migratory terrestrial bird	flyover only
black-faced monarch (<i>Monarcha melanopsis</i>)	migratory terrestrial bird	nil
yellow wagtail (<i>Motacilla flava</i>)	migratory terrestrial bird	nil
satin flycatcher (<i>Myiagra cyanoleuca</i>)	migratory terrestrial bird	nil
rufous fantail (<i>Rhipidura rufifrons</i>)	migratory terrestrial bird	nil
common sandpiper (<i>Actitis hypoleucos</i>)	migratory wetland bird	nil
sharp-tailed sandpiper (<i>Calidris acuminata</i>)	migratory wetland bird	nil
curlew sandpiper (<i>Calidris ferruginea</i>)	migratory wetland bird	nil
pectoral sandpiper (<i>Calidris melanotos</i>)	migratory wetland bird	nil
Latham's snipe (<i>Gallinago hardwickii</i>)	migratory wetland bird	nil
bar-tailed godwit (<i>Limosa lapponica</i>)	migratory wetland bird	nil
eastern curlew (<i>Numenius madagascariensis</i>)	migratory wetland bird	nil
osprey (<i>Pandion haliaetus</i>)	migratory wetland bird	nil

Due to a lack of wetland, rainforest, forest, or woodland habitats and a general lack of connectivity throughout the landscape; none of the identified migratory species are considered likely to occur within the Project Area, beyond possible fly-overs for the two species identified in **Table 3**.

Therefore, none of these species are expected to be impacted by the proposed action.

4.0 Whole of the Environment

As a Commonwealth Agency, Finance must consider the potential impacts of any action it proposes to undertake on the 'whole of the environment'.

Section 528 of the EPBC Act states that the environment includes the following:

- (a) *ecosystems and their constituent parts, including people and communities; and*
- (b) *natural and physical resources; and*
- (c) *the qualities and characteristics of locations, places and areas; and*
- (d) *heritage values of places; and*
- (e) *the social, economic and cultural aspects of a thing mentioned in paragraph (a), (b), (c) or (d).*

The Significant Impact Guidelines 1.2 (DSEWPaC 2013) identifies criteria to adequately describe the environmental context of the proposed action and subsequently assess the significance of potential impacts to the environment, given the definition above.

The following **Table 4** sets out these criteria and describes any likely potential impacts of the proposed action.

Table 4 Whole of the Environment EPBC Act Assessment

Aspect of the Environment <i>Is there a real chance or possibility that the action will:</i>	Response
Landscapes and Soils	
substantially alter natural landscape features?	Given the urban context of and history of disturbance at the Project Area it is considered unlikely to substantially alter natural landscape features.
cause subsidence, instability, or substantial erosion?	The clearing of vegetation in preparation for sale, may result in localised erosion if not appropriately mitigated. Finance will mitigate and manage the impacts of this erosion in accordance with current best practice. The implementation of mitigation and management measures, combined with the localised and small scale of the clearing; result in an impact that is unlikely to be considered substantial.
involve medium- or large- scale excavation of soil or minerals?	The proposed action will not involve the medium- or large-scale excavation of soil or minerals.
Coastal Landscapes and Processes	
alter coastal processes, including wave action, sediment movement or accretion, or water circulation patterns?	Due to the inland location and urban setting of the proposed action, it is not expected to impact upon coastal processes.
permanently alter tidal patterns, water flows, or water quality in estuaries?	Due to the inland location and urban setting of the proposed action, it is not expected to impact upon estuaries.
reduce biological diversity or change species composition in estuaries?	Due to the inland location and urban setting of the proposed action, it is not expected to impact upon estuaries.
extract large volumes of sand or substantially destabilise sand dunes?	The proposed action does not include the extraction of large volumes of sand. Due to the inland location and urban setting of the proposed action, it is not expected to impact upon sand dunes.
Ocean Forms, Ocean Process, and Ocean Life	
reduce biological diversity or change species composition on reefs, seamounts, or in other sensitive marine environments?	Due to the inland location and urban setting of the proposed action, it is not expected to impact upon the biological diversity or species composition of marine environments.
alter water circulation patterns by modification of existing landforms or the addition of artificial reefs or other large structures?	Due to the inland location and urban setting of the proposed action, it is not expected to impact upon water circulation patterns of marine environments.
substantially damage or modify large areas of the seafloor or ocean habitat, such as sea grass?	Due to the inland location and urban setting of the proposed action, it is not expected to impact upon ocean forms, processes, or life.
release oil, fuel, or other toxic substances into the marine environment in sufficient quantity to kill larger marine animals or alter ecosystem processes?	Due to the inland location and urban setting of the proposed action, it is not expected to impact upon ocean forms, processes, or life; including through the release oil, fuel, or other toxic substances.
release large quantities of sewage or other waste into the marine environment?	Due to the inland location, scale, and urban setting of the proposed action, it is not expected to release large quantities of sewage or other waste into the marine environment.

Aspect of the Environment <i>Is there a real chance or possibility that the action will:</i>	Response
Water Resources	
measurably reduce the quantity, quality, or availability of surface or ground water?	<p>The clearing of vegetation in preparation for sale, may result in localised erosion if not appropriately mitigated. If not managed correctly, erosion may result in sedimentation and pollution of surface water run-off, affecting the water quality of Lake Burly Griffin.</p> <p>Finance will mitigate and manage the impacts of this erosion in accordance with current best practice. The potential consequential urban development will increase surface water run-off and decrease water quality. However, given the surrounding urban context of the proposed action, this is considered unlikely to result in a measurable effect to water quality.</p> <p>With the implementation of erosion and sedimentation controls following clearing of the vegetation on site, the proposed action is considered unlikely to measurably reduce the quantity, quality, or availability of surface or ground water.</p>
channelise, divert, or impound rivers or creeks; or substantially alter drainage patterns?	The proposed action will not channelise, divert, or impound rivers or creeks. Given the highly altered hydrology of the surrounding landscape, the localised change in surface water drainage across the Project Area is not considered substantial.
measurably alter water table levels?	Due to the relatively small scale of the action and the highly altered hydrology of the surrounding landscape; it is not likely to measurably alter water table levels.
Pollutants, Chemicals, and Toxic Substances	
generate smoke, fumes, chemicals, nutrients, or other pollutants that will substantially reduce local air quality or water quality?	<p>The clearing of vegetation in preparation for sale, may result in dust generation if not appropriately mitigated and managed, resulting in localised air quality impacts.</p> <p>In addition, if sedimentation and erosion are also not managed appropriately following vegetation clearing, these may result in decreased water quality.</p> <p>Finance will mitigate and manage the impacts of this erosion and dust generation in accordance with current best practice. Following the divestment of land, these management strategies will be implemented by the purchaser, as directed by Finance through contractual means. Potential increases in surface water run-off and associated decreases in water quality are considered unlikely to result in a substantial effect, given the urban context of the proposed action.</p> <p>If dust, erosion and sedimentation controls are appropriately implemented following clearing of the vegetation on site, the proposed action is considered unlikely to substantially reduce local air or water quality.</p>
result in the release, leakage, spillage, or explosion of flammable, explosive, toxic, radioactive, carcinogenic, or mutagenic substances through use, storage, transport, or disposal?	The proposed action does not include activities associated with the use, storage, transport, or disposal of flammable, explosive, toxic, radioactive, carcinogenic, or mutagenic substances. It is therefore not going to result in the release, leakage, spillage, or explosion of such substances.

Aspect of the Environment <i>Is there a real chance or possibility that the action will:</i>	Response
increase atmospheric concentrations of gasses that will contribute to the greenhouse effect or ozone damage?	As the vegetation clearance (including the removal of four trees) associated with the proposed action is considered small-scale; it is considered unlikely to contribute to the greenhouse effect or ozone damage.
substantially disturb contaminated or acid-sulphate soils?	There are no known acid-sulphate soils or contamination present within the Project Area. The proposed action is unlikely to substantially disturb contaminated or acid-sulphate soils.
Plants	
involve medium- or large-scale native vegetation clearance?	The proposed action will result in the removal of 0.32 hectares of native vegetation. This is not considered to be medium- or large- scale clearing.
involve any clearance of any vegetation containing a listed threatened species that is likely to result in a long-term decline in a population or threatens the viability of the species?	There are no known threatened flora species present within the Project Area. The proposed action is therefore considered unlikely to result in a long-term decline in a population or threaten the viability of a threatened flora species.
introduce potentially invasive species?	Any potentially invasive species that may be introduced by the proposed action, namely as a result of ongoing maintenance activities following vegetation clearing, are likely to be already present given the urban context of the surrounding land. The proposed action is considered unlikely to introduce potentially invasive species.
involve the use of chemicals that substantially stunt the growth of native vegetation?	The proposed action does not involve the use of chemicals that substantially stunts the growth of native vegetation.
involve large-scale controlled burning or any controlled burning in sensitive areas, including areas that contain listed threatened species?	The proposed action does not include any burning activities.
Animals	
cause a long-term decrease in or threaten the viability of a native animal population or populations through death, injury, or other harm to individuals?	<p>The removal of a maximum of 0.72 hectares of golden sun moth habitat at the Project Area will impact the entire local population of this species. It will not increase fragmentation of this critically endangered species.</p> <p>However, genetic analysis of the golden sun moth populations in the ACT, including the Project Area, has identified at least five distinct regional (i.e. meta) populations; comprised of smaller, generally isolated local populations (Clarke and O'Dwyer, 1998¹⁰). Whilst the local population at the Project Area is currently isolated, this genetic analysis demonstrated that genetic (i.e. population) viability can be maintained by focusing</p>

¹⁰ Clarke, G. M. and O'Dwyer, C. (1998) *Genetic Analysis of Populations of the Endangered Golden Sun Moth, (*Synemon plana*)*, unpublished report for the Threatened Species Unit (NSW National Parks and Wildlife Service, Southern Zone) and the Wildlife Research and Monitoring Unit (Environment ACT), CSIRO Division of Entomology, Canberra.

Aspect of the Environment <i>Is there a real chance or possibility that the action will:</i>	Response
<p>reduce or fragment available habitat for listed threatened species that is likely to displace a population, result in a long-term decline in a population, or threaten the viability of the species?</p>	<p>conservation efforts on these meta-populations rather than small isolated areas.</p> <p>The regional population that the local Project Area population is a part of, includes larger and more viable populations in Majura Valley East, Mulanggari Grassland Reserve, and Jerrabomberra Reserve. These populations are considered very well protected and much more important for the viability of the meta-population than the local population at the Project Area.</p> <p>As such, the proposed action is not considered to cause a long-term decrease in or threaten the viability of a native animal population. Nor is it going to reduce or fragment available habitat for listed threatened species resulting in a long-term decline in a population or threaten the viability of the species.</p>
<p>displace or substantially limit the movement or dispersal of native animal populations?</p>	<p>The impacted population of golden sun moth is currently isolated from all other populations due to its urban setting. The proposed action is not going to affect the connectivity of any other golden sun moth habitat.</p>
<p>substantially reduce or fragment available habitat for native species?</p>	<p>The habitat values of the Project Area are highly disturbed and generally degraded, with the exception of the 0.32 hectares of natural temperate grassland in the south-east. This habitat is currently isolated from other grassland areas that would provide habitat for native species. The proposed action is unlikely to result in a substantial reduction or fragmentation of available habitat for native species.</p>
<p>introduce exotic species that will substantially reduce habitat or resources for native species?</p>	<p>Any exotic species that are associated with urban development (e.g. cats (<i>Felis catus</i>), foxes (<i>Vulpes vulpes</i>), rabbits (<i>Oryctolagus cuniculus</i>)) are likely already present within the surrounding area. The proposed action, including any consequential urban development, is not considered likely to introduce exotic species that will substantially reduce habitat or resources for native species.</p>
<p>undertake any large-scale controlled burning or any controlled burning in sensitive areas containing listed threatened species?</p>	<p>The proposed action does not include any burning activities.</p>
People and Communities	
<p>substantially increase demand for or reduce the availability of community services or infrastructure that have direct or indirect impacts on the environment, including water supply, power supply, roads, waste disposal, and housing?</p>	<p>The proposed action will not substantially increase demand for or reduce the availability of community services or infrastructure. Furthermore, consequential development of the proposed action will be of sufficiently small scale such that it is also not expected to substantially increase demand for or reduce the availability of community services.</p>

Aspect of the Environment <i>Is there a real chance or possibility that the action will:</i>	Response
<p>affect the health, safety, welfare, or quality of life of the members of a community through factors such as noise, odours, fumes, smoke, or other pollutants?</p>	<p>Potential impacts to the health, safety, welfare, or quality of life of members of the local community as a result of factors such as noise, odours, fumes, smoke, or other pollutants following vegetation clearing will be managed by Finance in accordance with current best practice. In particular, dust generation, erosion, and sedimentation will be targeted. The proposed action will also be undertaken in accordance with all relevant work health and safety standards, and noise restrictions to protect the welfare of the local community. Any residual impacts as a result of vegetation clearing are to be temporary and localised.</p> <p>Potential impacts to the local community as a result of the consequential urban development will be assessed as part of the National Capital Authority approvals process. The development would be in accordance with the provisions of the <i>National Capital Plan 1990</i> therefore would unlikely be substantially different to the surrounding land uses.</p> <p>With the application of these mitigation and management measures and by conforming to the requirements of the <i>National Capital Plan 1990</i>; the proposed action is not considered likely to affect the health, safety, welfare, or quality of life of the members of the community.</p>
<p>cause physical dislocation of individuals or communities?</p>	<p>The proposed action is not going to cause physical dislocation of individuals or communities as the land is currently vacant.</p>
<p>substantially change or diminish cultural identity, social organisation, or community resources?</p>	<p>The Project Area is not associated with social organisation or community resources. The Project Area has played a small role in the promotion of conservation efforts for golden sun moth in the local community, and with the increase in scientific knowledge associated with the species. However, this has very limited links to cultural identity; restricted to those who have worked in the grassland or live nearby. Both of these groups of people have been identified as key stakeholders and will be given an opportunity to comment on the proposed action as part of the EPBC Referral or National Capital Authority approvals process. As such, the proposed action is not considered likely to substantially change or diminish cultural identity, social organisation, or community resources.</p>
Heritage	
<p>permanently destroy, remove, or substantially alter the fabric (physical material, including structural elements and other components, fixtures, contents, and objects) of a heritage place?</p>	<p>There are no known heritage values present within the Project Area. The proposed action is unlikely to permanently destroy, remove, or substantially alter the fabric of a heritage place.</p>
<p>involve extension, renovation, or substantial alteration of a heritage place in a manner that is inconsistent with the heritage values of the place?</p>	<p>The proposed action does not involve the extension, renovation or substantial alteration of a heritage place.</p>

Aspect of the Environment <i>Is there a real chance or possibility that the action will:</i>	Response
involve the erection of buildings or other structures adjacent to or within important sight lines of a heritage place that are inconsistent with the heritage values of the place?	There are no known heritage values directly adjacent to the Project Area. The sight lines of known heritage items that occur within the vicinity, do not overlap with the Project Area and are, therefore, unlikely to be impacted by the proposed action.
substantially diminish the heritage value of a heritage place for a community or group for which it is significant?	There are no known heritage values present within the Project Area and any associated development would be consistent with surrounding land use. Therefore, the proposed action is unlikely to substantially diminish the heritage value of a heritage place.
substantially alter the setting of a heritage place in a manner that is inconsistent with the heritage values of the place?	There are no known heritage values present within the Project Area and any associated development would be consistent with surrounding land use. Therefore, the proposed action is unlikely to substantially alter the setting of a heritage place.
substantially restrict or inhibit the existing use of a heritage place as a cultural or ceremonial site?	The proposed action will have no impact on the existing uses of nearby heritage places.

Potential impacts to the ‘whole of the environment’ as a result of the proposed action are linked to possible erosion, sedimentation, air pollution from dust, and water quality degradation following vegetation removal; and community impacts if the consequential development is not considerate of the surrounding land uses and users. To mitigate and manage these potential impacts, the following will occur:

- Any future urban development will be subject to approval from the National Capital Authority. At this stage, consideration of land-use and impacts to the community will occur. This will be the responsibility of the future purchaser of the Project Area.
- Following the clearing of vegetation and up to the finalisation of the divestment of land, Finance will be responsible for maintaining the Project Area such that erosion, sedimentation, and dust are controlled so they do not result in indirect impacts to the surrounding areas.
- It will be a condition of sale that the purchaser continues to maintain the Project Area such that erosion, sedimentation, and dust are controlled so they do not result in indirect impacts to the surrounding areas until the time construction is completed.

Given the application of these mitigation and management measures and that the proposed action is occurring on a relatively small scale (1.25 hectares) it is considered unlikely that the proposed action will result in a significant impact.

5.0 Conclusion

The proposed action is considered likely to result in a significant impact to the following MNES as the entire patch of habitat is to be directly impacted:

- natural temperate grassland; and
- golden sun moth.

All other MNES are considered unlikely to occur within the Project Area or likely to be affected by indirect impacts, therefore, unlikely to be impacted by the proposed action.

Given the application of these mitigation measures and that the proposed action is occurring on a relatively small scale (1.25 hectares) it is considered unlikely that the proposed action will result in a significant impact to the 'whole of the environment'.

Attachment 1 – Protected Matters Search Tool Report



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: 05/06/17 13:53:57

[Summary](#)

[Details](#)

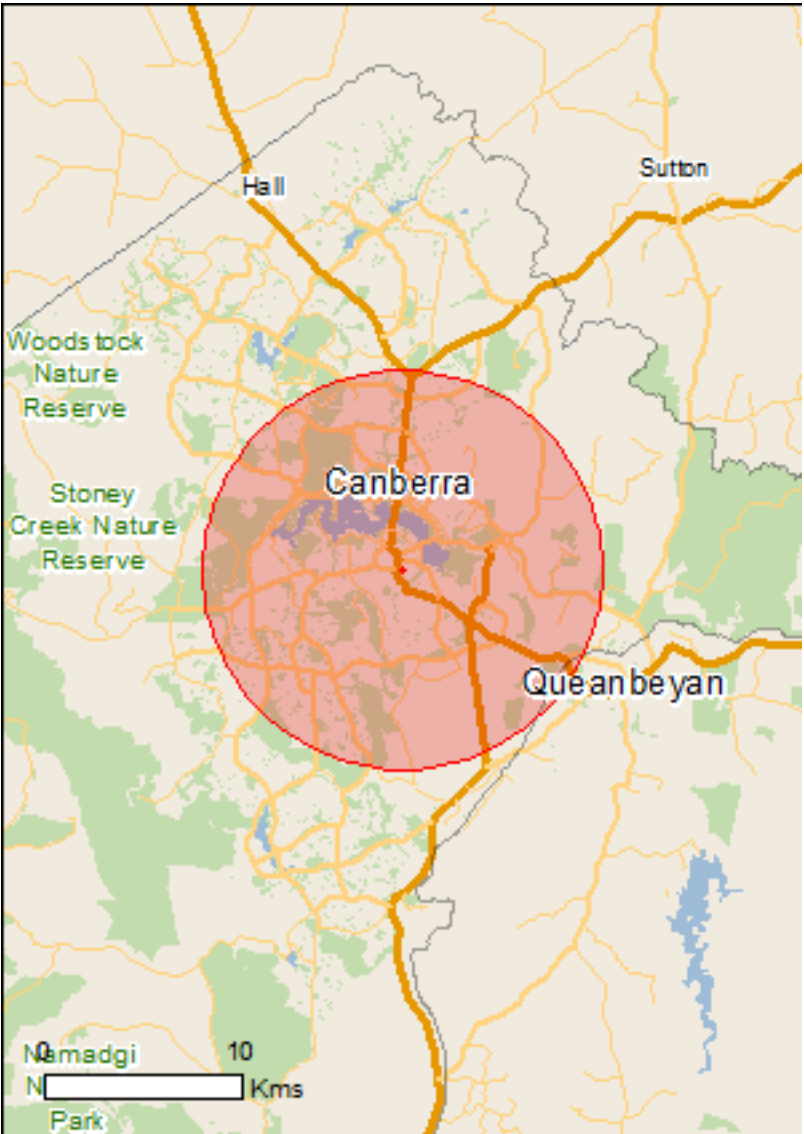
[Matters of NES](#)

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

[Extra Information](#)

[Caveat](#)

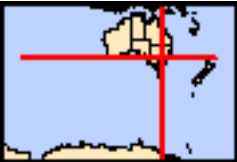
[Acknowledgements](#)



This map may contain data which are
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[Coordinates](#)

[Buffer: 10.0Km](#)



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 [Administrative Guidelines on Significance](#).

World Heritage Properties:	None
National Heritage Places:	4
Wetlands of International Importance:	4
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	2
Listed Threatened Species:	32
Listed Migratory Species:	14

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:	28
Commonwealth Heritage Places:	76
Listed Marine Species:	20
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	1
Commonwealth Reserves Marine:	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:	22
Regional Forest Agreements:	1
Invasive Species:	35
Nationally Important Wetlands:	1
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

National Heritage Properties		[Resource Information]
Name	State	Status
Historic		
Australian Academy of Science Building	ACT	Listed place
Australian War Memorial and the Memorial Parade	ACT	Listed place
High Court - National Gallery Precinct	ACT	Listed place
Old Parliament House and Curtilage	ACT	Listed place

Wetlands of International Importance (Ramsar)		[Resource Information]
Name	Proximity	
Banrock station wetland complex	800 - 900km upstream	
Hattah-kulkyne lakes	600 - 700km upstream	
Riverland	700 - 800km upstream	
The coorong, and lakes alexandrina and albert wetland	800 - 900km upstream	

Listed Threatened Ecological Communities	[Resource Information]
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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
Natural Temperate Grassland of the South Eastern Highlands	Critically Endangered	Community likely to occur within area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area

Listed Threatened Species	[Resource Information]
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Name	Status	Type of Presence
Birds		
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area
Limosa lapponica baueri Bar-tailed Godwit (baueri), Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat may occur within area
Limosa lapponica menzbieri 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

Name	Status	Type of Presence
Polytelis swainsonii Superb Parrot [738]	Vulnerable	Species or species habitat known to occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
Fish		
Maccullochella peelii Murray Cod [66633]	Vulnerable	Species or species habitat may occur within area
Macquaria australasica Macquarie Perch [66632]	Endangered	Species or species habitat may occur within area
Frogs		
Litoria aurea Green and Golden Bell Frog [1870]	Vulnerable	Species or species habitat may occur within area
Litoria castanea Yellow-spotted Tree Frog, Yellow-spotted Bell Frog [1848]	Endangered	Species or species habitat may occur within area
Insects		
Synemon plana Golden Sun Moth [25234]	Critically Endangered	Species or species habitat known to occur within area
Mammals		
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area
Petauroides volans Greater Glider [254]	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 known to occur within area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area
Plants		
Caladenia actensis Canberra Spider Orchid [76138]	Critically Endangered	Species or species habitat known to occur within area
Eucalyptus aggregata Black Gum [20890]	Vulnerable	Species or species habitat likely to occur within area
Lepidium ginninderrense Ginninderra Peppercress [78474]	Vulnerable	Species or species habitat likely to occur within area
Lepidium hyssopifolium Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat may occur within area
Leucochrysum albicans var. tricolor Hoary Sunray, Grassland Paper-daisy [56204]	Endangered	Species or species habitat known to occur within area
Pelargonium sp. Striatellum (G.W.Carr 10345) Omeo Stork's-bill [84065]	Endangered	Species or species habitat may occur within area

Name	Status	Type of Presence
Prasophyllum petilum Tarengo Leek Orchid [55144]	Endangered	Species or species habitat may occur within area
Prasophyllum sp. Wybong (C.Phelps ORG 5269) a leek-orchid [81964]	Critically Endangered	Species or species habitat may occur within area
Rutidosis leptorrhynchoides Button Wrinklewort [7384]	Endangered	Species or species habitat likely to occur within area
Swainsona recta Small Purple-pea, Mountain Swainson-pea, Small Purple Pea [7580]	Endangered	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		
Aprasia parapulchella Pink-tailed Worm-lizard, Pink-tailed Legless Lizard [1665]	Vulnerable	Species or species habitat known to occur within area
Delma impar Striped Legless Lizard [1649]	Vulnerable	Species or species habitat known to occur within area
Tympnocryptis pinguicolla Grassland Earless Dragon [66727]	Endangered	Species or species habitat known to 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
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Migratory Terrestrial Species		
Hirundapus caudacutus White-throated Needletail [682]		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 known to occur within area

Migratory Wetlands Species		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area

Name	Threatened	Type of Presence
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to 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 likely to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Land	[Resource Information]
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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 - Australian Postal Corporation
Commonwealth Land - Defence Housing Authority
Defence - 10 WHYALLA ST - FYSHWICK
Defence - 139 CANBERRA AVE - FYSHWICK
Defence - 169 GLADSTONE ST - FYSHWICK
Defence - ADC / JSSC - WESTON
Defence - ADFA MARINE FACILITY - YARRALUMLA
Defence - AIDAB Building
Defence - AUSTRALIAN DEFENCE FORCE ACADEMY
Defence - BELCONNEN RADIO STATION ; BELCONNEN COMMUNICATIONS STATION
Defence - CAMPBELL PARK
Defence - DEAKIN OFFICES
Defence - DEFENCE RECRUITING UNIT - GIO BUILDING
Defence - HEWLETT PACKARD BUILDING - FERNHILL PARK
Defence - HMAS HARMAN - SYMONSTOWN
Defence - MAJURA FIELD FIRING RANGE
Defence - MAJURA NAVIGATION BEACON
Defence - MAJURA NAVIGATIONAL AID SITE
Defence - MAWSON OFFICE ACCOMM
Defence - NAVAL COMBAT DATA SYSTEM CENTRE - FYSHWICK
Defence - NCC BUILDING - CANBERRA CITY
Defence - NORTHBOURNE HOUSE
Defence - NORTHCOTT DRIVE PLAYING FIELDS (Addison Rd)
Defence - PHYSICS FIELD TESTING STATION - CANBERRA
Defence - RAAF BASE FAIRBAIRN
Defence - ROYAL MILITARY COLLEGE - DUNTROON
Defence - RUSSELL HILL COMPLEX
Defence - WERRIWA DEPOT

Commonwealth Heritage Places	[Resource Information]
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Name	State	Status
Natural		
Majura Valley Natural Temperate Grassland	ACT	Listed place
State Circle Cutting	ACT	Listed place
Indigenous		

Name	State	Status
Aboriginal Embassy Site	ACT	Within listed place
Historic		
Acton Conservation Area	ACT	Listed place
Acton Peninsula Building 1	ACT	Listed place
Acton Peninsula Building 15	ACT	Listed place
Acton Peninsula Building 2	ACT	Listed place
Acton Peninsula Limestone Outcrops	ACT	Listed place
Anzac Memorial Chapel of St Paul	ACT	Listed place
Apostolic Nunciature	ACT	Listed place
Apple Shed Asset C58	ACT	Listed place
Australian American Memorial and Sir Thomas Blamey Square	ACT	Listed place
Australian Forestry School (former)	ACT	Listed place
Australian National Botanic Gardens (part)	ACT	Listed place
Australian War Memorial	ACT	Listed place
Blowfly Insectary Numbers 1 and 2	ACT	Listed place
Blundells Farmhouse, Slab Outbuilding and Surrounds	ACT	Listed place
CSIRO Main Entomology Building	ACT	Listed place
Canberra School of Art	ACT	Listed place
Canberra School of Music	ACT	Listed place
Captains Quarters Assets B1 to B4	ACT	Listed place
Carillon	ACT	Listed place
Casey House and Garden	ACT	Listed place
Changi Chapel	ACT	Listed place
Commandants House Asset B9	ACT	Listed place
Commencement Column Monument	ACT	Listed place
Communications Centre	ACT	Listed place
Drill Hall Gallery	ACT	Listed place
Duntroon House and Garden	ACT	Listed place
East Block Government Offices	ACT	Listed place
Edmund Barton Offices	ACT	Listed place
General Bridges Grave	ACT	Listed place
Gungahlin Complex	ACT	Listed place
Gungahlin Homestead and Landscape	ACT	Listed place
High Court - National Gallery Precinct	ACT	Listed place
High Court of Australia	ACT	Listed place
Institute of Anatomy (former)	ACT	Listed place
John Gorton Building	ACT	Listed place
King George V Memorial	ACT	Listed place
Lennox House Complex	ACT	Listed place
National Gallery of Australia	ACT	Listed place
National Library of Australia and Surrounds	ACT	Listed place
National Rose Gardens	ACT	Listed place
Old Parliament House Gardens	ACT	Listed place
Old Parliament House and Curtilage	ACT	Listed place
Parade Ground and Associated Buildings Group	ACT	Listed place
Parliament House Vista	ACT	Listed place
Parliament House Vista Extension - Portal Buildings	ACT	Listed place
Patent Office (former)	ACT	Listed place
Phytotron	ACT	Listed place
R G Menzies Building ANU	ACT	Listed place
RMC Duntroon Conservation Area	ACT	Listed place
Redwood Plantation	ACT	Listed place
Reserve Bank of Australia	ACT	Listed place
Residence Asset B5	ACT	Listed place
Residence Asset B7	ACT	Listed place
Residence Asset C12	ACT	Listed place
Residence Asset C13	ACT	Listed place
Residence Asset C14	ACT	Listed place
Residence Asset C15	ACT	Listed place
Residence Asset C7	ACT	Listed place
Residence Asset C8	ACT	Listed place
Russell Precinct Heritage Area	ACT	Listed place
Sculpture Garden National Gallery of Australia	ACT	Listed place
The CSIRO Forestry Precinct	ACT	Listed place
The Lodge	ACT	Listed place
The Royal Australian Mint	ACT	Listed place

Name	State	Status
The Surveyors Hut	ACT	Listed place
Three Wartime Bomb Dump Buildings	ACT	Listed place
Toad Hall ANU	ACT	Listed place
University House and Garden	ACT	Listed place
West Block and the Dugout	ACT	Listed place
Westridge House & Grounds	ACT	Listed place
Yarralumla and Surrounds	ACT	Listed place
York Park North Tree Plantation	ACT	Listed place
Russell Cafeteria	ACT	Within listed place

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 known to 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 known 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 known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known 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 known to occur within area
Hirundapus caudacutus White-throated Needletail [682]		Species or species habitat known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known 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

Name	Threatened	Type of Presence
Myiagra cyanoleuca Satin Flycatcher [612]		habitat may occur within area 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 likely 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

Commonwealth ReservesTerrestrial		[Resource Information]
Name	State	Type
Australian National	ACT	Botanic Gardens

Extra Information

State and Territory Reserves		[Resource Information]
Name	State	
Aranda Bushland	ACT	
Black Mountain	ACT	
Bruce Ridge	ACT	
Callum Brae	ACT	
Crace	ACT	
Farrer Ridge	ACT	
Gossan Hill	ACT	
Isaacs Ridge	ACT	
Jerrabomberra Wetlands	ACT	
Mt Ainslie	ACT	
Mt Majura	ACT	
Mt Mugga Mugga	ACT	
Mt Painter	ACT	
Mt Pleasant	ACT	
Mt Taylor	ACT	
O'Connor Ridge	ACT	
Oakey Hill	ACT	
Queanbeyan	NSW	
Red Hill	ACT	
Unnamed	ACT	
Wanniassa Hills	ACT	
West Jerrabomberra	ACT	

Regional Forest Agreements		[Resource Information]
Note that all areas with completed RFAs have been included.		
Name	State	
Southern RFA	New South Wales	

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
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
Passer domesticus House Sparrow [405]		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
Mammals		
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

Name	Status	Type of Presence
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
Sus scrofa Pig [6]		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
Cytisus scoparius Broom, English Broom, Scotch Broom, Common Broom, Scottish Broom, Spanish Broom [5934]		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 area
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
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 & S.x reichardtii Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]		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

Name	Status	Type of Presence
Ulex europaeus		
Gorse, Furze [7693]		Species or species habitat likely to occur within area

Nationally Important Wetlands	[Resource Information]
Name	State
Jerrabomberra Wetlands	ACT

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

-35.311682 149.130869,-35.311008 149.13148,-35.311375 149.132135,-35.311209 149.132221,-35.311489 149.13266,-35.312303 149.131963,-35.311682 149.130869,-35.311682 149.130869

Acknowledgements

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

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

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

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