Preliminary Environmental Assessment

Woodman Point Ammo Jetty Refurbishment

Woodman Point Ammo Jetty Refurbishment

Department of Transport

Prepared by: Maritime Planning (with support from Teal Solutions)

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Version control

Version No.	Date	Prepared by	Revision or issue descriptions	Issued to
1	06/05/2025	G. Foulsham	Draft	NA
2	14/07/2025	G. Foulsham	Final	NA

Amendment record

This guidelines document is reviewed to ensure its continuing relevance to the systems and process that it describes. A record of contextual revisions is listed in the following table.

Page No.	Context	Revision	Date

Contents

Introduction

The Woodman Point Ammo Jetty (the Jetty) is popular for swimming, fishing, snorkelling and scuba diving. Due to its age the structure is steadily deteriorating and at some point in the near future it will be at risk of collapse.

The Department of Transport (DoT), utilising funding from the WA Recovery Plan as well as Outdoor and Adventure Tourism Funding and, proposes to replace the Jetty to provide users with a safer, new recreational facility. The existing jetty deck will be demolished but its piles, will be retained. A new jetty will be constructed over the top of the old piles and it will provide:

- A T-head that more than doubles the fishing space in deep water.
- The opportunity for greater separation between divers and fishers with a much wider main deck that creates a safer environment.
- Improved access to the water from the jetty for swimmers and divers via a dedicated ramp and low-level platform.
- Increased protection for the marine biota on the existing jetty piles.
- Improved lighting, rubbish bins, emergency access ladders, shelter, seating and shade.

This document describes the works to be undertaken to achieve the above outcomes as well as the values of the area, impacts from the works and mitigation of those impacts. It assesses the potential environmental and social impacts posed by the Project, as well as mitigating potential impacts during construction and operation. It provides supporting information for the project Development Application, Disturbance Approval, and Native Vegetation Clearing Permit.

Background

The Jetty is located to the north of Woodman Point on Coogee Beach, this area is located approximately 7.5 km south of Fremantle in Owen Anchorage in the City of Cockburn (see Figure 1 and Figure 2).

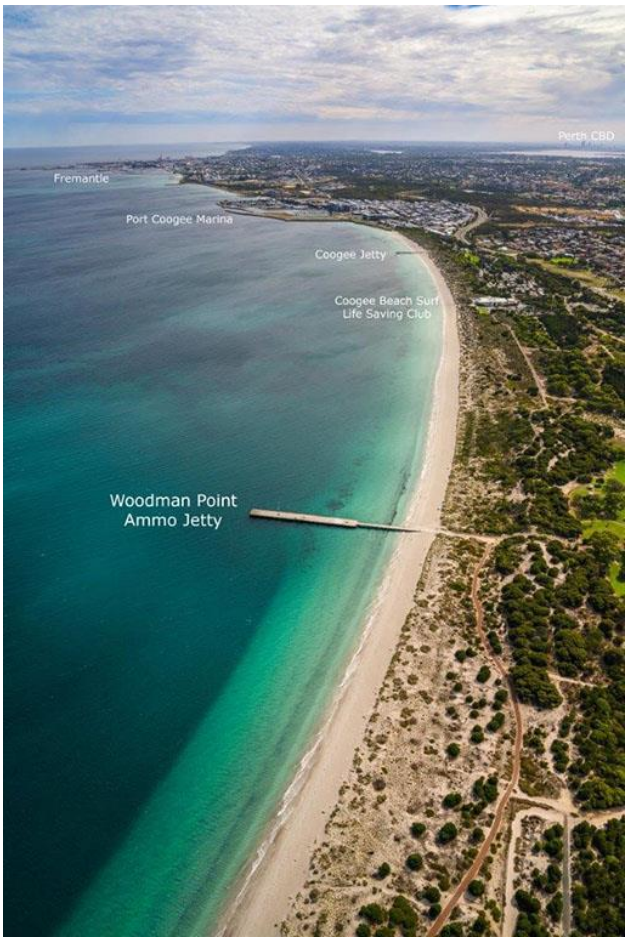


Figure 1 View north showing location of Woodman Point Ammo Jetty

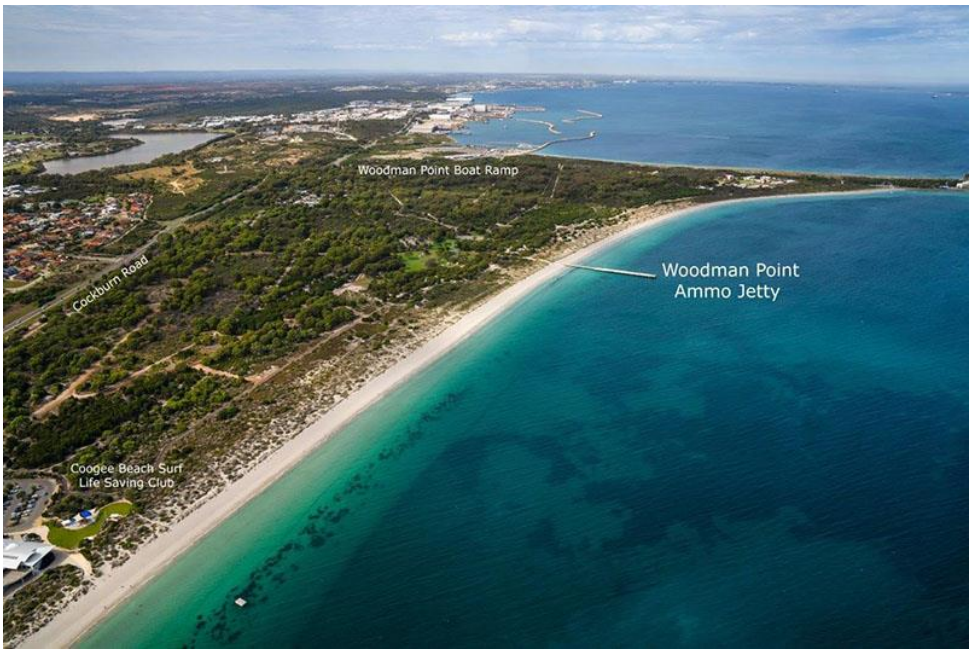


Figure 2 View south to Woodman Point Ammo Jetty

The existing Ammo Jetty is 160 m long, consisting of a 65 m long and 3.4 m wide neck and the head which is 95 m long and 9.3 m wide (Zacor, 2022). The jetty deck is supported by hexagonal reinforced concrete piles (430 mm across) with 44 piles along the neck and 92 piles supporting the head (Figure 3). The height of the jetty deck is approximately +3.0 m CD and the water depth at the end of the jetty is -8 mCD. Though the overall condition of the Jetty is poor the concrete piles are largely in a reasonable condition. There is some deterioration and spalling visible above the water but below the water the piles support a diverse and abundant marine biota community (Figure 4).

The Ammo Jetty was originally constructed in 1903/1904 to facilitate the import of explosives for the mining industry and has been modified several times since. The Jetty is beyond its intended design life and the allowable load rating of the deck has been reduced over time. Due to the significant deterioration, and high level of public use, regular structural inspections of the jetty have been undertaken since 2012 (including by Transfield Services, Fremantle Ports and Searle Consulting). It is likely that future inspections will identify further degradation which could condemn the jetty as unsafe for public use.

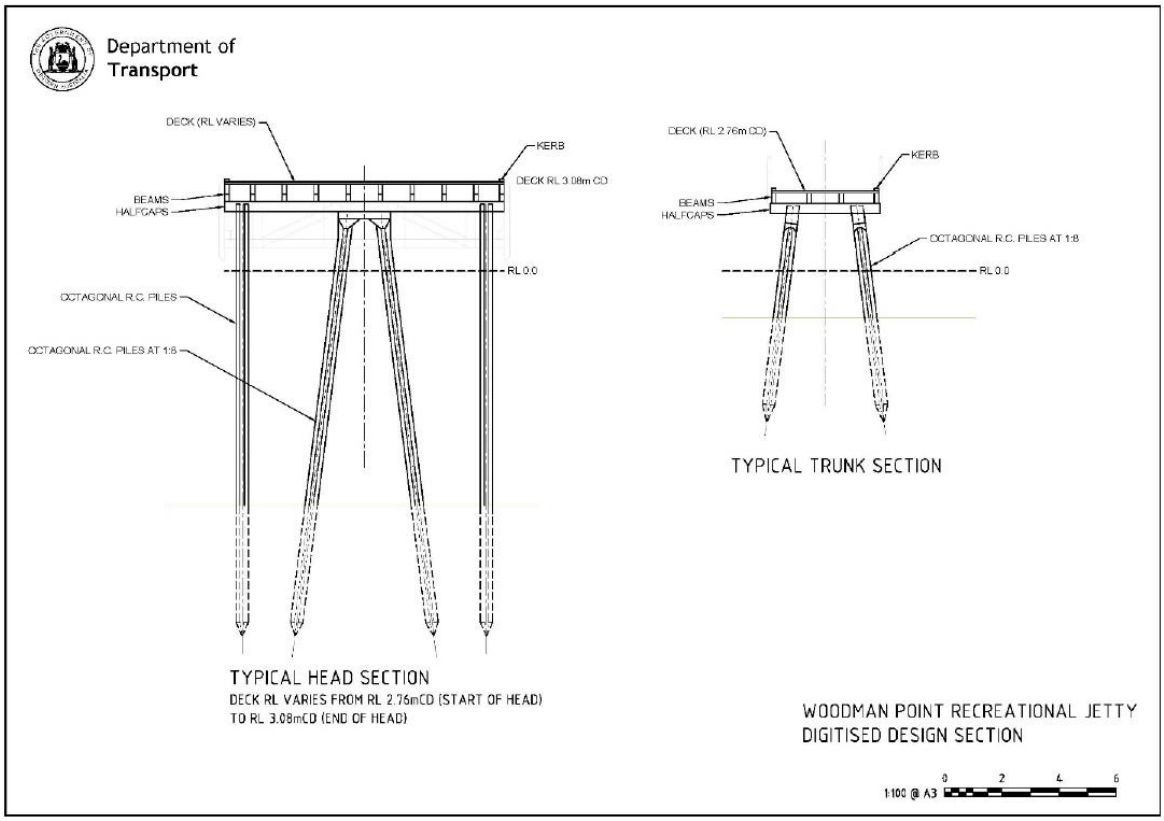


Figure 3 Typical cross sections of trunk and head section of Ammo Jetty

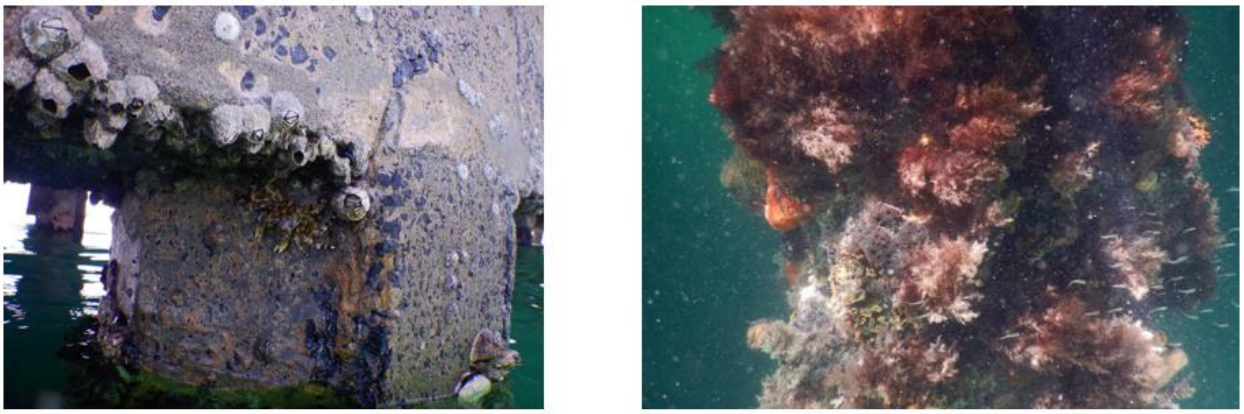


Figure 4 Typical condition of concrete piles

The Jetty is located adjacent to John Graham Recreation Reserve, part of the Woodman Point Regional Park (Conservation Commission, 2010), which provides parking, picnic/barbeque facilities and public amenities. This Reserve also offers many other land-based recreational activities including bird watching, bushwalking, bike riding and heritage interpretation. The Jetty is considered an integral part of the experience of the Park and together they are a major attraction for local, interstate and overseas visitors. The Jetty is one of Perth's most popular recreational fishing locations (Smallwood et al., 2011a; Smallwood et al., 2011b). The clear, sheltered waters and the marine biota on the jetty piles provides a unique shore-dive experience and is popular for Scuba diving and snorkelling.

In 2013 a Working Group was formed to review the safety of the Jetty and to consider options for future maintenance and/or replacement of the jetty structure. The Working Group supported the Department's approach: to demolish the existing superstructure with a new jetty to be constructed over the top of the retained existing piles. The proposed refurbishment of the Jetty will address a number of concerns should the Jetty fail including public safety, reputational damage to State Government, and loss of public amenity due to unplanned closure (Zacor, 2022). The refurbished jetty will provide fishers, divers and community users a safe, fit for purpose recreational facility that improves access for all. Landscaping works will also be undertaken to improve access to the Jetty and integrate it into the parklands.

Document Purpose and Scope

This document presents a Preliminary Environmental Assessment of the Ammo Jetty refurbishment and assesses the potential environmental and social impacts posed by the Project, as well as mitigating potential impacts during construction and operation. The potential impacts on relevant receptors have been assessed, based on an understanding of the proposed works and the surrounding environment. This document outlines the environmental monitoring and management measures that will be implemented to control the potential environmental and social impacts during the Project. It provides support for a Development Application under the *Metropolitan Redevelopment Authority Act 2011*, Disturbance Approval under the *Biodiversity Conservation Act 2016*, and a Native Vegetation Clearing Permit under Part V of the *Environmental Protection Act 1986*.

Proponent

The DoT assumed legal responsibility for the Ammo Jetty following the modification of the Fremantle Port limits. However, the ongoing maintenance and management of the Jetty is undertaken collaboratively by DoT, Department of Biodiversity, Conservation and Attractions (DBCA) and the City of Cockburn (CoC). DoT will be the proponent for the proposed refurbishment of the Jetty and associated landside works. DoT contractors will be provided access to carry out works on the land during the construction period, through a Memorandum of Understanding (MoU) with DBCA. On completion, the newly created landside assets will be handed over to DBCA.

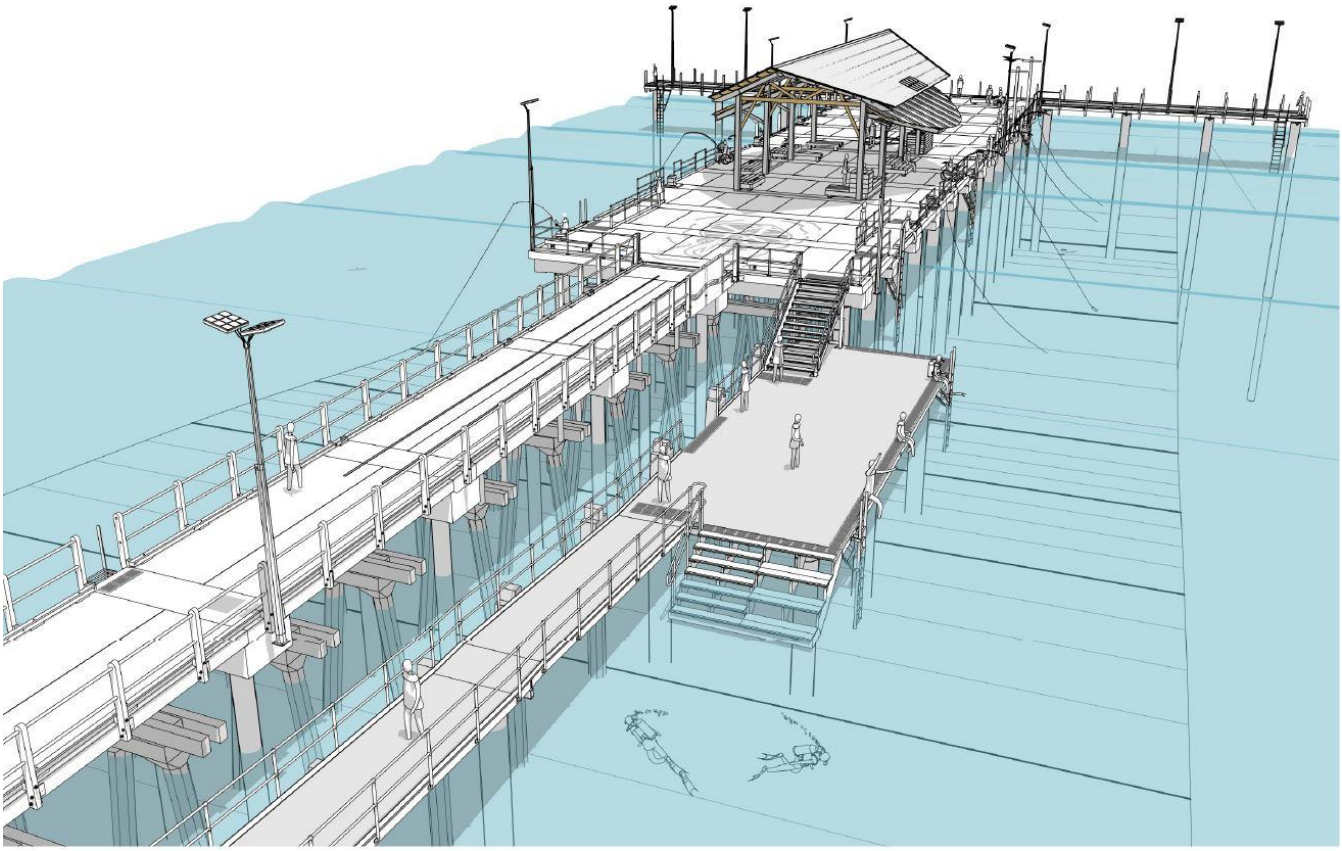
Proposal

The refurbishment of the Ammo Jetty will de-construct the existing superstructure (halfcaps, stringers and decking) and install new steel piles to support a new wider deck over the existing piles which shall remain in place. It is anticipated that the construction works will take approximately nine to twelve months to complete. The upgraded facility will provide an enlarged deck platform (with T-head), swimming platform and landscaped access to the jetty (Figure 5 and Figure 6). The jetty refurbishment will include the following elements:

- Approximately 100 steel piles (~80 along neck and head; ~20 along T-head and swimming platform) (Zacor, 2022; Appendix K).

- New jetty deck consisting of neck (98 m x 3 m), head (74 m x 19 m) and T-head (49 m x 3 m) (Zacor, 2022; Appendix K). The deck height will be ~+3.0 m CD and will tie in with landside abutment to allow alongshore transit of ATVs and pedestrians.
- Water access including a swimming platform (at a level of ~+1.75 mCD and a minimum water depth of -1.75 m CD) and exit ladders.
- Landscaping works leading to jetty.
- Aboriginal and maritime heritage interpretation features (including reuse of salvaged materials).
- Shade shelter, seating, lighting and handrails on the jetty.
- Litter control and rubbish bins.
- Temporary rerouting, using existing paths, of north-south pedestrian and bicycle traffic during construction works.
- Revegetation of cleared and disturbed land using native species.

It is likely that demolition of the superstructure will be undertaken using marine-based plant whereas construction of the new deck will be undertaken using land-based equipment. The refurbished jetty will be designated for pedestrian use with the capacity to support light vehicles for service/emergency as required and motorised vessels will continue to be excluded from the area. The width of the jetty head and T-head will help to improve the separation between fishing and diving/snorkelling activities. Where practicable, the works will limit impacts to the marine biota on the existing piles through minimising the exposure of the piles to sunlight. The works boundary is presented in Figure 6. Landscaping and construction works will require a small area of permanent (0.20 ha) and temporary (0.25 ha) vegetation clearing (Figure 7).



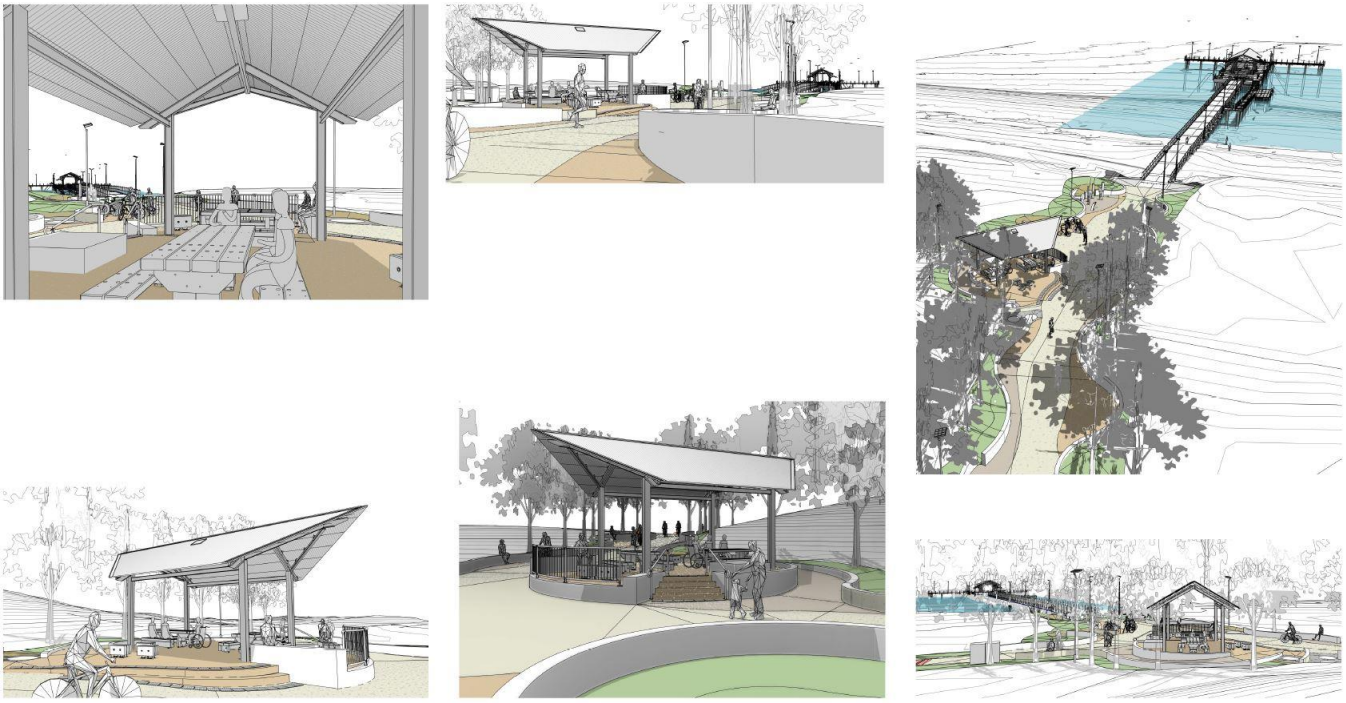


Figure 5 Design for Ammo Jetty Refurbishment

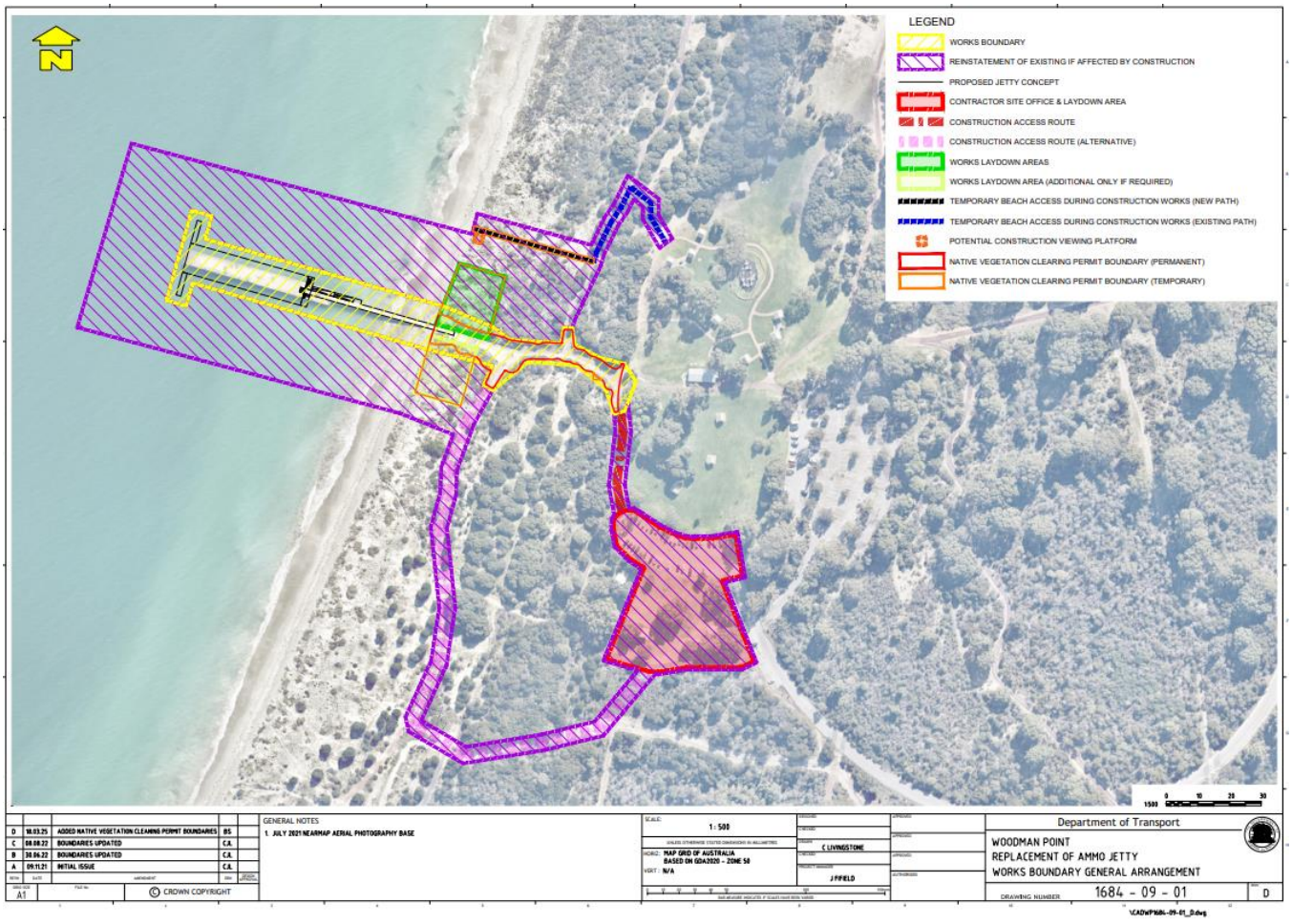


Figure 6 Works boundary general arrangement including proposed vegetation clearing areas

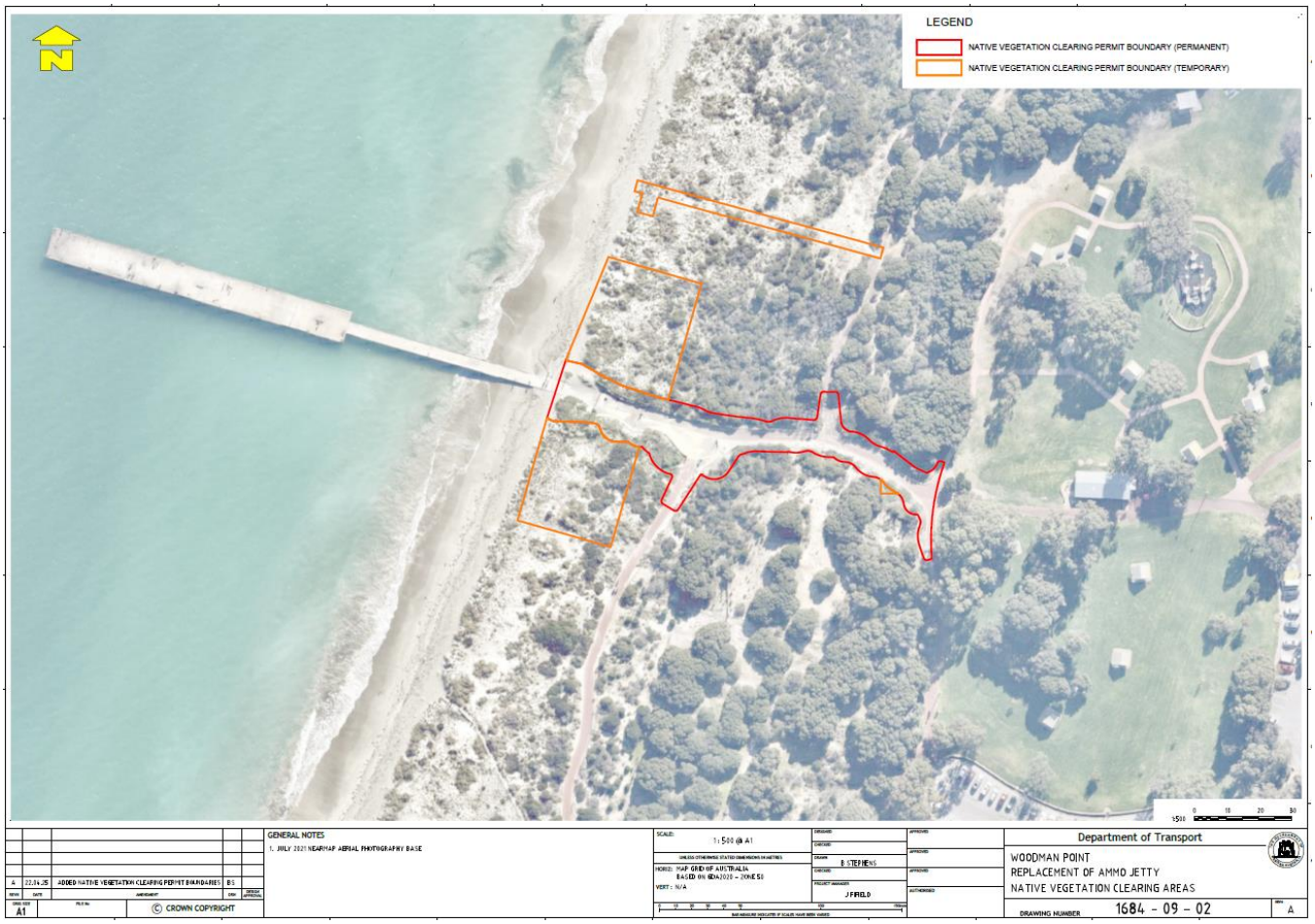


Figure 7 Proposed temporary and permanent vegetation clearing areas

Planning Context

The tenure near the Ammo Jetty includes:

- Jetty Reserve 54594 (Lot 777 on Deposited Plan 426800) managed by DoT
- Water area: Unallocated Crown Land and State Waters.
- Beach area: Vacant Crown Land managed by the City of Cockburn.
- Landside: Conservation Reserve 49220 (John Graham Recreation Reserve) managed by DBCA as part of the Woodman Point Regional Park.

The Woodman Point Regional Park was established in 1997 and is reserved for Parks and Recreation in the Perth Metropolitan Region Scheme and the City of Cockburn Local Planning Scheme (Figure 8). The Woodman Point Regional Park is part of the Regional Parks initiative which is intended to support the management of selected urban areas of Perth to preserve and restore ecosystems and cultural heritage while encouraging a range of sustainable nature-based recreation activities (Figure 9). The Woodman Point Regional Park Community Advisory Committee (which includes the DoT) was established in 1999 to provide a forum for community engagement and exchange of advice on management issues facing the Park (Conservation Commission, 2010). The Woodman Point Regional Park Management Plan (Conservation Commission, 2010) provides an overarching approach for the protection and enhancement of the conservation, recreation and landscape values of the Park and specifically recognises the following values:

- Nature Conservation
- Recreation
- Cultural Heritage

- Landscape
- Research and Education

The long-term vision for the Park is to ensure that:

“Woodman Point Regional Park will be a well-managed coastal park supporting and preserving species and habitat diversity in a sustainable manner. The Park will provide for the conservation and preservation of cultural heritage values, as well as providing for the recreational needs of the community, in a visually harmonious way” (Conservation Commission, 2010).

The Woodman Point Regional Park Management Plan defines the management zones of Natural Environmental Uses and Recreation in the vicinity of the Ammo Jetty (Figure 10). The Natural Environmental Uses Zone allows for uses which do not adversely affect the natural environment whereas the Recreation Zone permits a variety of recreational opportunities (Table 1). The Management Plan also includes a Recreation Masterplan to help coordinate recreational developments in the Park and recognises the future need for upgrade works at the Ammo Jetty, the potential to upgrade existing or new commercial concessions at the John Graham Recreation Reserve, and the desire to manage the remnant vegetation in the Natural Environmental Uses Zone. The proposed refurbishment and uses of the Ammo Jetty are consistent with the Woodman Point Regional Park management objectives and the Recreation Master Plan.

Table 1 Management zones and uses in the vicinity of the Ammo Jetty as defined by the Woodman Point Regional Park Management Plan

Management Zone	Management Emphasis	Acceptable Uses and Facilities
Natural Environmental Uses	The management emphasis is to provide for appropriate uses that do not adversely affect the natural environment. Areas will be managed jointly for public use, conservation and enhancement of flora and fauna, and improvement of landscape qualities. Public use must be compatible with the assigned purpose of the relevant reserve. Visible evidence of management may be moderate to high. Management will encourage uses and develop facilities that promote conservation and education.	Public access is primarily by walking trails and cycle paths, although access by vehicles along established roads is allowed. Some development of facilities may be necessary. These may include facilities associated with education and visitor services. The provision of facilities will depend on the values of an area. Rehabilitation and habitat protection may be necessary.
Recreation	The prime emphasis of management will be to provide a variety of recreation opportunities. The type and scale of facilities provided will depend on the values of any given area, community demand for recreation and the appropriate management of the Park. Management involves minimising the impact of visitor activities through the sensitive placement and provision of access and facilities as well as through the provision of information and interpretive material. Visible evidence of management may be high.	Public recreational activities are high in these areas. These are predominantly passive pursuits, allowing for Park service and picnic facility development. Commercial concessions are considered appropriate within this management zone. Rehabilitation, landscaping and reticulation of areas may be necessary.

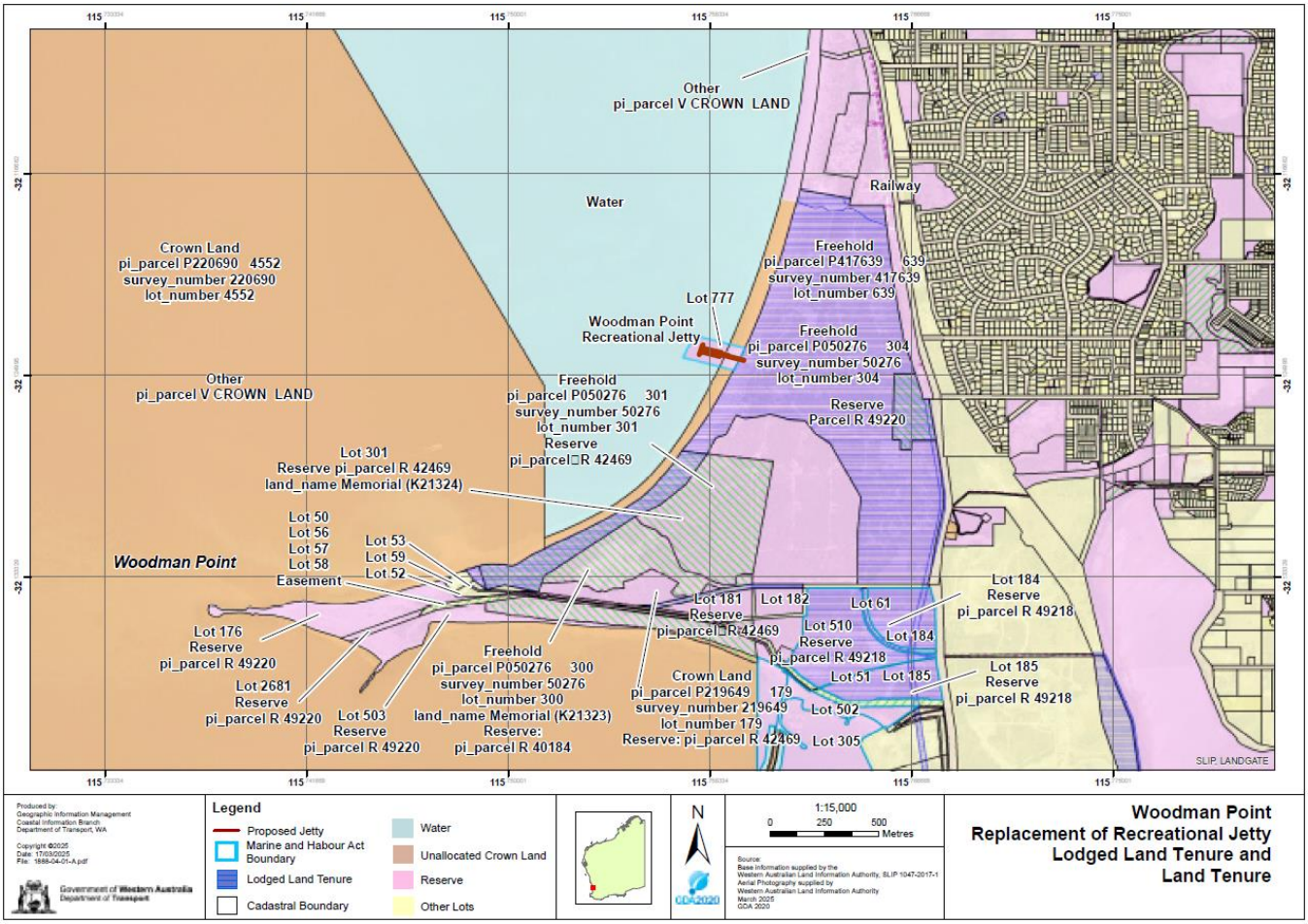


Figure 8 Land tenure in the vicinity of the Ammo Jetty (Conservation Commission, 2010)

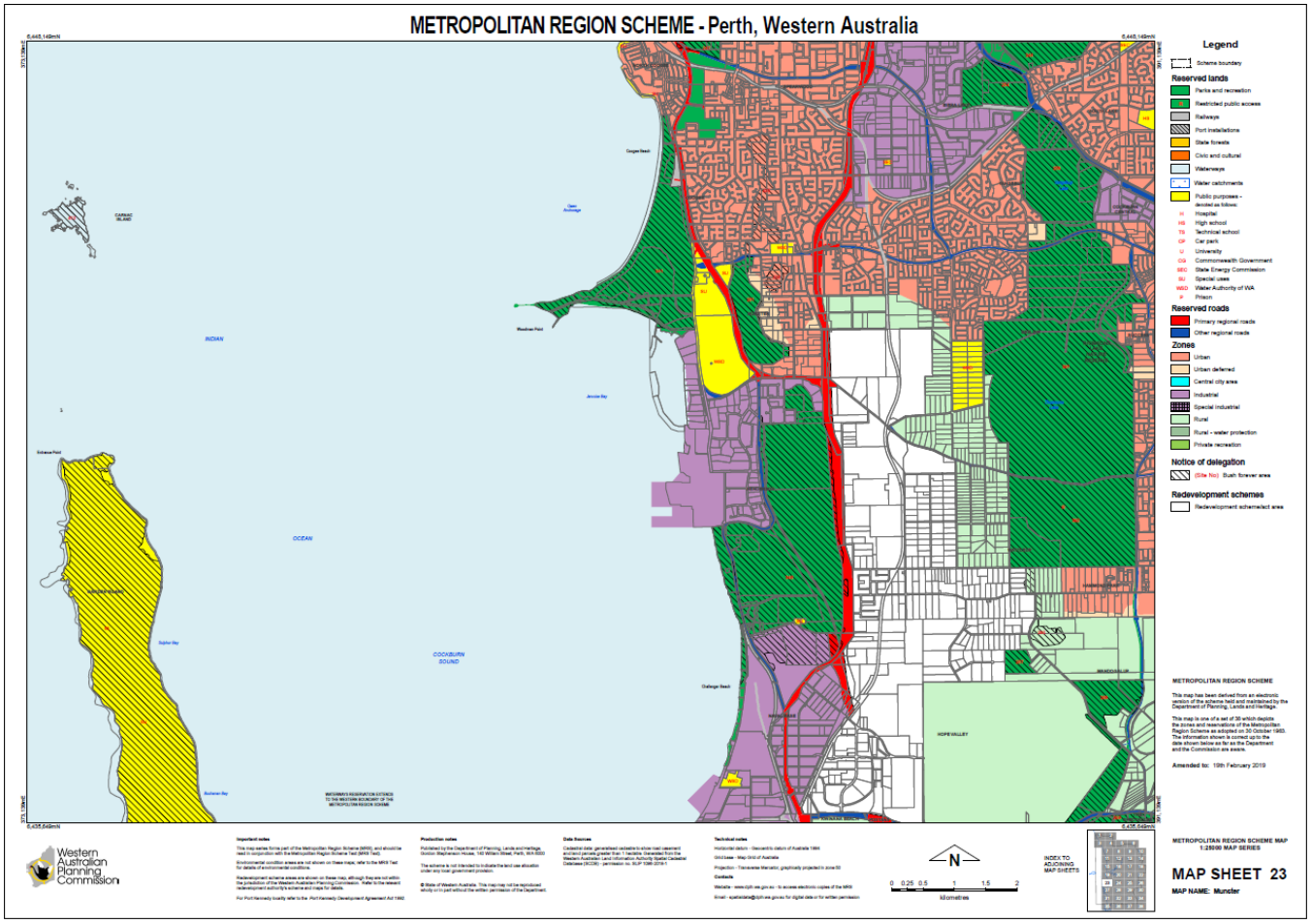


Figure 9 Metropolitan regional scheme zoning (Conservation Commission, 2010)

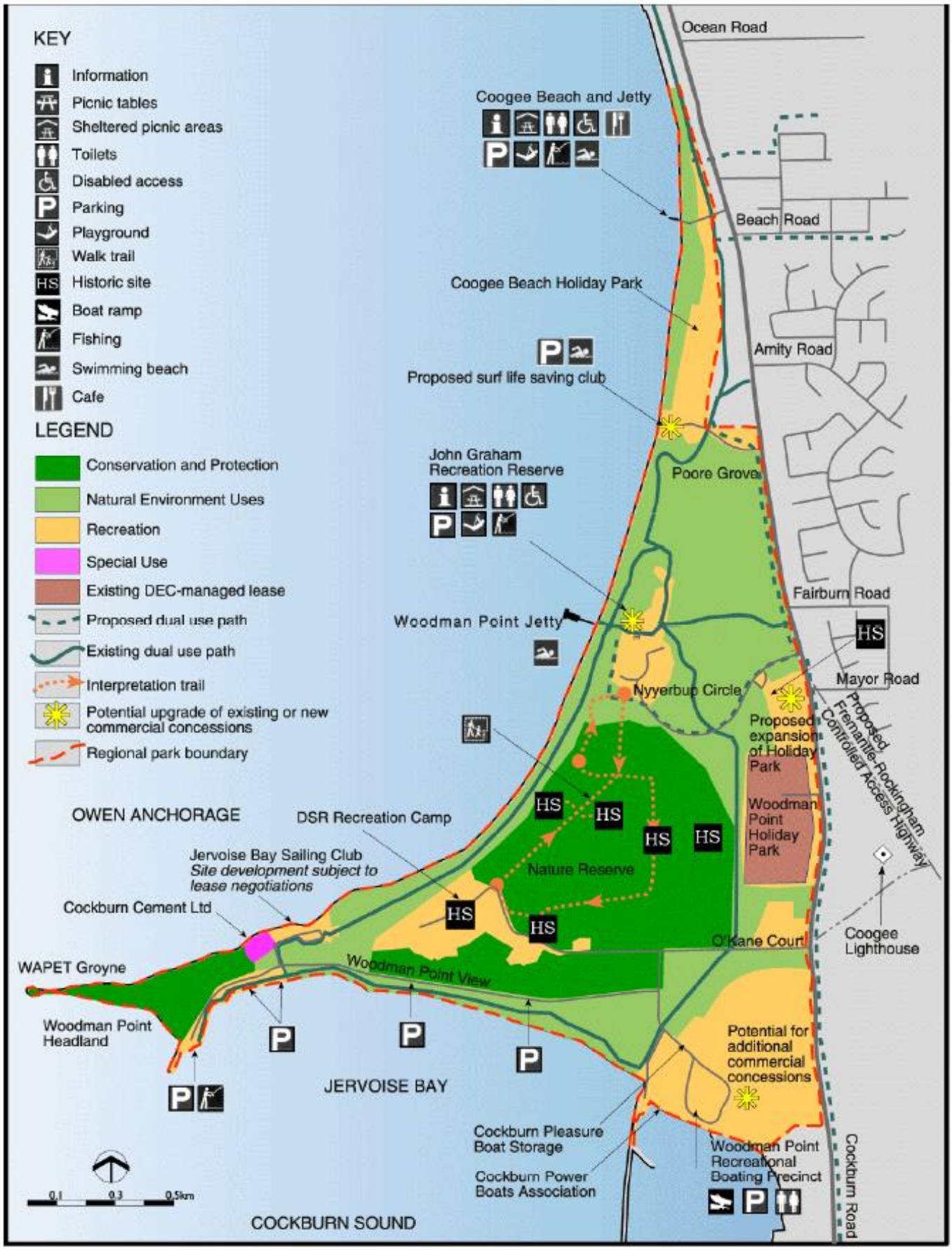


Figure 10 Woodman Point Regional Park recreation masterplan (Conservation Commission, 2010)

Conservation Significance

The majority of the Woodman Point area has been under State and Commonwealth Government control since the quarantine station was built near Woodman Point in 1900/1901. As a result of the restricted access to the area, significant remnants of vegetation at Woodman Point are in good condition and have considerable nature conservation value (Conservation Commission, 2010). The majority of the Woodman Point Regional Park is included within the Woodman Point, Coogee/Munster Bush Forever site (Site 341) (Figure 11). Bush Forever is a strategic plan, released in December 2000 by the Department of Planning, that aims to identify and conserve regionally significant bushland on the Swan Coastal Plain within the Perth Metropolitan Region.

In 2005 all Bush Forever sites were declared Environmentally Sensitive Areas (ESAs) under the Western Australian *Environmental Protection Act 1986* (*EP Act*). However, in accordance with the Environmental Protection (Environmentally Sensitive Areas) Notice 2005 (Clause 4, Item 1f) Bush Forever areas which have been approved for development by the Western Australian Planning Commission are not considered to be ESAs. State Planning Policy 2.8: Bushland Policy for the Perth Metropolitan Region applies where an adverse impact such as clearing is planned for a Bush Forever site (AECOM, 2020). Decision making should recognise the conservation significance of this bushland and all reasonable steps are to be taken to avoid, minimise and offset impacts on Bush Forever areas and demonstrate that reasonable alternative have been explored. Impacts are to be evaluated and justified and where bushland is to be retained it should be managed and protected with offset measures adopted to address any residual impacts.

Following a desktop assessment and reconnaissance flora and vegetation surveys (March and September 2021), *Callitris preissii* (or *Melaleuca lanceolata*) forests and woodlands (Swan Coastal Plain floristic community type 30a2) Threatened Ecological Community (TEC) occurs within the project site (360 Environment, 2022) (Figure 12). This TEC is listed as Vulnerable under the *EP Act* but is not listed under the Commonwealth *Environmental Protection and Biodiversity Conservation Act* 1999 (*EPBC Act*). In accordance with the Environmental Protection (Environmentally Sensitive Areas) Notice 2005 (Clause 4, Item 1e) any areas covered by a TEC is declared to be an ESA. Hence, any clearing in this area will require referral for a Native Vegetation Clearing Permit as the scheduled exemptions for the clearing of native vegetation under the *Environmental Protection Act 1986* do not apply in ESAs.

Figure 11 Woodman Point, Coogee/Munster Bush Forever Site 341

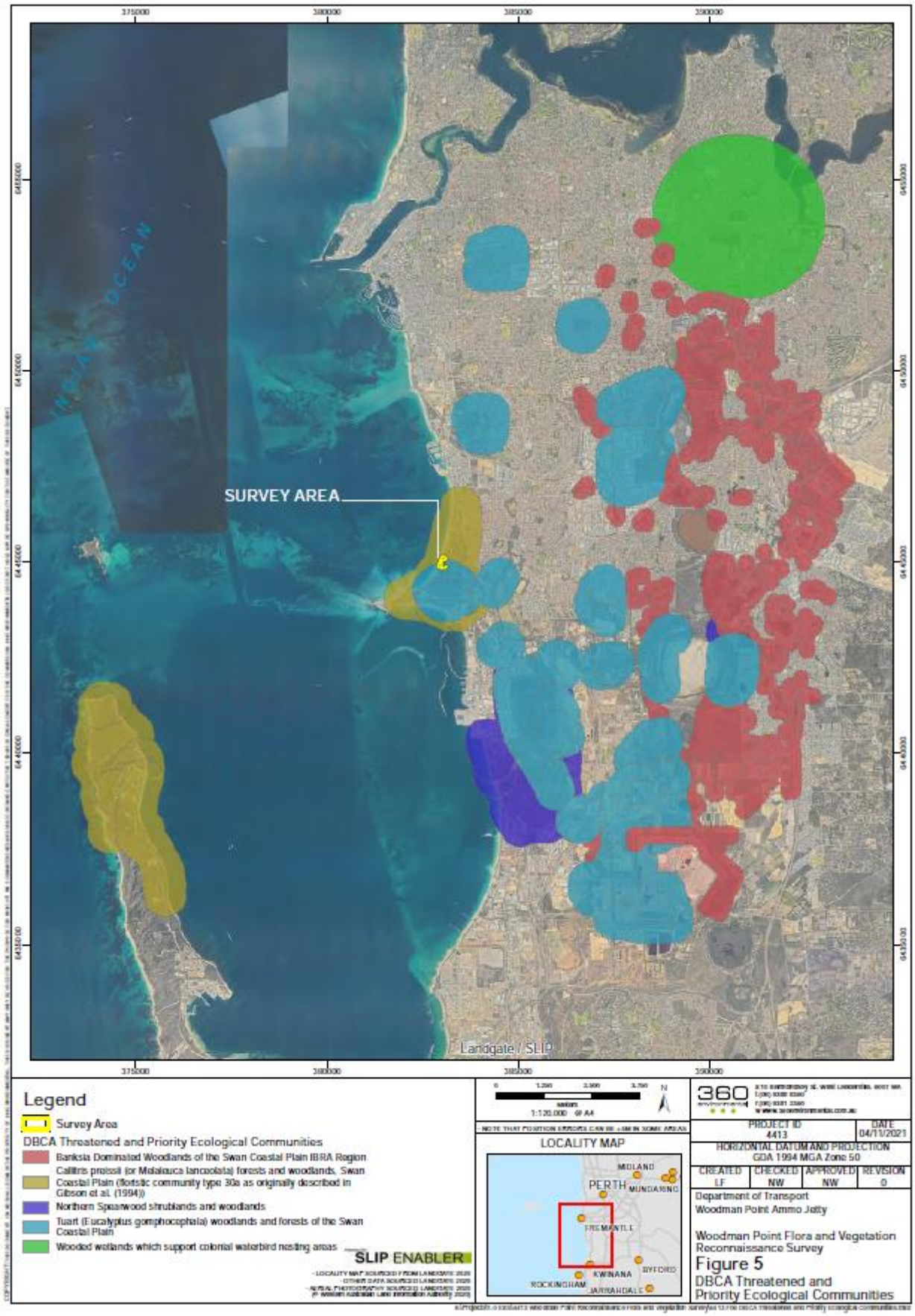


Figure 12 Threatened and priority ecological communities in the vicinity of the survey area (360 Environmental, 2022)

Alternatives Considered

To address the safety concerns associated with the deterioration of the Ammo Jetty, DoT in consultation with the Working Group considered the options to 'do nothing', demolish or maintain the existing structure; however, none of these options were considered feasible on account of the public safety concerns, popularity of the existing facility and ongoing costs (DoT, 2022). Consequently, several alternative concept designs for the relocation and/or refurbishment of the Ammo Jetty were considered (Zacor, 2022):

- Relocate to a new site (~100 m) south and provide shade structure to existing jetty piles to preserve marine biota.
- New jetty to surround existing Jetty.
- New jetty over the top of the existing Jetty.
- New jetty over the top and extending beyond the existing Jetty.

A detailed assessment of these concept options was undertaken including based on desktop information, stakeholder input, risk assessment workshop, and a multicriteria technical assessment (incorporating social, environmental, design, construction, future planning and operations) (Zacor, 2022). In November 2021 the Working Group endorsed the option to construct a new wider jetty over the top of the existing jetty which was considered to have the following pros and cons (Zacor, 2022):

Pros

- Minimised environmental impacts and monitoring requirements to single site.
- Allow continued use of existing access, closer to amenities.
- Known coastal environmental setting.
- Potential to integrate shading within design of new jetty, rather than being additional structure.
- Opportunity to incorporate European Heritage interpretative/education.

Cons

- Restricted user access during construction.
- Improved separation of fishing and diving/swimming activities.

A number of alternatives were considered for construction access and laydown. The proposed option minimised the amount of clearing through the use of existing cleared areas (including roads, carparks, access paths and grassed areas).

Environmental Impact Assessment

Western Australia

The *Environmental Protection Act 1986* (*EP Act*) is the primary legislation that governs environmental impact assessment (EIA) and environmental protection in Western Australia. EIA of significant proposals in Western Australia is conducted by the Environmental Protection Authority (EPA) which has prepared administrative procedures for the purposes of establishing the practices of EIA. Proposals likely to have a significant impact on the environment are required to be referred to the EPA under Section 38 of the *EP Act*.

The *Marine and Harbours Act 1981* governs activities related to maritime facilities.

The Jetties Act 1926 does not apply within proclaimed port areas and therefore a jetty licence was not originally issued for the Ammo Jetty. Further, public jetties are not required to be licenced under the Jetties Act. The T-head was subsequently removed in 2012.

Environmental impact assessment (EIA) is the process for evaluating a proposal and its effects on the environment. It also considers opportunities for avoidance, minimisation, rehabilitation and offset of environmental effects. The EIA process extends from the initial concept of a proposal (including proposal alternatives) through implementation to completion, and where appropriate, decommissioning. For projects likely to have a significant impact on the environment the EPA conducts EIA in five stages:

1. Referral of a proposal to the EPA
2. EPA decision to assess a referred proposal
3. Assessment of the proposal
4. EPA report on assessment of the proposal
5. Ministerial decision on the proposal.

This Preliminary Environmental Assessment has been prepared consistent with EPA guidance. However, no significant environmental impacts are anticipated and hence this project has not been referred under Part IV of the *EP Act*. Management measures shall be implemented to mitigate potential impacts and impacts can be regulated under other process such as under Part V of the *EP Act* via a Native Vegetation Clearing Permit.

Commonwealth

Any actions that are likely to have a significant impact on Matters of National Environmental Significance (MNES); are required to be assessed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (*EPBC Act*). A review of the MNES was undertaken to determine the potential requirement for Commonwealth environmental assessment under the *EPBC Act* (Table 2). No significant impacts on any MNES are anticipated and management measures shall be implemented to mitigate potential impacts.

Table 2 Matters of National Environmental Significance and management measures

Environmental Significance	Values	Potential Impact	Work Completed	Possible Management Measures
World Heritage Property	Not Applicable			

Environmental Significance	Values	Potential Impact	Work Completed	Possible Management Measures
National Heritage Place	Not Applicable			
Wetlands of International Importance	Not Applicable (closest Ramsar site (Forestdale and Thomson Lakes) ~7 km west of the project site.			
Listed Threatened Species and Ecological Communities	Three listed ecological communities and 56 listed threatened species may occur in the area.	No significant impacts anticipated due to limited scale and short duration of the proposed jetty refurbishment works.	Flora Survey (360 Environmental, 2022)	Design: alignment of jetty and land access to minimise impacts on natural habitat. Construction: delineating of work area to ensure construction does not impact natural habitat.
Listed Migratory Species	59 listed migratory species may occur in the area.	No significant impact on migratory species anticipated as limited terrestrial works. Potential impact on marine migratory species from underwater noise during construction (pile driving).	-	Design: alignment of jetty and land access to minimise impacts on natural habitat and reduce the number of piles. Construction: delineating of work area to ensure construction does not impact natural habitat. Construction Environmental Management Plan to include marine fauna management measures.
Commonwealth Marine Area	Not Applicable			
The Great Barrier Reef Marine Park	Not Applicable			

Other Decision-Making Authorities

Other key Local and State statutory approvals relating to the Jetty refurbishment are outlined in Table 3.

Table 3 Other approvals relating to the Ammo Jetty

Proposal Activities	Land tenure / Access	Type of Approval	Legislation Regulating the Activity	Responsible Agency
Terrestrial footprint	John Graham Recreation Reserve (Reserve 49220)	Licence Agreement / Disturbance Approval	*Biodiversity Conservation Act 2016*	Department of Biodiversity Conservation and Attractions.

Proposal Activities	Land tenure / Access	Type of Approval	Legislation Regulating the Activity	Responsible Agency
	Bush Forever Vacant Crown Land	Development Application	*Planning and Development Amendment Act 2023*	Department of Planning Lands and Heritage City of Cockburn
Jetty demolition	-	Development Application	*Heritage of Western Australia Act 1990 & Heritage Act 2018*	City of Cockburn (Heritage Council)
Ground disturbing works	-	Activity Notice	Noongar Standard Heritage Agreement	South West Aboriginal Land and Sea Council

Note that the *Marine and Harbours Act 1981* governs activities related to maritime facilities. The *Jetties Act 1926* does not apply within proclaimed port areas and therefore a jetty licence was not originally issued for the Ammo Jetty. Further, public jetties are not required to be licenced under the *Jetties Act*.

Stakeholder Engagement

Comprehensive stakeholder engagement has been key to the planning and design of the proposed Ammo Jetty refurbishment work and includes multiple stakeholders and engagement methods as outlined in the Stakeholder Consultation Plan (DoT, 2021) and Community Engagement Plan (Shape Urban, 2021a).

The Working Group was formed to coordinate the future planning for the Ammo Jetty. The members of the Working Group are:

- Department of Transport (Chair)
- City of Cockburn (CoC)
- Department of Biodiversity, Conservation & Attractions (DBCA)
- Department of Primary Industries and Regional Development (DPIRB)
- Fishability
- Fremantle Ports
- Recfishwest
- Diving Representative (guest member) – Bucket List Diver

Other key stakeholders include:

- Cockburn Sound Management Advisory Council
- Coogee Beach Surf Life Saving Club
- Department of Planning, Lands and Heritage
- Discover Parks Woodman Point caravan park
- Local Diving Businesses (including Perth Scuba, Divetub, Bucket List Diver, Perth Diving Academy, Perth Ocean Diving, Adreno Scuba Diving, Dolphin Scuba Diving, Dive Sea and Surf Supplies, Diving Frontiers)
- Local Dive Clubs (including UWA Underwater Club, Murdoch University Dive Club, Western Australian Underwater Photography Society, Underwater Explorers Club of Western Australia, Marmion Angling and Aquatic Club, British Sub Aquatic Club of Western Australia)
- Sea Shepherd Australia
- South West Aboriginal Land and Sea Council
- Woodman Point Regional Park Community Advisory Committee

The stakeholder engagement has been undertaken via meetings, project status reports, project website (https://www.transport.wa.gov.au/projects/woodman-point-ammo-jetty.asp), social media, signage, surveys, focus group meetings and newspaper articles. It was undertaken to understand stakeholder preferences and consider options which respond to community expectations (Shape Urban, 2021a).

The DoT also undertook an initial internal risk workshop and subsequent risk workshop with key government agencies in March 2021. Jetty users were surveyed on site (Intercept Survey) to get input on the proposed redevelopment (Element, 2021). Between April to June 2021 the DoT undertook targeted engagement with scuba diving, fishing and other coastal communities (Shape Urban, 2021b). Also during March 2021, a facilitated Focus Group meeting was held with 17 representatives from the local scuba diving community to identify key concerns, issues and feedback regarding the proposed redevelopment of the Ammo Jetty (Counsel, 2021). The key findings from the Focus Group included:

- General support for replacement of the jetty and a strong interest in project sequencing, design and amenities.
- New design should seek to minimise conflict between fishing and diving community.

- Concerns regarding removal of the existing deck may impact marine fauna through sunlight exposure and hence reduce the diving experience till marine fauna recovers.
- Design to include facilities to support scuba diving/snorkelling and recognise whole precinct amenities (e.g., access, parking, environmental condition).
- Safety/emergency medical access is a key concern in any new design.
- There was a high level of goodwill and support for the project.
- Ongoing communication on project progress/milestones very important.

The consultation outcomes were used to inform the development of several concept options (see Section 1.8). Between August and September 2021 feedback on these concept options was sought from stakeholders and the community via an online survey with a total of 1,034 responses received that were supportive of the redevelopment works and demonstrated the following key outcomes:

- Preferences for a longer jetty.
- Preference for a higher jetty.
- Preference for separation between fishing and diving activities.
- Accepting of construction closure up to 12 months.

Consultation with Aboriginal representatives has also been undertaken through the project and included site meetings in August 2021, September 2021 and January 2022 attended by the Traditional Owners, DoT, Aboriginal Heritage Consultant and the Heritage Consultant (Indigenous Economic Solutions, 2021). A range of matters and opportunities were identified, some relevant for the concept development and selection phase and others were to represent the enduring Aboriginal Heritage of the site. The key findings from this consultation included:

- Preference for new jetty to be located at existing site.
- Desire to protect habitat and sea life during construction.
- Desire for inclusion of Aboriginal Heritage interpretative material in the project including Dreamtime Stories, wildlife and Aboriginal connection to the place.
- Consider an Aboriginal name for park and/or Jetty.

The DoT have signed a Noongar Standard Heritage Agreement (NSHA) with the South West Aboriginal Land and Sea Council to cover the ground disturbing works associated with this project. A geotechnical investigation was undertaken consistent with the Activity Notice process and included a site monitor. An Activity Notice shall be submitted for the construction works once final construction design has been confirmed.

A technical assessment was undertaken concurrently with the stakeholder consultation process (Zacor, 2022) and together with the stakeholder consultation was used to inform a multi criteria assessment of the concept options. The preferred option (see Section 1.4) was subsequently refined following input from the Working Group (Zacor, 2022).

Letters of support for the Ammo Jetty refurbishment works have been received from:

- Bucket List Diver
- City of Cockburn
- DBCA
- Fishability
- Recfishwest

Environmental Setting

Geology and Geomorphology

The Ammo Jetty is located on Coogee Beach on the northern flank of Woodman Point, a relic cuspate foreland set in the lee of Carnac Island and the offshore sand bank of Parmelia Bank. This Holocene foreland has developed during the last ~6,000 years as sea levels stabilised following a period of rapid seal level rise (Gozzard, 2007). Woodman Point marks the separation between two coastal lagoons (Owen Anchorage to the north and Cockburn Sound to the south) which have formed in the lee of a chain of offshore islands and reefs. Owen Anchorage is sheltered to the west by the Garden Island ridge, a chain of islands and reefs including Garden Island, Carnac Island and Straggler Rocks.

The Quindalup Dune System is the main geomorphic feature of the Park. A series of low beach ridges extend approximately 130 m landwards from the sheltered sandy beach where the native vegetation has been cleared to form the playground and picnic area of John Graham Recreation Reserve. Levels across the Precinct are relatively flat and vary between approximately +2.5 mAHD to +8 mAHD at the east (MNG detailed survey 28 January 2021). The surficial geology in the area is dominated by Quaternary Safety Bay Sand (fine- to medium-grained sub angular to sub rounded quartz and carbonate sands), Parmelia Bank Unit (loose clayey carbonate sand with organic fibres and shells) and Tamala Limestone (siliceous calcarenite that ranges from well cemented high strength limestone to sands and gravels), overlying Mesozoic silts and clays of the Osborne and Leederville Formations (WorleyParsons, 2018). The national Acid Sulphate Soil database indicates an Extremely Low Probability of Occurrence, with a 1–5% chance in small, localised areas.

The shoreline in the vicinity of the Ammo Jetty has historically shown relatively modest accretion (Figure 13) and it is recommended that the jetty design provide an allowance for shoreline accretion of 0.2 meters per year for 50 years (Seashore Engineering, 2021).

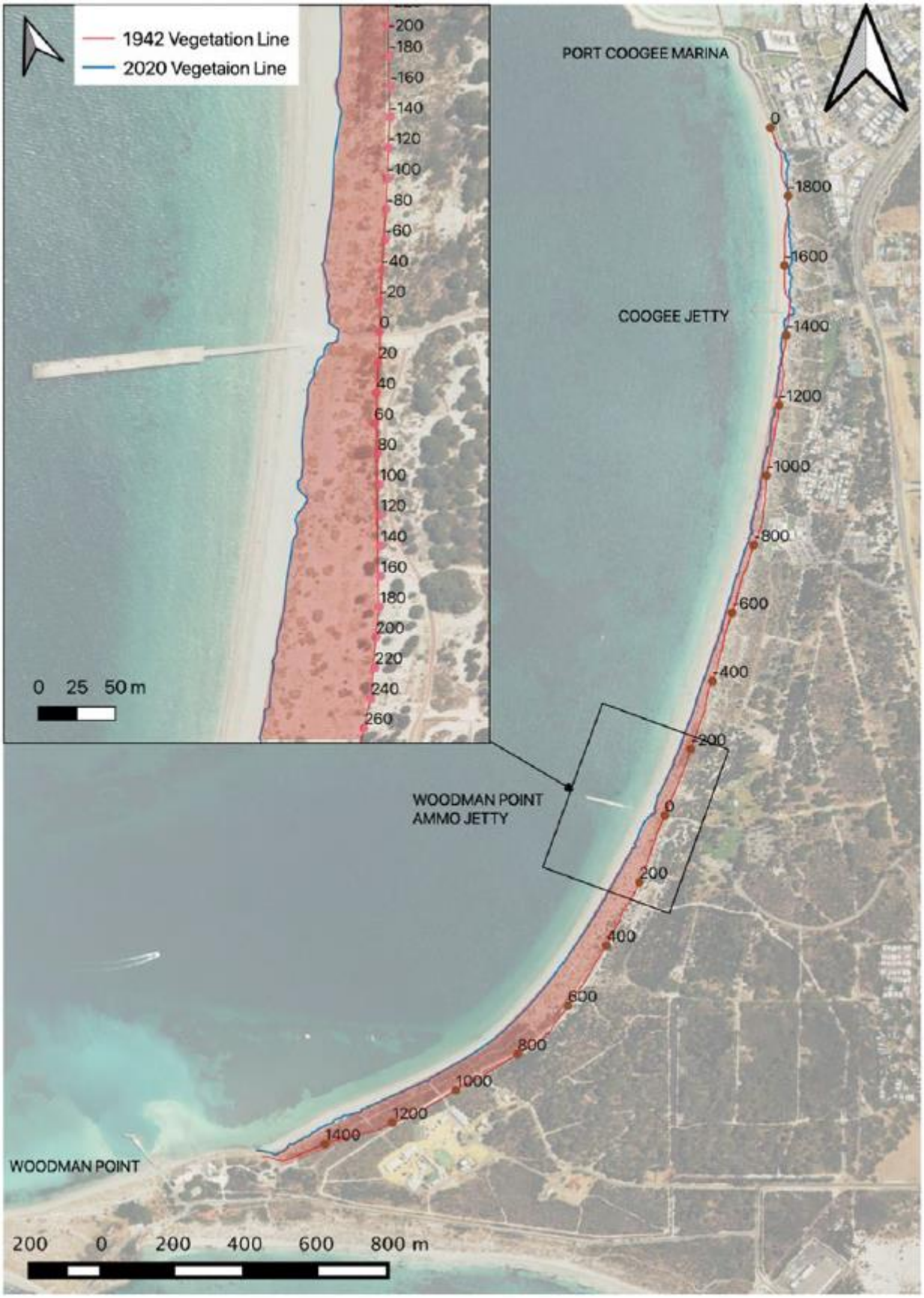


Figure 13 Summary of area assessed for coastline movements, showing accretion between 1942 and 2020 vegetation lines (Seashore Engineering, 2021)

Metocean Conditions

South Western Australia experiences a Mediterranean climate characterised by hot dry summers and mild wet winters and Owen Anchorage is located in this temperate extra-tropical region. The climate is largely determined by a subtropical high-pressure belt dominated by anticyclones which vary seasonally in latitudinal position (Gentilli, 1972). During winter the relatively high position of this belt allows cold fronts to impact the southern Western Australia coast whereas in summer these fronts are transferred south. Consequently, there is a seasonal shift in weather patterns with episodic storms in winter and strong local sea/land breeze in summer. Tropical storms may also occasionally impact the region, typically occurring over the summer period (November and April).

The Owen Anchorage coast experiences a microtidal diurnal tidal regime with a lowest to highest astronomical tidal range of 1.14 m; mean sea level is at +0.76 mAHD (GHD, 2023). The 100 year average return interval (ARI) water level for Fremantle is +2.05 mCD (Seashore, 2021). Offshore waves show strong seasonality, with median significant wave heights typically between 1–2 m in summer and 2–3 m (Hs) in winter (Seashore, 2021). Wave sheltering, breaking and diffraction across the offshore reef chain and inshore sand banks results in considerable attenuation of wave energy into Owen Anchorage and towards the shoreline. Owen Anchorage has a 25 year ARI wave height of 2.0 m (Seashore, 2021). Nearshore waves in the vicinity of the Ammo Jetty (measured May to August 2021) had a median total wave height of 0.30 m and a maximum total wave height of 1.14 m (Seashore, 2021).

Hydrology

No surface water features are present on the site and infiltration rates across the sandy soils are expected to be high and substantial surface runoff is unlikely under typical rainfall events (AECOM, 2016). Groundwater in the Safety Bay Sands and Tamala aquifers generally flows west from the Jandakot Mound which is located approximately 10 km east of the site. Groundwater levels are likely to be 3–5 m below ground level (Groundwater Map, DWER).

Benthic Habitats

Perth's metropolitan coastal waters occur at the overlap between the warm temperate southern Australian marine biota and the tropical marine biota of the North West region; though temperate species predominate (DA Lord & Associates, 2000). The benthic habitats in Owen Anchorage include shallow bare sand, seagrass meadows, limestone reef with macroalgae and areas of unvegetated fine sand/silt in deeper waters. The benthic habitat immediately adjacent to the Jetty is predominantly bare sand. A small sparse bed of *Posidonia australis* is located 10–15 m north of the jetty head and extends as a narrow (~10–15 m wide) shore parallel patch. The closest extensive seagrass meadows are located 400–500 m from the Jetty (Hovey, pers comm. 2022).

Marine Fauna

The marine fauna on the piles of the Ammo Jetty is a significant attraction for diving and snorkelling in the Perth metropolitan area. This pile biota consists of a broad range of organisms including corals, algae, sponges, sea squirts, fish and a variety of mobile invertebrates including molluscs, worms, urchins, sea stars, crinoids and crustaceans (Hovey, 2021). The abundance and diversity of the pile biota is strongly related to the degree of shading with areas of low light dominated by marine fauna whereas less shaded areas have a higher proportion of macroalgae species (Hovey, pers comm. 2022).

The Ammo Jetty is also popular for recreational fishing with fishers targeting common species found along the Perth metropolitan coast (i.e. herring, tailor, salmon, snapper, garfish, skippy, whiting, flathead and squid) and occasionally tuna and mackerel. The coastal foreshore areas of Woodman

Point Regional Park, including the Project Area, are a habitat for a diverse bird population, some of which are trans-equatorial migratory birds (How et al. 1996). The following shorebirds have been observed at Woodman Point (Integrate Sustainability, 2020):

- Great Knot (*Calidris tenuirostris*, critically endangered)
- Curlew Sandpiper (*Calidris ferruginea*, critically endangered)
- Red Knot (*Calidris canutus*, endangered)
- Lesser Sand Plover (*Charadrius mongolus*, endangered)
- Greater Sand Plover (*Charadrius leschenaultia*, vulnerable)
- Australian Fairy Tern (*Sternula nereis nereis*; vulnerable)

The primary shorebird habitat is located south of the Cockburn Cement reclaimer jetty, 1.5 km south west of the project area (Integrate Sustainability, 2020). Further, as the proposed works will occur in an area which already experiences a high level of public usage impacts to shorebirds and migratory species are considered unlikely to be significant.

Flora and Fauna

Woodman Point is located in the Perth subregion of the Swan Coastal Plain bioregion of Western Australia (Thackway et al., 1995). This subregion is characterised by heath and/or Tuart woodlands on limestone, Banksia and Jarrah-Banksia woodlands on Quaternary marine dunes, and by Marri on colluvial and alluvial soils (Mitchell, Williams and Desmond, 2002). The natural vegetation of the John Graham Recreational Reserve occurs on a coastal dune complex consisting mainly of two alliances: the strand and fore-dune alliance; and the mobile and stable dune alliance (360 Environmental, 2022). Local variations include the low closed forest of Rottnest Teatree (*Melaleuca lanceolata*), Rottnest Island Pine (*Callitris preissii*) and the closed scrub of Summer-scented Wattle (*Acacia rostellifera*) and the low closed Peppermint (*Agonis flexuosa*) forest (DBCA, 2019).

An ecological assessment of the Woodman Point Maritime Precinct (~1 km south of the project area) identified the following five faunal habitats (AECOM, 2016):

- Acacia Woodlands and Shrublands
- Rottnest Island Pine (*Callitris preissii*) over Sedges
- Formerly cleared shrubland
- Beach/dune habitat
- Marine

A survey of the area considered that the area was not significant habitat for any native fauna species, and it was likely that faunal species would only use the site occasionally due to its small size and degraded state (GHD, 2012a). Site surveys of the Maritime Precinct also identified three introduced species: rabbit; cat; and dog.

An *EPBC Act* Protected Matters Search Tool helps identify nationally protected environmental matters under the EPBC Act 1999 and reports on threatened species, ecological communities, wetlands, and heritage sites that may be impacted by a project. The search results (Appendix A) identified within 1 km of the site the potential for 37 threatened bird species and two protected terrestrial mammals. In addition, 21 listed migratory terrestrial and wetland bird species were identified.

The DBCA Dandjoo database is a Western Australian environmental data platform that integrates local ecological, cultural, and heritage information. The search results (Appendix B) identified within 5 km of the site the potential for three species of special conservation interest (Western Corella, Humpback Whale and South-western Brush-tailed Phascogale), two species otherwise in need of special protection (Peregrine Falcon and New Zealand Fur Seal), eight critically endangered species (two birds, one freshwater crustacean, one marsupial, and four plants), 12 endangered species (seven birds, one

marsupial, one marine mammal, one turtle and two plants), 18 vulnerable species (eight birds, one mussel, one shark, one whale, two marsupials, one seal, two turtles and two plants), and 18 migratory species (fifteen birds, one dolphin, and two whales).

Aboriginal Heritage

The Woodman Point area has cultural significance for Aboriginal people and was frequently used by Noongar people in the early-1800s prior to European settlement including for cobbler fishing, camping and mussel gathering (Conservation Commission, 2010; Indigenous Economic Solutions, 2021). The Traditional Owners of the area are the Beeliar Nyungar people. The Ammo Jetty site has been intersected by five Aboriginal heritage surveys; however, no registered sites are identified in the Aboriginal Heritage Inquiry System within the project area. The Indian Ocean (site 3776), extending up to mean high water mark, is not registered (insufficient data) as a site under the *Aboriginal Heritage Act 1972* but is a listed mythological site under Other Heritage Places. DoT continues to liaise with the Aboriginal Community and has a Consultation group in place consulting on the project. Although no impacts are expected, an Unexpected Finds Procedure will be detailed in the CEMP, whereby if any unexpected/unknown disturbances occur work will immediately cease and the Project Manager will be notified.

European and Maritime Heritage

Woodman Point was named after Thomas Woodman, the purser who accompanied Captain James Stirling on the 1827 HMS Success expedition to explore the upper reaches of the Swan River. The first European settlers to the Swan River Colony arrived in 1829 and at this time Thomas Peel proposed establishing a township of Clarence considered to be in the vicinity of Woodman Point (Stratham-Drew and Marchant, 2008). However, due to the harsh and isolated conditions Clarence Town was abandoned within three years after numerous deaths.

In 1876, due to its isolation, Woodman Point was selected as the site for a Quarantine Station. In 1892, a reserve was created for a racecourse over the site of the future munitions reserve and adjacent to the future jetty. The Ammo Jetty and munitions magazines were constructed in 1903. Woodman Point still retains several historical remnants of European settlement including the former quarantine station, crematorium and gravesites, railway link to Fremantle, explosives magazines and jetty, as well as the naval shed and groyne (Hocking Heritage + Architecture, 2021). The former munitions magazines and quarantine station (now Woodman Point Recreation Camp) are permanently listed on the State Register of Heritage Places. The former quarantine station is also listed on the Register of the National Estate and is classified by the National Trust. The Ammo Jetty is registered on the Heritage List for City of Cockburn and a proposal has been lodged to expand the curtilage ofthe heritage listing site 4626, Woodman Point Munitions Magazines, to include the jetty.

A search of the Australasian Underwater Cultural Heritage Database indicates that there are no shipwrecks in the vicinity of the Ammo Jetty. The closest recorded wreck is the James Matthews (1841) located offshore from Cockburn Cement's washplant at Woodman Point (~1.5 km southwest of the Ammo Jetty).

Social

Woodman Point is widely used for ocean activities, including swimming, snorkelling, scuba diving, sailing, fishing and beach walking. The John Graham Recreational Reserve provides picnic and barbecue facilities and public amenities to support other land-based recreational activities including bird watching, bushwalking, bike riding and heritage interpretation.

Key findings of an intercept surveys conducted by Element (2021) on behalf of DoT over the weekend of 26 – 28 March 2021 at Woodman Point Jetty were:

- The most dominant age groups of participants were 35-44 (25.53%). This was followed by 45-54 (17.02%), 65+(17.02%), 55-64 (14.89%) and 18-24 (10.62%).
- 39.13% of respondents lived further than 10 km from the Jetty indicating the jetty has a level of regional importance.
- The most common uses of the Jetty were for ‘walking’ (51.06%), ‘fishing’ (44.68%) and ‘swimming’ (36.17%).
- 75% of divers stated that sharing the Jetty with fishers and swimmers has impacted their overall diving experience.

A Shape Urban (2021) online survey conducted between 9 August to 10 September 2021 indicated that fishers, divers, swimmers, and walkers are the primary users of the jetty and that the warmer months are most popular with greater than 60% more visitation in January than July.

Unexploded Ordnance

A desktop review of the Australian War Memorial archival records, the National Library of Australia, the State Library of Western Australia, available Defence records and other online sources was undertaken to determine the potential existence of unexploded ordnance (UXO), outline mitigation measures and provide recommendations for future works (Milsearch, 2022). High explosives (both commercial and military) were stored at the Woodman Point site between 1903 and 1984 and there is a possibility of UXO legacy. However, extensive site works have been undertaken in the area for the construction of the recreational facilities at John Graham Recreation Reserve and no UXO was encountered. There is a possibility that spillage of munitions may have occurred at the Ammo Jetty during vessel loading/unloading. No information was available on the efficacy of any previous UXO hazard reduction operations across the site. Hence, it was concluded that there is a possible presence of UXO (specifically Abandoned Explosive Ordnance) in the vicinity of the existing jetty head (Figure 16).

A UXO Risk Assessment has been completed (DOT, 2025), with key findings:

- Consideration of the historical evidence: The site has a history of storing high explosives, both commercial and military, from 1903 to 1984. There is a possibility of legacy UXO due to the nature of operations at the ammunition depots during WWII.
- Risk Assessment: The report follows the CIRIA C754 framework for UXO risk assessment.
- Survey Findings: A sub-bottom profile and magnetometer survey conducted in May 2023 found no clear UXO targets. However, some anomalies were detected, which have been overlayed against the proposed piling layout to ensure that they do not overlap.
- Residual Risk: This risk assessment identifies that that there remains a possible presence of UXO where construction activity is expected.

The construction contractor will be required to review the UXO Threat Assessment (Milsearch, 2022) and UXO Risk Assessment (DOT, 2025) and include a UXO risk management strategy as part its Construction Management Plan to mitigate the low risk of UXO.

Environmental Principles and Factors

Environmental Principles

The *EP Act* is designed to ensure protection of the environment of Western Australia having consideration to five environmental principles (EPA, 2021). The application of these principles to the proposed Ammo Jetty refurbishment are outlined in Table 4.

Table 4 Outline of five *EP Act* principles as they relate to the proposed Ammo Jetty refurbishment

Principle	Considerations
1. Precautionary principle Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In application of this precautionary principle, decisions should be guided by: a) Careful evaluation to avoid, where practicable, serious or irreversible damage to the environment. b) An assessment of the risk-weighted consequences of various options.	Significant engagement has been undertaken with key government agencies, stakeholders and community groups to identify and consider all social, cultural and environmental risks of the proposal. This has enabled the identification of key risks, information gaps, monitoring and management requirements and to consider alternatives to those aspects of the proposal that pose the greatest environmental risk. Studies and investigations have also identified areas of sensitivity both on and offshore including marine fauna, terrestrial vegetation communities and local cultural heritage. Consequently, the project footprint shall directly overlay the existing Jetty to preserve the pile biota and minimise impact on the adjacent environment.
2. Intergenerational equity The present generation should ensure that the health, diversity and productivity of the environment is maintained and enhanced for the benefit of future generations.	The proposal will facilitate ongoing marine recreation and tourism and will enhance the amenity value of the area for future generations. The proposed refurbishment works are low-impact contemporary best-practice design, providing an opportunity for improved experience for fishing and diving/snorkelling while also seeking to maximise the separation of these activities. The proposal meets the principle of intergenerational equity by ensuring the health of the environmental values, maintaining ecological functions for future generations, whilst minimising any impacts on the environment. The proposal is unlikely to result in any significant environmental impacts that would pose a threat to the health, diversity and productivity of the environment. Retention of existing piles and constructing a new facility over them will ensure access to this important recreational area for future generations.
3. Conservation of biological diversity and ecological integrity Conservation of biological diversity and ecological integrity should be a fundamental consideration.	The project is located within the footprint of the existing jetty and the design and construction methods have been selected to ensure minimal impact on area of high biological and ecological significance. Retention of existing piles will protect the diversity and productivity that has grown on the existing structure.
4. Improved valuation, pricing and incentive mechanisms	The State Government will be responsible for implementing and funding the cost of environmental avoidance, mitigation and management measures. Avoidance and minimising impacts to environmental

Principle	Considerations
a) Environmental factors should be included in the valuation of assets and services. b) The polluter pays principles—those who generate pollution and waste should bear the cost of containment, avoidance and abatement. c) The users of goods and services should pay prices based on the full life-cycle costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste. Environmental goals, having been established, should be pursued in the most cost-effective way, by establishing incentive structure, including market mechanisms, which enable those best placed to maximise benefits and/or minimise costs to develop their own solution and responses to environmental problems.	factors was critical to the proposal design and location as outlined in this referral. The proposal is not expected to generate any significant pollution or waste. Any waste generated shall be disposed of appropriately offsite. Where possible, the project will: • Employ appropriately trained local personnel and source local goods and services. • Ensure leading best practice standards during construction to minimise emissions and discharges as far as reasonably possible. • Source goods and services that have the least environmental impact.
5. Waste minimisation All reasonable and practicable measures should be taken to minimise the generation of waste and its discharge into the environment.	Waste generated from the proposal will be minimised through the construction and operation of the Ammo Jetty through the hierarchy of waste controls: reduce, re-use, recycle, recover and dispose. This will include the reuse of salvaged materials in landscaping and interpretive facilities where possible.

Preliminary Key Environmental Factors

The EPA has defined 14 ‘Environmental Factors’ under five themes (Sea, Land, Water, Air and People) as the basis for assessing the environmental impacts of a proposal (EPA, 2021). For each Environmental Factor the EPA has identified an ‘Environmental Objective’ as the basis on which they determine whether the proposal may have a significant impact on the environment.

The following preliminary Key Environmental Factors may be significantly impacted by the proposal:

- Marine Fauna
- Flora and Vegetation

Assessments of these preliminary Key Environmental Factors are presented below in Section 6.1 (Marine Fauna) and Section 6.2 (Flora and Vegetation).

Other Environmental Factors

The proposed refurbishment works at the Ammo Jetty has the potential to impact on Marine Environmental Quality via the following activities:

- Hydrocarbon spill, or other waste discharge, during construction works.
- Biosecurity risk via introduction of marine pests from construction vessels.

The assessment and management of these impacts has been considered below in the assessment of impacts on marine fauna (Section 6.1). The other Environmental Factors are considered not to be relevant to the proposal (Table 5).

Table 5 Environmental Factors not considered relevant to the Ammo Jetty refurbishment

Environmental Factor and Objective	Justification
Benthic Communities and Habitats: To protect benthic communities and habitats so that biological diversity and ecological integrity are maintained.	The closest seagrass meadows are located 400–500 m from the Jetty and there are no other significant benthic communities and habitats located in the immediate vicinity of theJetty. The proposed refurbishment works are not anticipated to impact on Benthic Communities and Habitats. New piles will provide additional substrate for colonisation by marine biota.
Coastal Processes: To maintain the geophysical processes that shape coastal morphology so that the environmental values of the coast are protected.	The proposed jetty refurbishment will continue to be a piled structure and not interrupt Coastal Processes. No significant impacts on Coastal Process are anticipated.
Landforms: To maintain the variety and integrity of significant physical landforms so that environmental values are protected.	No impacts to significant Landforms occur in the area and the proposal does not change the landscape values of the area.
Subterranean Fauna: To Protect subterranean fauna so that biological diversity and ecological integrity are maintained.	No impacts to Subterranean Environments are anticipated.
Terrestrial Environmental Quality: To maintain the quality of land and soils so that environmental values are protected.	Not listed as a known contaminated site in the DWER Contaminated Sites Database and low Potential Acid Sulfate Soils (PASS) risk. Minimal land disturbance is proposed, and with the application of construction management controls, no impacts on TEQ is anticipated.
Terrestrial Fauna: To protect terrestrial fauna so that biological diversity and ecological integrity are maintained.	Minimal land disturbance is proposed, and with the application of construction management controls, no impacts on Terrestrial Fauna is anticipated.
Inland Waters: To maintain the hydrological regimes and quality of groundwater and surface water so that environmental values are protected.	No impacts to Inland Waters are anticipated.
Air Quality: To maintain air quality and minimise emissions so that environmental values are protected.	No impacts to Air Quality are anticipated.
Greenhouse Gas Emissions: To minimise the risk of environmental harm associated with climate change by reducing greenhouse gas emissions as far as practicable.	The construction and operation of the Ammo Jetty will generate greenhouse gas emissions far less than the threshold of 100,000 t/year.
Social Surroundings: To protect social surroundings from significant harm.	Extensive stakeholder consultation has been undertaken to ensure that the social amenity is enhanced, and existing recreational activities will be maintained

Environmental Factor and Objective	Justification
Human Health: To protect human health from significant harm.	No harmful emissions to air and harmful discharges to soil, inland waters and marine waters are anticipated and no radionucleotides are expected in the area

Assessment of Preliminary Key Environmental Factors

Marine Fauna

Studies and Investigations

The EPA's objective for the environmental factor 'Marine Fauna' is: 'To protect marine fauna so that biological diversity and ecological integrity are maintained.' The following EPA policy and guidance is relevant to its assessment of the proposed Ammo Jetty refurbishment for this factor: Environmental Factor Guideline: Marine Fauna (EPA, 2016a).

The School of Biological Sciences at the University of Western Australia (UWA) was engaged to assess the diversity and distribution of sessile organisms on the piles of the Ammo Jetty and undertake a reconnaissance survey of adjacent benthic habitats. An initial assessment of the jetty piles was undertaken via a series of limited (due to poor visibility) dive surveys (June–July 2021) supplemented with review of available underwater photography. A full survey of the piles and reconnaissance survey of benthic habitats was completed in January 2022.

Several studies of pile biota have also been undertaken at other locations in Western Australia, notably Busselton Jetty (Teede, 2019; Teede, 2018a; Cosgrove, 2013) and the Esperance Tanker Jetty (Teede, 2018b).

Receiving Environment

The Jetty piles provide a substrate for colonisation by a wide range of sessile marine biota and the vertical nature of the piles is often absent in the adjacent natural environment (Teede, 2018b). The initial rapid assessment of the pile biota identified a total of 211 species from a broad range of groups including corals, algae, sponges, tunicates, fish and a variety of mobile invertebrates such as molluscs, worms, urchins, sea stars, crinoids and crustaceans (Hovey, 2021). None of these species are listed as threatened or endangered on either the *EPBC Act* or International Union for Conservation of Nature (IUCN) Red List. The pile biota was generally found to be in better condition and greater abundance with distance offshore.

A search of the Protected Matters Search Tool (Appendix A) identified 12 threatened marine species: three mammals, four reptiles and five sharks (Table 6). In addition, there were 20 migratory marine bird species and 18 migratory marine mammals (Table 7). Even though this list of marine species results from the search criteria the majority would be highly unlikely to occur in the shallow protected waters at Woodman Point.

Table 6 Marine species listed under *EPBC Act*

Common Name	Scientific Name	EPBC Conservation Status
Mammal		
Blue Whale	*Balaenopera musculus*	Endangered
Southern Right Whale	*Eubalaena australis*	Endangered
Australian Sea-lion	*Neophoca cinerea*	Endangered
Reptile		

Common Name	Scientific Name	EPBC Conservation Status
Loggerhead Turtle	*Caretta caretta*	Endangered
Green Turtle	*Chelonia mydas*	Vulnerable
Leatherback Turtle	*Dermochelys coriacea*	Endangered
Flatback Turtle	*Natator depressus*	Vulnerable
Shark		
Grey Nurse Shark	*Carcharias taurus*	Vulnerable
White Shark	*Carcharodon carcharias*	Vulnerable
Whale Shark	*Rhincodon typus*	Vulnerable
Sawfish (Freshwater, Largetooth, River, Leichhardt's, Northern)	*Pristis pristis*	Vulnerable
Scalloped Hammerhead	*Sphyrna lewini*	Conservation Dependent

Table 7 Migratory marine species listed under *EPBC Act*

Common Name	Scientific Name	EPBC Conservation Status
Marine Birds		
Common Noddy	*Anous stolidus*	-
Fork-tailed Swift	*Apus pacificus*	-
Flesh-footed Shearwater	*Ardenna carneipes*	-
Sooty Shearwater	*Ardenna grisea*	Vulnerable
Amsterdam Albatross	*Diomedea amsterdamensis*	Endangered
Tristan Albatross	*Diomedea dabbenena*	Endangered
Southern Royal Albatross	*Diomedea epomophora*	Vulnerable
Wandering Albatross	*Diomedea exulans*	Vulnerable
Northern Royal Albatross	*Diomedea sanfordi*	Endangered
Caspian Tern	*Hydroprogene caspia*	-
Southern Giant-Petrel	*Macronectes giganteus*	Endangered
Northern Giant Petrel	*Macronectes halli*	Vulnerable
Bridled Tern	*Onychoprion anaethetus*	-
Roseate Tern	*Sterna dougallii*	-

Common Name	Scientific Name	EPBC Conservation Status
Little Tern	*Sternula albifrons*	Vulnerable
Indian Yellow-nosed Albatross	*Thalassarche carteri*	Vulnerable
Shy Albatross	*Thalassarche cauta*	Endangered
Campbell Albatross	*Thalassarche impavida*	Vulnerable
Black-browed Albatross	*Thalassarche melanophris*	Vulnerable
White-capped Albatross	*Thalassarche steadi*	Vulnerable
Marine Species		
Bryde's Whale	*Balaenoptera edeni*	-
Blue Whale	*Balaenoptera musculus*	Endangered
Pygmy Right Whale	*Caperea marginata*	-
Oceanica Whitetip Shark	*Carcharhinus longimanus*	-
Grey Nurse Shark	*Carcharias taurus*	-
White Shark	*Caracharodon carcharias*	Vulnerable
Loggerhead Turtle	*Caretta caretta*	Endangered
Green Turtle	*Chelonia mydas*	Vulnerable
Leatherback Turtle	*Dermochelys coriacea*	Endangered
Southern Right Whale	*Eubalaena australis*	Endangered
Porbeagle (Mackerel Shark)	*Lamna nasus*	-
Humpback Whale	*Megaptera novaeangliae*	Vulnerable
Reef Manta Ray	*Mobula alfredi*	-
Giant Manta Ray	*Mobula biostris*	-
Flatback Turtle	*Natato depressus*	Vulnerable
Killer Whale	*Orcinus orca*	-
Sawfish (Freshwater, Largetooth, River, Leichhardt's, Northern)	*Pristis pristis*	Vulnerable
Whale Shark	*Rhincodon typus*	Vulnerable

Potential Impacts

During construction of the Ammo Jetty refurbishment there is the potential to adversely affect marine fauna via the following activities and impacts:

- Removal of existing deck resulting in temporary loss of shading causing change in diversity and/or abundance of pile biota.
- Installation of new piles resulting in underwater noise emissions causing temporary or permanent injury to marine fauna.
- Risk of marine fauna vessel strike from construction vessels.
- Inappropriate lighting on construction equipment affecting marine fauna behaviour.
- Hydrocarbon spill during construction causing marine fauna injury or fatality and/or impact on critical habitat.
- Increased risk of introduced marine pests.

Impact Assessment

As noted above, the diversity and abundance of pile biota is directly related to the degree of shading with areas of low light dominated by marine fauna which is a key attraction for recreational diving and snorkelling at the jetty. Piles that are more exposed to sunlight have a higher proportion of macroalgae species. The east-west alignment of the Jetty ensures effective shading of the underlying piles. Field observations have identified that the two centre piles (along the Jetty Head) typically have a greater coverage of marine biota than the outer piles on either the north or south side of the Jetty. Furthermore, the southern piles have greater coverage than the northern piles.

During construction works it will be necessary to remove the existing deck prior to installation of the new deck causing a temporary loss of shading. There is the potential for a temporary change in pile biota as a result of this period of sunlight exposure. Demolition and reconstruction works were completed at Busselton Jetty between 2009 and 2012 enabling an assessment of change in shading effects on pile biota, including the following observations (Teede, pers comm 2021):

- Depending on the time of year for deck removal, increased light will cause algae to grow reasonably quickly causing smothering of other marine fauna and could be noticeable in just a few weeks. After approximately three months the loss of some of the invertebrate community will create space on the piles for red algae to settle.
- Time of year can also influence what species of algae will grow.
- Once the deck is reinstalled and shading is re-established the algae will slowly senesce providing opportunities for marine biota to settle (Figure 14). Depending on the initial loss, complete recovery of the pile biota would likely occur in 1.5–2 years.
- Colonisation study showed that within a few months a complex three-dimensional community had developed leaving minimal areas of bare substrate (Cosgrove, 2013).

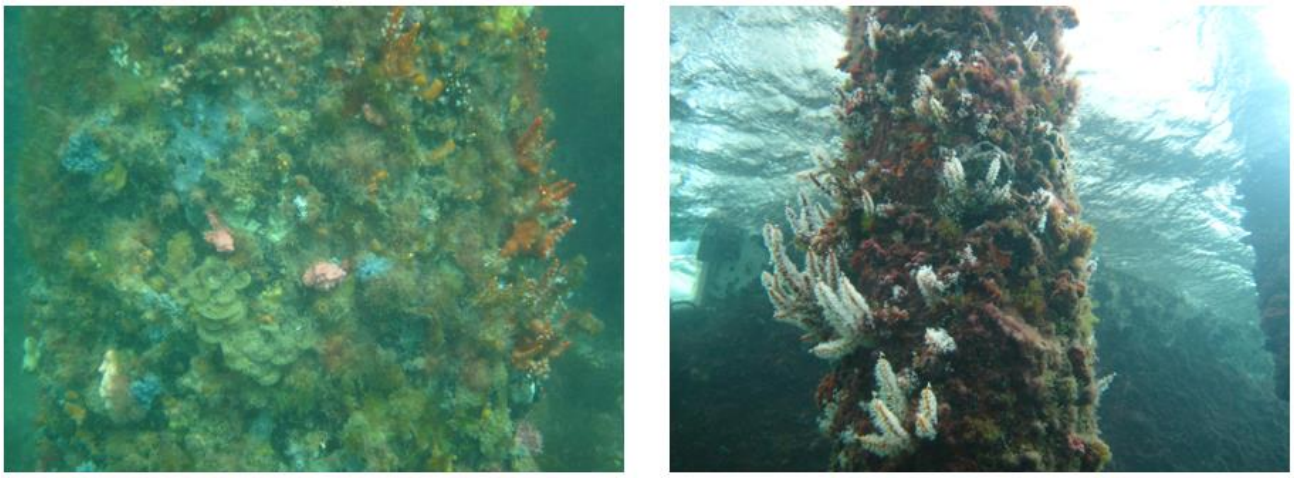


Figure 14 Pile biota at Busselton Jetty (top image) approximately four weeks after deck removal (29/10/09); and (bottom image) four months later (03/03/10) (S. Teede (02/11/21))

The turbidity at the Ammo Jetty is more variable than at Busselton Jetty due to the influence of Swan River discharges and industry operating in the vicinity. This means that the pile biota at the Ammo Jetty is likely to be more tolerance to low light levels and more resilient to change.

A piling campaign will be required to install approximately 90 new piles to support the new deck. Piling noise varies with the pile driving method used and the size of the piles being installed. Piling methods can include impact, vibro-driving and screw piling; notably, vibro-driving and screw piling methods are not impulsive and generally produce lower noise levels and therefore the likelihood of this method causing hearing injury to marine fauna is lower than for impact piling (Department of Planning, Transport and Infrastructure, 2012).

If impact driving methods are used the noise generated by these piling activities has the potential to disturb marine fauna, causing temporary or even long-term avoidance of an area that may be important for feeding, reproduction or sheltering. Underwater noise may interfere with communication systems of fish and marine mammals, masking important biological cues or causing behavioural disturbance. These impacts may affect critical behaviours and functions, such as feeding, migration, breeding and response to predators, all of which may ultimately affect an individual's survival. Intense underwater noise may also cause temporary or permanent hearing damage or death in marine fauna.

The energy propagation of underwater noise reduces logarithmically with distance from the source and the receiver. In addition to the direct path, underwater sound will also be reflected, absorbed, scattered, and refracted from structures and the seabed and water surface. Noise may also be propagated through the air and seabed. Due to transmission losses arising from the shallow seabed it is anticipated that there will be a significant reduction in the underwater noise energy which propagates beyond the immediate vicinity of the Jetty. It is also expected that any marine mammals will naturally exhibit avoidance behaviour which would avert the animal from approaching close enough to the pile driving operations to cause noise-induced hearing injury.

Recent underwater noise assessment of pile driving in shallow water have been undertaken at Broome (Talis, 2020, Teal & O2 Marine, 2021) and Ashburton (Talis, 2021). These have indicated that noise impacts from impact piling in shallow water attenuate rapidly as the pressure wave frequently reflects off the surface and seabed. Underwater noise modelling indicated that temporary threshold shift (TTS) in hearing acuity and/or behavioural responses from marine fauna due to shallow water piling operations are generally limited to within the immediate vicinity of the piling operation and may extend to ~900 m for species with a low frequency hearing bandwidth (e.g. whales).

It is anticipated that most construction works will be undertaken using land-based equipment; this will be confirmed following contractor engagement. Nonetheless, the risk of vessel strike on marine fauna is discussed below if construction vessels are used. The marine fauna known to occur in the proposal area may be impacted by vessel strike during the construction phase, with the potential impact resulting in injury or fatality. However, due to their mobility minimal risk is expected. The risk of vessel strikes on marine megafauna increases with vessel speeds above 10 knots and more severe and lethal injuries were found when vessels travelling at speeds above 14 knots (Department of Environment and Energy, 2017). Hence, the likelihood of a vessel strike during construction from proposed vessel movements is considered low due to the small spatial scale and low speeds of the construction and piling plant. The risk is further reduced by the likelihood that most works will be undertaken using land-based equipment; if required, vessels speeds in the construction zone shall be limited to 5 knots.

Artificial lighting has the potential to disrupt the behaviour of light sensitive marine fauna including seabirds and marine turtles (Department of Sustainability, Environment, Water, Population and Communities, 2012). Light pollution adjacent to nesting beaches may cause alterations to critical nocturnal behaviours, particularly the selection of nesting sites. During construction there may be small temporary increases in light levels in and around the works areas. However, significant, or prolonged night works are not required to complete the project. The design of the new jetty also has additional

lighting to the existing jetty. However, there is currently lighting on the jetty all night and fishermen bring portable lights so wildlife would be accustomed to this condition. In relation to the DCCEEW (2023) National Light Pollution Guidelines for Wildlife the principles of best practice lighting design are being applied in relation to use of lowest intensity light appropriate to the task and use of non-reflective surfaces.

The primary hydrocarbon to be used during construction will be diesel together with small amounts of hydraulic fluid and lubricating oil/grease and these may be accidentally spilled. In the event of a hydrocarbon spill, there is a risk of marine fauna being exposed to surface oil or ingesting hydrocarbons. However, the risk of a hydrocarbon spill during construction is considered low and with the appropriate management and mitigation measures in place the threat to marine fauna is considered very low.

It is anticipated that most construction works will be undertaken using land-based equipment. Any marine construction activities will be undertaken consistent with biosecurity management protocols. Therefore, the risk of introducing marine pests during construction is considered negligible.

Mitigation and Environmental Outcomes

Management proposed to minimise potential impacts on the environmental factor ‘Marine Fauna’ are presented in accordance with the EPA’s mitigation hierarchy (Table 8). A Construction Environmental Management Plan (CEMP) shall be prepared by the contractor and document the management measures to minimise environmental impacts as outlined in Table 8. With the application of the proposed management, it is considered that there will be no significant impacts on Marine Fauna and the EPA’s Objective for Marine Fauna can be met.

Table 8 Mitigation measures to minimise impacts on marine fauna and anticipated environmental outcomes

Potential Impact	Avoidance	Minimisation	Environmental Outcomes
Temporary loss of shading	• Where practicable, construction works shall be staged to minimise time between removal of existing deck and installation of new deck; ideally the period of exposure should be less than four weeks (Teede, pers. Comm. 05/11/21) • Deck replacement works may be undertaken during period of reduced light intensity (e.g. March to May). This will also allow for natural recolonisation of piles by larvae in winter (Teede, pers comm. 05/11/21)	• New jetty head will be wider and provide better shading of piles • New piles (in addition to existing piles which shall be retained) provides additional substrate for colonisation by marine biota • Existing piles will provide proximate source of propagules for pile recolonisation • Placement of some redundant materials from the jetty demolition (e.g. headstock timbers) on seabed below and adjacent to Jetty to provide additional habitat for colonisation by marine biota	• Temporary disturbance of pile biota will be minimised. Over the longer term, pile biota shall be enhanced
Underwater noise emissions from piling	• Piling will be undertaken in shallow (<-9 mCD) waters • Piling will be limited to daylight hours when marine fauna observations can occur	• Underwater noise management procedure to be documented within CEMP and include: ○ Pre-start and soft-start procedures ○ Trained marine fauna observers to be used prior to and throughout piling operations ○ Maintenance of visual observation and exclusions zones	• Temporary disturbance of marine fauna present in the vicinity of piling operations, possibly resulting in temporary behavioural changes to avoid noise-affected areas • No injury to marine fauna arising from piling operations
Vessel strike by construction vessel	• Majority of construction works anticipated to be completed using land-based plant • Majority construction work to be completed during daylight hours	• All vessels to travel <5 knots in the construction area	• No vessel strikes on marine fauna during construction works
Inappropriate lighting	• Majority construction work to be completed during daylight hours to reduce lighting requirements	• Lighting for construction and operation of the facility shall be minimised and consistent with the National Light Pollution Guideline for Wildlife (DCCEEW, 2023), inclusive of Draft Terrestrial Mammal Appendix & Draft Ecological Communities Appendix	• No impacts on wildlife from inappropriate lighting at the Jetty
Hydrocarbon spill	• Ensure all construction vessels are compliant with the International Maritime Organisation International Convention for the Prevention of Pollution from Ships (International Maritime Organisation, 1978) • Refuelling of construction vessels shall not occur at work site • Refuelling of land-based equipment shall not occur on Jetty • All fuels, oils and lubricants on site to be appropriately stored to ensure that they do not pose a threat to the environment or public safety	• Spill prevention and response measures to be included within CEMP and consistent with DoT guidelines	• No environmental impacts from hydrocarbon spill arising from the project
Introduced marine pests	• It is anticipated that any vessels used during construction will be sourced locally and adhere to relevant guidelines regarding marine pest management, including Department of Fisheries (2014)	• Ballast water management shall be in accordance with the Australian Ballast Water Management Requirements (Department of Agriculture, Water and Environment, 2020)	• No introduction and/or spread of invasive marine species or diseases

Flora and Vegetation

The EPA's objective for the environmental factor 'Flora and Vegetation' is: 'To protect flora and vegetation so that biological diversity and ecological integrity are maintained.' The following EPA policy and guidance is relevant to its assessment of the proposed Ammo Jetty refurbishment for this factor: Environmental Factor Guideline: Flora and Vegetation (EPA, 2016b); and Technical Guidance Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2016c).

Studies and Investigations

Several flora and vegetation surveys have been undertaken in the vicinity of Woodman Point, including:

- Woodman Point Regional Park Weed Control & Revegetation Plan (Regeneration Technology, 2002)
- Woodman Point Area Flora and Vegetation Assessment (Biota, 2007)
- Woodman Point Environment and Heritage Report (GHD, 2012a)
- Robb Jetty Ecological Assessment (GHD, 2012b)
- Woodman Point Offset Site Weed and Rehabilitation Management Plan (WorleyParsons, 2013)
- Cockburn Central East Local Structure Plan Level 1 Flora and Fauna Assessment (Focused Vision Consulting, 2016)
- Ecological Assessments: Woodman Point Recreational Precinct (AECOM, 2016)
- Application for Native Vegetation Clearing Permit at Woodman Point Maritime Precinct (AECOM, 2020)
- Reconnaissance Flora and Vegetation Survey adjacent to Ammo Jetty (360 Environmental, 2022)
- Woodman Point Caravan Park Expansion Flora and Fauna Survey (GHD, 2020)

In September 2012 a clearing permit (CPS 5087/1) was granted to clear 0.112 ha of native vegetation for road improvements and drainage works associated with the extension of the Cockburn Pleasure Boat Storage facility. This included requirement for vegetation offset works, to maintain the native vegetation biodiversity, structure and overall environmental value through management and control of introduced weed species. The offset area (0.386 ha) was located to the east of the dual use path and north of the Cockburn Pleasure Boat Storage facility.

During 2017/2018 South East Regional Centre for Urban Landcare (SERCUL) completed rehabilitation works (planting, dune stabilisation and weed control) of 0.8 ha in the dunes immediately adjacent to the Ammo Jetty (SERCUL, 2018). However, site surveys in 2021 suggests that this rehabilitation work may not have been successful (360 Environmental, 2022).

In September 2020 a second clearing permit (CPS 8737/1) was granted to allow up to 7.8 ha of clearing by DoT at the Woodman Point Maritime Precinct. This permit included a requirement to rehabilitate 12.5 ha of native vegetation representative of *Callitris priessii* Woodlands TEC within the Woodman Point Regional Park and Bush Forever Site 341 (Figure 15). Prior to undertaking this offset work, the DoT is required to prepare, in consultation with DBCA, a comprehensive revegetation plan with completion criteria for approval by DWER.

In February 2021 Discovery Parks submitted an application for a clearing permit (CPS 9543/1) for the clearing of 1.3 ha of native vegetation and 1.47 ha of revegetated area. The application includes revegetation of 1.43 ha of degraded land within the Woodman Point Regional Park and the purchase of 3.2 ha of vegetated land consisting of *Callitris preissii* (or *Melaleuca lanceolata*) woodlands TEC and Tuart (*Eucalyptus gomphocephala*) woodlands and forest of the Swan Coastal Plain TEC to be placed under a Conservation Covenant and managed by DBCA. The proposed revegetation works are located in proximity to the proposed Ammo Jetty (Figure 15).

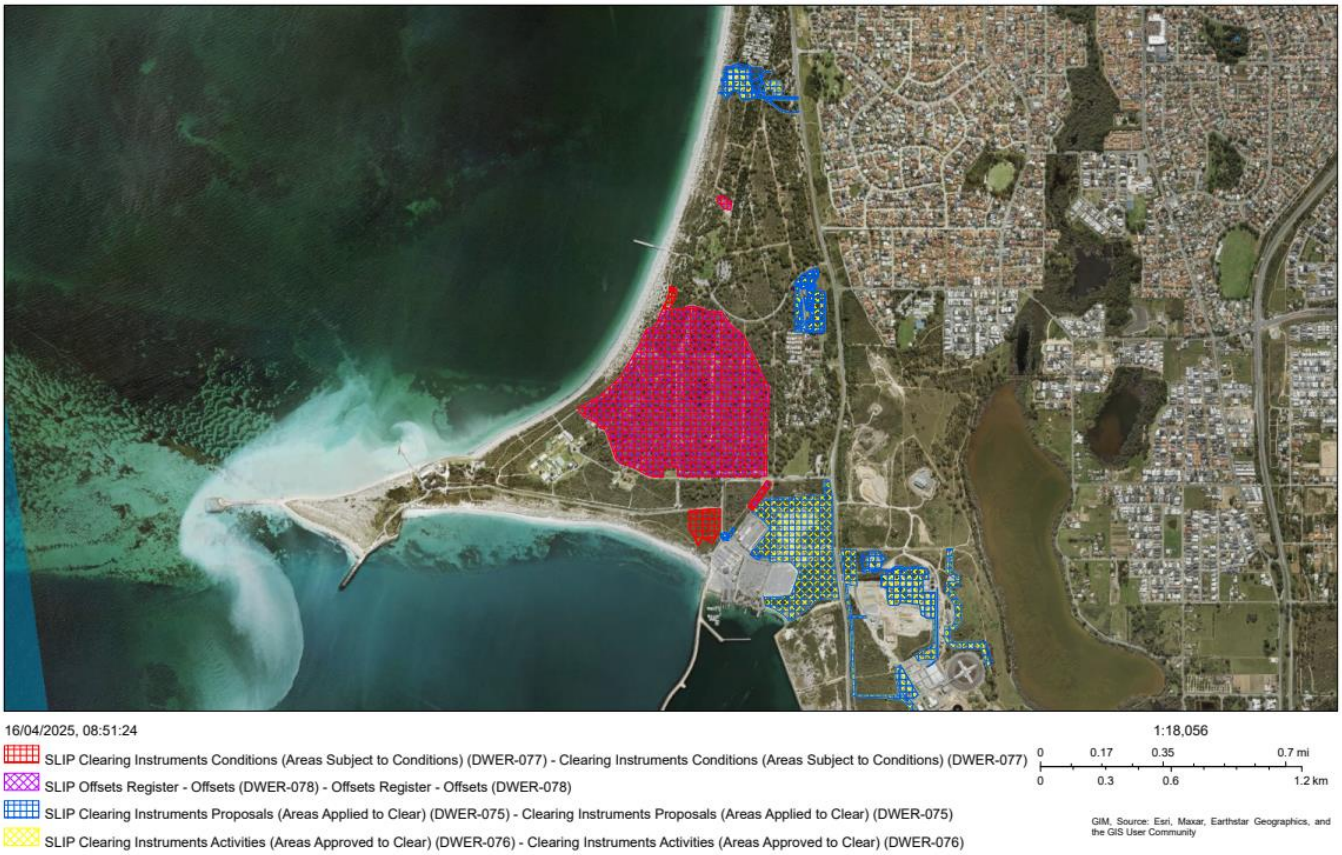


Figure 15 Location of proposed rehabilitation to offset clearing at projects including Woodman Point Maritime Precinct (CPS 8737/1) and Discovery Parks (CPS 9543/1)

Receiving Environment

A desktop assessment and reconnaissance flora and vegetation survey was undertaken in 2021 to examine the potential impacts associated with the access and laydown areas to be used during the construction works. The survey covered 2.99 ha, including adjacent dunes beyond the project footprint, of which 0.47 ha was already cleared area (360 Environmental, 2022). A total of 40 taxa from 33 genera and 21 families were recorded, but no threatened flora species listed under the EPBC Act or Threatened Flora listed under *the BC Act 2016* were recorded (360 Environmental, 2022). During the survey one Priority Flora (*Grevillea olivacea*; P4) was observed at several locations, typically adjacent to paths, and it is likely to be planted or garden escapee and therefore not of conservation significance (360 Environmental, 2022). A total of 18 introduced species were recorded across the survey area, including one species (**Asparagus asparagoides*; bridal creeper) which is a State Declared Pest and Weed of National Significance.

Nine vegetation types were identified across the survey area (Figure 16 and Table 9). *Callitris preissii* (or *Melaleuca lanceolata*) forests and woodlands (Swan Coastal Plain floristic community type 30a2) TEC is present in the survey area and associated with vegetation types CpSg, CpMl, MlAr, and Ml (360 Environmental, 2022). These vegetation types either have *Callitris preissii* and/or *Melaleuca lanceolota* present as well as other limited indicator species. Although the vegetation type CpAr contains *Callitris preissii*, this was associated with rehabilitation planting and is therefore not considered to represent the TEC (360 Environmental, 2022).

This TEC is listed as Vulnerable under the *EP Act* but is not listed under the Commonwealth *EPBC Act*.

Table 9 Surveyed vegetation types adjacent to the Ammo Jetty

Vegetation Type	Description	Area and % of Survey Area
Sl*Ep	*Spinifex longifolius* and **Ammophila arenaria* mid to tall open tussock grassland over **Euphorbia paralias*, **Trachyandra divaricata* and **Oenothera drummondii* low open herbland with occasional *Olearia axillaris*, *Scaevola crassifolia* and *Acacia rostellifera*	1.19 ha 39.70%
ArRb	*Acacia rostellifera*, *Olearia axillaris*, *Rhagodia baccata* and *Scaevola crassifolia* mid open shrubland over *Spinifex longifolius* and *Acanthocarpus preissii* low open grassland	0.44 ha 14.75%
CpSg	*Callitris preissii* tall, isolated clumps over *Spyridium globulosum*, *Acacia lasiocarpa* low isolated clumps of shrubs over **Trachyandra divaricata* low open foreland	0.32 ha 10.76%
MlAr	*Melaleuca lanceolata* and *Agonis flexuosa* tall shrubland over *Acacia rostellifera* and *Grevillea olivacea* mid open shrubland over *Rhagodia baccata* low sparse shrubland over **Ehrharta longiflora* low sparse tussock grassland over **Trachyandra divaricata*, **Crassula glomerata* and *Cassytha* sp. low sparse herbland	0.19 ha 6.33%
Ml	Mature *Melaleuca lanceolata*	0.17 ha 5.63%
ArGp	*Acacia rostellifera* mid open shrubland over *Acacia cochlearis*, *Grevillea preissii* and *Rhagodia baccata* low open shrubland over **Bromus diandrus* low open tussock grassland over **Trachyandra divaricata*, **Euphorbia terracina* and **Crassula glomerata* low open herbland	0.10 ha 3.40%
CpAr	*Callitris preissii* tall sparse shrubland over *Acacia rostellifera* low open shrubland over **Avena barbata* and **Bromus diandrus* grassland	0.07 ha 2.25%
Lg	*Acacia rostellifera* mid sparse shrubland over *Lepidosperma gladiatum* tall sedgeland	0.03 ha 0.85%
CpMl	Mature *Callitris preissii* and *Melaleuca lanceolata* over weeds	0.02 ha 0.65%
Cleared	Unvegetated areas	0.47 ha 15.72%

Names preceded by an asterisk '*' indicate introduced species; 1 rounded to two decimal places. Source 360 Environment (2022).

Figure 16 Woodman Point vegetation types and clearing areas (360 Environmental, 2022)

Figure 17 Vegetation condition and clearing areas (360 Environmental, 2022)

Potential Impacts

Landscaping and construction will follow permanent and temporary vegetation clearing:

- Permanent Clearing Area (0.20 ha) - jetty access and hard landscaping.
- Temporary Clearing Area (0.25 ha) - laydown areas and pedestrian boardwalk to access the beach and a viewing platform during the construction period. To be revegetated following completion of the construction works.

Impact Assessment

The majority of the proposed works will occur in areas that are already clear of native vegetation. A total of 0.20 ha (1,966 m^2) of permanent clearing will be required for the jetty access and hard landscaping; of which 430 m^2 (or 21.9% of clearing) is in good condition (Figure 17 and Table 10). Temporary clearing for the laydown, path and viewing platform will require removal of a total of 0.25 ha (2,477 m^2) of vegetation, of which 399 m^2 (or 16.1% of clearing) is in good condition (Table 10). Most of the clearing (both permanent and temporary) will be in areas with vegetation in a degraded condition and of vegetation types which are not of conservation significance.

Table 10 Vegetation clearing requirements

Vegetation Unit	Completely Degraded	Degraded	Good	Total Area (m^2)	Total Area (ha)
	Area (m^2)				Area (ha)
Jetty Access and Hard Landscaping (Permanent)					
Ml	-	18	-	18	0.00
MlAr	-	-	53	53	0.01
ArGp	-	22	85	107	0.01
ArRb	-	-	291	291	0.03
Sl*Ep	0.42	169	1	170	0.02
Already Cleared	1,327	-	-	1,327	0.13
Total Permanent Clearing	**1,327**	**209**	**430**	**1,966**	**0.20**
Laydowns, Path and Viewing Platform (Temporary)					
ArRb	-	-	399	399	0.04
Sl*Ep	300	1,609	-	1,909	0.19
Already Cleared	169	-	-	169	0.02
Total Temporary Clearing	**469**	**1,609**	**399**	**2,477**	**0.25**
Total Permanent + Temporary Clearing	**1,796**	**1,818**	**829**	**4,443**	**0.45**

The temporary clearing areas will be rehabilitated following completion of the construction works. The jetty access and hard landscaping will permanently remove 71 m^2 of vegetation conjectured to be indicative of the *Callitris preissii* (or *Melaleuca lanceolata*) forests and woodlands TEC: 18 m^2 of MI vegetation type in Degraded Condition and 53 m^2 of MIAr vegetation type in Good Condition (Table 10). The extent of these vegetation types was delimited using 2020 imagery sourced from Landgate (360 Environmental, 2022). High-resolution drone imagery was captured by the DoT in February 2021 and indicates that a proportion of the proposed permanent clearing represents overhanging branches which may only require trimming (Figure 18). Further site inspection in this area identified eight individual trees/shrubs likely to be impacted; three of which are *M. lanceolota*, a key indicator species for the TEC (Figure 19).

Figure 18 Jetty access and hard landscaping area overlain on February 2021 high-resolution drone imagery

M. lanceolata

M. lanceolata

G. olivacea

G. olivacea

M. lanceolata

G. olivacea

G. olivacea

A. flexuosa

Figure 19 Individual trees/shrubs within the area considered to be TEC likely to be impacted to facilitate the Jetty Access and Hard Landscaping

A Development Application will be submitted and the project shall only proceed following approval of this application. Consequently, areas of Bush Forever which are to be permanently cleared for the Jetty Access and Hard Landscaping are considered exempt from the requirement for a Native Vegetation Clearing Permit as they represent clearing for the lawful construction of a building or other structure (Environmental Protection (Clearing of Native Vegetation) Regulations 2004—Regulation 5, Item 1). However, exemptions do not apply for the area of permanent clearing located within the TEC (71 m^2) and for the areas of temporary clearing (2,477 m^2) and it will be necessary to apply for a Native Vegetation Clearing Permit under Part V of the *EP Act* for these areas. Applications for a Native Vegetation Clearing Permit are assessed by the Department of Water and Environmental Regulation (DWER) against the following four criteria (if all criteria are met then a Clearing Permit may not be required) (DWER, 2021):

- Criterion 1: The area proposed to be cleared is small relative to the total remaining vegetation.
- Criterion 2: There are no known or likely significant environmental values within the area.
- Criterion 3: The state of scientific knowledge of native vegetation within the region is adequate.
- Criterion 4: Conditions will not be required to manage environmental impacts.

It is likely that Criterion 2 may not be met as the proposed clearing is located in a Bush Forever site and includes removal of small area (71 m^2) of vegetation conjectured to be representative of the *Callitris preissii* (or *Melaleuca lanceolata*) forests and woodlands TEC. Consequently, an assessment of the

proposed clearing works against the 10 Clearing Principles for native vegetation has been undertaken (Table 11).

Table 11 Assessment of the 10 Clearing Principles

Principle	Assessment	Outcome
a) Native vegetation should not be cleared if it comprises a high level of biological diversity	Reconnaissance flora and vegetation surveys were conducted in March and September 2021. A total of 40 flora species were recorded, including 18 introduced species. Nine vegetation communities were mapped in the project area. Of these, five were dominated by *Calitris preissii* and/or *Melaleuca lanceolata* and three were dominated by *Acacia rostellifera*. Much of the study area was Cleared, Completely Degraded or Degraded condition and characterised by sparse vegetation cover, a high area of bare ground, weeds and limited native species.	The proposal is not likely to be at variance with this clearing principle.
b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia	The area proposed to be cleared consists mostly of vegetation in a Degraded or Completely Degraded condition. More detailed fauna surveys at the adjacent Maritime Precinct (AECOM, 2016) have not identified the area to be significant habitat for fauna indigenous to Western Australia. One Threatened fauna species, the Carnaby's Cockatoo, has been observed in the area. However, it is anticipated that the proposed clearing will not impact on foraging, breeding or roosting habitat important to Carnaby's Cockatoo.	The proposal is not likely to be at variance with this clearing principle.
c) Native vegetation should not be cleared if it includes or is necessary for the continued existence of rare flora	No Threatened Flora (*EPBC Act*) or Threatened Flora (*BC Act*) were recorded during the survey.	The proposal is not likely to be at variance with this clearing principle.
d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a Threatened Ecological Community	Four vegetation communities (CpSg, MlAr, CpMl and Ml) were considered to be representative of the *Callitris* Woodland TEC. Clearing of 71 m^2 of this community will be required of which 18 m^2 is considered to be in Degraded Condition and 53 m^2 in Good Condition.	The proposal may be at variance to this clearing principle.
e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been significantly cleared	The surveyed vegetation across the project site is representative of the Quindalup Complex (360 Environment, 2022). The Quindalup Complex has 60.49% remaining within the Swan Coastal Plain Bioregion, which is above the retention rate for constrained areas set by the Environmental Protection Authority (EPA, 2006) and the Commonwealth of Australia (Department of the Environment and	The proposal is not likely to be at variance with this clearing principle.

Principle	Assessment	Outcome
	Heritage, 2001) for protecting Australia's biological diversity. Significant native vegetation communities also exist within a 5 km radius of the project, including at: Woodman Point, CY O'Connor Reserve, Manning Park, Beeliar Regional Park, Lake Coogee and Boodjar Mooliny Reserve.	
f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or a wetland	The project area is not bisected by any surface water features. There are no wetlands or watercourses within or near the project area.	The proposal is not likely to be at variance with this clearing principle.
g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation	The majority of the total vegetation to be cleared (0.45 ha = 0.20 ha permanent + 0.25 ha temporary) is in Degraded Condition (~81%) with a smaller proportion of vegetation in Good Condition (~19%). Further, the areas to be cleared are adjacent to areas of existing landscaping and this area is relatively low-lying with minimal relief so clearing will not result in significant sediment movement downslope.	The proposal is not likely to be at variance with this clearing principle.
h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area	The proposal is located within the Woodman Point Regional Park and within Bush Forever Site 341 (with a total area of 91.7 ha). The proposed Jetty works are consistent with the Woodman Point Regional Park management planning and Recreational Masterplan. The proposal will require 0.20 ha of permanent clearing; this vegetation is in Good (0.04 ha) and Degraded Condition (0.17 ha). The Woodman Point Regional Park encompasses a much larger area and impact on Bush Forever Site 341 is unlikely to be significant.	The proposal is not likely to be at variance with this clearing principle.
i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water	Groundwater is approximately 5 m below the land surface at the site and the proposed limited clearing is unlikely to have an impact upon its quality. There are no surface water features within or adjacent to the site.	The proposal is not likely to be at variance with this clearing principle.
j) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause or exacerbate the	This Principle need only be considered for large clearing proposals (Department of Environment Regulation, 2014a). The amount of native vegetation proposed to be cleared is not expected to cause any exacerbated incidence or intensity of flooding.	The proposal is not likely to be at variance with this clearing principle.

Principle	Assessment	Outcome
incidence or intensity of flooding		

Mitigation and Environmental Outcomes

The Native Vegetation Clearing Permit guidelines (DEWR, 2021) note that if the proposed clearing is at variance with one or more of the biodiversity related clearing principles (principles a – f, h) and a significant residual impact remains following application of the mitigation hierarchy then vegetation offsets may be required. As note above (Table 11), the proposal may be at variance with Principle d (proposed clearing comprises part of a TEC). Requirements for formal offsets will be considered in consultation with DWER through the Native Vegetation Clearing Permit process. Significant residual impact is not anticipated following the application of the mitigation hierarchy (Table 12).

A Revegetation Plan will be prepared with the objective of reinstating vegetation using endemic species within areas of the works that are not being permanently cleared. This includes material laydown areas, contractor site office, construction access and temporary beach access. The Revegetation Plan will include information on site characteristics, disturbances and threats, reference sites, revegetation commitments and completion criteria, revegetation area, revegetation staging, site preparation, weed control and fauna management, species selection, planting and timing, monitoring plan, vegetation establishment period and maintenance.

As an appendix to the Construction Environmental Management Plan (CEMP), a Tree Protection Plan will be prepared to safeguard trees that are to be kept that are close to the work site. A Traffic Management Plan will also be in place to minimise impacts to people using the area and fauna.

Table 12 Mitigation hierarchy relating to the proposed clearing

Mitigation Measure	Description
Avoid	A number of alternate options were considered, and the proposed option maximises use of the existing cleared areas for construction access and laydown. The permanent clearing for the jetty access (0.20 ha) has been aligned with the existing access path.
Minimise	The total area of clearing is 0.45 ha and includes 0.25 ha of temporary clearing required for construction access and laydown which shall be rehabilitated following completion of the works. Further, the majority of the temporary clearing represents Sl*Ep in Degraded Condition (0.19 ha). The clearing areas shall be clearly delineated prior to works commencing and all construction personnel will be inducted on site to ensure effective control on the clearing activities.
Rehabilitate	All of the temporary clearing areas shall be rehabilitated using species consistent with the assemblages observed during the vegetation survey. Particular preference will be given to planting species typical of the *Callitris preissii* (or *Melaleuca lanceolata*) forests and woodlands TEC. This planting will be undertaken in conjunction with DBCA who will remain the custodian of this area and have previously undertaken similar revegetation in this area with good success (GHD, 2021).

Construction Environmental Management Plan Outline

Environmental management during construction will ensure impacts are minimised and shall be documented in a Construction Environmental Management Plan (CEMP) which shall include the following elements:

- All site personnel shall be inducted prior to commencing work.
- Working days/hours to minimise noise impacts on adjacent residents.
- Seasonal timing (e.g. March to May) and staging on deck works to minimise exposure of existing piles to sunlight.
- Underwater noise management procedures, including pre-start and soft-start, trained marine fauna observers and observation and exclusion zones.
- Vessel speed limits.
- Vessel and vehicle fuelling procedures, fuel storage, spill prevention and response measures.
- Ballast water management procedures for any vessels.
- Any lighting to be consistent with the National Light Pollution Guidelines for Wildlife (DCCEEW 2023).
- A Tree Protection Plan detailing the delineation of work site and trees for clearance, minimum arborist qualifications, preference for trimming of branches where possible (rather than removal), restricted worksite activities (e.g. excavation/trenching), and site monitoring schedule.
- A Revegetation Plan detailing revegetation and weed management measures. This work shall be informed by the Woodman Point Weed Control and Revegetation Plan (Regeneration Technology, 2002) to ensure consistency with other remediation works across the Park.
- Waste and litter management measures.
- Noise management measures to be consistent with the Guide to Noise and Vibration Control on Construction, Maintenance and Demolition Sites (AS 2436-2010) and including: notification and complaints procedures, specified working hours, and any required noise suppression (Standards Australia, 2010).
- Consultation measures to ensure stakeholders and public aware of the proposed works and their progress and management including a communications plan to include: list of key stakeholders, communication methods, signage and complaints procedure.
- Seek to maintain public access to John Graham Recreational Reserve and beaches wherever possible.
- A Traffic Management Plan to minimise impacts on existing users wherever possible, and will include the following elements: risk assessment, traffic flow to preference the use of existing roads where possible and minimise need for reversing, speed limits on site, responsibilities, and traffic incident reporting.

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Appendix A

EPBC Act Protected Matters 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. Please see the caveat for interpretation of information provided here.

Report created: 26-Mar-2025

Summary

Matters of National Environment Significance

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

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	3
Listed Threatened Species:	56
Listed Migratory Species:	59

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

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

Commonwealth Lands:	2
Commonwealth Heritage Places:	None
Listed Marine Species:	85
Whales and Other Cetaceans:	12
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

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

State and Territory Reserves:	2
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	9
Key Ecological Features (Marine):	None
Biologically Important Areas:	10
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar Wetlands) [Resource Information]

Ramsar Site Name	Proximity	Buffer Status
Forrestdale and thomsons lakes	Within 10km of Ramsar site	In feature area

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Banksia Woodlands of the Swan Coastal Plain ecological community	Endangered	Community may occur within area	In feature area
Honeymyrtle shrubland on limestone ridges of the Swan Coastal Plain Bioregion	Critically Endangered	Community may occur within area	In feature area
Tuart (Eucalyptus gomphocephala) Woodlands and Forests of the Swan Coastal Plain ecological community	Critically Endangered	Community likely to occur within area	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Anous tenuirostris melanops			
Australian Lesser Noddy [26000]	Vulnerable	Species or species habitat may occur within area	In feature area
Ardenna grisea			
Sooty Shearwater [82651]	Vulnerable	Species or species habitat may occur within area	In feature area
Arenaria interpres			
Ruddy Turnstone [872]	Vulnerable	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat may occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat known to occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Vulnerable	Species or species habitat known to occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Calidris tenuirostris Great Knot [862]	Vulnerable	Species or species habitat known to occur within area	In feature area
Calyptorhynchus banksii naso Forest Red-tailed Black-Cockatoo, Karrak [67034]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area	In feature area
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area	In feature area
Diomedea dabbenena Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat may occur within area	In feature area
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Russkoye Bar-tailed Godwit [86432]	Endangered	Species or species habitat known to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area	In feature area
Phaethon rubricauda westralis Red-tailed Tropicbird (Indian Ocean), Indian Ocean Red-tailed Tropicbird [91824]	Endangered	Species or species habitat may occur within area	In feature area
Pluvialis squatarola Grey Plover [865]	Vulnerable	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Sternula albifrons Little Tern [82849]	Vulnerable	Species or species habitat may occur within area	In feature area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat known to occur within area	In feature area
Xenus cinereus Terek Sandpiper [59300]	Vulnerable	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Zanda latirostris listed as Calyptorhynchus latirostris			
Carnaby's Black Cockatoo, Short-billed Black-cockatoo [87737]	Endangered	Breeding known to occur within area	In feature area
MAMMAL			
Balaenoptera musculus			
Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In feature area
Dasyurus geoffroii			
Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Eubalaena australis			
Southern Right Whale [40]	Endangered	Breeding known to occur within area	In feature area
Neophoca cinerea			
Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat likely to occur within area	In feature area
Pseudocheirus occidentalis			
Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit [25911]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
PLANT			
Andersonia gracilis			
Slender Andersonia [14470]	Endangered	Species or species habitat may occur within area	In feature area
Caladenia huegelii			
King Spider-orchid, Grand Spider-orchid, Rusty Spider-orchid [7309]	Endangered	Species or species habitat may occur within area	In feature area
Diuris micrantha			
Dwarf Bee-orchid [55082]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Diuris purdiei			
Purdie's Donkey-orchid [12950]	Endangered	Species or species habitat may occur within area	In feature area
Drakaea elastica			
Glossy-leafed Hammer Orchid, Glossy-leaved Hammer Orchid, Warty Hammer Orchid [16753]	Endangered	Species or species habitat likely to occur within area	In feature area
REPTILE			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Caretta caretta			
Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area	In feature area
Chelonia mydas			
Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area	In feature area
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area
Natator depressus			
Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area	In feature area
SHARK			
Carcharias taurus (west coast population)			
Grey Nurse Shark (west coast population) [68752]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Carcharodon carcharias			
White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In feature area
Pristis pristis			
Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area	In feature area
Rhincodon typus			
Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In feature area
Sphyrna lewini			
Scalloped Hammerhead [85267]	Conservation Dependent	Species or species habitat known to occur within area	In feature area

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Anous stolidus			
Common Noddy [825]		Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Ardenna carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat likely to occur within area	In feature area
Ardenna grisea Sooty Shearwater [82651]	Vulnerable	Species or species habitat may occur within area	In feature area
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area	In feature area
Diomedea dabbenena Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area	In feature area
Hydroprogne caspia Caspian Tern [808]		Foraging, feeding or related behaviour known to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Onychoprion anaethetus](#) Bridled Tern [82845]		Foraging, feeding or related behaviour likely to occur within area	In feature area
[Sterna dougallii](#) Roseate Tern [817]		Foraging, feeding or related behaviour likely to occur within area	In feature area
[Sternula albifrons](#) Little Tern [82849]	Vulnerable	Species or species habitat may occur within area	In feature area
[Thalassarche carteri](#) Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Thalassarche cauta](#) Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche impavida](#) Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In feature area
[Thalassarche melanophris](#) Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche steadi](#) White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In feature area
Migratory Marine Species			
[Balaenoptera edeni](#) Bryde's Whale [35]		Species or species habitat may occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Caperea marginata](#) Pygmy Right Whale [39]		Species or species habitat may occur within area	In feature area
[Carcharhinus longimanus](#) Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area	In feature area
[Carcharias taurus](#) Grey Nurse Shark [64469]		Species or species habitat likely to occur within area	In feature area
[Carcharodon carcharias](#) White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area
[Eubalaena australis as Balaena glacialis australis](#) Southern Right Whale [40]	Endangered	Breeding known to occur within area	In feature area
[Lamna nasus](#) Porbeagle, Mackerel Shark [83288]		Species or species habitat may occur within area	In feature area
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat known to occur within area	In feature area
[Mobula alfredi as Manta alfredi](#) Reef Manta Ray, Coastal Manta Ray [90033]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Mobula birostris as Manta birostris Giant Manta Ray [90034]		Species or species habitat may occur within area	In feature area
Natator depressus Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area	In feature area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area	In feature area
Pristis pristis Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area	In feature area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In feature area
Migratory Terrestrial Species			
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Arenaria interpres Ruddy Turnstone [872]	Vulnerable	Species or species habitat known to occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat known to occur within area	In feature area
Calidris alba Sanderling [875]		Species or species habitat known to occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Vulnerable	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat likely to occur within area	In feature area
Calidris ruficollis Red-necked Stint [860]		Species or species habitat known to occur within area	In feature area
Calidris tenuirostris Great Knot [862]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area	In feature area
Limicola falcinellus Broad-billed Sandpiper [842]		Species or species habitat known to occur within area	In feature area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Numenius phaeopus Whimbrel [849]		Species or species habitat known to occur within area	In feature area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pluvialis squatarola			
Grey Plover [865]	Vulnerable	Species or species habitat known to occur within area	In feature area
Tringa brevipes			
Grey-tailed Tattler [851]		Species or species habitat known to occur within area	In feature area
Tringa nebularia			
Common Greenshank, Greenshank [832]	Endangered	Species or species habitat known to occur within area	In feature area
Xenus cinereus			
Terek Sandpiper [59300]	Vulnerable	Species or species habitat known to occur within area	In feature area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

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

Commonwealth Land Name	State	Buffer Status
Unknown		
Commonwealth Land - [50666]	WA	In buffer area only
Commonwealth Land - [51412]	WA	In buffer area only

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Anous stolidus			
Common Noddy [825]		Species or species habitat likely to occur within area	In feature area
Anous tenuirostris melanops			
Australian Lesser Noddy [26000]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat likely to occur within area	In feature area
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]	Vulnerable	Species or species habitat may occur within area	In feature area
Arenaria interpres Ruddy Turnstone [872]	Vulnerable	Species or species habitat known to occur within area	In feature area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat known to occur within area	In feature area
Calidris alba Sanderling [875]		Species or species habitat known to occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat likely to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris ruficollis Red-necked Stint [860]		Species or species habitat known to occur within area overfly marine area	In feature area
Calidris tenuirostris Great Knot [862]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area	In feature area
Charadrius ruficapillus Red-capped Plover [881]		Species or species habitat known to occur within area overfly marine area	In feature area
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area	In feature area
Diomedea dabbenena Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Hydroprogne caspia as Sterna caspia Caspian Tern [808]		Foraging, feeding or related behaviour known to occur within area	In feature area
Larus pacificus Pacific Gull [811]		Foraging, feeding or related behaviour may occur within area	In feature area
Limicola falcinellus Broad-billed Sandpiper [842]		Species or species habitat known to occur within area overfly marine area	In feature area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Numenius phaeopus Whimbrel [849]		Species or species habitat known to occur within area	In feature area
Onychoprion anaethetus as Sterna anaethetus Bridled Tern [82845]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area	In feature area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area	In feature area
Pluvialis squatarola Grey Plover [865]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Puffinus assimilis Little Shearwater [59363]		Foraging, feeding or related behaviour known to occur within area	In feature area
Recurvirostra novaehollandiae Red-necked Avocet [871]		Species or species habitat known to occur within area overfly marine area	In feature area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area	In buffer area only
Sterna dougallii Roseate Tern [817]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Sternula albifrons as Sterna albifrons Little Tern [82849]	Vulnerable	Species or species habitat may occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In feature area
Thinornis cucullatus as Thinornis rubricollis Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area	In feature area
Tringa brevipes as Heteroscelus brevipes Grey-tailed Tattler [851]		Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Tringa nebularia](#) Common Greenshank, Greenshank [832]	Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
[Xenus cinereus](#) Terek Sandpiper [59300]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Fish			
[Acentronura australe](#) Southern Pygmy Pipehorse [66185]		Species or species habitat may occur within area	In feature area
[Campichthys galei](#) Gale's Pipefish [66191]		Species or species habitat may occur within area	In feature area
[Heraldia nocturna](#) Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In feature area
[Hippocampus angustus](#) Western Spiny Seahorse, Narrow-bellied Seahorse [66234]		Species or species habitat may occur within area	In feature area
[Hippocampus breviceps](#) Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In feature area
[Hippocampus subelongatus](#) West Australian Seahorse [66722]		Species or species habitat may occur within area	In feature area
[Histiogamphelus cristatus](#) Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In feature area
[Lissocampus caudalis](#) Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In feature area
[Lissocampus fatiloquus](#) Prophet's Pipefish [66250]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In feature area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In feature area
Mitotichthys meraculus Western Crested Pipefish [66259]		Species or species habitat may occur within area	In feature area
Nannocampus subosseus Bonyhead Pipefish, Bony-headed Pipefish [66264]		Species or species habitat may occur within area	In feature area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In feature area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In feature area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In feature area
Solegnathus lettiensis Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area	In feature area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In feature area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In feature area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Vanacampus margaritifer			
Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In feature area
Vanacampus phillipi			
Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In feature area
Vanacampus poecilolaemus			
Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In feature area
Mammal			
Arctocephalus forsteri			
Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In feature area
Neophoca cinerea			
Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat likely to occur within area	In feature area
Reptile			
Caretta caretta			
Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area	In feature area
Chelonia mydas			
Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area	In feature area
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area
Hydrophis kingii as Disteira kingii			
Spectacled Sea Snake [93511]		Species or species habitat may occur within area	In feature area
Natator depressus			
Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area	In feature area

Whales and Other Cetaceans			[Resource Information]
Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			

Current Scientific Name	Status	Type of Presence	Buffer Status
[Balaenoptera acutorostrata](#) Minke Whale [33]		Species or species habitat may occur within area	In feature area
[Balaenoptera edeni](#) Bryde's Whale [35]		Species or species habitat may occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In feature area
[Caperea marginata](#) Pygmy Right Whale [39]		Species or species habitat may occur within area	In feature area
[Delphinus delphis](#) Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In feature area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Breeding known to occur within area	In feature area
[Grampus griseus](#) Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In feature area
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat known to occur within area	In feature area
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat may occur within area	In feature area
[Stenella attenuata](#) Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area	In feature area
[Tursiops aduncus](#) Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In feature area

Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
Unnamed WA42469	Nature Reserve	WA	In feature area
Unnamed WA49220	Conservation Park	WA	In feature area

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Extension of Beeliar Drive between the junction of Mayor and Fawcett Roads an...	2003/1029	Controlled Action	Completed	In feature area
Not controlled action				
'Looping 10' gas transmission pipeline from Kwinana to Hopelands	2005/2212	Not Controlled Action	Completed	In buffer area only
Gas-fired Power Station	2005/2213	Not Controlled Action	Completed	In feature area
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Kwinana Gas-Fired Power Station	2005/2101	Not Controlled Action	Completed	In feature area
Not controlled action (particular manner)				
City of Cockburn Sporting Facilties	2005/2139	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
South West Metropolitan Railway Project	2003/1175	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

Biologically Important Areas

[Resource Information]

Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging (in high numbers)	Known to occur	In feature area
Eudyptula minor Little Penguin [1085]	Foraging (provisioning young)	Known to occur	In feature area
Hydroprogne caspia Caspian Tern [808]	Foraging (provisioning young)	Known to occur	In feature area
Larus pacificus Pacific Gull [811]	Foraging (in high numbers)	Former Range	In feature area
Onychoprion anaethetus Bridled Tern [82845]	Foraging (in high numbers)	Known to occur	In feature area
Puffinus assimilis tunneyi Little Shearwater [59363]	Foraging (in high numbers)	Known to occur	In feature area
Sterna dougallii Roseate Tern [817]	Foraging	Known to occur	In feature area
Sternula nereis Fairy Tern [82949]	Foraging (in high numbers)	Known to occur	In feature area
Seals			
Neophoca cinerea Australian Sea Lion [22]	Foraging (male)	Likely to occur	In feature area
Whales			

Scientific Name	Behaviour	Presence	Buffer Status
Megaptera novaeangliae			
Humpback Whale [38]	Migration (north and south)	Known to occur	In feature area

Caveat

1 PURPOSE

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

The report contains the mapped locations of:

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

2 DISCLAIMER

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

Where data is available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on the contents of this report.

3 DATA SOURCES

Threatened ecological communities

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

Threatened, migratory and marine species

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

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions when time permits.

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

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

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded breeding sites; and
- seals which have only been mapped for breeding sites near the Australian continent

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

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

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.

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Appendix B

Dandjoo Species Report

GOVERNMENT OF WESTERN AUSTRALIA

Dandjoo Species List Export

Created by Guest User on 26 Mar 2025

Source	Dandjoo – Department of Biodiversity, Conservation and Attractions
Method	User defined circle: [[115.75928, -32.12428]] 5.0 km.
Date time	2025-03-26T15:07:12.090786+08:00

Conservation status summary	Count
CD	2
CR	8
Cons code inherited from parent	6
EN	12
MI	16
MI, CD	1
None	871
OS	2
P1	6
P2	9
P3	28
P4	19
P4, MI	1
Parent of conservation listed taxa	3
VU	18
Total	**1002**

Kingdoms	Count
Animalia	660
Bacteria	1
Chromista	1
Fungi	30
Plantae	308
Protozoa	2
Total unique species	**1002**

#	Class	Family	Name	Establishment	Conservation
Animalia					
1	None	None	Anthaster valvulatus (Troschel & Muller, 1843)		
2	None	None	Bispira manicata (Grube, 1878)		
3	None	None	Bryozoa Ehrenberg, 1831		
4	None	None	Callistochiton antiquus (Reeve, 1847)		
5	None	None	Ceratosoma brevicaudatum Abraham, 1876		
6	None	None	Coscinaraea marshae Wells, 1962		
7	None	None	Coscinaraea mcneilli Wells, 1962		
8	None	None	Crabyzos longicaudatus Bate, 1863		
9	None	None	Cryptocoeloma haswelli Rathbun, 1923		
10	None	None	Culicia hoffmeisteri Squires, 1966		
11	None	None	Cymbastela marshae Hooper & Bergquist, 1992		

12	None	None	Herpetopoma hamiltoni (Kirk, 1882)		
13	None	None	Melo miltonis (Griffith & Pidgeon, 1834)		
14	None	None	Meuschenia venusta Hutchins, 1977		
15	None	None	Nephtys gravieri Augener, 1913		
16	None	None	Nicolea amnis Hutchings & Murray, 1984		
17	None	None	Ophionereis schayeri (MÃ¼ller & Troschel, 1844)		
18	None	None	Palaemon intermedius (Stimpson, 1860)		
19	None	None	Palaemonella rotumana (Borradaile, 1898)		
20	None	None	Paraleucothoe novaehollandiae (Haswell, 1879)		
21	None	None	Paranaxia serpulifera (GuÃ©rin-MÃ©neville, 1829)		
22	None	None	Pectinaria antipoda Schmarda, 1861		
23	None	None	Perna viridis (Linnaeus, 1758)		
24	None	None	Pilumnus rufopunctatus Stimpson, 1858		
25	None	None	Pisidia dispar (Stimpson, 1858)		
26	None	None	Placida Trinchese, 1876		
27	None	None	Plagusia squamosa (Herbst, 1790)		
28	None	None	Pseudopisinna gregaria gregaria (Laseron, 1950)		
29	None	None	Xipholeptos notoides (S. S. Berry, 1921)		
30	Actinopterygii Klein, 1885	Cheilodactylidae	Cheilodactylus gibbosus Richardson, 1841		
31	Actinopterygii Klein, 1885	Latridae	Goniistius rubrolabiatus (Allen & Heemstra, 1976)		
32	Actinopterygii Klein, 1885	Microcanthidae	Microcanthus strigatus (Cuvier, 1831)		
33	Actinopterygii Klein, 1885	Monacanthidae	Acreichthys radiatus (Popta, 1900)		
34	Actinopterygii Klein, 1885	Monacanthidae	Monacanthus chinensis (Osbeck, 1765)		
35	Actinopterygii Klein, 1885	Nemipteridae	Pentapodus vitta Quoy & Gaimard, 1824		
36	Actinopterygii Klein, 1885	Neosebastidae	Maxillicosta scabriceps Whitley, 1935		
37	Actinopterygii Klein, 1885	Pinguipedidae	Parapercis haackei (Steindachner, 1884)		
38	Actinopterygii Klein, 1885	Syngnathidae	Filicampus tigris (Castelnau, 1879)		
39	Actinopterygii Klein, 1885	Syngnathidae	Hippocampus subelongatus Castelnau, 1873		
40	Actinopterygii Klein, 1885	Syngnathidae	Hippocampus tuberculatus Castelnau, 1875		
41	Actinopterygii Klein, 1885	Syngnathidae	Histiogamphelus cristatus (Macleay, 1881)		
42	Actinopterygii Klein, 1885	Syngnathidae	Mitotichthys meraculus (Whitley, 1948)		
43	Actinopterygii Klein, 1885	Syngnathidae	Stigmatopora argus (Richardson, 1840)		
44	Actinopterygii Klein, 1885	Syngnathidae	Syngnathidae		
45	Actinopterygii Klein, 1885	Terapontidae	Pelates octolineatus (Jenyns, 1840)		
46	Actinopterygii Klein, 1885	Tetraodontidae	Contusus richei (FrÃ©minville, 1813)		
47	Actinopterygii Klein, 1885	Tetraodontidae	Lagocephalus sceleratus (Gmelin, 1789)		
48	Actinopterygii Klein, 1885	Tripterygiidae	Helcogramma decurrens McCulloch & Waite, 1918		
49	Amphibia	Limnodynastidae	Heleioporus eyrei (Gray, 1845)	native	
50	Amphibia	Limnodynastidae	Limnodynastes dorsalis (Gray, 1841)	native	
51	Amphibia	Myobatrachidae	Crinia insignifera (Moore, 1954)	native	
52	Amphibia	Pelodryadidae GÃ¼nther, 1858	Litoria adelaidensis (Gray, 1841)	native	

53	Amphibia	Pelodryadidae GÃ¼nther, 1858	Litoria moorei (Copland, 1957)	native	
54	Amphibia	Pelodryadidae GÃ¼nther, 1858	Litoria rubella Gray, 1842 *(Little Red Tree Frog)*	native	
55	Arachnida	None	Gnaphosoidea		
56	Arachnida	Actinopodidae Simon, 1892	Missulena Walckenaer, 1805		
57	Arachnida	Actinopodidae Simon, 1892	Missulena granulosa (O. P.-Cambridge, 1869)		
58	Arachnida	Anamidae Simon, 1889	Aname L. Koch, 1873		
59	Arachnida	Anamidae Simon, 1889	Kwonkan Main, 1983		
60	Arachnida	Anamidae Simon, 1889	Teyl Main, 1975		
61	Arachnida	Anapidae Simon, 1895	Raveniella arenacea Rix & Harvey, 2010		
62	Arachnida	Anapidae Simon, 1895	Raveniella peckorum Rix & Harvey, 2010		
63	Arachnida	Anapidae Simon, 1895	Raveniella subcirrata Rix & Harvey, 2010		
64	Arachnida	Anystidae Oudemans, 1902	Erythracarus decoris Otto, 1999		
65	Arachnida	Araneidae Clerck, 1757	Araneidae Clerck, 1757		
66	Arachnida	Araneidae Clerck, 1757	Argiope trifasciata (ForsskÃ¥l, 1775)	alien	
67	Arachnida	Araneidae Clerck, 1757	Argiopinae		
68	Arachnida	Araneidae Clerck, 1757	Austracantha minax (Thorell, 1859)		
69	Arachnida	Araneidae Clerck, 1757	Carepalxis L. Koch, 1872	uncertain	
70	Arachnida	Araneidae Clerck, 1757	Cyclosa trilobata (Urquhart, 1885)		
71	Arachnida	Araneidae Clerck, 1757	Hortophora biapicata (L. Koch, 1871)		
72	Arachnida	Araneidae Clerck, 1757	Plebs Joseph & Framenau, 2012		
73	Arachnida	Araneidae Clerck, 1757	Socca senicaudata (Simon, 1908)		
74	Arachnida	Barychelidae Simon, 1892	Idiommata blackwalli (O. Pickard-Cambridge, 1870)		
75	Arachnida	Bothriuridae	Cercophonius sulcatus Kraepelin, 1908		
76	Arachnida	Buthidae C.L. Koch, 1837	Buthidae C.L. Koch, 1837		
77	Arachnida	Buthidae C.L. Koch, 1837	Lychas C.L. Koch, 1845		
78	Arachnida	Chthoniidae Daday, 1888	Austrochthonius J.C. Chamberlin, 1929		
79	Arachnida	Clubionidae Simon, 1878	Clubiona Latreille, 1804		
80	Arachnida	Corinnidae	Iridonyssus formicans Raven, 2015		
81	Arachnida	Corinnidae	Nyssus albopunctatus (Hogg, 1896)		
82	Arachnida	Corinnidae	Nyssus coloripes Walckenaer, 1805		
83	Arachnida	Ctenidae Keyserling, 1877	Ctenidae Keyserling, 1877		
84	Arachnida	Desidae Pocock, 1895	Desidae Pocock, 1895		
85	Arachnida	Garypinidae Daday, 1888	Aldabrinus Chamberlin, 1930	uncertain	
86	Arachnida	Geogarypidae Chamberlin, 1930	Geogarypus taylori Harvey, 1986		
87	Arachnida	Gnaphosidae Banks, 1892	Ceryerda Simon, 1909		
88	Arachnida	Gnaphosidae Banks, 1892	Cryptoerithus quobba Platnick & Baehr, 2006		
89	Arachnida	Gnaphosidae Banks, 1892	Molycria vokes Platnick & Baehr, 2006		
90	Arachnida	Gnaphosidae Banks, 1892	Myandra bicincta Simon, 1908		
91	Arachnida	Gnaphosidae Banks, 1892	Myandra cambridgei Simon, 1887		
92	Arachnida	Idiopidae Simon, 1889	Euoplos inornatus (Rainbow & Pulleine, 1918)	native	P3
93	Arachnida	Idiopidae Simon, 1889	Idiosoma Ausserer, 1871		Parent of conservation listed taxa

94	Arachnida	Idiopidae Simon, 1889	Idiosoma sigillatum O. P.-Cambridge, 1870 *(Swan Coastal Plain shield-backed trapdoor spider)*	native	P3
95	Arachnida	Lamponidae Simon, 1893	Lampona brevipes L. Koch, 1872		
96	Arachnida	Lamponidae Simon, 1893	Lampona cylindrata (L. Koch, 1866)		
97	Arachnida	Lamponidae Simon, 1893	Longepi woodman Platnick, 2000	mixed	
98	Arachnida	Lamponidae Simon, 1893	Pseudolampona woodman Platnick, 2000		
99	Arachnida	Linyphiidae Blackwall, 1859	Laetesia Simon, 1908		
100	Arachnida	Linyphiidae Blackwall, 1859	Linyphiidae Blackwall, 1859		
101	Arachnida	Lycosidae	Artoria linnaei Framenau, 2008		
102	Arachnida	Lycosidae	Artoria taeniifera Simon, 1909		
103	Arachnida	Lycosidae	Artoriopsis expolita (L. Koch, 1877)		
104	Arachnida	Lycosidae	Dingosa serrata (L. Koch, 1877)		
105	Arachnida	Lycosidae	Lycosa Latreille, 1804		
106	Arachnida	Lycosidae	Lycosidae		
107	Arachnida	Lycosidae	Lycosinae		
108	Arachnida	Lycosidae	Tasmanicosa stella Framenau & Baehr, 2016		
109	Arachnida	Lycosidae	Venator immansuetus (Simon, 1909)		
110	Arachnida	Malkaridae Davies, 1980	Westrarchaea sinuosa Rix, 2006		
111	Arachnida	Mimetidae Simon, 1881	Ero aphana (Walckenaer, 1802)		
112	Arachnida	Miturgidae Simon, 1889	Hestimodema Simon, 1909		
113	Arachnida	Miturgidae Simon, 1889	Mituliodon tarantulinus (L. Koch, 1873)		
114	Arachnida	Miturgidae Simon, 1889	Mitzoruga Raven, 2009		
115	Arachnida	Nephilidae Simon, 1894	Trichonephila edulis (LabillardiÃ¨re, 1799)		
116	Arachnida	Oecobiidae Blackwall, 1862	Oecobius navus Blackwall, 1859		
117	Arachnida	Oonopidae Simon, 1890	Grymeus Harvey, 1987		
118	Arachnida	Oonopidae Simon, 1890	Opopaea Simon, 1892		
119	Arachnida	Oonopidae Simon, 1890	Orchestina Simon, 1882		
120	Arachnida	Oonopidae Simon, 1890	Pelicinus Simon, 1892		
121	Arachnida	Oonopidae Simon, 1890	Xestaspis Simon, 1884		
122	Arachnida	Orsolobidae Cooke, 1965	Tasmanoonops Hickman, 1930		
123	Arachnida	Oxyopidae	Oxyopes Latreille, 1804		
124	Arachnida	Pholcidae C.L. Koch, 1851	Holocnemus pluchei (Scopoli, 1763)		
125	Arachnida	Pholcidae C.L. Koch, 1851	Pholcidae C.L. Koch, 1851		
126	Arachnida	Phonognathidae Simon, 1894	Phonognatha melania (L. Koch, 1871)		
127	Arachnida	Salticidae Blackwall, 1841	Euophryini		
128	Arachnida	Salticidae Blackwall, 1841	Maratus pavonis (Dunn, 1947)		
129	Arachnida	Salticidae Blackwall, 1841	Salticidae Blackwall, 1841		
130	Arachnida	Segestriidae Simon, 1893	Segestriidae Simon, 1893		
131	Arachnida	Sparassidae Bertkau, 1872	Delena cancerides Walckenaer, 1837		
132	Arachnida	Sparassidae Bertkau, 1872	Isopeda leishmanni Hogg, 1903		
133	Arachnida	Sparassidae Bertkau, 1872	Neosparassus Hogg, 1903		
		Sparassidae Bertkau,			

134	Arachnida	1872	Sparassidae Bertkau, 1872		
135	Arachnida	Tetragnathidae	Pinkfloydia harveyi Dimitrov & Hormiga, 2011	native	
136	Arachnida	Theridiidae Sundevall, 1833	Achaearanea Strand, 1929		
137	Arachnida	Theridiidae Sundevall, 1833	Euryopis Menge, 1868		
138	Arachnida	Theridiidae Sundevall, 1833	Hadrotarsinae		
139	Arachnida	Theridiidae Sundevall, 1833	Latrodectinae		
140	Arachnida	Theridiidae Sundevall, 1833	Latrodectus hasselti Thorell, 1870		
141	Arachnida	Theridiidae Sundevall, 1833	Theridiidae Sundevall, 1833		
142	Arachnida	Thomisidae Sundevall, 1833	Sidymella Strand, 1942		
143	Arachnida	Thomisidae Sundevall, 1833	Stephanopis O. Pickard-Cambridge, 1869		
144	Arachnida	Thomisidae Sundevall, 1833	Thomisidae Sundevall, 1833		
145	Arachnida	Trachycosmidae Platnick, 2002	Longrita insidiosa (Simon, 1908)		
146	Arachnida	Uloboridae	Uloboridae		
147	Arachnida	Urodacidae	Urodacus novaehollandiae Peters, 1861		
148	Arachnida	Zodariidae Thorell, 1881	Euasteron Baehr, 2003		
149	Arachnida	Zodariidae Thorell, 1881	Habronestes australiensis (O. Pickard-Cambridge, 1869)	native	
150	Arachnida	Zodariidae Thorell, 1881	Holasteron aspinosum Baehr, 2004		
151	Arachnida	Zodariidae Thorell, 1881	Neostorena Rainbow, 1914		
152	Arachnida	Zodariidae Thorell, 1881	Nostera JocquÃ©, 1991		
153	Arachnida	Zodariidae Thorell, 1881	Zillimata JocquÃ©, 1995		
154	Arachnida	Zodariidae Thorell, 1881	Zodariidae Thorell, 1881		
155	Ascidiacea Blainville, 1824	None	Ascidiacea Blainville, 1824		
156	Ascidiacea Blainville, 1824	Didemnidae Giard, 1872	Didemnum Savigny, 1816		
157	Ascidiacea Blainville, 1824	Didemnidae Giard, 1872	Didemnum perlucidum Monniot F., 1983		
158	Ascidiacea Blainville, 1824	Holozoidae Berrill, 1950	Sycozoa Lesson, 1832		
159	Ascidiacea Blainville, 1824	Polyclinidae	Aplidium Savigny, 1816		
160	Ascidiacea Blainville, 1824	Pyuridae	Herdmania Lahille, 1888		
161	Ascidiacea Blainville, 1824	Styelidae Herdman, 1881	Botrylloides Milne Edwards, 1841		
162	Ascidiacea Blainville, 1824	Styelidae Herdman, 1881	Botrylloides leachii (Savigny, 1816)		
163	Ascidiacea Blainville, 1824	Styelidae Herdman, 1881	Cnemidocarpa fissa Kott, 1985		
164	Asteroidea	None	Asteroidea		
165	Asteroidea	Archasteridae	Archaster MÃ¼ller & Troschel, 1840		
166	Asteroidea	Archasteridae	Archaster angulatus MÃ¼ller & Troschel, 1842		
167	Asteroidea	Asteriidae Gray, 1840	Coscinasterias calamaria (Gray, 1840)		
168	Asteroidea	Asterinidae Gray, 1840	Meridiastra gunnii (Gray, 1840)		
169	Asteroidea	Asterinidae Gray, 1840	Meridiastra occidens (Roy, Waters & O'Loughlin, 2003)		

170	Asteroidea	Asterinidae Gray, 1840	Nepanthia crassa (Gray, 1847)		
171	Asteroidea	Astropectinidae	Astropecten triseriatus MÃ¼ller & Troschel, 1843		
172	Asteroidea	Echinasteridae	Echinaster MÃ¼ller & Troschel, 1840		
173	Asteroidea	Echinasteridae	Echinaster varicolor H.L. Clark, 1938		
174	Asteroidea	Goniasteridae	Goniodiscaster seriatus (Muller & Troschel, 1843)		
175	Asteroidea	Goniasteridae	Nectria wilsoni Shepherd & Hodgkin, 1966		
176	Asteroidea	Goniasteridae	Tosia australis Gray, 1840		
177	Asteroidea	Goniasteridae	Tosia magnifica (Muller & Troschel, 1842)		
178	Asteroidea	Luidiidae	Luidia australiae DÃ¶derlein, 1920		
179	Asteroidea	Oreasteridae	Anthenea australiae DÃ¶derlein, 1915		
180	Asteroidea	Pterasteridae Perrier, 1875	Euretaster insignis (Sladen, 1882)		
181	Asteroidea	Stichasteridae	Allostichaster polyplax (Troschel & MÃ¼ller, 1844)		
182	Aves	Acanthizidae	Acanthiza apicalis Gould, 1847	native	
183	Aves	Acanthizidae	Acanthiza chrysorrhoa (Quoy & Gaimard, 1830)	native	
184	Aves	Acanthizidae	Gerygone fusca (Gould, 1838)	native	
185	Aves	Acanthizidae	Sericornis frontalis (Vigors & Horsfield, 1827)	native	
186	Aves	Acanthizidae	Sericornis maculatus maculatus (Gray, 1847)		
187	Aves	Acanthizidae	Smicrornis brevirostris (Gould, 1838)	native	
188	Aves	Accipitridae	Circus approximans Peale, 1848	native	
189	Aves	Accipitridae	Elanus caeruleus (Desfontaines, 1789)	native	
190	Aves	Accipitridae	Hieraaetus morphnoides (Gould, 1841)	native	
191	Aves	Accipitridae	Pandion haliaetus (Linnaeus, 1758)	native	MI
192	Aves	Accipitridae	Tachyspiza fasciata Vigors & Horsfield, 1827	native	
193	Aves	Alcedinidae	Dacelo novaeguineae (Hermann, 1783)	alien	
194	Aves	Alcedinidae	Todiramphus sanctus (Vigors & Horsfield, 1827)	native	
195	Aves	Anatidae	Oxyura australis Gould, 1836	native	P4
196	Aves	Ardeidae	Botaurus dubius Mathews, 1912 *(Australian Little Bittern)*	native	P4
197	Aves	Artamidae	Cracticus torquatus (Latham, 1802)	native	
198	Aves	Artamidae	Gymnorhina tibicen (Latham, 1802)		
199	Aves	Cacatuidae	Cacatua pastinator pastinator (Gould, 1841) *(Muir's Corella, Muir's Corella (Western Corella SW WA))*	native	CD
200	Aves	Cacatuidae	Calyptorhynchus banksii naso Gould, 1837	native	VU
201	Aves	Cacatuidae	Eolophus roseicapilla (Vieillot, 1817)	native	
202	Aves	Cacatuidae	Zanda Mathews, 1913		Parent of conservation listed taxa
203	Aves	Cacatuidae	Zanda baudinii Lear, 1832 *(Baudin's Cockatoo)*	native	EN
204	Aves	Cacatuidae	Zanda latirostris Carnaby, 1948	native	EN
205	Aves	Campephagidae	Coracina novaehollandiae (Gmelin, 1789)	native	
206	Aves	Charadriidae	Charadrius cucullatus Vieillot, 1818 *(Hooded Plover)*	native	P4
207	Aves	Columbidae	Phaps chalcoptera (Latham, 1790)	native	
208	Aves	Columbidae	Spilopelia senegalensis (Linnaeus, 1766)		
209	Aves	Corvidae	Corvus coronoides Vigors & Horsfield, 1827	native	
210	Aves	Cuculidae	Chalcites basalis (Horsfield, 1821)	native	
211	Aves	Cuculidae	Chalcites lucidus (Gmelin & JF, 1788)	native	
212	Aves	Cuculidae	Chalcites lucidus plagosus (Latham, 1802)		
213	Aves	Diomedeidae	Diomedea antipodensis gibsoni Robertson & Warham, 1992	native	EN
214	Aves	Diomedeidae	Diomedea exulans Linnaeus, 1758	native	VU
215	Aves	Diomedeidae	Phoebetria fusca (Hilsenberg, 1822)	native	EN
216	Aves	Diomedeidae	Thalassarche carteri (Rothschild, 1903)	native	EN
217	Aves	Diomedeidae	Thalassarche chlororhynchos (Gmelin, 1789)	native	VU
218	Aves	Diomedeidae	Thalassarche chrysostoma (J.R. Forster, 1785)	native	VU
219	Aves	Diomedeidae	Thalassarche melanophris (Temminck, 1828) *(Black-browed Albatross)*	native	EN
220	Aves	Falconidae	Falco peregrinus Tunstall, 1771 *(Peregrine Falcon)*	native	OS

221	Aves	Falconidae	Falco peregrinus macropus Swainson, 1837	native	Cons code inherited from parent
222	Aves	Hirundinidae	Hirundo neoxena Gould, 1842	native	
223	Aves	Hirundinidae	Petrochelidon nigricans (Vieillot, 1817)	native	
224	Aves	Laridae	Anous stolidus pileatus (Scopoli, 1786)	native	Cons code inherited from parent
225	Aves	Laridae	Anous tenuirostris melanops Gould, 1846	native	EN
226	Aves	Laridae	Hydroprogne caspia (Pallas, 1770)	native	MI
227	Aves	Laridae	Onychoprion anaethetus anaethetus (Scopoli, 1786)		Cons code inherited from parent
228	Aves	Laridae	Onychoprion fuscatus nubilosus (Sparrman, 1788)		
229	Aves	Laridae	Sterna hirundo hirundo Linnaeus, 1758	native	Cons code inherited from parent
230	Aves	Laridae	Sternula nereis nereis Gould, 1843	native	VU
231	Aves	Laridae	Thalasseus bergii (Lichtenstein, 1823)	native	MI
232	Aves	Maluridae	Malurus splendens (Quoy & Gaimard, 1830)	native	
233	Aves	Meliphagidae	Anthochaera carunculata (Shaw, 1790)	native	
234	Aves	Meliphagidae	Epthianura albifrons (Jardine & Selby, 1828)	native	
235	Aves	Meliphagidae	Gavicalis virescens (Vieillot, 1817)	native	
236	Aves	Meliphagidae	Lichmera indistincta (Vigors & Horsfield, 1827)	native	
237	Aves	Meropidae	Merops ornatus Latham, 1802	native	
238	Aves	Monarchidae Bonaparte, 1854	Grallina cyanoleuca (Latham, 1802)	native	
239	Aves	Pachycephalidae	Colluricincla harmonica (Latham, 1802)	native	
240	Aves	Pachycephalidae	Pachycephala occidentalis Ramsay, 1878	native	
241	Aves	Pachycephalidae	Pachycephala rufiventris (Latham, 1802)	native	
242	Aves	Pardalotidae	Pardalotus striatus (Gmelin, 1789)	native	
243	Aves	Phaethontidae	Phaethon rubricauda Boddaert, 1783	native	P4, MI
244	Aves	Procellariidae	Ardenna carneipes (Gould, 1844)	native	VU
245	Aves	Procellariidae	Ardenna pacifica (Gmelin, 1789)	native	MI
246	Aves	Procellariidae	Calonectris leucomelas (Temminck, 1835)	native	MI
247	Aves	Procellariidae	Halobaena caerulea (Gmelin, 1789)	native	VU
248	Aves	Procellariidae	Macronectes giganteus (Gmelin, 1789)	native	MI
249	Aves	Procellariidae	Pachyptila salvini (Mathews, 1912)	native	
250	Aves	Procellariidae	Pachyptila turtur (Kuhl, 1820)	native	
251	Aves	Procellariidae	Pterodroma mollis (Gould, 1844)	native	VU
252	Aves	Procellariidae	Puffinus assimilis assimilis Gould, 1838	native	
253	Aves	Psittaculidae	Barnardius zonarius (Shaw, 1805)		
254	Aves	Psittaculidae	Purpureicephalus spurius (Kuhl, 1820)	native	
255	Aves	Rallidae	Zapornia tabuensis (Gmelin, 1789)		
256	Aves	Rhipiduridae	Rhipidura leucophrys (Latham, 1802)	native	
257	Aves	Scolopacidae	Actitis hypoleucos (Linnaeus, 1758)	native	MI
258	Aves	Scolopacidae	Calidris acuminata (Horsfield, 1821)	native	MI
259	Aves	Scolopacidae	Calidris canutus rogersi (Mathews, 1913)	native	Cons code inherited from parent
260	Aves	Scolopacidae	Calidris ferruginea (Pontoppidan, 1763) *(Curlew Sandpiper)*	native	CR
261	Aves	Scolopacidae	Calidris ruficollis (Pallas, 1776)	native	MI
262	Aves	Scolopacidae	Calidris subminuta (Middendorff, 1853)	native	MI
263	Aves	Scolopacidae	Limosa limosa melanuroides Gould, 1846	native	Cons code inherited from parent
264	Aves	Scolopacidae	Numenius madagascariensis (Linnaeus, 1766) *(Eastern Curlew)*	native	CR

265	Aves	Scolopacidae	Tringa glareola Linnaeus, 1758	native	MI
266	Aves	Scolopacidae	Tringa nebularia (Gunnerus, 1767)	native	MI
267	Aves	Scolopacidae	Tringa stagnatilis (Bechstein, 1803)	native	MI
268	Aves	Spheniscidae	Eudyptes pachyrhynchus G.R. Gray, 1845	native	
269	Aves	Spheniscidae	Eudyptula minor novaehollandiae (Stephens, 1826)	native	
270	Aves	Threskiornithidae	Plegadis falcinellus (Linnaeus, 1766)	native	MI
271	Aves	Turnicidae	Turnix varius varius (Latham, 1802)	native	
272	Aves	Tytonidae	Tyto novaehollandiae novaehollandiae (Stephens, 1826)	native	P3
273	Aves	Zosteropidae	Zosterops lateralis (Latham, 1802)	native	
274	Aves	Zosteropidae	Zosterops lateralis chloronotus Gould, 1841	native	
275	Bivalvia	Arcidae Lamarck, 1809	Barbatia Gray, 1842		
276	Bivalvia	Cardiidae Lamarck, 1809	Fragum erugatum (Tate, 1889)		
277	Bivalvia	Cardiidae Lamarck, 1809	Fulvia tenuicostata (Lamarck, 1819)		
278	Bivalvia	Cardiidae Lamarck, 1809	Vasticardium dupuchense (Reeve, 1845)		
279	Bivalvia	Cardiidae Lamarck, 1809	Vasticardium vertebratum (Jonas, 1844)		
280	Bivalvia	Carditidae FÃ©russac, 1822	Megacardita Sacco, 1899		
281	Bivalvia	Carditidae FÃ©russac, 1822	Megacardita turgida (Lamarck, 1819)		
282	Bivalvia	Chamidae Lamarck, 1809	Chama Linnaeus, 1758		
283	Bivalvia	Chamidae Lamarck, 1809	Chama ruderalis Lamarck, 1819		
284	Bivalvia	Cleidothaeridae Hedley, 1918	Cleidothaerus albidus (Lamarck, 1819)		
285	Bivalvia	Gastrochaenidae Gray, 1840	Gastrochaena cuneiformis Spengler, 1783		
286	Bivalvia	Hiatellidae J. E. Gray, 1824	Hiatella Bosc, 1801		
287	Bivalvia	Hiatellidae J. E. Gray, 1824	Hiatella australis (Lamarck, 1818)		
288	Bivalvia	Hyriidae	Hyriidae		
289	Bivalvia	Hyriidae	Westralunio carteri Iredale, 1934 *(Carter's Freshwater Mussel)*	native	VU
290	Bivalvia	Isognomonidae	Isognomon [Lightfoot], 1786		
291	Bivalvia	Lasaeidae Gray, 1842	Myllita deshayesi d'Orbigny & RÃ©cluz, 1850		
292	Bivalvia	Lucinidae	Wallucina assimilis (Angas, 1868)		
293	Bivalvia	Mactridae Lamarck, 1809	Mactra Linnaeus, 1767		
294	Bivalvia	Malleidae Lamarck, 1818	Malleus Lamarck, 1799		
295	Bivalvia	Malleidae Lamarck, 1818	Malleus meridianus Cotton, 1930		
296	Bivalvia	Modiolidae	Botula tatei M. Huber, 2010		
297	Bivalvia	Modiolidae	Leiosolenus P. P. Carpenter, 1857		
298	Bivalvia	Modiolidae	Modiolus Lamarck, 1799		
299	Bivalvia	Modiolidae	Modiolus auriculatus (Krauss, 1848)		
300	Bivalvia	Mytilidae Rafinesque, 1815	Brachidontes Swainson, 1840		
301	Bivalvia	Mytilidae Rafinesque, 1815	Brachidontes pharaonis (P. Fischer, 1870)		
302	Bivalvia	Mytilidae Rafinesque, 1815	Brachidontes ustulatus (Lamarck, 1819)		
303	Bivalvia	Mytilidae Rafinesque, 1815	Lithophaga RÃ¶ding, 1798		
304	Bivalvia	Mytilidae Rafinesque, 1815	Musculus sp.		

305	Bivalvia	Mytilidae Rafinesque, 1815	Musculus coenobitus (Vaillant, 1865)		
306	Bivalvia	Mytilidae Rafinesque, 1815	Mytilus Linnaeus, 1758		
307	Bivalvia	Mytilidae Rafinesque, 1815	Mytilus planulatus Lamarck, 1819		
308	Bivalvia	Mytilidae Rafinesque, 1815	Septifer RÃ©cluz, 1848		
309	Bivalvia	Noetiidae Stewart, 1930	Striarca Conrad, 1862		
310	Bivalvia	Ostreidae Rafinesque, 1815	Dendostrea Swainson, 1835		
311	Bivalvia	Ostreidae Rafinesque, 1815	Dendostrea folium (Linnaeus, 1758)		
312	Bivalvia	Ostreidae Rafinesque, 1815	Ostrea Linnaeus, 1758		
313	Bivalvia	Ostreidae Rafinesque, 1815	Ostrea angasi Sowerby, 1871		
314	Bivalvia	Ostreidae Rafinesque, 1815	Ostreidae Rafinesque, 1815		
315	Bivalvia	Ostreidae Rafinesque, 1815	Planostrea pestigris (Hanley, 1846)		
316	Bivalvia	Ostreidae Rafinesque, 1815	Saccostrea Dautzenberg & Dollfus, 1920		
317	Bivalvia	Pectinidae Rafinesque, 1815	Mimachlamys asperrima (Lamarck, 1819)		
318	Bivalvia	Pectinidae Rafinesque, 1815	Mimachlamys gloriosa (Reeve, 1853)		
319	Bivalvia	Pectinidae Rafinesque, 1815	Scaeochlamys livida (Lamarck, 1819)		
320	Bivalvia	Penicillidae	Kendrickiana veitchi (B. J. Smith, 1971)		
321	Bivalvia	Pinnidae Leach, 1819	Pinna Linnaeus, 1758		
322	Bivalvia	Veneridae Rafinesque, 1815	Gomphina undulosa (Lamarck, 1818)		
323	Bivalvia	Veneridae Rafinesque, 1815	Venerupis anomala (Lamarck, 1818)		
324	Bivalvia	Vulsellidae Gray, 1854	Vulsella RÃ¶ding, 1798		
325	Calcarea Bowerbank, 1862	None	Calcarea Bowerbank, 1862		
326	Calcarea Bowerbank, 1862	None	Clathrinida Hartman, 1958		
327	Cephalopoda	Octopodidae A. d'Orbigny, 1839	Hapalochlaena G. C. Robson, 1929		
328	Cephalopoda	Octopodidae A. d'Orbigny, 1839	Hapalochlaena maculosa (Hoyle, 1883)		
329	Cephalopoda	Octopodidae A. d'Orbigny, 1839	Octopodidae A. d'Orbigny, 1839		
330	Cephalopoda	Octopodidae A. d'Orbigny, 1839	Octopus Cuvier, 1798		
331	Cephalopoda	Octopodidae A. d'Orbigny, 1839	Octopus tetricus A. Gould, 1852		
332	Cephalopoda	Sepiadariidae	Sepiadarium austrinum S. S. Berry, 1921		
333	Cephalopoda	Sepiadariidae	Sepioloidea lineolata (Quoy & Gaimard, 1832)		
334	Cephalopoda	Sepiidae Leach, 1817	Sepia novaehollandiae Hoyle, 1909		
335	Cephalopoda	Sepiolidae Leach, 1817	Euprymna tasmanica (Pfeffer, 1884)		
336	Chilopoda Latreille, 1817	Lithobiidae	Lithobiidae		
337	Chilopoda Latreille, 1817	Scolopendridae	Cormocephalus aurantiipes (Newport, 1844)		
338	Chondrichthyes Huxley, 1880	Lamnidae	Carcharodon carcharias (Linnaeus, 1758) *(Great White Shark)*	native	VU
339	Copepoda H. Milne Edwards, 1840	None	Copepoda H. Milne Edwards, 1840		
	Copepoda H. Milne	Cletodidae T. Scott,			

340	Edwards, 1840	1904	Cletodidae T. Scott, 1904		
341	Copepoda H. Milne Edwards, 1840	Halicyclopidae	Neocyclops australiensis Karanovic, 2008		
342	Copepoda H. Milne Edwards, 1840	Peltidiidae Claus, 1860	Peltidiidae Claus, 1860		
343	Crinoidea Miller, 1821	None	Crinoidea Miller, 1821		
344	Demospongiae	Callyspongiidae Laubenfels, 1936	Callyspongia (Callyspongia) Duchassaing & Michelotti, 1864		
345	Demospongiae	Callyspongiidae Laubenfels, 1936	Callyspongia		
346	Demospongiae	Clionaidae d'Orbigny, 1851	Cliothosa Topsent, 1905		
347	Demospongiae	Crellidae Dendy, 1922	Crella (Pytheas) Topsent, 1890		
348	Demospongiae	Dysideidae Gray, 1867	Dysidea Johnston, 1842		
349	Demospongiae	Halichondriidae Gray, 1867	Amorphinopsis Carter, 1887		
350	Demospongiae	Halichondriidae Gray, 1867	Ciocalypta Bowerbank, 1862		
351	Demospongiae	Irciniidae Gray, 1867	Sarcotragus Schmidt, 1862		
352	Demospongiae	Microcionidae	Clathria		
353	Demospongiae	Raspailiidae Nardo, 1833	Echinodictyum Ridley, 1881		
354	Demospongiae	Raspailiidae Nardo, 1833	Echinodictyum clathrioides Hentschel, 1911		
355	Demospongiae	Raspailiidae Nardo, 1833	Echinodictyum mesenterinum (Lamarck, 1814)		
356	Demospongiae	Tethyidae Gray, 1848	Tethya Lamarck, 1815		
357	Demospongiae	Tethyidae Gray, 1848	Tethya ingalli Bowerbank, 1859		
358	Demospongiae	Tethyidae Gray, 1848	Tethya robusta Bowerbank, 1859		
359	Desmospongiae	Spongillidae	Heterorotula Penney & Racek, 1968		
360	Diplopoda de Blainville, 1844	None	Spirostreptida		
361	Diplopoda de Blainville, 1844	Paradoxosomatidae	Antichiropus Attems, 1911		
362	Diplopoda de Blainville, 1844	Siphonotidae Cook, 1895	Siphonotidae Cook, 1895		
363	Diplopoda de Blainville, 1844	Synxenidae Silvestri, 1923	Phryssonotus novaehollandiae (Silvestri, 1923)		
364	Diplopoda de Blainville, 1844	Synxenidae Silvestri, 1923	Synxenidae Silvestri, 1923		
365	Echinoidea	None	Echinoidea		
366	Echinoidea	Echinometridae Gray, 1855	Heliocidaris erythrogramma (Valenciennes, 1846)		
367	Echinoidea	Temnopleuridae A. Agassiz, 1872	Amblypneustes leucoglobus DÃ¶derlein, 1914		
368	Echinoidea	Toxopneustidae Troschel, 1872	Nudechinus scotiopremnus H.L. Clark, 1912		
369	Gastropoda	None	Heterobranchia Burmeister, 1837		
370	Gastropoda	Aeolidiidae	Baeolidia australis (Rudman, 1982)		
371	Gastropoda	Akeridae	Akera bullata O. F. MÃ¼ller, 1776		
372	Gastropoda	Anabathridae	Badepigrus pupoideus (H. Adams, 1866)		
373	Gastropoda	Aplysiidae Lamarck, 1809	Aplysia Linnaeus, 1767		
374	Gastropoda	Aplysiidae Lamarck, 1809	Aplysia argus RÃ¼ppell & Leuckart, 1830		
375	Gastropoda	Aplysiidae Lamarck, 1809	Aplysia dactylomela Rang, 1828		
376	Gastropoda	Aplysiidae Lamarck, 1809	Aplysia gigantea Sowerby, 1869		
377	Gastropoda	Aplysiidae Lamarck, 1809	Bursatella hirsuta Nimbs & Wilson, 2020		

378	Gastropoda	Aplysiidae Lamarck, 1809	Dolabella Lamarck, 1801		
379	Gastropoda	Aplysiidae Lamarck, 1809	Dolabella auricularia (Lightfoot, 1786)		
380	Gastropoda	Arminidae	Armina Rafinesque, 1814		
381	Gastropoda	Arminidae	Armina cygnea (Bergh, 1876)		
382	Gastropoda	Bothriembryontidae Iredale, 1937	Bothriembryon Pilsbry, 1894		
383	Gastropoda	Bothriembryontidae Iredale, 1937	Bothriembryon bulla (Menke, 1843)	native	
384	Gastropoda	Bothriembryontidae Iredale, 1937	Bothriembryon kendricki Hill, Johnson & Merrifield, 1983		
385	Gastropoda	Bullidae Gray, 1827	Bulla ampulla Linnaeus, 1758		
386	Gastropoda	Bullidae Gray, 1827	Bulla quoyii Gray & Dieffenbach, 1843		
387	Gastropoda	Cerithiidae Fleming, 1822	Cerithium torresi Smith, 1884		
388	Gastropoda	Chilodontaidae Wenz, 1938	Herpetopoma aspersum (R. A. Philippi, 1846)		
389	Gastropoda	Chromodorididae Bergh, 1891	Chromodorididae Bergh, 1891		
390	Gastropoda	Chromodorididae Bergh, 1891	Glossodoris rufomarginata (Bergh, 1890)		
391	Gastropoda	Chromodorididae Bergh, 1891	Goniobranchus Pease, 1866		
392	Gastropoda	Chromodorididae Bergh, 1891	Goniobranchus tinctorius (RÃ¼ppell & Leuckart, 1830)		
393	Gastropoda	Chromodorididae Bergh, 1891	Hypselodoris W. Stimpson, 1855		
394	Gastropoda	Chromodorididae Bergh, 1891	Hypselodoris saintvincentius Burn, 1962		
395	Gastropoda	Columbellidae Swainson, 1840	Euplica bidentata (Menke, 1843)		
396	Gastropoda	Columbellidae Swainson, 1840	Mitrella austrina (Gaskoin, 1852)		
397	Gastropoda	Columbellidae Swainson, 1840	Mitrella lincolnensis (Reeve, 1859)		
398	Gastropoda	Conidae Fleming, 1822	Conus anemone Lamarck, 1810		
399	Gastropoda	Conidae Fleming, 1822	Conus dorreensis PÃ©ron, 1807		
400	Gastropoda	Costellariidae MacDonald, 1860	Pusia marrowi (Cernohorsky, 1973)		
401	Gastropoda	Costellariidae MacDonald, 1860	Vexillum RÃ¶ding, 1798		
402	Gastropoda	Cymatiidae	Monoplex exaratus (Reeve, 1844)		
403	Gastropoda	Cypraeidae Rafinesque, 1815	Lyncina vitellus Linnaeus, 1758		
404	Gastropoda	Cypraeidae Rafinesque, 1815	Zoila friendii friendii (Gray, 1831)		
405	Gastropoda	Dendrodorididae O'Donoghue, 1924	Dendrodoris Ehrenberg, 1831		
406	Gastropoda	Dendrodorididae O'Donoghue, 1924	Dendrodoris krusensternii (J. E. Gray, 1850)		
407	Gastropoda	Dendrodorididae O'Donoghue, 1924	Dendrodoris nigra (Stimpson, 1855)		
408	Gastropoda	Discodorididae Bergh, 1891	Atagema spongiosa (Kelaart, 1858)		
409	Gastropoda	Discodorididae Bergh, 1891	Discodoris cebuensis Bergh, 1877		
410	Gastropoda	Doridiidae Rafinesque, 1815	Aphelodoris Bergh, 1879		
411	Gastropoda	Eatoniellidae Ponder, 1965	Eatoniella taylorae Ponder & Yoo, 1978		
412	Gastropoda	Ellobiidae Pfeffer, 1854	Marinula xanthostoma H. & A. Adams, 1855		
413	Gastropoda	Epitoniidae	Janthina exigua Lamarck, 1816		

414	Gastropoda	Facelinidae Bergh, 1889	Austraeolis ornata (Angas, 1864)		
415	Gastropoda	Fasciolariidae Gray, 1853	Propefusus australis (Quoy & Gaimard, 1833)		
416	Gastropoda	Geomitridae	Cochlicella barbara (Linnaeus, 1758)		
417	Gastropoda	Geomitridae	Microxeromagna lowei (Potiez & Michaud, 1838)		
418	Gastropoda	Goniodorididae H. Adams & A. Adams, 1854	Bermudella pellucida (Burn, 1967)		
419	Gastropoda	Goniodorididae H. Adams & A. Adams, 1854	Goniodoris meracula Burn, 1958		
420	Gastropoda	Goniodorididae H. Adams & A. Adams, 1854	Okenia Menke, 1830		
421	Gastropoda	Goniodorididae H. Adams & A. Adams, 1854	Trapania brunnea Rudman, 1987		
422	Gastropoda	Hipponicidae Troschel, 1861	Sabia australis (Lamarck, 1819)		
423	Gastropoda	Liotiidae Gray, 1850	Austroliotia pulcherrima (A. Adams, 1850)		
424	Gastropoda	Lottiidae	Lottia onychitis (Menke, 1843)		
425	Gastropoda	Lottiidae	Patelloida alticostata (Angas, 1865)		
426	Gastropoda	Lymnaeidae	Bullastra lessoni (Deshayes, 1831)		
427	Gastropoda	Madrellidae	Madrella ferruginosa Hancock & Alder, 1864		
428	Gastropoda	Margaritidae	Pinctada RÃ¶ding, 1798		
429	Gastropoda	Margaritidae	Pinctada albina (Lamarck, 1819)		
430	Gastropoda	Margaritidae	Pinctada margaritifera (Linnaeus, 1758)		
431	Gastropoda	Muricidae Rafinesque, 1815	Bedeva paivae (Crosse, 1864)		
432	Gastropoda	Muricidae Rafinesque, 1815	Coralliophila wilsoni Prichard & Gatliff, 1898		
433	Gastropoda	Muricidae Rafinesque, 1815	Cronia H. Adams & A. Adams, 1853		
434	Gastropoda	Muricidae Rafinesque, 1815	Cronia avellana (Reeve, 1846)		
435	Gastropoda	Muricidae Rafinesque, 1815	Dicathais orbita (Gmelin, 1791)		
436	Gastropoda	Muricidae Rafinesque, 1815	Haustrum G. Perry, 1811		
437	Gastropoda	Muricidae Rafinesque, 1815	Mancinella echinata (Blainville, 1832)		
438	Gastropoda	Muricidae Rafinesque, 1815	Murexsul planiliratus (Reeve, 1845)		
439	Gastropoda	Myrrhinidae	Phyllodesmium serratum (Baba, 1949)		
440	Gastropoda	Nacellidae Thiele, 1891	Cellana tramoserica (Holten, 1802)		
441	Gastropoda	Nassariidae	Nassarius nigellus (Reeve, 1854)		
442	Gastropoda	Nassariidae	Phos sculptilis Watson, 1886		
443	Gastropoda	Nassariidae	Tritia burchardi (Dunker & Philippi, 1849)		
444	Gastropoda	Naticidae Guilding, 1834	Naticarius colliei (RÃ©cluz, 1844)		
445	Gastropoda	Neritidae Rafinesque, 1815	Nerita atramentosa Reeve, 1855		
446	Gastropoda	Olividae Latreille, 1825	Oliva australis Duclos, 1835		
447	Gastropoda	Phasianellidae Swainson, 1840	Phasianella australis (Gmelin, 1788)		
448	Gastropoda	Phasianellidae Swainson, 1840	Phasianella ventricosa Swainson, 1822		
449	Gastropoda	Philinidae J. E. Gray, 1850	Philine angasi (Crosse & Fischer, 1865)		
450	Gastropoda	Philinidae J. E. Gray, 1850	Philine aperta (Linnaeus, 1767)		
		Plakobranchidae Gray,			

451	Gastropoda	1840	Elysia Risso, 1818		
452	Gastropoda	Planorbidae Rafinesque, 1815	Glyptophysa sp.		
453	Gastropoda	Planorbidae Rafinesque, 1815	Glyptophysa georgiana (Quoy & Gaimard, 1832)		
454	Gastropoda	Polyceridae Hancock & Alder, 1845	Plocamopherus RÃ¼ppell & Leuckart, 1828		
455	Gastropoda	Raphitomidae Bellardi, 1875	Paramontana rufozonata (Angas, 1877)		
456	Gastropoda	Rissoellidae Gray, 1850	Rissoella atrimacula Ponder & Yoo, 1977		
457	Gastropoda	Rissoidae Gray, 1847	Alvania hedleyi Thiele, 1930		
458	Gastropoda	Rissoidae Gray, 1847	Alvania novarensis Frauenfeld, 1867		
459	Gastropoda	Rissoinidae W. Stimpson, 1865	Rissoina angasii Pease, 1872		
460	Gastropoda	Rissoinidae W. Stimpson, 1865	Rissoina crassa Angas, 1871		
461	Gastropoda	Rissoinidae W. Stimpson, 1865	Rissoina nivea A. Adams, 1853		
462	Gastropoda	Succineidae Beck, 1837	Succinea Draparnaud, 1801		
463	Gastropoda	Succineidae Beck, 1837	Succineidae Beck, 1837		
464	Gastropoda	Tethydidae	Melibe Rang, 1829		
465	Gastropoda	Tomichiidae Wenz, 1938	Coxiella Smith, 1894		
466	Gastropoda	Tomichiidae Wenz, 1938	Coxiella striatula (Menke, 1843)		
467	Gastropoda	Tritoniidae	Marionia VayssiÃ¨re, 1877		
468	Gastropoda	Tritoniidae	Tritoniopsis elegans (Audouin, 1826)		
469	Gastropoda	Trochidae Rafinesque, 1815	Austrocochlea constricta (Lamarck, 1822)		
470	Gastropoda	Trochidae Rafinesque, 1815	Austrocochlea zeus (Fischer, 1874)		
471	Gastropoda	Trochidae Rafinesque, 1815	Botelloides chrysalidus kendricki Ponder, 1985		
472	Gastropoda	Trochidae Rafinesque, 1815	Cantharidus lepidus (Philippi, 1849)		
473	Gastropoda	Trochidae Rafinesque, 1815	Clanculus Montfort, 1810		
474	Gastropoda	Trochidae Rafinesque, 1815	Monilea callifera (Lamarck, 1822)		
475	Gastropoda	Trochidae Rafinesque, 1815	Prothalotia lehmanni (Menke, 1843)		
476	Gastropoda	Turbinidae	Angaria tyria (Reeve, 1842)		
477	Gastropoda	Turbinidae	Bellastraea squamifera (Koch, 1844)		
478	Gastropoda	Turbinidae	Lunella torquata (Gmelin, 1791)		
479	Gastropoda	Turbinidae	Lunella undulatus (Lightfoot, 1786)		
480	Gastropoda	Vermetidae Rafinesque, 1815	Thylacodes Guettard, 1770		
481	Gastropoda	Vermetidae Rafinesque, 1815	Thylacodes sipho (Lamarck, 1818)		
482	Gastropoda	Volutidae Rafinesque, 1815	Amoria damonii Gray, 1864		
483	Gastropoda	Volutidae Rafinesque, 1815	Amoria grayi Ludbrook, 1953		
484	Gastropoda	Volutidae Rafinesque, 1815	Cymbiola nivosa (Lamarck, 1804)		
485	Gastropoda	Volutidae Rafinesque, 1815	Volutidae Rafinesque, 1815		
486	Gymnolaemata	Catenicellidae Busk, 1852	Catenicellidae Busk, 1852		
487	Gymnolaemata	Phidoloporidae Gabb & Horn, 1862	Triphyllozoon Bassler & Canu, 1917		
488	Hexacorallia	None	Actiniaria		

489	Hexacorallia	None	Plesiastrea Milne Edwards & Haime, 1848		
490	Hexacorallia	None	Plesiastrea versipora (Lamarck, 1816)		
491	Hexacorallia	Dendrophylliidae Gray, 1847	Duncanopsammia peltata (Esper, 1790)		
492	Hexacorallia	Merulinidae Milne Edwards & Haime, 1857	Coelastrea aspera (Verrill, 1866)		
493	Hexacorallia	Merulinidae Milne Edwards & Haime, 1857	Coelastrea palauensis (Yabe & Sugiyama, 1936)		
494	Hexacorallia	Merulinidae Milne Edwards & Haime, 1857	Cyphastrea serailia (ForskÃ¥l, 1775)		
495	Hexacorallia	Merulinidae Milne Edwards & Haime, 1857	Dipsastraea favus (ForskÃ¥l, 1775)		
496	Hexacorallia	Merulinidae Milne Edwards & Haime, 1857	Favites abdita (Solander & Ellis, 1786)		
497	Hexacorallia	Merulinidae Milne Edwards & Haime, 1857	Favites complanata (Ehrenberg, 1834)		
498	Hexacorallia	Merulinidae Milne Edwards & Haime, 1857	Favites flexuosa (Dana, 1846)		
499	Hexacorallia	Merulinidae Milne Edwards & Haime, 1857	Paragoniastrea russelli (Wells, 1954)		
500	Hexacorallia	Poritidae Gray, 1840	Goniopora norfolkensis Pichon & Veron, 1982		
501	Hexacorallia	Poritidae Gray, 1840	Goniopora pendulus Veron, 1985		
502	Hexacorallia	Rhizangiidae	Culicia Dana, 1846		
503	Hexacorallia	Zoanthidae Rafinesque, 1815	Zoanthidae Rafinesque, 1815		
504	Holothuroidea de Blainville, 1834	None	Dendrochirotida Grube, 1840		
505	Holothuroidea de Blainville, 1834	Cucumariidae Ludwig, 1894	Cercodemas anceps Selenka, 1867		
506	Holothuroidea de Blainville, 1834	Cucumariidae Ludwig, 1894	Colochirus Troschel, 1846		
507	Holothuroidea de Blainville, 1834	Cucumariidae Ludwig, 1894	Colochirus quadrangularis Troschel, 1846		
508	Holothuroidea de Blainville, 1834	Psolidae Burmeister, 1837	Psolidae Burmeister, 1837		
509	Holothuroidea de Blainville, 1834	Sclerodactylidae Panning, 1949	Cladolabes schmeltzii (Ludwig, 1875)		
510	Hydrozoa	None	Hydroidolina		
511	Hydrozoa	None	Hydrozoa		
512	Hydrozoa	Aequoreidae	Aequorea PÃ©ron & Lesueur, 1810		
513	Insecta	None	Fulgoroidea		
514	Insecta	None	Hemiptera		
515	Insecta	Argiolestidae	Archiargiolestes parvulus (Watson, 1977)		
516	Insecta	Blattidae	Euzosteria femoralis (Walker, 1868)		
517	Insecta	Blattidae	Zonioploca pallida Shelford, 1909		
518	Insecta	Buprestidae Leach, 1815	Castiarina cupreoflava (Saunders, 1869)		
519	Insecta	Buprestidae Leach, 1815	Castiarina laena (Thomson, 1879)		
520	Insecta	Buprestidae Leach, 1815	Castiarina picta (Gory & Laporte, 1838)		
521	Insecta	Buprestidae Leach, 1815	Melobasis Laporte & Gory, 1837		
522	Insecta	Carabidae Latreille, 1802	Gnathoxys pannuceus Guthrie, 2007		
523	Insecta	Carabidae Latreille, 1802	Speotarus		
524	Insecta	Castniidae	Synemon gratiosa Westwood, 1877	native	P4
525	Insecta	Colletidae	Hylaeus (Sphaerhylaeus) globuliferus (Cockerell, 1929) *(woolybush bee)*	native	P3
526	Insecta	Colletidae	Leioproctus (Colletopsis) contrarius Michener, 1965 *(a*	native	P3

			short-tongued bee)		
527	Insecta	Corduliidae	Hemicordulia tau (Selys, 1871)		
528	Insecta	Cylindrachetidae	Cylindraustralia kochii de Saussure, 1877		
529	Insecta	Dytiscidae	Antiporus femoralis (Boheman, 1858)		
530	Insecta	Dytiscidae	Limbodessus inornatus (Sharp, 1882)		
531	Insecta	Dytiscidae	Megaporus solidus (Sharp, 1882)		
532	Insecta	Dytiscidae	Sternopriscus browni Sharp, 1882		
533	Insecta	Gryllotalpidae Leach, 1815	Gryllotalpa Latreille, 1802		
534	Insecta	Hesperiidae Latreille, 1809	Hesperilla donnysa albina Waterhouse, 1932		
535	Insecta	Hesperiidae Latreille, 1809	Taractrocera papyria agraulia (Hewitson, 1868)		
536	Insecta	Hydrophilidae Latreille, 1802	Coelostoma (Coelostoma) fabricii (Montrouzier, 1860)		
537	Insecta	Hydrophilidae Latreille, 1802	Enochrus (Methydrus) eyrensis (Blackburn, 1895)		
538	Insecta	Hydrophilidae Latreille, 1802	Hydrophilus (Hydrophilus) albipes Castelnau, 1840		
539	Insecta	Hydrophilidae Latreille, 1802	Paracymus pygmaeus (W. J. Macleay, 1871)		
540	Insecta	Hydrophilidae Latreille, 1802	Phelea breviceps Hansen, 1999		
541	Insecta	Lestidae	Austrolestes annulosus (Selys, 1862)		
542	Insecta	Libellulidae	Orthetrum caledonicum (Brauer, 1865)		
543	Insecta	Lycaenidae	Theclinesthes serpentatus serpentatus (Herrich-SchÃ¤ffer, 1869)		
544	Insecta	Lygaeidae	Nysius Dallas, 1852		
545	Insecta	Margarodidae	Margarodidae		
546	Insecta	Myrmeleontidae	Heoclisis acuta (Kimmins, 1939)		
547	Insecta	Noctuidae Latreille, 1809	Helicoverpa armigera (HÃ¼bner, 1808)		
548	Insecta	Nymphalidae Rafinesque, 1815	Danaus chrysippus petilia (Stoll, 1790)		
549	Insecta	Nymphalidae Rafinesque, 1815	Danaus petilia (Stoll, 1790)		
550	Insecta	Pentatomidae	Cermatulus nasalis (Westwood, 1837)		
551	Insecta	Pentatomidae	Pentatomidae		
552	Insecta	Pentatomidae	Poecilometis Dallas, 1851		
553	Insecta	Phoridae Curtis, 1833	Phoridae Curtis, 1833		
554	Insecta	Pompilidae	Pompilidae		
555	Insecta	Rhipiceridae	Rhipicera		
556	Insecta	Scarabaeidae	Neophyllotocus legnotus Britton, 1957		
557	Insecta	Tettigoniidae	Throscodectes xiphos Rentz, 1985 *(cricket, Stylet Bush Cricket, Stylet Throsco (Jandakot))*	native	P1
558	Malacostraca	Ampithoidae Boeck, 1871	Cymadusa botulus Hughes & Peart, 2013		
559	Malacostraca	Ampithoidae Boeck, 1871	Cymadusa tattersalli Peart, 2004		
560	Malacostraca	Armadillidae Brandt, 1831	Buddelundia Michaelsen, 1912		
561	Malacostraca	Caprellidae Leach, 1814	Orthoprotella australis (Haswell, 1880)		
562	Malacostraca	Chiltoniidae J. L. Barnard, 1972	Austrochiltonia subtenuis (Sayce, 1902)		
563	Malacostraca	Cirolanidae	Cirolana hesperia Bruce, 1986		
564	Malacostraca	Cirolanidae	Cirolanidae		
565	Malacostraca	Dexaminidae Leach, 1814	Paradexamine churinga J. L. Barnard, 1972		
566	Malacostraca	Maeridae Krapp-Schickel, 2008	Linguimaera leo Krapp-Schickel, 2003		

567	Malacostraca	Maeridae Krapp-Schickel, 2008	Parelasmopus echo J. L. Barnard, 1972		
568	Malacostraca	Maeridae Krapp-Schickel, 2008	Parelasmopus ya J. L. Barnard, 1972		
569	Malacostraca	Oedicerotidae Lilljeborg, 1865	Oedicerotidae Lilljeborg, 1865		
570	Malacostraca	Oedicerotidae Lilljeborg, 1865	Perioculodes G.O. Sars, 1892		
571	Malacostraca	Pagurapseudidae Lang, 1970	Pagurapseudes Whitelegge, 1901		
572	Malacostraca	Pagurapseudidae Lang, 1970	Pagurapseudidae Lang, 1970		
573	Malacostraca	Paguridae Latreille, 1802	Paguridae Latreille, 1802		
574	Malacostraca	Paguridae Latreille, 1802	Pagurixus Melin, 1939		
575	Malacostraca	Paguridae Latreille, 1802	Pagurixus handrecki Gunn & Morgan, 1992		
576	Malacostraca	Paguridae Latreille, 1802	Pagurus Fabricius, 1775		
577	Malacostraca	Palaemonidae Rafinesque, 1815	Palaemon serenus (Heller, 1862)		
578	Malacostraca	Paramunnidae VanhÃ¶ffen, 1914	Paramunnidae VanhÃ¶ffen, 1914		
579	Malacostraca	Parastacidae	Cherax Erichson, 1846		
580	Malacostraca	Parastacidae	Cherax destructor Clark, 1936		
581	Malacostraca	Parastacidae	Cherax tenuimanus Smith, 2002	native	CR
582	Malacostraca	Pilumnidae Samouelle, 1819	Pilumnus digitalis Rathbun, 1923		
583	Malacostraca	Pilumnidae Samouelle, 1819	Pilumnus monilifera Haswell, 1881		
584	Malacostraca	Platyarthridae Verhoeff, 1949	Platyarthridae Verhoeff, 1949		
585	Mammalia	Balaenidae	Eubalaena australis (Desmoulins, 1822) *(Southern Right Whale)*	native	VU
586	Mammalia	Balaenopteridae	Megaptera novaeangliae Borowski, 1781	native	MI, CD
587	Mammalia	Dasyuridae	Dasyurus geoffroii Gould, 1841 *(Chuditch, Western Quoll)*	native	VU
588	Mammalia	Dasyuridae	Phascogale tapoatafa wambenger Aplin, Rhind, Ten Have & Chesser, 2015 *(South-western Brush-tailed Phascogale)*	native	CD
589	Mammalia	Delphinidae	Tursiops aduncus (Ehrenberg, 1833)	native	MI
590	Mammalia	Felidae	Felis catus Linnaeus, 1758	alien	
591	Mammalia	Macropodidae	Notamacropus eugenii derbianus J.E. Gray, 1837 *(Tammar Wallaby)*	native	P4
592	Mammalia	Macropodidae	Notamacropus irma (Jourdan, 1837)	native	P4
593	Mammalia	Macropodidae	Setonix brachyurus (Quoy & Gaimard, 1830) *(Quokka)*	native	VU
594	Mammalia	Muridae	Hydromys chrysogaster Geoffroy, 1804 *(Water-rat)*	native	P4
595	Mammalia	Muridae	Mus musculus	alien	
596	Mammalia	Muridae	Rattus rattus (Linnaeus, 1758) *(Black Rat)*	alien	
597	Mammalia	Mustelidae	Mustela putorius Linnaeus, 1758 *(European Polecat)*	alien	
598	Mammalia	Myrmecobiidae	Myrmecobius fasciatus Waterhouse, 1836 *(Numbat)*	native	EN
599	Mammalia	Neobalaenidae	Caperea marginata (Gray, 1846) *(Pygmy Right Whale)*	native	MI
600	Mammalia	Otariidae	Arctocephalus forsteri (Lesson, 1828) *(New Zealand Fur Seal)*	native	OS
601	Mammalia	Otariidae	Arctocephalus tropicalis (Gray, 1872)	native	VU
602	Mammalia	Otariidae	Neophoca cinerea (Peron, 1816) *(Australian Sea-lion)*	native	EN
603	Mammalia	Peramelidae	Isoodon fusciventer (Gray, 1841)	native	P4
604	Mammalia	Peramelidae	Isoodon obesulus (Shaw, 1797)	native	
605	Mammalia	Pseudocheiridae	Pseudocheirus occidentalis (Thomas, 1888) *(Western Ringtail Possum)*	native	CR
606	Mammalia	Vespertilionidae	Falsistrellus mackenziei Kitchener, Caputi & Jones, 1986 *(Western False Pipistrelle)*	native	P4

607	Octocorallia	Nephtheidae Gray, 1862	Dendronephthya KÃ¼kenthal, 1905		
608	Ophiuroidea Gray, 1840	Amphiuridae Ljungman, 1867	Amphipholis squamata (Delle Chiaje, 1828)		
609	Ophiuroidea Gray, 1840	Ophiotrichidae Ljungman, 1867	Macrophiothrix H.L. Clark, 1938		
610	Ophiuroidea Gray, 1840	Ophiotrichidae Ljungman, 1867	Macrophiothrix spongicola (Stimpson, 1855)		
611	Ostracoda	None	Ostracoda		
612	Polyplacaphora	Acanthochitonidae	Acanthochitona J. E. Gray, 1821		
613	Polyplacaphora	Acanthochitonidae	Acanthochitona bednalli (Pilsbry, 1894)		
614	Polyplacaphora	Chitonidae Rafinesque, 1815	Liolophura hirtosa (Blainville, 1825)		
615	Polyplacaphora	Cryptoplacidae	Cryptoplax iredalei Ashby, 1923		
616	Polyplacaphora	Cryptoplacidae	Cryptoplax striata (Lamarck, 1819)		
617	Polyplacaphora	Ischnochitonidae Dall, 1889	Ischnochiton cariosus Carpenter & Pilsbry, 1892		
618	Polyplacaphora	Ischnochitonidae Dall, 1889	Ischnochiton contractus (Reeve, 1847)		
619	Polyplacaphora	Loricidae	Lorica volvox (Reeve, 1847)		
620	Pycnogonida	None	Pycnothea flynni Williams, 1940		
621	Pycnogonida	Phoxichilidiidae Sars, 1891	Anoplodactylus pycnosoma (Helfer, 1938)		
622	Reptilia	Agamidae	Ctenophorus adelaidensis (Gray, 1841)	native	
623	Reptilia	Agamidae	Pogona minor minima (Loveridge, 1933)	native	VU
624	Reptilia	Agamidae	Pogona minor minor (Sternfeld, 1919) *(Dwarf Bearded Dragon, Western Bearded Dragon)*	native	
625	Reptilia	Cheloniidae	Caretta caretta Linnaeus, 1758 *(Loggerhead Turtle)*	native	EN
626	Reptilia	Cheloniidae	Chelonia mydas (Linnaeus, 1758) *(Green Turtle)*	native	VU
627	Reptilia	Dermochelyidae	Dermochelys coriacea (Vandelli, 1761) *(Leatherback Turtle)*	native	VU
628	Reptilia	Diplodactylidae	Strophurus spinigerus spinigerus (Gray, 1842) *(Soft spiny-tailed gecko)*	native	
629	Reptilia	Elapidae	Hydrophis platurus platurus (Linnaeus, 1766) *(Yellow-bellied Seasnake)*	native	
630	Reptilia	Elapidae	Neelaps calonotos (A.M.C. DumÃ©ril, Bibron & A. DumÃ©ril, 1854) *(Black-striped Snake)*	native	P3
631	Reptilia	Elapidae	Pseudonaja affinis affinis GÃ¼nther, 1872 *(Dugite)*	native	
632	Reptilia	Gekkonidae	Christinus marmoratus (Gray, 1845) *(Marbled Gecko)*	native	
633	Reptilia	Gekkonidae	Gehyra variegata (DumÃ©ril & Bibron, 1836) *(Variegated Gehyra)*	native	
634	Reptilia	Gekkonidae	Hemidactylus frenatus DumÃ©ril & Bibron, 1836 *(Asian House Gecko)*	alien	
635	Reptilia	Gekkonidae	Heteronotia binoei (Gray, 1845) *(Bynoe's Gecko)*	native	
636	Reptilia	Pygopodidae	Aprasia repens (Fry, 1914) *(Sand-plain Worm-lizard)*	native	
637	Reptilia	Pygopodidae	Delma fraseri Gray, 1831 *(Fraser's Delma, Fraser's Legless Lizard)*	native	
638	Reptilia	Pygopodidae	Lialis burtonis Gray, 1835 *(Burton's Snake-lizard)*	native	
639	Reptilia	Scincidae	Cryptoblepharus buchananii (Gray, 1838) *(Buchanan's Snake-eyed Skink)*	native	
640	Reptilia	Scincidae	Ctenotus australis (Gray, 1838) *(West Coast Long-tailed Ctenotus)*	native	
641	Reptilia	Scincidae	Ctenotus fallens Storr, 1974 *(West Coast Ctenotus)*	native	
642	Reptilia	Scincidae	Ctenotus gemmula Storr, 1974 *(Jewelled South-west Ctenotus (Swan Coastal Plain subpop P3))*	native	Parent of conservation listed taxa
643	Reptilia	Scincidae	Hemiergis quadrilineata (Dumeril & Bibron, 1839) *(Two-toed Earless Skink)*	native	
644	Reptilia	Scincidae	Hemiergis quadrilineatus (Dumeril, Shaw & Bibron, 1839)	native	
645	Reptilia	Scincidae	Lerista christinae Storr, 1979 *(Bold-striped Slider)*	native	
646	Reptilia	Scincidae	Lerista distinguenda (Werner, 1910) *(Dwarf Four-toed*	native	

			Slider)		
647	Reptilia	Scincidae	Lerista elegans (Gray, 1845)	native	
648	Reptilia	Scincidae	Lerista lineata Bell, 1883	native	P3
649	Reptilia	Scincidae	Menetia greyii Gray, 1845	native	
650	Reptilia	Scincidae	Morethia lineoocellata (Dumeril & Bibron, 1839) *(West Coast Morethia Skink)*	native	
651	Reptilia	Scincidae	Morethia obscura (Storr, 1973)	native	
652	Reptilia	Scincidae	Tiliqua occipitalis (Peters, 1863) *(Western Blue-tongue Skink)*	native	
653	Reptilia	Scincidae	Tiliqua rugosa (Gray, 1825)	native	
654	Reptilia	Scincidae	Tiliqua rugosa rugosa (Gray, 1825)	native	
655	Reptilia	Typhlopidae Merrem, 1820	Anilios australis Gray, 1845 *(Southern Blind Snake)*	native	
656	Scyphozoa Goette, 1887	Pelagiidae	Chrysaora kynthia Gershwin & Zeidler, 2008		
657	Thecostraca Gruvel, 1905	None	Conchoderma hunteri (Owen, 1830)		
658	Thecostraca Gruvel, 1905	None	Conchoderma virgatum (Spengler, 1790)		
659	Thecostraca Gruvel, 1905	Chelonibiidae Pilsbry, 1916	Chelonibia caretta (Spengler, 1790)		
660	Thecostraca Gruvel, 1905	Chelonibiidae Pilsbry, 1916	Chelonibia testudinaria (Linnaeus, 1758)		

Bacteria

661	Cyanophyceae	Nostocaceae Eichler	Nostoc commune Bornet & Flahault	native	

Chromista

662	Phaeophyceae	Dictyotaceae Dumort.	Dictyota J.V.Lamour.		

Fungi

663	Agaricomycetes	Gallaceaceae P.M.Kirk	Austrogautieria manjimupana Trappe & E.L.Stewart	native	
664	Agaricomycetes	Meruliaceae Rea	Phlebia subceracea (Wakef.) Nakasone	native	
665	Agaricomycetes	Steccherinaceae	Steccherinum Gray		
666	Ascomycetes	Pezizaceae Dumort.	Hydnoplicata convoluta (McAlpine) Trappe & Claridge	native	
667	Basidiomycetes	Amanitaceae Pouzar	Amanita brunneola E.M.Davison & Guistiniano	native	P2
668	Basidiomycetes	Amanitaceae Pouzar	Amanita carneiphylla O.K.Mill.	native	P3
669	Basidiomycetes	Amanitaceae Pouzar	Amanita cretaceaverruca E.M.Davison & Guistiniano	native	P2
670	Basidiomycetes	Amanitaceae Pouzar	Amanita drummondii E.M.Davison	native	P3
671	Basidiomycetes	Amanitaceae Pouzar	Amanita fibrillopes O.K.Mill.	native	P3
672	Basidiomycetes	Amanitaceae Pouzar	Amanita preissii (Fr.) Sacc.	native	P3
673	Basidiomycetes	Amanitaceae Pouzar	Amanita quenda E.M.Davison	native	P1
674	Basidiomycetes	Amanitaceae Pouzar	Amanita wadjukiorum E.M.Davison	native	P3
675	Basidiomycetes	Amanitaceae Pouzar	Amanita wadulawitu L.E.McGurk, E.M.Davison & E.L.J.Watkin	native	P2
676	Basidiomycetes	Cortinariaceae Pouzar	Cortinarius (Pers.) Gray		
677	Basidiomycetes	Cortinariaceae Pouzar	Cortinarius ochraceofulvus Cleland	native	
678	Basidiomycetes	Melampsoraceae	Melampsora lini (Ehrenb.) ThÃ¼m.		
679	Basidiomycetes	Psathyrellaceae Vilgalys, Moncalvo & Redhead	Coprinus Pers.		
680	Basidiomycetes	Pucciniaceae Chevall.	Puccinia cygnorum R.G.Shivas & J.Walker	native	
681	Basidiomycetes	Pucciniaceae Chevall.	Uromyces transversalis (ThÃ¼m.) G.Winter		
682	Basidiomycetes	Sclerodermataceae Corda	Scleroderma Pers.		
683	Basidiomycetes	Sclerodermataceae Corda	Scleroderma cepa Pers.	native	
684	Basidiomycetes	Strophariaceae Singer & A.H.Sm.	Gymnopilus P.Karst.		

685	Basidiomycetes	Tricholomataceae Pouzar	Asproinocybe lyophylloides K.Syme & T.Lebel	native	
686	Basidiomycetes	Uromycladiaceae P.Zhao & L.Cai	Uromycladium tepperianum (Sacc.) McAlpine		
687	Lecanoromycetes	Caliciaceae Chevall.	Buellia albula Nyl. & MÃ¼ll.Arg.	native	
688	Lecanoromycetes	Lecideaceae Chevall.	Lecidea Ach.		
689	Lecanoromycetes	Teloschistaceae Zahlbr.	Fulgensia bracteata (Hoffm.) RÃ¤sÃ¤nen	native	
690	Lecanoromycetes	Teloschistaceae Zahlbr.	Fulgensia subbracteata (Nyl.) Poelt	native	
691	Sordariomycetes	Harknessiaceae Crous	Harknessia uromycoides (Speg.) Speg.	native	
692	Sordariomycetes	Hypocreaceae De Not.	Hypomyces rosellus (Alb. & Schwein.) Tul. & C.Tul.	uncertain	

Plantae

693	Basidiomycetes	Agaricaceae Chevall.	Acetabularia caliculus J.V.Lamour.	native	
694	Bryopsida	Bryaceae Schwagr.	Rosulabryum billarderii (SchwÃ¤gr.) J.R.Spence	native	
695	Bryopsida	Fissidentaceae	Fissidens megalotis MÃ¼ll.Hal.	native	
696	Bryopsida	Fissidentaceae	Fissidens tenellus Hook.f. & Wilson	native	
697	Bryopsida	Grimmiaceae	Grimmia laevigata (Brid.) Brid.	native	
698	Bryopsida	Pottiaceae Schimp.	Gymnostomum calcareum Nees & Hornsch.	native	
699	Bryopsida	Pottiaceae Schimp.	Syntrichia antarctica (Hampe) R.H.Zander	native	
700	Bryopsida	Pottiaceae Schimp.	Syntrichia laevipila Brid.	native	
701	Bryopsida	Pottiaceae Schimp.	Syntrichia papillosa (Wilson) Jur.	native	
702	Bryopsida	Pottiaceae Schimp.	Trichostomum eckelianum R.H.Zander	native	
703	Bryopsida	Racopilaceae	Racopilum cuspidigerum var. convolutaceum (MÃ¼ll.Hal.) Zanten & Ã…ngstr.	native	
704	Florideophyceae	Gelidiaceae KÃ¼tz.	Ptilophora prolifera (Harv.) J.Agardh	native	
705	Florideophyceae	Rhodomelaceae Horan.	Chondria curdieana (J.Agardh) Falkenb.	native	
706	Florideophyceae	Rhodomelaceae Horan.	Laurencia dendroidea J.Agardh	native	
707	Florideophyceae	Rhodomelaceae Horan.	Laurencia forsteri (Turner) Grev.	native	
708	Liliopsida	Amaryllidaceae J.St.-Hil.	Pancratium maritimum L.	alien	
709	Liliopsida	Asparagaceae Juss.	Acanthocarpus preissii Lehm.	native	
710	Liliopsida	Asparagaceae Juss.	Asparagus asparagoides (L.) Druce	alien	
711	Liliopsida	Asparagaceae Juss.	Lachenalia reflexa Thunb.	alien	
712	Liliopsida	Asparagaceae Juss.	Lomandra maritima T.S.Choo	native	
713	Liliopsida	Asparagaceae Juss.	Ornithogalum arabicum L. *(Lesser Cape Lily)*	alien	
714	Liliopsida	Asparagaceae Juss.	Sowerbaea laxiflora Lindl. *(Purple Tassels)*	native	
715	Liliopsida	Asparagaceae Juss.	Thysanotus arenarius Brittan	native	
716	Liliopsida	Asphodelaceae Juss.	Asphodelus fistulosus L. *(Onion Weed)*	alien	
717	Liliopsida	Asphodelaceae Juss.	Trachyandra divaricata (Jacq.) Kunth	alien	
718	Liliopsida	Cymodoceaceae Vines	Amphibolis antarctica (Labill.) Asch. *(Sea Nymph)*	native	
719	Liliopsida	Cyperaceae Juss.	Ammothryon grandiflorum (Lehm.) R.L.Barrett, K.L.Wilson & J.J.Bruhl	native	
720	Liliopsida	Cyperaceae Juss.	Cyathochaeta teretifolia W.Fitzg.	native	P3
721	Liliopsida	Cyperaceae Juss.	Ficinia nodosa (Rottb.) Goetgh., Muasya & D.A.Simpson *(Knotted Club Rush)*	native	
722	Liliopsida	Cyperaceae Juss.	Gahnia trifida Labill. *(Coast Saw-sedge)*	native	
723	Liliopsida	Cyperaceae Juss.	Isolepis cernua (Vahl) Roem. & Schult. *(Nodding Club-rush)*	native	
724	Liliopsida	Cyperaceae Juss.	Lepidosperma angustatum R.Br.	native	
725	Liliopsida	Cyperaceae Juss.	Lepidosperma squamatum Labill.	native	
726	Liliopsida	Cyperaceae Juss.	Machaerina juncea (R.Br.) T.Koyama	native	
727	Liliopsida	Cyperaceae Juss.	Netrostylis sp. Chandala (G.J. Keighery 17055)	native	P2
728	Liliopsida	Haemodoraceae R.Br.	Anigozanthos humilis Lindl. *(Catspaw)*	native	
729	Liliopsida	Haemodoraceae R.Br.	Conostylis candicans Endl.	native	
730	Liliopsida	Haemodoraceae R.Br.	Conostylis candicans Endl. subsp. candicans	native	
731	Liliopsida	Haemodoraceae R.Br.	Phlebocarya pilosissima (F.Muell.) Benth. subsp. pilosissima	native	P3

732	Liliopsida	Hemerocallidaceae R.Br.	Dianella revoluta R.Br. *(Blueberry Lily)*	native	
733	Liliopsida	Hemerocallidaceae R.Br.	Johnsonia pubescens subsp. cygnorum Keighery	native	P2
734	Liliopsida	Hemerocallidaceae R.Br.	Stypandra glauca R.Br. *(Blind Grass)*	native	
735	Liliopsida	Iridaceae Juss.	Moraea flaccida (Sweet) Steud. *(One-leaf Cape Tulip)*	alien	
736	Liliopsida	Iridaceae Juss.	Romulea rosea (L.) Eckl.	alien	
737	Liliopsida	Orchidaceae Juss.	Caladenia footeana Hopper & A.P.Br.	native	
738	Liliopsida	Orchidaceae Juss.	Caladenia huegelii Rchb.f. *(Grand Spider Orchid)*	native	CR
739	Liliopsida	Orchidaceae Juss.	Caladenia latifolia R.Br.	native	
740	Liliopsida	Orchidaceae Juss.	Cyrtostylis huegelii Endl.	native	
741	Liliopsida	Orchidaceae Juss.	Disa bracteata Sw.	alien	
742	Liliopsida	Orchidaceae Juss.	Diuris drummondii Lindl.	native	EN
743	Liliopsida	Orchidaceae Juss.	Diuris micrantha D.L.Jones	native	VU
744	Liliopsida	Orchidaceae Juss.	Drakaea elastica Lindl. *(Glossy-leaved Hammer Orchid)*	native	CR
745	Liliopsida	Orchidaceae Juss.	Microtis quadrata (R.J.Bates) D.L.Jones & M.A.Clem.	native	P4
746	Liliopsida	Orchidaceae Juss.	Pterostylis aspera D.L.Jones & M.A.Clem. *(Brown-veined Shell Orchid)*	native	
747	Liliopsida	Orchidaceae Juss.	Thelymitra variegata (Lindl.) F.Muell. *(Queen of Sheba)*	native	CR
748	Liliopsida	Poaceae Barnhart	Aira caryophyllea L.	alien	
749	Liliopsida	Poaceae Barnhart	Austrostipa elegantissima (Labill.) S.W.L.Jacobs & J.Everett	native	
750	Liliopsida	Poaceae Barnhart	Austrostipa flavescens (Labill.) S.W.L.Jacobs & J.Everett	native	
751	Liliopsida	Poaceae Barnhart	Austrostipa mundula (J.M.Black) S.W.L.Jacobs & J.Everett	native	P3
752	Liliopsida	Poaceae Barnhart	Avellinia festucoides (Link) Valdes & H.Scholz	alien	
753	Liliopsida	Poaceae Barnhart	Avena fatua L.	alien	
754	Liliopsida	Poaceae Barnhart	Briza maxima L.	alien	
755	Liliopsida	Poaceae Barnhart	Bromus L.		
756	Liliopsida	Poaceae Barnhart	Bromus diandrus Roth	alien	
757	Liliopsida	Poaceae Barnhart	Bromus hordeaceus L.	alien	
758	Liliopsida	Poaceae Barnhart	Catapodium rigidum (L.) C.E.Hubb.	alien	
759	Liliopsida	Poaceae Barnhart	Cenchrus longisetus M.C.Johnst. *(Feathertop)*	alien	
760	Liliopsida	Poaceae Barnhart	Cenchrus purpureus (Schumach.) Morrone *(Elephant Grass)*	alien	
761	Liliopsida	Poaceae Barnhart	Cenchrus setaceus (Forssk.) Morrone *(Fountain Grass)*	alien	
762	Liliopsida	Poaceae Barnhart	Ehrharta longiflora Sm. *(Annual Veldt Grass)*	alien	
763	Liliopsida	Poaceae Barnhart	Ehrharta villosa Schult.f.	alien	
764	Liliopsida	Poaceae Barnhart	Lachnagrostis filiformis (G.Forst.) Trin.	native	
765	Liliopsida	Poaceae Barnhart	Lagurus ovatus L.	alien	
766	Liliopsida	Poaceae Barnhart	Lolium rigidum Gaudin	alien	
767	Liliopsida	Poaceae Barnhart	Microlaena stipoides (Labill.) R.Br.	native	
768	Liliopsida	Poaceae Barnhart	Panicum miliaceum L.	alien	
769	Liliopsida	Poaceae Barnhart	Phalaris arundinacea L. var. arundinacea	alien	
770	Liliopsida	Poaceae Barnhart	Poa L.		
771	Liliopsida	Poaceae Barnhart	Poa annua L.	alien	
772	Liliopsida	Poaceae Barnhart	Rostraria cristata (L.) Tzvelev	alien	
773	Liliopsida	Poaceae Barnhart	Secale cereale L. *(Rye)*	alien	
774	Liliopsida	Poaceae Barnhart	Spinifex hirsutus Labill. *(Hairy Spinifex)*	native	
775	Liliopsida	Poaceae Barnhart	Spinifex longifolius R.Br. *(Beach Spinifex)*	native	
776	Liliopsida	Poaceae Barnhart	Spinifex x alterniflorus Nees	native	
777	Liliopsida	Poaceae Barnhart	Sporobolus virginicus (L.) Kunth	native	
778	Liliopsida	Poaceae Barnhart	Stenotaphrum secundatum (Walter) Kuntze *(Buffalo Grass)*	alien	
779	Liliopsida	Poaceae Barnhart	Thinopyrum distichum (Thunb.) Ã.LÃ¶ve	alien	
780	Liliopsida	Poaceae Barnhart	Vulpia myuros (L.) C.C.Gmel.	alien	
781	Liliopsida	Posidoniaceae Vines	Posidonia K.D.Koenig		
782	Liliopsida	Posidoniaceae Vines	Posidonia angustifolia Cambridge & J.Kuo	native	

783	Liliopsida	Posidoniaceae Vines	Posidonia australis Hook.f. *(Fibreball Weed)*	native	
784	Liliopsida	Restionaceae R.Br.	Desmocladus flexuosus (R.Br.) B.G.Briggs & L.A.S.Johnson	native	
785	Liliopsida	Restionaceae R.Br.	Leptocarpus coangustatus Nees	native	
786	Liliopsida	Xanthorrhoeaceae Dumort.	Xanthorrhoea preissii Endl.	native	
787	Magnoliopsida	Aizoaceae Martinov	Carpobrotus edulis (L.) N.E.Br.	alien	
788	Magnoliopsida	Aizoaceae Martinov	Carpobrotus virescens (Haw.) Schwantes *(Coastal Pigface)*	native	
789	Magnoliopsida	Aizoaceae Martinov	Mesembryanthemum crystallinum L.	alien	
790	Magnoliopsida	Aizoaceae Martinov	Tetragonia decumbens Mill.	alien	
791	Magnoliopsida	Amaranthaceae Juss.	Amaranthus powellii S.Watson	alien	
792	Magnoliopsida	Amaranthaceae Juss.	Ptilotus polystachyus (Gaudich.) F.Muell. *(Prince of Wales Feather)*	native	
793	Magnoliopsida	Amaranthaceae Juss.	Ptilotus sericostachyus (Nees) F.Muell. subsp. sericostachyus	native	
794	Magnoliopsida	Apiaceae Lindl.	Apium annuum P.S.Short	native	
795	Magnoliopsida	Apiaceae Lindl.	Apium prostratum Vent.	native	
796	Magnoliopsida	Apiaceae Lindl.	Foeniculum vulgare Mill. *(Fennel)*	alien	
797	Magnoliopsida	Apocynaceae Juss.	Gomphocarpus fruticosus (L.) W.T.Aiton *(Narrowleaf Cottonbush)*	alien	
798	Magnoliopsida	Apocynaceae Juss.	Nerium oleander L.	alien	
799	Magnoliopsida	Araliaceae Juss.	Hydrocotyle lemnoides Benth. *(Aquatic Pennywort)*	native	P4
800	Magnoliopsida	Araliaceae Juss.	Hydrocotyle striata Benth.	native	P1
801	Magnoliopsida	Araliaceae Juss.	Trachymene pilosa Sm.	native	
802	Magnoliopsida	Asteraceae Bercht. & J.Presl	Angianthus micropodioides (Benth.) Benth.	native	P3
803	Magnoliopsida	Asteraceae Bercht. & J.Presl	Arctotheca calendula (L.) K.Lewin *(Cape Weed)*	alien	
804	Magnoliopsida	Asteraceae Bercht. & J.Presl	Asteridea pulverulenta Lindl.	native	
805	Magnoliopsida	Asteraceae Bercht. & J.Presl	Brachyscome iberidifolia Benth.	native	
806	Magnoliopsida	Asteraceae Bercht. & J.Presl	Centaurea calcitrapa L. *(Star Thistle)*	alien	
807	Magnoliopsida	Asteraceae Bercht. & J.Presl	Centaurea melitensis L. *(Maltese Cockspur)*	alien	
808	Magnoliopsida	Asteraceae Bercht. & J.Presl	Erigeron bonariensis L.	alien	
809	Magnoliopsida	Asteraceae Bercht. & J.Presl	Erigeron sumatrensis Retz.	alien	
810	Magnoliopsida	Asteraceae Bercht. & J.Presl	Galinsoga parviflora Cav. *(Potato Weed)*	alien	
811	Magnoliopsida	Asteraceae Bercht. & J.Presl	Gnephosis angianthoides (Steetz) Anderb.	native	
812	Magnoliopsida	Asteraceae Bercht. & J.Presl	Helianthus annuus L. *(Sunflower)*	alien	
813	Magnoliopsida	Asteraceae Bercht. & J.Presl	Hypochaeris glabra L. *(Smooth Cats-ear)*	alien	
814	Magnoliopsida	Asteraceae Bercht. & J.Presl	Olearia rudis (Benth.) Benth.	native	
815	Magnoliopsida	Asteraceae Bercht. & J.Presl	Pithocarpa corymbulosa Lindl.	native	P3
816	Magnoliopsida	Asteraceae Bercht. & J.Presl	Podolepis gracilis (Lehm.) Graham	native	
817	Magnoliopsida	Asteraceae Bercht. & J.Presl	Pseudognaphalium luteoalbum (L.) Hilliard & B.L.Burtt	mixed	
818	Magnoliopsida	Asteraceae Bercht. & J.Presl	Reichardia picroides (L.) Roth	alien	
819	Magnoliopsida	Asteraceae Bercht. & J.Presl	Senecio pinnatifolius A.Rich.	native	
820	Magnoliopsida	Asteraceae Bercht. & J.Presl	Senecio pinnatifolius var. latilobus (Steetz) I.Thomps. *(Variable Groundsel)*	native	

821	Magnoliopsida	Asteraceae Bercht. & J.Presl	Senecio pinnatifolius var. maritimus (Ali) I.Thomps.	native	
822	Magnoliopsida	Asteraceae Bercht. & J.Presl	Sonchus asper (L.) Hill	alien	
823	Magnoliopsida	Asteraceae Bercht. & J.Presl	Sonchus oleraceus L.	alien	
824	Magnoliopsida	Asteraceae Bercht. & J.Presl	Vellereophyton dealbatum (Thunb.) Hilliard & B.L.Burtt	alien	
825	Magnoliopsida	Asteraceae Bercht. & J.Presl	Xanthium spinosum L. *(Bathurst Burr)*	alien	
826	Magnoliopsida	Brassicaceae Burnett	Brassica x napus L.	alien	
827	Magnoliopsida	Brassicaceae Burnett	Diplotaxis muralis (L.) DC. *(Wall Rocket)*	alien	
828	Magnoliopsida	Brassicaceae Burnett	Stenopetalum robustum Endl.	native	
829	Magnoliopsida	Byblidaceae Domin	Byblis gigantea Lindl. *(Rainbow Plant)*	native	P3
830	Magnoliopsida	Caprifoliaceae Juss.	Sixalix atropurpurea (L.) Greuter & Burdet	alien	
831	Magnoliopsida	Caryophyllaceae Juss.	Arenaria leptoclados (Rchb.) Guss.	alien	
832	Magnoliopsida	Caryophyllaceae Juss.	Cerastium glomeratum Thuill.	alien	
833	Magnoliopsida	Caryophyllaceae Juss.	Petrorhagia dubia (Raf.) G.Lopez & Romo	alien	
834	Magnoliopsida	Caryophyllaceae Juss.	Sagina maritima Don	alien	
835	Magnoliopsida	Caryophyllaceae Juss.	Silene gallica L.	alien	
836	Magnoliopsida	Caryophyllaceae Juss.	Stellaria media (L.) Vill.	alien	
837	Magnoliopsida	Casuarinaceae R.Br.	Allocasuarina humilis (Otto & A.Dietr.) L.A.S.Johnson *(Dwarf Sheoak)*	native	
838	Magnoliopsida	Celastraceae R.Br.	Tripterococcus sp. Brachylobus (A.S. George 14234)	native	P4
839	Magnoliopsida	Chenopodiaceae Vent.	Atriplex cinerea Poir.	native	
840	Magnoliopsida	Chenopodiaceae Vent.	Chenopodium album L. *(Fat Hen)*	alien	
841	Magnoliopsida	Chenopodiaceae Vent.	Rhagodia baccata (Labill.) Moq. *(Berry Saltbush)*	native	
842	Magnoliopsida	Chenopodiaceae Vent.	Rhagodia baccata (Labill.) Moq. subsp. baccata	native	
843	Magnoliopsida	Chenopodiaceae Vent.	Salicornia quinqueflora Ung.-Sternb.	native	
844	Magnoliopsida	Chenopodiaceae Vent.	Threlkeldia diffusa R.Br.	native	
845	Magnoliopsida	Convolvulaceae Juss.	Convolvulus arvensis L.	alien	
846	Magnoliopsida	Convolvulaceae Juss.	Wilsonia backhousei Hook.f. *(Narrow-leaf Wilsonia)*	native	
847	Magnoliopsida	Convolvulaceae Juss.	Wilsonia humilis R.Br. *(Silky Wilsonia)*	native	
848	Magnoliopsida	Crassulaceae J.St.-Hil.	Crassula colorata (Nees) Ostenf.	native	
849	Magnoliopsida	Crassulaceae J.St.-Hil.	Crassula glomerata P.J.Bergius	alien	
850	Magnoliopsida	Crassulaceae J.St.-Hil.	Crassula natans Thunb.	alien	
851	Magnoliopsida	Dilleniaceae Salisb.	Hibbertia hypericoides (DC.) Benth. subsp. hypericoides *(Yellow Buttercups)*	native	
852	Magnoliopsida	Dilleniaceae Salisb.	Hibbertia leptotheca (J.R.Wheeler) K.R.Thiele	native	P3
853	Magnoliopsida	Dilleniaceae Salisb.	Hibbertia racemosa (Endl.) Gilg *(Stalked Guinea Flower)*	native	
854	Magnoliopsida	Droseraceae Salisb.	Drosera bulbigena Morrison *(Midget Sundew)*	native	P2
855	Magnoliopsida	Droseraceae Salisb.	Drosera paleacea DC. *(Dwarf Sundew)*	native	P1
856	Magnoliopsida	Ericaceae Juss.	Leucopogon parviflorus (Andrews) Lindl. *(Coast Beard-heath)*	native	
857	Magnoliopsida	Ericaceae Juss.	Styphelia filifolia Hislop & Puente-Lel.	native	P3
858	Magnoliopsida	Euphorbiaceae Juss.	Beyeria cinerea (MÃ¼ll.Arg.) Benth. subsp. cinerea	native	P3
859	Magnoliopsida	Euphorbiaceae Juss.	Euphorbia maculata L.	alien	
860	Magnoliopsida	Euphorbiaceae Juss.	Euphorbia peplus L. *(Petty Spurge)*	alien	
861	Magnoliopsida	Euphorbiaceae Juss.	Euphorbia terracina L. *(Geraldton Carnation Weed)*	alien	
862	Magnoliopsida	Fabaceae Lindl.	Acacia cochlearis (Labill.) H.L.Wendl. *(Rigid Wattle)*	native	
863	Magnoliopsida	Fabaceae Lindl.	Acacia cyclops G.Don *(Coastal Wattle)*	native	
864	Magnoliopsida	Fabaceae Lindl.	Acacia horridula Meisn.	native	P3
865	Magnoliopsida	Fabaceae Lindl.	Acacia lasiocarpa var. bracteolata long peduncle variant (G.J. Keighery 5026)	native	P1
866	Magnoliopsida	Fabaceae Lindl.	Acacia lasiocarpa var. lasiocarpa Cockleshell Gully variant (E.A. Griffin 2039)	native	P2
867	Magnoliopsida	Fabaceae Lindl.	Acacia pulchella var. glaberrima Meisn. *(Prickly Moses)*	native	
868	Magnoliopsida	Fabaceae Lindl.	Acacia rostellifera Benth.	native	

869	Magnoliopsida	Fabaceae Lindl.	Acacia saligna (Labill.) H.L.Wendl. *(Orange Wattle)*	native	
870	Magnoliopsida	Fabaceae Lindl.	Acacia truncata Hoffmanns.	native	
871	Magnoliopsida	Fabaceae Lindl.	Daviesia nudiflora Meisn. subsp. nudiflora	native	
872	Magnoliopsida	Fabaceae Lindl.	Dillwynia dillwynioides (Meisn.) Druce	native	P3
873	Magnoliopsida	Fabaceae Lindl.	Gastrolobium nervosum G.Chandler & Crisp	native	
874	Magnoliopsida	Fabaceae Lindl.	Gompholobium tomentosum Labill. *(Hairy Yellow Pea)*	native	
875	Magnoliopsida	Fabaceae Lindl.	Hardenbergia comptoniana (Andrews) Benth.	native	
876	Magnoliopsida	Fabaceae Lindl.	Hovea pungens Benth.	native	
877	Magnoliopsida	Fabaceae Lindl.	Isotropis cuneifolia (Sm.) Heynh.	native	
878	Magnoliopsida	Fabaceae Lindl.	Jacksonia furcellata (Bonpl.) DC.	native	
879	Magnoliopsida	Fabaceae Lindl.	Jacksonia gracillima Chappill	native	P3
880	Magnoliopsida	Fabaceae Lindl.	Jacksonia sericea Benth. *(Waldjumi)*	native	P4
881	Magnoliopsida	Fabaceae Lindl.	Kennedia beckxiana (F.Muell.) F.Muell.	native	P4
882	Magnoliopsida	Fabaceae Lindl.	Kennedia coccinea (Curtis) Vent.	native	
883	Magnoliopsida	Fabaceae Lindl.	Lupinus angustifolius L. *(Narrowleaf Lupin)*	alien	
884	Magnoliopsida	Fabaceae Lindl.	Medicago littoralis Loisel. *(Strand Medic)*	alien	
885	Magnoliopsida	Fabaceae Lindl.	Melilotus indicus (L.) All.	alien	
886	Magnoliopsida	Fabaceae Lindl.	Templetonia retusa (Vent.) R.Br.	native	
887	Magnoliopsida	Fabaceae Lindl.	Trifolium L.		
888	Magnoliopsida	Fabaceae Lindl.	Trifolium angustifolium L. *(Narrowleaf Clover)*	alien	
889	Magnoliopsida	Fabaceae Lindl.	Trifolium angustifolium L. var. angustifolium	alien	
890	Magnoliopsida	Fabaceae Lindl.	Trifolium campestre Schreb. var. campestre *(Hop Clover)*	alien	
891	Magnoliopsida	Fabaceae Lindl.	Trifolium hirtum All. *(Rose Clover)*	alien	
892	Magnoliopsida	Fabaceae Lindl.	Trifolium resupinatum L. var. resupinatum	alien	
893	Magnoliopsida	Fabaceae Lindl.	Trifolium tomentosum L.	alien	
894	Magnoliopsida	Fabaceae Lindl.	Trifolium tomentosum L. var. tomentosum	alien	
895	Magnoliopsida	Frankeniaceae Desv.	Frankenia pauciflora DC. *(Seaheath)*	native	
896	Magnoliopsida	Gentianaceae Juss.	Centaurium erythraea Rafn	alien	
897	Magnoliopsida	Geraniaceae Juss.	Erodium botrys (Cav.) Bertol. *(Long Storksbill)*	alien	
898	Magnoliopsida	Geraniaceae Juss.	Pelargonium capitatum (L.) Aiton *(Rose Pelargonium)*	alien	
899	Magnoliopsida	Geraniaceae Juss.	Pelargonium littorale Huegel	native	
900	Magnoliopsida	Goodeniaceae R.Br.	Dampiera triloba Lindl.	native	P3
901	Magnoliopsida	Goodeniaceae R.Br.	Scaevola thesioides Benth.	native	
902	Magnoliopsida	Goodeniaceae R.Br.	Scaevola thesioides Benth. subsp. thesioides	native	
903	Magnoliopsida	Hypericaceae Juss.	Hypericum androsaemum Linnaeus	mixed	
904	Magnoliopsida	Lamiaceae Martinov	Salvia verbenaca L. *(Wild Sage)*	alien	
905	Magnoliopsida	Lauraceae Juss.	Cassytha flava Nees	native	
906	Magnoliopsida	Lauraceae Juss.	Cassytha racemosa Nees *(Dodder Laurel)*	native	
907	Magnoliopsida	Linaceae Perleb	Linum marginale Planch. *(Wild Flax)*	native	
908	Magnoliopsida	Loganiaceae Mart.	Logania vaginalis (Labill.) F.Muell. *(White Spray)*	native	
909	Magnoliopsida	Malvaceae Juss.	Alyogyne huegelii (Endl.) Fryxell *(Lilac Hibiscus)*	native	
910	Magnoliopsida	Malvaceae Juss.	Lagunaria patersonia (Andrews) G.Don	alien	
911	Magnoliopsida	Malvaceae Juss.	Malva arborea (L.) Webb. & Berthel. *(Tree Mallow)*	alien	
912	Magnoliopsida	Malvaceae Juss.	Malva pseudolavatera Webb & Berthel.	alien	
913	Magnoliopsida	Malvaceae Juss.	Thomasia cognata Steud.	native	
914	Magnoliopsida	Malvaceae Juss.	Thomasia triphylla (Labill.) J.Gay	native	
915	Magnoliopsida	Montiaceae Raf.	Calandrinia brevipedata F.Muell. *(Short-stalked Purslane)*	native	
916	Magnoliopsida	Montiaceae Raf.	Calandrinia calyptrata Hook.f.	native	
917	Magnoliopsida	Montiaceae Raf.	Calandrinia liniflora Fenzl	native	
918	Magnoliopsida	Myrtaceae Juss.	Agonis flexuosa (Willd.) Sweet var. flexuosa *(Peppermint)*	mixed	
919	Magnoliopsida	Myrtaceae Juss.	Calothamnus quadrifidus R.Br. *(Kwowdjard, One-sided Bottlebrush)*	mixed	
920	Magnoliopsida	Myrtaceae Juss.	Calothamnus quadrifidus R.Br. subsp. quadrifidus *(One-sided Bottlebrush)*	mixed	
921	Magnoliopsida	Myrtaceae Juss.	Corymbia calophylla (Lindl.) K.D.Hill & L.A.S.Johnson	native	

922	Magnoliopsida	Myrtaceae Juss.	Eucalyptus decipiens Endl. *(Redheart)*	native	
923	Magnoliopsida	Myrtaceae Juss.	Eucalyptus foecunda Schauer *(Narrow-leaved Red Mallee)*	native	
924	Magnoliopsida	Myrtaceae Juss.	Eucalyptus foecunda Schauer subsp. foecunda	native	P4
925	Magnoliopsida	Myrtaceae Juss.	Eucalyptus gomphocephala DC. *(Tuart)*	mixed	
926	Magnoliopsida	Myrtaceae Juss.	Eucalyptus petrensis Brooker & Hopper *(Limestone Mallee)*	native	
927	Magnoliopsida	Myrtaceae Juss.	Gaudium laevigatum (Gaertn.) Peter G.Wilson		
928	Magnoliopsida	Myrtaceae Juss.	Hypocalymma robustum (Endl.) Lindl. *(Swan River Myrtle)*	native	
929	Magnoliopsida	Myrtaceae Juss.	Melaleuca huegelii Endl.	native	
930	Magnoliopsida	Myrtaceae Juss.	Melaleuca huegelii Endl. subsp. huegelii *(Chenille Honeymyrtle)*	native	
931	Magnoliopsida	Myrtaceae Juss.	Melaleuca lanceolata Otto *(Rottnest Teatree)*	mixed	
932	Magnoliopsida	Myrtaceae Juss.	Melaleuca rhaphiophylla Schauer	native	
933	Magnoliopsida	Myrtaceae Juss.	Melaleuca systena Craven *(Coastal Honeymyrtle)*	native	
934	Magnoliopsida	Myrtaceae Juss.	Melaleuca teretifolia Endl.	native	
935	Magnoliopsida	Myrtaceae Juss.	Verticordia lindleyi Schauer subsp. lindleyi	native	P4
936	Magnoliopsida	Onagraceae Juss.	Oenothera drummondii Hook.	alien	
937	Magnoliopsida	Onagraceae Juss.	Oenothera stricta Link subsp. stricta	alien	
938	Magnoliopsida	Orobanchaceae Vent.	Bellardia trixago (L.) All.	alien	
939	Magnoliopsida	Orobanchaceae Vent.	Bellardia viscosa (L.) Fisch. & C.A.Mey.	alien	
940	Magnoliopsida	Orobanchaceae Vent.	Orobanche cernua var. australiana (F.Muell.) Beck	native	P3
941	Magnoliopsida	Orobanchaceae Vent.	Orobanche minor Sm.	alien	
942	Magnoliopsida	Papaveraceae Juss.	Argemone ochroleuca Sweet subsp. ochroleuca	alien	
943	Magnoliopsida	Papaveraceae Juss.	Fumaria capreolata L. *(Whiteflower Fumitory)*	alien	
944	Magnoliopsida	Phyllanthaceae Martinov	Lysiandra calycina (Labill.) R.W.Bouman	native	
945	Magnoliopsida	Phyllanthaceae Martinov	Poranthera moorokatta R.L.Barrett	native	P2
946	Magnoliopsida	Phytolaccaceae R.Br.	Phytolacca octandra L. *(Red Ink Plant)*	alien	
947	Magnoliopsida	Plantaginaceae Juss.	Veronica arvensis L.	alien	
948	Magnoliopsida	Polygalaceae Hoffmanns. & Link	Comesperma confertum Labill.	native	
949	Magnoliopsida	Polygalaceae Hoffmanns. & Link	Comesperma integerrimum Endl.	native	
950	Magnoliopsida	Primulaceae Borkh.	Lysimachia arvensis (L.) U.Manns & Anderb.	alien	
951	Magnoliopsida	Primulaceae Borkh.	Samolus junceus R.Br.	native	
952	Magnoliopsida	Primulaceae Borkh.	Samolus repens (J.R.Forst. & G.Forst.) Pers.	native	
953	Magnoliopsida	Primulaceae Borkh.	Samolus repens (J.R.Forst. & G.Forst.) Pers. var. repens	native	
954	Magnoliopsida	Proteaceae Juss.	Banksia attenuata R.Br. *(Slender Banksia)*	native	
955	Magnoliopsida	Proteaceae Juss.	Banksia menziesii R.Br. *(Firewood Banksia)*	native	
956	Magnoliopsida	Proteaceae Juss.	Banksia nivea Labill. *(Honeypot Dryandra)*	native	
957	Magnoliopsida	Proteaceae Juss.	Banksia sessilis var. cygnorum (Gand.) A.R.Mast & K.R.Thiele *(Parrot Bush)*	native	
958	Magnoliopsida	Proteaceae Juss.	Grevillea candolleana Meisn.	native	P2
959	Magnoliopsida	Proteaceae Juss.	Grevillea olivacea A.S.George *(Olive Grevillea)*	native	P4
960	Magnoliopsida	Proteaceae Juss.	Grevillea preissii Meisn.	native	
961	Magnoliopsida	Proteaceae Juss.	Grevillea thelemanniana Endl. *(Spider Net Grevillea)*	native	CR
962	Magnoliopsida	Proteaceae Juss.	Petrophile axillaris Meisn.	native	
963	Magnoliopsida	Proteaceae Juss.	Petrophile serruriae R.Br.	native	
964	Magnoliopsida	Ranunculaceae Juss.	Clematis linearifolia Steud.	native	
965	Magnoliopsida	Ranunculaceae Juss.	Ranunculus colonorum Endl. *(Common Buttercup)*	native	
966	Magnoliopsida	Resedaceae Martinov	Reseda luteola L. *(Wild Mingnonette)*	alien	
967	Magnoliopsida	Rhamnaceae Juss.	Cryptandra mutila Reissek	native	
968	Magnoliopsida	Rhamnaceae Juss.	Spyridium globulosum (Labill.) Benth. *(Basket Bush)*	native	
969	Magnoliopsida	Rhamnaceae Juss.	Trymalium ledifolium Fenzl var. ledifolium	native	
970	Magnoliopsida	Rubiaceae Juss.	Galium murale (L.) All. *(Small Goosegrass)*	alien	

971	Magnoliopsida	Rubiaceae Juss.	Opercularia hispidula Endl.	native	
972	Magnoliopsida	Rutaceae Juss.	Diplolaena dampieri Desf. *(Southern Diplolaena)*	mixed	
973	Magnoliopsida	Santalaceae R.Br.	Exocarpos sparteus R.Br. *(Broom Ballart)*	native	
974	Magnoliopsida	Santalaceae R.Br.	Santalum acuminatum (R.Br.) A.DC.	native	
975	Magnoliopsida	Sapindaceae Juss.	Dodonaea hackettiana W.Fitzg. *(Hackett's Hopbush)*	native	P4
976	Magnoliopsida	Scrophulariaceae Juss.	Eremophila glabra (R.Br.) Ostenf. *(Tar Bush)*	native	
977	Magnoliopsida	Scrophulariaceae Juss.	Eremophila glabra subsp. chlorella (Gand.) Chinnock	native	EN
978	Magnoliopsida	Simaroubaceae DC.	Ailanthus altissima (Mill.) Swingle *(Tree of Heaven)*	alien	
979	Magnoliopsida	Solanaceae Juss.	Anthocercis littorea Labill.	native	
980	Magnoliopsida	Solanaceae Juss.	Lycium ferocissimum Miers *(African Boxthorn)*	alien	
981	Magnoliopsida	Solanaceae Juss.	Nicotiana glauca Graham *(Tree Tobacco)*	alien	
982	Magnoliopsida	Solanaceae Juss.	Petunia x atkinsiana (Sweet) W.H.Baxter	alien	
983	Magnoliopsida	Solanaceae Juss.	Physalis philadelphica Lam. *(Tomatillo)*	alien	
984	Magnoliopsida	Solanaceae Juss.	Solanum oldfieldii F.Muell.	native	
985	Magnoliopsida	Stylidiaceae R.Br.	Levenhookia preissii (Sond.) F.Muell.	native	P1
986	Magnoliopsida	Stylidiaceae R.Br.	Stylidium bulbiferum Benth. *(Circus Triggerplant)*	native	
987	Magnoliopsida	Stylidiaceae R.Br.	Stylidium longitubum Benth. *(Jumping Jacks)*	native	P4
988	Magnoliopsida	Stylidiaceae R.Br.	Stylidium paludicola Wege	native	P3
989	Magnoliopsida	Stylidiaceae R.Br.	Stylidium repens R.Br. *(Matted Triggerplant)*	native	
990	Magnoliopsida	Thymelaeaceae Juss.	Pimelea calcicola Rye *(Coastal Banjine)*	native	P3
991	Magnoliopsida	Thymelaeaceae Juss.	Pimelea rosea R.Br.	native	
992	Magnoliopsida	Urticaceae Juss.	Urtica urens L. *(Small Nettle)*	alien	
993	Magnoliopsida	Violaceae Batsch	Pigea calycina DC. *(Wild Violet)*	native	
994	Magnoliopsida	Vitaceae Juss.	Parthenocissus quinquefolia Planch.	alien	
995	Magnoliopsida	Zygophyllaceae R.Br.	Tribulus terrestris L. *(Caltrop)*	alien	
996	Pinopsida	Cupressaceae Gray	Callitris preissii Miq. *(Maro, Rottnest Island Pine)*	mixed	
997	Pinopsida	Pinaceae F.Rudolphi	Pinus halepensis Mill.	alien	
998	Pinopsida	Pinaceae F.Rudolphi	Pinus radiata D.Don *(Radiata Pine)*	alien	
999	Psilotopsida	Ophioglossaceae Martinov	Ophioglossum gramineum Willd.	native	
1000	Pteridopsida	Aspleniaceae Newman	Asplenium subglandulosum (Hook. & Grev.) Salvo, Prada & T.E.DÃaz	native	

Protozoa

1001	Plasmodiophoromycetes Engl.	Plasmodiophoraceae	Polymyxa betae Keskin		
1002	Protosteliomycetes	Ceratiomyxaceae J.SchrÃ¶t.	Ceratiomyxa fruticulosa (O.F.MÃ¼ll.) T.Macbr.	native	

Conservation status definitions

Threatened species

- CR – Critically Endangered
- EN – Endangered
- VU – Vulnerable
- EX – Extinct
- EW – Extinct in the Wild
- CD – Species of special conservation interest (conservation dependent)
- OS – Species otherwise in need of special protection (other specially protected)
- MI – Migratory
- SP – Specially protected species

Priority species

- P1 – Priority 1: Poorly-known species – known from few locations, none on conservation lands
- P2 – Priority 2: Poorly-known species – known from few locations, some on conservation lands
- P3 – Priority 3: Poorly-known species – known from several locations
- P4 – Priority 4: Rare, Near Threatened and other species in need of monitoring

Dandjoo specific codes

- Parent of conservation listed taxa
- Cons code inherited from parent, X

Read full definitions at https://bio.wa.gov.au/guide/conservation-status-definitions

Disclaimer

Further note, precise locations of conservation listed species are considered sensitive. To protect this information, obfuscation has been applied to conservation-listed species records. For these species, the true location is Â±10km from the search area used to generate this species list.