

Technical note

Project	Coral Bay Maritime Facility Maintenance Bypassing		
From:	BMT		
Date:	05/03/2025	To:	Department of Water and Environmental Regulation (DWER)
Doc Ref:	Tn-000607.003-14		
Subject:	Coral Bay Maritime Facility Maintenance Bypassing Campaign – Clearing Principles Assessment		

1 Introduction

The Coral Bay Maritime Facility (hereafter; the Facility) is located ~1.5 km south of the township of Coral Bay, in the mid-west region of Western Australia (WA; Figure 1.1). The Western Australian Department of Transport and Major Infrastructure (DTMI)¹, on behalf of the Minister for Transport, is responsible for the management and maintenance of the State's coastal facilities and small craft waterways, including the Facility, under the *Marine and Harbours Act 1981*.

The Facility includes a double lane boat ramp, two finger jetties, a service jetty, and 13 dinghy pens for commercial use. It constitutes the main vessel launch point near Coral Bay township for commercial and recreational boaters to access the surrounding State Ningaloo Marine Park (NMP). The Facility is within a Special Purpose (shore-based activities) zone of the State NMP managed by the WA Department of Biodiversity, Conservation and Attractions (DBCA) under the *Conservation and Land Management Act 1984* (CALM Act). Waters offshore of the Special Purpose (shore-based activities) zone constitute the Maud Sanctuary zone (Figure 1.1). The Commonwealth NMP borders the western edge of the State NMP, ~ 7 km offshore from the Facility. The Facility also falls within the Ningaloo Coast World Heritage Area and Ningaloo National Heritage Area.

WA State environmental approval for construction and operation of the Facility was provided in 2006 under Ministerial Statement 652 (MS 652). Long-term operation of the Facility is in accordance with relevant MS 652 conditions and commitments to ensure there is no adverse impact on marine environmental quality and associated values of the adjacent Maud Sanctuary Zone of NMP.

¹ Previously Department of Transport.

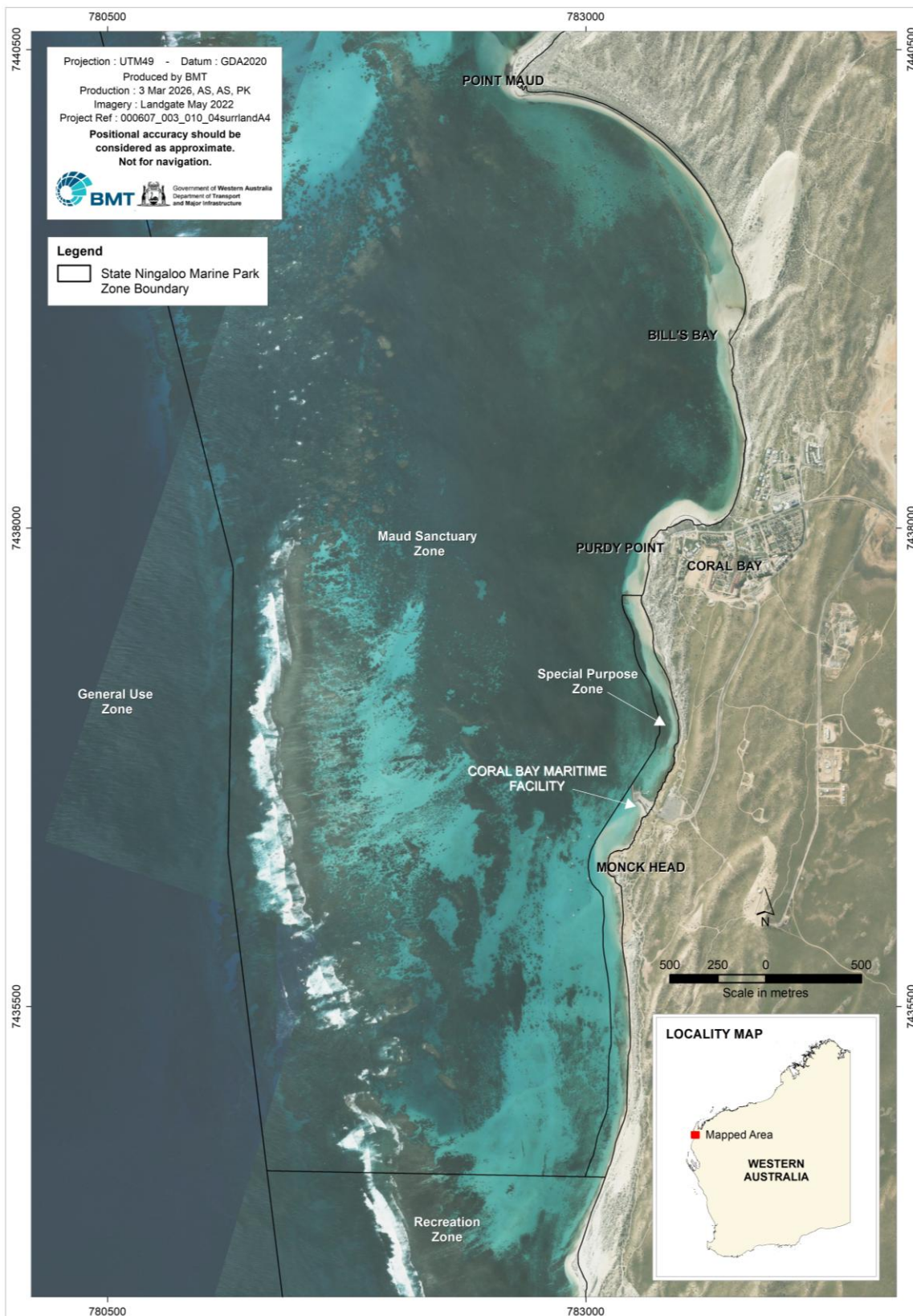


Figure 1.1 Location of Coral Bay Maritime Facility in relation to Coral Bay township and the surrounding Ningaloo Marine Park

No maintenance campaigns have been completed at the Facility since construction in 2007 other than periodic road sweeping to remove accumulated wind-blown sand. The natural northward alongshore sediment transport along the Coral Bay coastline has resulted in saturation of the sand trap located to the southern side of the Facility (Figure 3.1). Sediment accretion in the sand trap has caused wind-blown sand deposition on the nearby road (Figure 1.2), creating traffic and pedestrian hazards. Material from the sand trap is anticipated to progressively infill and encroach further into the boat ramp and jetties reducing water depth and implicate navigational safety issues at the Facility. Under Schedule 1 of MS 652, DTMI has an obligation to maintain water depth at least -1.0 m Chart Datum (CD) at the toe of the ramp and -1.2 m CD at the jetties. DTMI is proposing to undertake a small-scale mechanical sand bypassing campaign to remove accreted material from the sand trap and dispose material to erosion-prone beaches north of the Facility. A short-term (~two weeks) bypassing campaign (hereafter; the campaign) is proposed ~September 2026. An Environmental Impact Assessment and Environmental Management Plan (EIAMP; BMT 2026) prepared in accordance with DTMI's Maintenance Dredging – Environmental Management Framework (BMT 2023) will be implemented during the campaign, as required by commitments outlined in MS 652.



Figure 1.2 Build-up of seasonal sand deposition on the Coral Bay Boating Facility causeway road

2 Purpose of this document

Department of Water and Environmental Regulation (DWER) approval in the form of a clearing permit under Section 51E of the *Environmental Protection Act 1986* (EP Act) is required for the clearing of terrestrial native vegetation to facilitate machinery access to the campaign work areas (Section 3). To support the clearing permit application, potential impacts associated with clearing of vegetation were assessed in this document against the ten Clearing Principles in Schedule 5 of the EP Act, which define the environmental values and risks that must be considered when assessing vegetation clearing (DER 2014). As part of this assessment, relevant desktop reviews and site inspections were undertaken, the findings of which are reported herein.

3 Proposed Clearing

The campaign is proposed to be undertaken in ~September 2026 for a duration of ~two weeks. An estimated excavation volume of ~3800 m³ from the sand trap is anticipated for the campaign. The proposed excavation area is representative of the sand trap and area of sediment accretion to the south of the Facility (hereafter, Excavation Area; Figure 3.1). Excavated material will be directly loaded to a dump truck and transported to an onshore disposal area ~250 m north of the Facility (hereafter, Disposal Area; Figure 3.1). At the Disposal Area, material will be disposed above the high-water mark and spread and contoured by a loader.

Clearing of a maximum of 0.814 ha of terrestrial vegetation will be required for machinery access and to provide adequate working space at the Excavation and Disposal Areas. Clearing Areas are depicted in Figure 3.2. In Clearing Area 1 vegetation on the beach (Figure 3.2) will be cleared via an excavator / loader. Although there is no intention of removing vegetation along the access track of Clearing Area 1 and along Clearing Area 2 (Figure 3.2), potential minor damage to vegetation boarding the existing access corridors by machinery may occur during transit or may require minor clearing to facilitate vehicle passage. At Clearing Area 3 (Figure 3.2), low lying vegetation will be cleared to receive material during sand placement activities. Two existing informal tracks have been selected at Clearing Area 3 for machinery access to the Disposal Area and will require widening to ~4 m (Figure 3.1; Figure 3.2). Clearing Areas have been selected conservatively with buffers applied around the actual clearing / working areas. Where possible, Clearing Areas align with existing dunal tracks or previously cleared areas during construction of the Facility (Figure 3.2). Clearing Area 3 is considered at higher risk of wind erosion and dust generation due to the relatively larger clearing within the dunal system proposed in this area (Figure 3.2). To stabilise cleared areas, hydromulching with a native seed mix and / or a dust suppressant will be applied within a designated Rehabilitation Area (Figure 3.2) within ~two months post completion of disposal works subject to Contractor's availability. Monitoring of the Rehabilitation Area will determine if alternative management options are required to minimise wind and water erosion during the cyclone season (November–April) and may include further application of dust suppressants and / or installation of wind fences around the Rehabilitation Area. Clearing along existing tracks (access track section of Clearing Area 1, Clearing Area 2 and the two access tracks at Clearing Area 3) will be minor if at all; therefore, it is proposed that no revegetation will be undertaken. Additionally, any minor clearing undertaken along tracks will be permanent to provide long term access to the Excavation and Disposal Areas for future DTMI campaigns. The beach section of Clearing Area 1 will also be permanently cleared as revegetation in this area may hinder functionality of the sand trap (Figure 3.2).

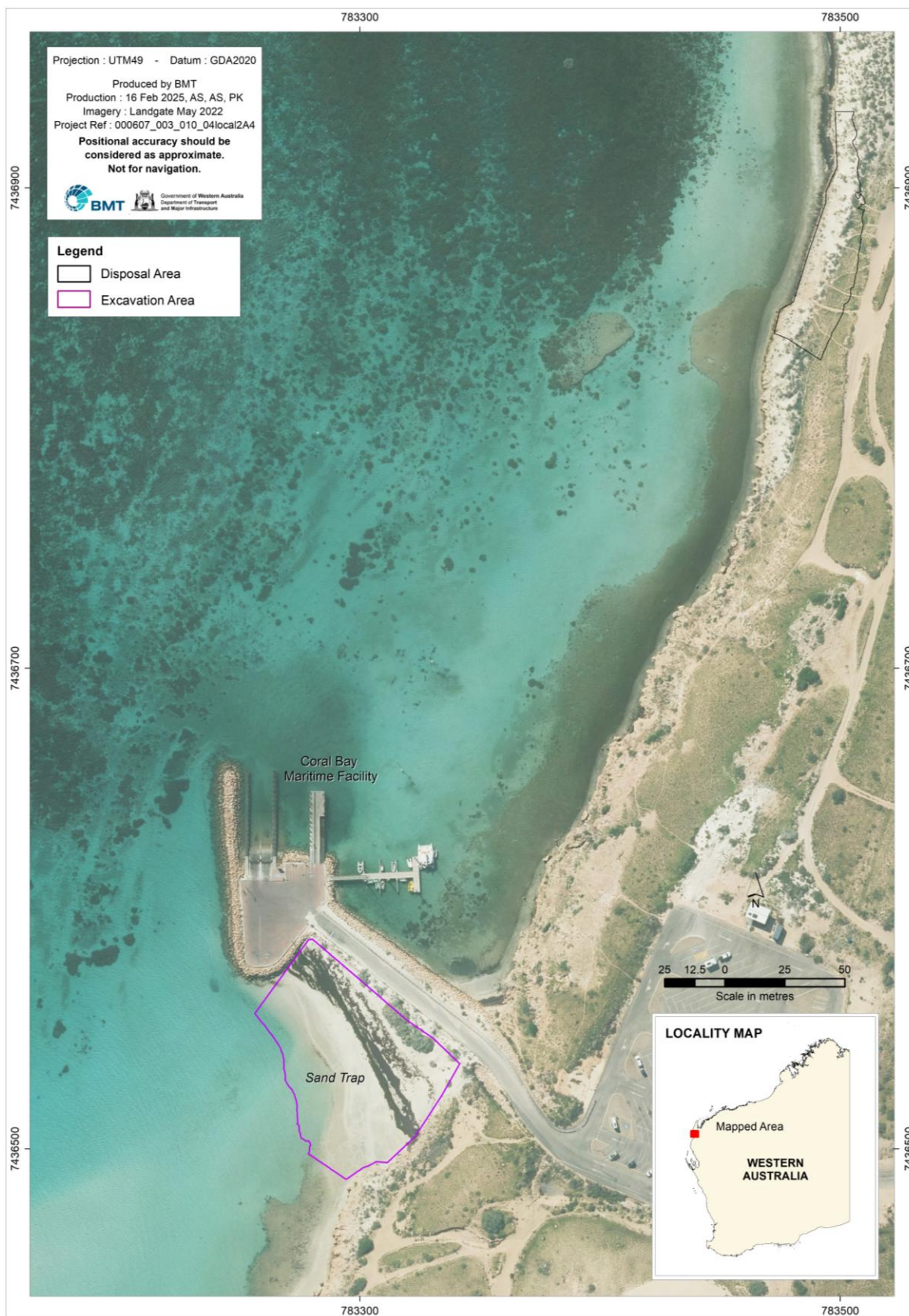


Figure 3.1 Coral Bay Maritime Facility proposed Excavation Area and Disposal Area



Figure 3.2 Coral Bay Maritime Facility proposed Clearing Area and Rehabilitation Area

4 Terrestrial Flora and Vegetation

The Ningaloo Coast falls within the Carnarvon District of the Eremaean Botanical Province (Beard 1980) and the Carnarvon bioregion of the Interim Biogeographic Regionalisation for Australia (Thackway & Cresswell 1995). The vegetation is mainly hummock grasslands and low *Acacia* shrublands (Payne et al. 1987) which has been degraded to varying degrees by stock grazing, recreational use and erosion (CALM 2005). In some areas, the native grass *Spinifex* has been replaced largely by Buffel Grass (*Cenchrus ciliaris*) which has been introduced by the pastoral activities along the coast (DBCA 2022).

The coastal vegetation surrounding the Facility is mapped as pre-European vegetation association 662 described as "Hummock grassland; shrub steppe; mixed acacia scrub & dwarf scrub with soft spinifex & *Triodia basedowii*" (DPIRD 2019). The area is within an Environmentally Sensitive Area (ESA) as defined under the Environmental Protection (Environmentally Sensitive Areas) Notice 2005. A NatureMap search (Annex A) identified five records of Priority 1 species *Indigofera oraria* and one record of Priority 3 species *Lysiandra fuernrohrii* within 10 km of the Facility.

A site visit undertaken by BMT personnel 23 September 2025 identified a total of 13 native species and three introduced species within and in the vicinity of the proposed Clearing Areas (Table 4.1). One of the weed species recorded, the Kapoc Bush (*Aerva javanica*), is a moderate rated environmental weed as identified in DBCA's district prioritisation lists (DBCA 2022). The species was identified outside of the Clearing Areas near the boat ramp carpark. No Weeds of National Significance, declared weeds under the *Biosecurity and Agriculture Management Act 2007*, or high rated environmental weeds as identified in DBCA's district prioritisation list (DBCA 2022) were found in the Clearing Areas. No threatened or priority flora species were observed. A breakdown of flora species reported in each Clearing Area is provided in Table 4.1. The beach section of Clearing Area 1 was dominated by the native Coast Saltbush (*Atriplex isatidea*), which appears to have regrown in recent years following clearing for construction of the Facility (Figure 4.1). Mostly Buffel Grass was reported along the access track within Clearing Area 1. Clearing Area 2 and 3 were dominated by Buffel Grass, with sparse native species cover mostly consisting of *Rhagodia preissii* along informal tracks and *Spinifex longifolius* on the beach (Figure 4.2).

Table 4.1 Checklist of terrestrial flora reported within the proposed Coral Bay Maritime Facility bypassing campaign Clearing Areas

Plant Species	Proposed Clearing Area		
	Clearing Area 1	Clearing Area 2	Clearing Area 3
Family AIZOACEAE			
<i>Carpobrotus</i> sp.	X		X
Family BORAGINACEAE			
<i>Euploca glandulifera</i>		X	
Family CHENOPODIACEAE			
<i>Atriplex isatidea</i>	X		
<i>Rhagodia preissii</i>	X	X	X
<i>Salsola kali</i> *	X		
<i>Threlkeldia diffusa</i>	X	X	

Plant Species	Proposed Clearing Area		
	Clearing Area 1	Clearing Area 2	Clearing Area 3
Family CONVULVULACEAE			
<i>Ipomoea pes-caprae</i> subsp. <i>brasiliensis</i>	X		X
Family DASYPOGONACEAE			
<i>Acanthocarpus preissii</i>			X
Family MALVACEAE			
<i>Hibiscus sturtii</i>			X
Family MIMOSACEAE			
<i>Acacia coriacea</i>		X	
Family MYRTACEAE			
<i>Pileanthus limacis</i>	X		
Family POACEAE			
<i>Cenchrus ciliaris</i> *	X	X	X
<i>Spinifex longifolius</i>	X		X
Family SOLANACEAE			
<i>Solanum lasiophyllum</i>		X	

Note:

1. *indicates introduced flora species.



Figure 4.1 Photographs of vegetation on the beach (*Atriplex isatidea* and *Spinifex longifolius*; left) and along the access track (*Cenchrus ciliaris*; right) at Clearing Area 1, 23 September 2025



Figure 4.2 Photographs of vegetation within Clearing Area 3 (left) and Clearing Area 4 showing the dominance of *Cenchrus ciliaris*, 23 September 2025

5 Clearing Principles Assessment

As clearing is within an ESA (Section 4), there is no opportunity to apply for an exemption or referral under Part V of the EP Act and a clearing permit under Section 51E of the EP Act will be required from DWER. In accordance with DER (2014), potential impacts associated with clearing of vegetation were assessed against the ten Clearing Principles in Schedule 5 of the EP Act (Table 5.1).

The assessment identified that the proposed clearing is low risk and not likely to be at variance with any of the Clearing Principles (Table 5.1). There is a risk of aeolian erosion and generation of wind-blown dust at the Disposal Area from clearing which will be mitigated through the application of hydromulching and / or dust suppression measures within the Rehabilitation Area (Section 3) in accordance with the EIAMP (BMT 2026).

Table 5.1 Coral Bay Maritime Facility bypassing campaign assessment against the ten Clearing Principles and level of variance to each Principle

Clearing Principle	Assessment of clearing impact	Variance to Clearing Principle
<i>Principle (a) – Native vegetation should not be cleared if it comprises a high level of biodiversity</i>	Thirteen (13) native species and three introduced species were identified within the proposed Clearing Areas. Vegetation condition is degraded/completely degraded as vegetation structure has been significantly altered by the invasion of Buffel Grass, 4WD access, unauthorised creation of duplicate tracks and pedestrian trampling. Five records of Priority 1 species <i>Indigofera oraria</i> and one record of Priority 3 species <i>Lysiandra fuernrohrii</i> were identified within 10 km of the Facility (Annex A); however, no threatened or priority flora were recorded within or in the vicinity of the Clearing Areas. No flora species recorded at the Clearing Areas represent a range extension or are otherwise unique in the local and regional area. Fauna species of conservation significance (57 bird species and two terrestrial mammal species the Pilbara Leaf-nosed Bat and Black-flanked Rock-Wallaby) were identified within 10 km of the Facility (Annex A; Annex B); however, it is unlikely that Clearing Areas would constitute suitable habitat. The prevalence of weeds offers limited shelter, foraging and nesting opportunities for birds and there is no suitable habitat for wallabies and bats (i.e. caves and rock formations) near the Clearing Areas. Due to the degraded nature of the Clearing Areas, low biodiversity is expected compared to the bioregion and local area, with good condition VA 662 in the adjacent Nyngulura National Park and in the inland portion south of Janes Bay (former Ningaloo Station; DBCA 2022). Therefore, the proposed clearing is not likely to be at variance with clearing principle (a).	Not likely to be or not at variance 
<i>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</i>	Specialist seed-eating birds, such as finches and some parrots, do not feed on Buffel Grass seed and become scarce in Buffel-dominated landscapes (Franks et al. 2000). Seabird, migratory shorebird and waders may utilise the shoreline near the Facility for feeding due to the presence of suitable habitat (i.e. the rocky platforms interspersed with sand beaches) and overlap of the campaign with the timing of arrival of migratory birds (September–November); however, risk of interaction is low as the campaign is of short duration and small scale (Section 3), peak numbers of migratory birds are expected between December–February and suitable foraging habitat is well represented across the Coral Bay region.	Not likely to be or not at variance 

Clearing Principle	Assessment of clearing impact	Variance to Clearing Principle
	Weeds are known to have an adverse effect on the composition of microhabitats required by fossorial species (Maryan et al. 2015). The dense root mats and thick litter layer formed by Buffel Grass compact the soil, potentially creating unsuitable conditions for skink species. Snakes and other lizards generally prefer areas with denser native vegetation that provides adequate shade for thermoregulation, more structural complexity and microhabitat diversity, compared exposed areas dominated by weeds. Best (1998) also reported that the presence of Buffel Grass significantly reduces the number and diversity of invertebrate taxa, which are an important food source for these reptiles. Given the prevalence of Buffel Grass, it is considered the range and diversity of fauna habitat is low within the Clearing Areas and surrounds. The proposed campaign is not likely to cause any fragmentation of habitat beyond what is already created by the previous development of this area (i.e. carpark and Facility construction) as Clearing Areas coincide, where possible, with existing dunal tracks (Clearing Areas 2 and part of Clearing Area 3) or previously cleared areas (Clearing Area 1) and retain adequate adjacent vegetation to maintain habitat connectivity and ecological corridors. Therefore, the proposed clearing is not likely to be at variance with clearing principle (b).	
<i>Principle (c) – Native vegetation should not be cleared if it includes or is necessary for the continued existence of, threatened flora</i>	Due to the absence of records of threatened flora within 10 km of the Clearing Areas (Annex A; Annex B), and the competition created by weeds, it is unlikely threatened flora is present or would establish at the Clearing Areas. Therefore, the proposed clearing is not likely to be at variance with clearing principle (c).	Not likely to be or not at variance 
<i>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 (TEC).</i>	No TECs are present within 10 km of the of the Clearing Areas (Annex A; Annex B). Vegetation structure and composition have been highly modified by the incursion of Buffel Grass and has no diagnostic characteristics associated with TECs. Given the above, the proposed clearing is not likely to be at variance with clearing principle (d).	Not likely to be or not at variance 

Clearing Principle	Assessment of clearing impact	Variance to Clearing Principle
<i>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</i>	The pre-European extent of VA 622 within the IBRA Region of Carnarvon has been calculated as 282,709.68 ha, of which 281,679.33 ha or 99.64% remains intact (DBCA 2018). Of the current extent, 11.64% is protected in conservation reserves (DBCA 2022), which is less than the 15% benchmark for conservation reserves (DER 2014). Only sparse remnant vegetation may be cleared, with most of the Clearing Areas consisting of Buffel Grass. Remnant vegetation of higher quality than that in the Clearing Areas is abundant locally within inland areas of Nyinggulara National Park. Given that the pre-European extent of VA 662 is mostly unchanged in the IBRA Region of Carnarvon and the proposed clearing will impact degraded vegetation with no diagnostic characteristics of VA 662, the proposed clearing is not likely to be at variance with clearing Principle (e).	Not likely to be or not at variance 
<i>Principle (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</i>	The coastal vegetation within the Clearing Areas is not growing in association with a wetland or watercourse. The proposed clearing is therefore not likely to be at variance with clearing Principle (f).	Not likely to be or not at variance 
<i>Principle (g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation</i>	Clearing can lead to land degradation through various processes, though the extent of impact largely depends on soil characteristics and climatic conditions. For instance, hydrophobic/water-repellent soils are naturally resistant to water infiltration. The presence of vegetation mitigates these properties by stabilising soil structure, increasing organic matter content, and facilitating water infiltration and storage. When vegetation is removed these soils become more prone to surface water runoff and erosion, especially in areas subject to abundant rainfalls/flooding. Soils susceptible to subsurface compaction (i.e. clays, silts) may also experience reduced infiltration and permeability after repeated machinery movement associated with clearing. Clearing in ASS can expose sulfidic materials to oxygen, resulting in the formation of sulfuric acid and the mobilisation of metals, which can degrade soil and water quality. The removal of vegetation exposes soils to wind erosion, particularly in coastal environments where strong winds can rapidly mobilise sands.	Not likely to be or not at variance 

Clearing Principle	Assessment of clearing impact	Variance to Clearing Principle
	The Clearing Areas fall within soil landscape system 204Cs described as “Large coastal dunes (some unvegetated) with narrow swales, limestone plains, wave-cut platforms and beaches, supporting diverse tall and low shrublands” (DPIRD 2025). Soil in the Facility area is mapped as having a very low risk of water repellence (0%), a low to moderate risk of subsurface compaction (<60%) and a very low risk of subsurface acidification (0%; DPIRD 2025). The Facility does not fall within an ASS risk area (DWER 2014). Risk of flooding is considered low due to the absence of nearby watercourses, arid climate, and infrequent extreme events (i.e. tropical cyclones). It is considered the main risk of land degradation at this site is wind erosion. Dune degradation in the Ningaloo Coastal Reserves has largely been attributed to the uncontrolled development of access tracks and unauthorised 4WD use which has progressively exposed large areas to wind erosion (DBCA 2022). Even minor disturbances can initiate the erosion process, as observed in the dune area immediately north of Coral Bay Township, where the unauthorised creation of relatively small foot tracks resulted in major scarring and blowouts exacerbated by the strong prevailing south-westerly winds in summer (DBCA, Matt Smith pers. comm., 07 August 2025). Clearing Area 3 is considered at higher risk of wind erosion due to the relatively larger clearing proposed in this area and location within the dune system. However, potential impacts are expected to be reduced to an acceptable level through the application of hydromulching and / or dust suppressant to promote stabilisation of the cleared area. Restriction of public access from the top of the dune to limit unauthorised use/disturbance may also be considered, where practicable.	
<i>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</i>	The Clearing Areas fall within the NMP Coastal Strip Reserve. The Nyinggulara National Park extends immediately landward of the Reserve. Both areas are managed under the overarching Ningaloo Coastal Reserves management plan (DBCA 2022). DBCA (2022) defines key values and associated objectives and performance indicator targets for the management area. Those values and associated objectives and targets that are relevant in the context of clearing have been reported in table below:	Not likely to be or not at variance 

Clearing Principle	Assessment of clearing impact		Variance to Clearing Principle
	Key objective	Key performance indicator target	
	Aboriginal and cultural heritage values		
	To protect and conserve cultural sites	Physical disturbance to significant sites is being mitigated and no new signs of physical disturbance to specified sites and areas within three years of the release of the plan	
	Natural values		
	To identify, protect and conserve coastal landforms and visual landscape quality	Natural coastal beach processes are not disrupted by management or recreational activities	
	To protect and conserve native plants and plant communities particularly those of cultural and/or conservation significance	- Traditional owners are satisfied with the health and condition of culturally significant species - Subject to natural variation, taxonomic changes, recovery and/or maintenance of populations of threatened and priority flora - No further loss of coastal biological community biomass as a result of human activity in the planning area	
	To identify, protect and conserve native animals and habitats, particularly those of cultural and/or conservation significance	- Traditional owners are satisfied with the health and condition of culturally significant species and thalu - Subject to natural variation, recovery and maintenance of viable populations of threatened and other conservation significant fauna within the planning area - No decline in the conservation status of threatened fauna species - Trends in nesting turtle numbers continue to be stable or increasing - No loss of seabird, migratory shorebird and wader diversity or abundance as a result of human activity in the planning area	
	To minimise the negative impact of weeds on the planning area	Decrease in the area of weeds of local priority	

Clearing Principle	Assessment of clearing impact	Variance to Clearing Principle				
	<table><tr><th colspan="2">Recreation, tourism and community values</th></tr><tr><td>To provide visitor access to enjoy nature-based recreation opportunities that minimises the impact on natural, cultural and recreation values</td><td> • A reduction in track density • An increase in areas undergoing rehabilitation </td></tr></table> Source: Table readapted from DBCA (2022) to present those targets that are relevant to clearing activities. Cultural and heritage values are unlikely to be impacted by the proposed clearing given a) the absence of Register, Lodged or Historical ACH Places within or near the Clearing Areas (DPLH 2026); b) Clearing Areas 1 was previously disturbed during development of the Facility and; c) the potential for undiscovered heritage will be managed during works in accordance with the EIAMP (BMT 2026). Coastal erosion from clearing activities will be mitigated through the application of hydromulching and / or dust suppressant to stabilise the cleared area and, if practicable, by restricting public access from the top of the dune (see Principle h). As clearing will be undertaken along existing tracks/previously cleared areas the DBCA (2022) target or “reducing track density” in the management area will not be impacted. As discussed for Principle a) and c), impacts to threatened or priority flora are not anticipated. Impacts to threatened or other conservation significant fauna, seabirds, migratory birds, waders are also unlikely (see Principle b). The Clearing Areas are unlikely to represent suitable nesting grounds for turtle species as no known nesting has been reported historically near the Facility; Clearing Areas lack characteristics of open sandy and unvegetated beaches favoured for nesting; and routine operation of the Facility generates noise and artificial lighting disturbance that likely deters nesting. Therefore, potential impacts to nesting turtles from the campaign are unlikely and will be further reduced through the implementation of active spotting and protocols for machinery operations during the campaign as per the EIAMP (BMT 2026). No plants, animals or habitat of cultural significance as identified in DBCA (2022) are present within the campaign area.	Recreation, tourism and community values		To provide visitor access to enjoy nature-based recreation opportunities that minimises the impact on natural, cultural and recreation values	• A reduction in track density • An increase in areas undergoing rehabilitation	
Recreation, tourism and community values						
To provide visitor access to enjoy nature-based recreation opportunities that minimises the impact on natural, cultural and recreation values	• A reduction in track density • An increase in areas undergoing rehabilitation					

Clearing Principle	Assessment of clearing impact	Variance to Clearing Principle
	Overall, risk of introduction of new weed, weeds, pests or diseases to the area is low as equipment will be sourced locally (Exmouth) and cleaned/inspected prior to use as per the EIAMP (BMT 2026). Given the dominance of Buffel Grass within the campaign area, machinery movement or clearing are unlikely to further increase weed cover beyond existing levels. Given the above, it is unlikely that clearing will impact on the environmental values of the Ningaloo Coastal Reserves. Additionally, clearing will not result in habitat fragmentation within the reserve beyond what previously created by the construction of the Facility. The proposed clearing is therefore not likely to be at variance with clearing Principle (h).	
<i>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</i>	Wetlands or watercourses are not located within or in the vicinity of the Clearing Areas. Therefore, the proposed clearing is not likely to cause deterioration in surface water quality. No Public Drinking Water Source Areas are located within or near the Clearing Areas. The Clearing Areas fall within a Proclaimed Groundwater Management Area under the <i>Rights in Water and Irrigation Act 1914</i>. The Clearing will not result in the taking (abstraction) of groundwater or temporary dewatering. Additionally, given that clearing will only require shallow disturbance in a small area (Section 3), it is unlikely that groundwater will be intercepted or clearing would result in a significant change to groundwater levels or quality. The proposed clearing is therefore not likely to be at variance with clearing Principle (i).	Not likely to be or not at variance 
<i>Principle (j) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause or exacerbate the incidence or intensity of flooding</i>	Risk of flooding is considered low due to the absence of nearby watercourses, arid climate, and infrequent extreme events (i.e. tropical cyclones). Additionally, the area affected by clearing is small (Section 3) and clearing will mostly be along existing cleared areas, further reducing risks of land degradation associated with flooding. The proposed clearing is therefore not likely to be at variance with clearing Principle (j).	Not likely to be or not at variance 

Note:

1. 4WD = four-wheel-drive; ASS = acid sulfate soils; ACH = Aboriginal Cultural Heritage; DBCA = Department of Biodiversity, Conservation and Attractions; EIAMP = Environmental Impact Assessment and Management Plan; IBRA = Interim Biogeographic Regionalisation for Australia; NMP = Ningaloo Marine Park; TEC = Threatened Ecological Community; VA = vegetation association.

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Annex A NatureMap Search

TAXON	COMMON_NAM	CLASS	WA_STATUS	EPBC_STATU
Hirundo rustica	barn swallow	BIRD	MI	MI
Petrogale lateralis lateralis	black-flanked rock-wallaby, black-footed rock-wallaby, moororong	MAMMAL	EN	EN
Petrogale lateralis lateralis	black-flanked rock-wallaby, black-footed rock-wallaby, moororong	MAMMAL	EN	EN
Petrogale lateralis lateralis	black-flanked rock-wallaby, black-footed rock-wallaby, moororong	MAMMAL	EN	EN
Onychoprion anaethetus	bridled tern	BIRD	MI	MI
Hydroprogne caspia	Caspian tern	BIRD	MI	MI
Hydroprogne caspia	Caspian tern	BIRD	MI	MI
Hydroprogne caspia	Caspian tern	BIRD	MI	MI
Hydroprogne caspia	Caspian tern	BIRD	MI	MI
Hydroprogne caspia	Caspian tern	BIRD	MI	MI
Hydroprogne caspia	Caspian tern	BIRD	MI	MI
Hydroprogne caspia	Caspian tern	BIRD	MI	MI
Hydroprogne caspia	Caspian tern	BIRD	MI	MI
Hydroprogne caspia	Caspian tern	BIRD	MI	MI
Hydroprogne caspia	Caspian tern	BIRD	MI	MI
Hydroprogne caspia	Caspian tern	BIRD	MI	MI
Tringa nebularia	common greenshank	BIRD	MI	MI
Anous stolidus	common noddy	BIRD	MI	MI
Anous stolidus	common noddy	BIRD	MI	MI
Anous stolidus	common noddy	BIRD	MI	MI
Anous stolidus	common noddy	BIRD	MI	MI
Actitis hypoleucos	common sandpiper	BIRD	MI	MI
Actitis hypoleucos	common sandpiper	BIRD	MI	MI
Actitis hypoleucos	common sandpiper	BIRD	MI	MI
Actitis hypoleucos	common sandpiper	BIRD	MI	MI
Actitis hypoleucos	common sandpiper	BIRD	MI	MI
Sterna hirundo	common tern	BIRD	MI	MI
Thalasseus bergii	crested tern	BIRD	MI	MI
Thalasseus bergii	crested tern	BIRD	MI	MI
Thalasseus bergii	crested tern	BIRD	MI	MI
Thalasseus bergii	crested tern	BIRD	MI	MI
Thalasseus bergii	crested tern	BIRD	MI	MI
Thalasseus bergii	crested tern	BIRD	MI	MI
Thalasseus bergii	crested tern	BIRD	MI	MI
Thalasseus bergii	crested tern	BIRD	MI	MI
Thalasseus bergii	crested tern	BIRD	MI	MI
Thalasseus bergii	crested tern	BIRD	MI	MI
Thalasseus bergii	crested tern	BIRD	MI	MI
Thalasseus bergii	crested tern	BIRD	MI	MI
Thalasseus bergii	crested tern	BIRD	MI	MI
Thalasseus bergii	crested tern	BIRD	MI	MI
Thalasseus bergii	crested tern	BIRD	MI	MI
Thalasseus bergii	crested tern	BIRD	MI	MI
Thalasseus bergii	crested tern	BIRD	MI	MI
Thalasseus bergii	crested tern	BIRD	MI	MI
Thalasseus bergii	crested tern	BIRD	MI	MI
Calidris ferruginea	curlew sandpiper	BIRD	CR	CR & MI
Calidris ferruginea	curlew sandpiper	BIRD	CR	CR & MI
Dugong dugon	dugong	MAMMAL	MI	MI
Dugong dugon	dugong	MAMMAL	MI	MI
Apus pacificus	fork-tailed swift	BIRD	MI	MI
Apus pacificus	fork-tailed swift	BIRD	MI	MI
Calidris tenuirostris	great knot	BIRD	CR	CR & MI
Charadrius leschenaultii	greater sand plover, large sand plover	BIRD	VU	VU & MI
Charadrius leschenaultii	greater sand plover, large sand plover	BIRD	VU	VU & MI
Charadrius leschenaultii	greater sand plover, large sand plover	BIRD	VU	VU & MI
Charadrius leschenaultii	greater sand plover, large sand plover	BIRD	VU	VU & MI
Charadrius leschenaultii	greater sand plover, large sand plover	BIRD	VU	VU & MI
Charadrius leschenaultii	greater sand plover, large sand plover	BIRD	VU	VU & MI
Pristis zijsron	green sawfish	FISH	VU	VU
Chelonia mydas	green turtle	REPTILE	VU	VU & MI
Chelonia mydas	green turtle	REPTILE	VU	VU & MI
Chelonia mydas	green turtle	REPTILE	VU	VU & MI
Chelonia mydas	green turtle	REPTILE	VU	VU & MI
Chelonia mydas	green turtle	REPTILE	VU	VU & MI

Chelonia mydas	green turtle	REPTILE	VU	VU & MI
Chelonia mydas	green turtle	REPTILE	VU	VU & MI
Chelonia mydas	green turtle	REPTILE	VU	VU & MI
Chelonia mydas	green turtle	REPTILE	VU	VU & MI
Chelonia mydas	green turtle	REPTILE	VU	VU & MI
Chelonia mydas	green turtle	REPTILE	VU	VU & MI
Chelonia mydas	green turtle	REPTILE	VU	VU & MI
Chelonia mydas	green turtle	REPTILE	VU	VU & MI
Chelonia mydas	green turtle	REPTILE	VU	VU & MI
Chelonia mydas	green turtle	REPTILE	VU	VU & MI
Chelonia mydas	green turtle	REPTILE	VU	VU & MI
Chelonia mydas	green turtle	REPTILE	VU	VU & MI
Chelonia mydas	green turtle	REPTILE	VU	VU & MI
Chelonia mydas	green turtle	REPTILE	VU	VU & MI
Pluvialis squatarola	grey plover	BIRD	MI	MI
Tringa brevipes	grey-tailed tattler	BIRD	MI & P4	MI
Tringa brevipes	grey-tailed tattler	BIRD	MI & P4	MI
Megaptera novaeangliae	humpback whale	MAMMAL	CD & MI	MI
Megaptera novaeangliae	humpback whale	MAMMAL	CD & MI	MI
Megaptera novaeangliae	humpback whale	MAMMAL	CD & MI	MI
Megaptera novaeangliae	humpback whale	MAMMAL	CD & MI	MI
Orcinus orca	killer whale	MAMMAL	MI	MI
Charadrius mongolus	lesser sand plover	BIRD	EN	EN & MI
Pandion haliaetus	osprey	BIRD	MI	MI
Pandion haliaetus	osprey	BIRD	MI	MI
Pandion haliaetus	osprey	BIRD	MI	MI
Pandion haliaetus	osprey	BIRD	MI	MI
Pandion haliaetus	osprey	BIRD	MI	MI
Pandion haliaetus	osprey	BIRD	MI	MI
Pandion haliaetus	osprey	BIRD	MI	MI
Pandion haliaetus	osprey	BIRD	MI	MI
Pandion haliaetus	osprey	BIRD	MI	MI
Falco peregrinus	peregrine falcon	BIRD	OS	
Calidris ruficollis	red-necked stint	BIRD	MI	MI
Calidris ruficollis	red-necked stint	BIRD	MI	MI
Calidris ruficollis	red-necked stint	BIRD	MI	MI
Calidris ruficollis	red-necked stint	BIRD	MI	MI
Calidris ruficollis	red-necked stint	BIRD	MI	MI
Calidris ruficollis	red-necked stint	BIRD	MI	MI
Calidris ruficollis	red-necked stint	BIRD	MI	MI
Calidris ruficollis	red-necked stint	BIRD	MI	MI
Calidris ruficollis	red-necked stint	BIRD	MI	MI
Calidris ruficollis	red-necked stint	BIRD	MI	MI
Calidris ruficollis	red-necked stint	BIRD	MI	MI
Calidris ruficollis	red-necked stint	BIRD	MI	MI
Sterna dougallii	roseate tern	BIRD	MI	MI
Sterna dougallii	roseate tern	BIRD	MI	MI
Sterna dougallii	roseate tern	BIRD	MI	MI
Sterna dougallii	roseate tern	BIRD	MI	MI
Sterna dougallii	roseate tern	BIRD	MI	MI
Sterna dougallii	roseate tern	BIRD	MI	MI
Sterna dougallii	roseate tern	BIRD	MI	MI
Sterna dougallii	roseate tern	BIRD	MI	MI
Arenaria interpres	ruddy turnstone	BIRD	MI	MI
Arenaria interpres	ruddy turnstone	BIRD	MI	MI
Arenaria interpres	ruddy turnstone	BIRD	MI	MI
Calidris alba	sanderling	BIRD	MI	MI
Calidris alba	sanderling	BIRD	MI	MI
Calidris alba	sanderling	BIRD	MI	MI
Calidris alba	sanderling	BIRD	MI	MI
Calidris alba	sanderling	BIRD	MI	MI
Calidris alba	sanderling	BIRD	MI	MI
Calidris alba	sanderling	BIRD	MI	MI
Calidris alba	sanderling	BIRD	MI	MI
Calidris alba	sanderling	BIRD	MI	MI
Calidris alba	sanderling	BIRD	MI	MI
Calidris acuminata	sharp-tailed sandpiper	BIRD	MI	MI

Calidris acuminata	sharp-tailed sandpiper	BIRD	MI	MI
Xenus cinereus	Terek sandpiper	BIRD	MI	MI
Ardena pacifica	wedge-tailed shearwater	BIRD	MI	MI
Phaethon lepturus	white-tailed tropicbird	BIRD	MI	MI
Chlidonias leucopterus	white-winged black tern	BIRD	MI	MI
Chlidonias leucopterus	white-winged black tern	BIRD	MI	MI
Chlidonias leucopterus	white-winged black tern	BIRD	MI	MI
Tringa glareola	wood sandpiper	BIRD	MI	MI
Taxon	ConsStatus			
Indigofera oraria		1		
Indigofera oraria		1		
Indigofera oraria		1		
Indigofera oraria		1		
Indigofera oraria		1		
Lysiandra fuernrohrii		3		

Annex B Protected Matters Search Tool



Australian Government

Department of Climate Change, Energy,
the Environment and Water

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: 07-Oct-2025

[Summary](#)

[Details](#)

[Matters of NES](#)

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

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

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:	1
National Heritage Places:	1
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	40
Listed Migratory Species:	51

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:	None
Commonwealth Heritage Places:	1
Listed Marine Species:	67
Whales and Other Cetaceans:	16
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	1
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:	3
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	4
Key Ecological Features (Marine):	1
Biologically Important Areas:	5
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

World Heritage Properties			[Resource Information]
Name	State	Legal Status	Buffer Status
The Ningaloo Coast	WA	Declared property	In feature area

National Heritage Places			[Resource Information]
Name	State	Legal Status	Buffer Status
Natural			
The Ningaloo Coast	WA	Listed place	In feature area

Commonwealth Marine Area			[Resource Information]
Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.			
Feature Name			Buffer Status
Commonwealth Marine Areas (EPBC Act)			In buffer area only

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			
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Erythroriorchis radiatus Red Goshawk [942]	Endangered	Species or species habitat may occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	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 may 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
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pezoporus occidentalis Night Parrot [59350]	Critically Endangered	Species or species habitat may occur within area	In feature area
Phaethon lepturus fulvus Christmas Island White-tailed Tropicbird, Golden Bosunbird [26021]	Endangered	Species or species habitat may 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
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 may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
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	Species or species habitat known to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat may 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
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area	In feature area
MAMMAL			
Balaenoptera borealis Sei Whale [34]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In feature area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat likely to occur within area	In feature area
Orcaella heinsohni Australian Snubfin Dolphin [81322]	Vulnerable	Species or species habitat may occur within area	In feature area
Rhinonicteris aurantia (Pilbara form) Pilbara Leaf-nosed Bat [82790]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Sousa sahalensis Australian Humpback Dolphin [87942]	Vulnerable	Species or species habitat known to occur within area	In feature area
REPTILE			
Aipysurus apraefrontalis Short-nosed Sea Snake, Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Aipysurus foliosquama Leaf-scaled Sea Snake, Leaf-scaled Seasnake [1118]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding known to occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In feature area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Breeding known to occur within area	In feature area
Natator depressus Flatback Turtle [59257]	Vulnerable	Breeding 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 Largetooth Sawfish, Freshwater Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pristis zijsron Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to 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 likely to occur within area	In feature area

Listed Migratory Species	[Resource Information]		
Scientific Name	Threatened Category	Presence Text	Buffer Status
null			
Balaenoptera omurai Omura's Whale [87136]		Species or species habitat likely to occur within area	In feature area

Migratory Marine Birds			
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Ardeenna carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat likely to occur within area	In feature area
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat likely 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
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Phaethon rubricauda Red-tailed Tropicbird [994]		Species or species habitat may 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 may 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
Migratory Marine Species			
Balaenoptera borealis Sei Whale [34]	Vulnerable	Species or species habitat may occur within area	In buffer area only
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
Balaenoptera physalus Fin Whale [37]	Vulnerable	Species or species habitat may occur within area	In buffer area only
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

Scientific Name	Threatened Category	Presence Text	Buffer Status
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding known to occur within area	In feature area
Crocodylus porosus Salt-water Crocodile, Estuarine Crocodile [1774]		Species or species habitat may occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In feature area
Dugong dugon Dugong [28]		Breeding known to occur within area	In feature area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Breeding known to occur within area	In feature area
Eubalaena australis as Balaena glacialis australis Southern Right Whale [40]	Endangered	Species or species habitat likely 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 known to occur within area	In feature area
Mobula birostris as Manta birostris Giant Manta Ray [90034]		Species or species habitat known to occur within area	In feature area
Natator depressus Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Orcaella heinsohni Australian Snubfin Dolphin [81322]	Vulnerable	Species or species habitat may 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 Largetooth Sawfish, Freshwater Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Endangered	Species or species habitat may occur within area	In feature area
Pristis zijsron Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area	In feature area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In feature area
Sousa sahalensis as Sousa chinensis Australian Humpback Dolphin [87942]	Vulnerable	Species or species habitat known to occur within area	In feature area
Migratory Terrestrial Species			
Hirundo rustica Barn Swallow [662]		Species or species habitat known to occur within area	In feature area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat likely to occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris canutus Red Knot, Knot [855]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may 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 veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area	In feature area
Glareola maldivarum Oriental Pratincole [840]		Species or species habitat may occur within area	In feature area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat may occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pandion haliaetus Osprey [952]		Breeding known to occur within area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area	In feature area

Other Matters Protected by the EPBC Act

Commonwealth Heritage Places			[Resource Information]
Name	State	Status	Buffer Status
Natural			
Ningaloo Marine Area - Commonwealth Waters	WA	Listed place	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 likely to occur within area	In feature area
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area	In feature area
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
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 may occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		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 veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area overfly marine area	In feature area
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat likely to occur within area	In feature area
Glareola maldivarum Oriental Pratincole [840]		Species or species habitat may occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area	In feature area
Hirundo rustica Barn Swallow [662]		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 may 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

Scientific Name	Threatened Category	Presence Text	Buffer Status
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
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pandion haliaetus Osprey [952]		Breeding known to occur within area	In feature area
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat known to occur within area	In feature area
Phaethon lepturus fulvus Christmas Island White-tailed Tropicbird, Golden Bosunbird [26021]	Endangered	Species or species habitat may occur within area	In feature area
Phaethon rubricauda Red-tailed Tropicbird [994]		Species or species habitat may occur within area	In feature area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Sternula albifrons as Sterna albifrons Little Tern [82849]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat may 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
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Fish			
Bulbonaricus brauni Braun's Pughead Pipefish, Pug-headed Pipefish [66189]		Species or species habitat may occur within area	In feature area
Choeroichthys brachysoma Pacific Short-bodied Pipefish, Short-bodied Pipefish [66194]		Species or species habitat may occur within area	In feature area
Choeroichthys suillus Pig-snouted Pipefish [66198]		Species or species habitat may occur within area	In feature area
Doryrhamphus negrosensis Flagtail Pipefish, Masthead Island Pipefish [66213]		Species or species habitat may occur within area	In feature area
Festucalex scalaris Ladder Pipefish [66216]		Species or species habitat may occur within area	In feature area
Filicampus tigris Tiger Pipefish [66217]		Species or species habitat may occur within area	In feature area
Halicampus brocki Brock's Pipefish [66219]		Species or species habitat may occur within area	In feature area
Halicampus spinirostris Spiny-snout Pipefish [66225]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Haliichthys taeniophorus Ribboned Pipehorse, Ribboned Seadragon [66226]		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 histrix Spiny Seahorse, Thorny Seahorse [66236]		Species or species habitat may occur within area	In feature area
Hippocampus planifrons Flat-face Seahorse [66238]		Species or species habitat may occur within area	In feature area
Hippocampus trimaculatus Three-spot Seahorse, Low-crowned Seahorse, Flat-faced Seahorse [66720]		Species or species habitat may occur within area	In feature area
Micrognathus micronotopterus Tidepool Pipefish [66255]		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
Solenostomus cyanopterus Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]		Species or species habitat may occur within area	In feature area
Syngnathoides biaculeatus Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area	In feature area
Trachyrhamphus bicoarctatus Bentstick Pipefish, Bend Stick Pipefish, Short-tailed Pipefish [66280]		Species or species habitat may occur within area	In feature area
Trachyrhamphus longirostris Straightstick Pipefish, Long-nosed Pipefish, Straight Stick Pipefish [66281]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dugong dugon Dugong [28]		Breeding known to occur within area	In feature area
Reptile			
Aipysurus apraefrontalis Short-nosed Sea Snake, Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Aipysurus foliosquama Leaf-scaled Sea Snake, Leaf-scaled Seasnake [1118]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Aipysurus laevis Olive Sea Snake, Olive-brown Sea Snake [1120]		Species or species habitat may occur within area	In feature area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding known to occur within area	In feature area
Crocodylus porosus Salt-water Crocodile, Estuarine Crocodile [1774]		Species or species habitat may occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In feature area
Emydocephalus annulatus Eastern Turtle-headed Sea Snake [1125]		Species or species habitat may occur within area	In feature area
Ephalophis greyae as Ephalophis greyi Mangrove Sea Snake [93738]		Species or species habitat may occur within area	In feature area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Breeding known to occur within area	In feature area
Hydrophis elegans Elegant Sea Snake, Bar-bellied Sea Snake [1104]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hydrophis kingii as Disteira kingii Spectacled Sea Snake [93511]		Species or species habitat may occur within area	In feature area
Hydrophis major as Disteira major Olive-headed Sea Snake [93512]		Species or species habitat may occur within area	In feature area
Hydrophis platura as Pelamis platurus Yellow-bellied Sea Snake [93746]		Species or species habitat may occur within area	In feature area
Natator depressus Flatback Turtle [59257]		Breeding known to occur within area	In feature area

Whales and Other Cetaceans		[Resource Information]	
Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area	In feature area
Balaenoptera borealis Sei Whale [34]		Species or species habitat may occur within area	In buffer area only
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
Balaenoptera omurai Omura's Whale [87136]		Species or species habitat likely to occur within area	In feature area
Balaenoptera physalus Fin Whale [37]		Species or species habitat may occur within area	In buffer area only
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat likely 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
Orcaella heinsohni Australian Snubfin Dolphin [81322]	Vulnerable	Species or species habitat may occur within area	In feature area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area	In feature area
Sousa sahalensis Australian Humpback Dolphin [87942]	Vulnerable	Species or species habitat known to 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
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In feature area

Australian Marine Parks			[Resource Information]
Park Name	Zone & IUCN Categories	Buffer Status	
Ningaloo	Recreational Use Zone (IUCN IV)	In buffer area only	

Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
Ningaloo	Marine Park	WA	In feature area
Nyingguulu (Ningaloo) Coastal Reserve	5(1)(h) Reserve	WA	In feature area
Unnamed WA37500	5(1)(g) Reserve	WA	In buffer area only

EPBC Act Referrals			[Resource Information]	
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Boating Facility	2002/830	Controlled Action	Completed	In buffer area only
Mauds Landing Marina	2000/98	Controlled Action	Completed	In buffer area only
Not controlled action				
Boating Facility	2002/832	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

Key Ecological Features	[Resource Information]
Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.	

Name	Region	Buffer Status
Commonwealth waters adjacent to Ningaloo Reef	North-west	In buffer area only

Biologically Important Areas		[Resource Information]	
Scientific Name	Behaviour	Presence	Buffer Status
Dugong			
Dugong dugon			
Dugong [28]	Breeding	Known to occur	In feature area
Dugong dugon			
Dugong [28]	Calving	Known to occur	In feature area
Dugong dugon			
Dugong [28]	Foraging (high density seagrass beds)	Known to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
Dugong dugon			
Dugong [28]	Nursing	Known to occur	In feature area

Whales			
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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