

PORT OF WEIPA

# ▶ APPENDIX B

## Likelihood of occurrence assessment

## Appendix B MNES likelihood assessment

A list of MNES with the potential to occur within the project region was generated through a search of protected matters using DoEE's online Protected Matters Search Tool (PMST, see **Appendix D**). The MNES included in this list were then assessed to determine their likelihood of occurrence within the project area. This assessment took into account:

- Results of studies undertaken within the vicinity of the Port Hay Point (as summarised in GHD 2019) and any existing data for the region more broadly;
- The habitat requirements and known distribution of the species;
- Professional judgement from this assessment's authors.

The likelihood of occurrence assessment categorised MNES into five categories as follows:

- **Known:** the species or ecological community was or has been observed within the Project area
- **Likely:** a medium to high probability that a species or ecological community occurs within the Project area
- **Potential:** suitable habitat for a species or ecological community occurs within the Project area, but there is insufficient information to categorise the species or ecological community as likely to occur, or unlikely to occur
- **Unlikely to occur:** a very low to low probability that a species or ecological community occurs within the Project area
- **Not occurring:** habitat within the Project area and in the vicinity is unsuitable for the species or ecological community

The results of this assessment are presented below.

## Likelihood of occurrence – threatened species

Scientific Name	Common name	EPBC Act listing status	Likelihood of occurrence	Comment / justification
<b>BIRDS</b>				
<i>Calidris canutus</i>	Red Knot	Endangered, Migratory	Known	Species has been recorded in the region and inhabits mudflats, sandflats and sandy beaches of sheltered coasts, in estuaries, bays, inlets, lagoons and harbours
<i>Calidris ferruginea</i>	Curlew Sandpiper	Critically endangered, Migratory	Known	Species has been recorded in the Gulf of Carpentaria and inhabits mudflats, sandflats and sandy beaches of sheltered coasts, in estuaries, bays, inlets, lagoons and harbours
<i>Erythrotriorchis radiates</i>	Red Goshawk	Vulnerable	Unlikely	Terrestrial species that inhabits wooded and forested lands in coastal areas. Immature birds have been recorded in mangroves and river floodplains.
<i>Limosa lapponica</i>	Bar-tailed Godwit	Vulnerable, Migratory	Potential	There are limited records of this species in the project area, however the habitat is highly suitable with the species mainly occurring in coastal habitats such as large intertidal sandflats, banks, mudflats, estuaries, inlets, harbours, coastal lagoons and bays. It is also often found around beds of seagrass.
<i>Limosa lapponica menzbieri</i>	Northern Siberian Bar-tailed Godwit	Critically endangered, Migratory	Potential	This is a sub-species of the Bar-tailed Godwit and is known to occur in northern Australia. There are no current records of its occurrence in the project area or region, however, there are many records of the Bar-tailed Godwit and therefore there is also the potential for the northern Siberian sub-species to occur.
<i>Neochmia evangelinae</i>	phaeton Crimson Finch (white-bellied)	Endangered	No	The species is found only within a limited range on the Cape York Peninsula, which is south of the Weipa region. Terrestrial species.
<i>Numenius madagascariensis</i>	Eastern Curlew	Critically endangered, Migratory	Known	This species has been recorded in the Weipa region. Known to forage in inertial mudflats, often with beds of seagrass, on sheltered coasts, especially estuaries, mangrove swamps, bays, harbours and lagoons.
<i>Probosciger macgillivrayi</i>	aterrimus Palm Cockatoo	Vulnerable	No	Terrestrial species

Scientific Name	Common name	EPBC Act listing status	Likelihood of occurrence	Comment / justification
<i>Rostratula australis</i>	Australian Painted Snipe	Endangered, Marine	Unlikely	There are no records of this species in the Weipa region or far north Queensland. Is most commonly found in wetland habitats in the south-east of Australia.
<i>Tyto novaehollandiae kimerli</i>	Masked Owl (northern)	Vulnerable	No	Terrestrial species
<b>MAMMALS</b>				
<i>Balaenoptera musculus</i>	Blue Whale	Endangered Migratory, Marine	Unlikely	There are no known feeding or aggregation areas for the Blue Whale within offshore waters of Queensland. The species is wide ranging and widely distributed. It is unlikely that individuals would regularly pass through the offshore area adjacent to Weipa.
<i>Balaenoptera borealis</i>	Sei Whale	Vulnerable, Migratory, Marine	No	This species has not been recorded in north Queensland and prefers deeper, offshore waters.
<i>Balaenoptera physalus</i>	Fin Whale	Vulnerable, Migratory, Marine	No	This species has not been recorded in the Weipa region and prefers offshore temperate and polar waters.
<i>Dasyurus hallucatus</i>	Northern Quoll	Endangered	No	Terrestrial species
<i>Macroderma gigas</i>	Ghost Bat	Vulnerable	No	Terrestrial species
<i>Mesembriomys rattooides</i>	Black-footed Tree-rat (north Queensland)	Vulnerable	No	Terrestrial species
<i>Pteropus conspicillatus</i>	Spectacled Flying-fox	Endangered	No	Terrestrial species
<i>Rhinolophus robertsi</i>	Large-eared Horseshoe Bat	Vulnerable	No	Terrestrial species
<i>Saccolaimus nudicluniatus</i>	Bare-rumped Sheath-tailed Bat	Vulnerable	No	Terrestrial species
<i>Xeromys myoides</i>	Water Mouse, False Water Rat	Vulnerable	Unlikely	Although the mangroves and associated habitats in the Weipa region are suitable for the species, there are no know populations or recordings of the species in the region.

**REPTILES**

Scientific Name	Common name	EPBC Act listing status	Likelihood of occurrence	Comment / justification
<i>Caretta caretta</i>	Loggerhead Turtle	Endangered Migratory	Known	This species has been recorded in the Weipa region. Is likely a transient species in the area, foraging on the surrounding reef systems or seagrass beds. No nesting observed in the region.
<i>Chelonia mydas</i>	Green Turtle	Vulnerable Migratory	Known	This species has been recorded in the Weipa region. Known to forage on the surrounding reef systems or seagrass beds in shallow coastal waters. Small numbers of green turtle nests have also been observed.
<i>Dermochelys coriacea</i>	Leatherback Turtle	Endangered Migratory	Likely	Transient species in the area. May forage on the surrounding reef systems or seagrass beds.
<i>Egernia rugosa</i>	Yakka Skink	Vulnerable	No	Terrestrial species
<i>Eretmochelys imbricata</i>	Hawksbill Turtle	Vulnerable Migratory	Known	This species has been recorded in the Weipa region. Known to forage in surrounding reef system and nest on beaches in the region.
<i>Lepidochelys olivacea</i>	Olive Ridley Turtle	Endangered Migratory	Known	This species has been recorded in the Weipa region. Known to forage in surrounding reef system and nest on beaches in the region.
<i>Natator depressus</i>	Flatback Turtle	Vulnerable Migratory	Known	This species has been recorded in the Weipa region. Known to forage in surrounding reef system and nest on beaches in the region.
<b>SHARKS</b>				
<i>Carcharodon carcharias</i>	Great White Shark	Vulnerable, migratory	Unlikely	This species occurs from central Queensland around the south coast to north-west Western Australia. Mackay is the most northern record in Queensland.
<i>Glyphis glyphis</i>	Spertooth Shark	Critically endangered	Potential	Preferred habitat is upper freshwater and brackish waters within tropical river systems but can tolerate higher salinity. Species has been observed in the Hay and Embley Rivers (last seen in 1986).
<i>Pristis clavata</i>	Dwarf Sawfish	Vulnerable, Migratory	Known	This species has been recorded in shallow waters of Albatross Bay. Estuarine habitats in the region potentially provided nursery habitat.
<i>Pristis pristis</i>	Freshwater Sawfish	Vulnerable, Migratory	Known	This species has been recorded in the Weipa region and inhabits rivers, estuaries, coastal and offshore waters up to 25 m depth.

Scientific Name	Common name	EPBC Act listing status	Likelihood of occurrence	Comment / justification
<i>Pristis zijsron</i>	Green Sawfish	Vulnerable, Migratory	Known	This species has been recorded in Albatross Bay. Estuarine waters potentially provide breeding habitat and shallow coastal habitats potentially provide nursery habitat.
<i>Rhincodon typus</i>	Whale Shark	Vulnerable Migratory	Unlikely	The Whale Shark has not previously been recorded within the waters of Weipa. It is most commonly seen in waters off northern Western Australia, Northern Territory and Queensland, with the main aggregation area at Ningaloo Reef in WA.

**PLANTS**

<i>Acriopsis emarginata</i>	Pale Chandelier Orchid	Vulnerable	No	Terrestrial species
<i>Cajanus mareebensis</i>	-	Endangered	No	Terrestrial species
<i>Calophyllum bicolor</i>	-	Vulnerable	No	Terrestrial species
<i>Cepobaculum carronii</i>	-	Vulnerable	No	Terrestrial species
<i>Dendrobium bigibbum</i>	Cooktown Orchid	Vulnerable	No	Terrestrial species
<i>Dendrobium johannis</i>	Chocolate Tea Tree Orchid	Vulnerable	No	Terrestrial species
<i>Solanum dunalianum</i>	-	Vulnerable	No	Terrestrial species
<i>Vappodes phalaenopsis</i>	Cooktown Orchid	Vulnerable	No	Terrestrial species
<i>Xylopia monosperma</i>	-	Endangered	No	Terrestrial species

**Likelihood of occurrence – migratory species (in addition to those listed above)**

Common name	Scientific name	EPBC Act listing status	Likelihood of occurrence	Comment / justification
<b>MIGRATORY MARINE BIRDS</b>				
<i>Anous stolidus</i>	Common Noddy	Migratory, Marine	Potential	This species has been recorded in the Weipa region but is an offshore or pelagic species only in Queensland
<i>Apus pacificus</i>	Fork-tailed Swift	Migratory, Marine	Unlikely	Aerial species - fly over only

Common name	Scientific name	EPBC Act listing status	Likelihood of occurrence	Comment / justification
<i>Calonectris leucomelas</i>	Streaked Shearwater	Migratory, Marine	Unlikely	This species has not been recorded in the Weipa region. Offshore or pelagic species.
<i>Fregata ariel</i>	Lesser Frigatebird	Migratory, Marine	Potential	This species has been recorded in the Weipa region but is an offshore or pelagic species only.
<i>Fregata minor</i>	Greater Frigatebird	Migratory, Marine	Potential	This species has been recorded in the Weipa region but is an offshore or pelagic species only.
<i>Sternula albifrons</i>	Little Tern	Migratory, Marine	Known	This species inhabits sheltered coastal environments and the northern subpopulation is known to breed in areas of the Gulf of Carpentaria, including Weipa.
<b>MIGRATORY MARINE SPECIES</b>				
<i>Anoxypristis cuspidata</i>	Narrow Sawfish	Migratory	Potential	There are no recent recordings of this species in the Weipa region. This species' Australian distribution is unclear though it is most common in the Gulf of Carpentaria.
<i>Balaenoptera edeni</i>	Bryde's Whale	Migratory, Marine	Unlikely	Has been seen to sporadically inhabit waters of the Weipa region, although no preferred habitat is present in the project area.
<i>Crocodylus porosus</i>	Salt-water Crocodile	Migratory, Marine	Known	This species is known to inhabit the creeks and estuaries of the Weipa region and transverse coastal waters.
<i>Dugong dugon</i>	Dugong	Migratory, Marine	Known	Dugongs are known to occur in the waters off Weipa. They are known to forage on seagrass beds and breed in shallow waters of the Weipa region. The Dugong population in the Gulf of Carpentaria is considered to be one of the most important in Australia and the world.
<i>Isurus paucus</i>	Longfin Mako	Migratory	Unlikely	This species has not been recorded in the Weipa region or Queensland. Suitable habitat is present.
<i>Manta alfredi</i>	Reef Manta Ray	Migratory	Unlikely	This species has not been recorded in the Weipa region, but suitable habitat is present.
<i>Manta birostris</i>	Giant Manta Ray	Migratory	Unlikely	This species has not been recorded in the Weipa region, but suitable habitat is present.

Common name	Scientific name	EPBC Act listing status	Likelihood of occurrence	Comment / justification
<i>Orcaella heinsohni</i>	Australian Snubfin Dolphin	Migratory	Known	This species has been recorded in the Weipa region. Typically forages in shallow coastal waters (<20 m) and estuarine systems.
<i>Orcinus orca</i>	Orca	Migratory, Marine	Unlikely	This species has only been recorded in the Weipa region on one occasion and is rarely observed in tropical waters of Australia. Concentrations of individuals occur in Tasmanian waters and the Antarctic.
<i>Sousa chinensis</i>	Indo-Pacific Humpback Dolphin	Migratory, Marine	Known	This species has been recorded in the Weipa region. Typically forages in mangrove and estuary habitats or shallow reef systems.
<i>Sousa sahalensis</i>	Australian Dolphin	Migratory	Known	This species has been recorded in the Weipa region. Typically occurs in coastal waters.
<b>MIGRATORY WETLAND BIRDS</b>				
<i>Actitis hypoleucos</i>	Common Sandpiper	Migratory, Marine	Known	This species has been recorded in coastal habitats of the Weipa region and areas of national importance occur in the South-eastern Gulf of Carpentaria.
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	Migratory, Marine	Known	This species has been recorded in coastal habitats of the Weipa region and is widespread along the Queensland coast.
<i>Calidris melanotos</i>	Pectoral Sandpiper	Migratory, Marine	Unlikely	This species has not been recorded in the Weipa region with most Queensland records occurring in Cairns or further south
<i>Gallinago hardwickii</i>	Latham's Snipe, Japanese Snipe	Migratory, Marine	Potential	This species has been recorded in the Weipa region, but prefers wetlands and other freshwater habitats.
<i>Gallinago megala</i>	Swinhoe's Snipe	Migratory, Marine	Unlikely	This species has not been recorded in the Weipa region and prefers wetlands and other freshwater habitats.
<i>Gallinago stenura</i>	Pin-tailed Snipe	Migratory, Marine	Unlikely	This species has not been recorded in the Weipa region and prefers wetlands and other freshwater habitats.
<i>Glareola maldivarum</i>	Oriental Pratincole	Migratory, Marine	Unlikely	This species has not been recorded in the Weipa region and prefers terrestrial habitats near wetlands and occasionally coastal habitats including mudflats and beaches.



Common name	Scientific name	EPBC Act listing status	Likelihood of occurrence	Comment / justification
<i>Numenius minutus</i>	Little Curlew, Whimbrel	Migratory, Marine	Potential	This species has been recorded in the Weipa region, but prefers terrestrial habitats near floodplains and occasionally coastal habitats including estuaries, mudflats and beaches.
<i>Numenius phaeopus</i>	Whimbrel	Migratory, Marine	Known	This species has been recorded in the Weipa region and occurs in a variety of coastal habitats including beaches, mangroves and intertidal reefs.
<i>Pandion haliaetus</i>	Osprey	Migratory, Marine	Known	This species has been recorded in the Weipa region and often forages in inshore waters, reefs, bays, coastal cliffs, beaches, estuaries and mangrove swamps.
<i>Tringa nebularia</i>	Common Greenshank	Migratory, Marine	Known	This species is widespread in the Gulf of Carpentaria, including Weipa and occurs in a variety of coastal habitats including seagrass, mangroves, saltmarsh and harbours.
<i>Tringa stagnatilis</i>	Marsh Sandpiper, Little Greenshank	Migratory, Marine	Potential	This species has been rarely recorded in the Weipa region compared to a stronghold population in the south-eastern Gulf of Carpentaria. This species can occur in saline coastal habitats but prefers wetland habitats.
<b>MIGRATORY TERRESTRIAL SPECIES</b>				
<i>Cuculus optatus</i>	Oriental Cuckoo	Migratory	No	Terrestrial species
<i>Cecropis daurica</i>	Red-rumped Swallow	Migratory	No	Terrestrial species
<i>Hirundo rustica</i>	Barn Swallow	Migratory	No	Terrestrial species
<i>Monarcha melanopsis</i>	Black-faced Monarch	Migratory	No	Terrestrial species
<i>Monarcha trivirgatus</i>	Spectacled Monarch	Migratory	No	Terrestrial species
<i>Myiagra cyanoleuca</i>	Satin Flycatcher	Migratory	No	Terrestrial species
<i>Rhipidura rufifrons</i>	Rufous Fantail	Migratory	No	Terrestrial species