

Appendix 17: Threatened and Migratory Species Likelihood of Occurrence Assessment



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Threatened and Migratory Species – Likelihood of Occurrence Assessment

Common Name	Scientific Name	TPWC Act	EPBC Act	Description/Habitat	Likelihood of Occurrence				
Reptiles	Reptiles								
Flatback Turtle	Natator depressus	VU/M	VU/M	The Project Area overlaps habitat critical to the survival of Flatback turtles and a Flatback turtle Biological Important Area (BIA) (inter-nesting).	Likely - No important habitat (foraging or nesting) for the species occurs within the Project Area. Individuals are likely to be sighted transiting through the area as they move through foraging areas.				
Green Turtle	Chelonia mydas	Not listed	VU/M	The Green turtle utilises Darwin Harbour regularly (Whiting 2003).	Likely - Species is known to occur in the Darwin Harbour and surrounding waters.				
Hawksbill Turtle	Eretmochelys imbricata	VU	VU/M	The Hawksbill turtle utilises Darwin Harbour regularly (Whiting 2003).	Likely - Species is known to occur in the Darwin Harbour and surrounding waters.				
Leatherback Turtle	Dermochelys coriacea	CE	EN/M	The leatherback turtle is considered to be an oceanic species, which is unlikely to occur within the Darwin Harbour (Whiting 2001). The species is likely to occur in oceanic waters outside the Darwin Harbour.	Potential - Species unlikely to occur within the Darwin Harbour, but potentially occurs in surrounding waters.				
Loggerhead Turtle	Careta Caretta	VU	EN/M	Loggerhead turtles are expected to be infrequent users of the Darwin Harbour (Whiting 2003). The Loggerhead turtle is more likely to occur in oceanic areas outside the Darwin Harbour.	Potential - Species may occur within the Darwin Harbour, but potentially occurs in surrounding waters.				
Olive Ridley Turtle	Lepidochelys olivacea	EN/M	EN/M	Habitat critical to the survival of the Olive Ridley Turtles and a BIA (Inter-nesting) occur outside to the north and south of the Project Area respectively.	Likely - No important habitat (foraging or nesting) for the species occurs within the Project Area. Individuals are likely to be sighted transiting through the area as they move through foraging areas.				
Plains Death Adder	Acanthophsis hawkei	VU	VU	Prefers flat, treeless, cracking soil riverine floodplains. Neither this species nor preferred habitat occurs within the Project Area.	Unlikely – Whilst the species has been recorded within 5 km of the preferred route alignment for the Project Area, there is no suitable habitat within the Project Area				
Mammals									
Bare-rumped Sheath-tailed Bat	Saccolaimus saccolaimus	VU	VU	Open Pandanus woodland fringing the and eucalypt tall open forests. It roosts in tree hollows and caves. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - No suitable habitat within the Project Area.				
Black-footed Tree-rat	Mesembriomys gouldii	EN	EN	Occurs in the Top End of the Northern Territory (NT) in tropical woodlands and open forests in coastal areas Neither this species nor preferred habitat occur within the Project Area.	Unlikely - No suitable habitat within the Project Area.				
Brush-tailed Rabbit-rat	Conilurus penicillatus	VU	VU	The preferred habitat is eucalypt tall open forest, has been known to also occur on coastal grasslands with scattered large <i>Casuarina equisetifolia</i> trees, beaches, and stunted eucalypt woodlands on stony slopes. It shelters in tree hollows, hollow logs and, less frequently, in the crowns of pandanus or sand palms.	Unlikely – No suitable habitat is within the Project area.				
Fawn Antechinus	Antechinus bellus	VU	VU	Occurs in savannah woodland and tall open forest of the Top End of the NT, shelters in tree hollows and fallen logs, shows a preference for areas exposed to cooler and less frequent fires. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - No suitable habitat within the Project Area.				

Common Name	Scientific Name	TPWC Act	EPBC Act	Description/Habitat	Likelihood of Occurrence
Ghost Bat	Macroderma gigas	VU	VU	The distribution of this species is influenced by the availability of suitable caves and mines for roost sites. Daytime roosts may change seasonally. One of the largest known colonies occurs in a series of gold mine workings at Pine Creek in the NT.	Unlikely - no suitable habitat within the Project Area.
Golden Bandicoot	Isoodon auratus	EN	VU	The Golden Bandicoot has historically occupied a range of habitats across the Northern Territory, although the species favours heathland and shrubland habitats without greater tree cover. The species has declined significantly since European habitation, with the only population being on Marchinbar Island. A relocation program has also established populations on Raragala and Guluwuru islands.	Unlikely – As the species has disappeared from mainland distribution in the Northern territory, it is unlikely to be affected by the project.
Nabarlek (Top End)	Petrogale concinna	EN	EN	Nabarleks are restricted to rocky areas, especially on steep slopes, with large boulders, caves and crevices. They may move from these to forage in adjacent flat areas. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - No suitable habitat within the Project Area.
Northern Brush- tailed Possum	Trichosurus vulpecula arnhemensis	Not listed	VU	Most records are from tall open forests dominated by <i>Eucalyptus miniata and E. tetrodonta</i> . The species is unlikely to be present in light of recent reductions in the species range. Neither this species nor preferred habitat occur within the Project Area.	Unlikely –No suitable habitat within the Project Area.
Northern Brush- tailed Phascogale	Phascogale pirata	EN	VU	The Northern Brush-tailed Phascogale is restricted to eucalypt forests in the top end of the NT. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - The species occurs in eucalypt forests which are not present in proximity to the Project Area
Northern Quoll	Dasyurus hallucatus	EN	EN	This species formerly occurred across much of northern Australia, from southeastern Queensland to the south-west Kimberley, with a disjunct population in the Pilbara. The most suitable habitats appear to be rocky areas. Neither this species nor preferred habitat occurs within the Project Area.	Unlikely – whilst the species has historically been recorded within 5 km of the Project Area there is no suitable habitat within the Project Area.
Water Mouse / False Water Rat	Xeromys myoides	VU	VU	Mangrove forests, freshwater swamps and floodplain saline grasslands.	Unlikely – the species has not been recorded within 5 km of the Project Area and there is no suitable habitat within the Project Area.
Marine Mammals					
Blue Whale	Balaenoptera musculus	Not listed	EN/M	The blue whale is found in every ocean except the arctic, with a range that extends from the periphery of drift-ice in polar seas to the tropics. It follows seasonal migration pattern between summering and wintering areas although some individuals may remain in certain areas year-round The Project Area does not contain any known feeding, breeding, calving, aggregation or migratory routes. The closest known recorded blue whales was hundreds of kilometres north of the Project Area.	Unlikely - The species is unlikely to occur within the Project Area as its preferred habitat is open ocean.

Common Name	Scientific Name	TPWC Act	EPBC Act	Description/Habitat	Likelihood of Occurrence
Fin Whale	Balaenoptera physalus	Not listed	VU/M	The North Atlantic fin whale has an extensive distribution. In general, fin whales are more common north of approximately 30°N latitude, but considerable confusion arises about their occurrence south of 30°N latitude because of the difficulty in distinguishing fin whales from Bryde's whales. Fin whale is not known to occur even infrequently in the North Marine Region (CoA 2012); however, the species is likely to occur in deeper offshore waters. The Project Area does not contain any known feeding, breeding, calving, aggregation or migratory routes.	Unlikely - The species is unlikely to occur within the Project Area as its preferred habitat is open ocean. It is seen to occur further offshore within Commonwealth waters. A 2018 study of whale strikes globally showed there has been no confirmed observations of Fin Whales within the NT waters. Their preference for deep water habitat also puts them outside the vast majority of Australian shipping lanes, including those of the NT. Overall Fin Whales are rarely seen in the Southern Hemisphere, thought to be driven by extensive Japanese exploitation of the species for whaling purposes, combined with a slow recovery rate.
Sei Whale	Balaenoptera borealis	Not listed	VU/M	Sei whales have been infrequently recorded in Australian waters. Typically occur within deeper offshore waters. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - The species is unlikely to occur within the Project Area as its preferred habitat is open ocean. While Sei Whales are occasionally observed in Northern Territory waters, they are more common further south towards Antarctica. The species is unlikely to habit the Darwin Harbour as it requires deep water habitat. An updated map of the species extent also shows the species potential habitat being outside the project area.
Birds					
Australian Painted Snipe	Rostratula australis	VU	EN	Shallow, vegetated, freshwater swamps, claypans or inundated grassland. Neither this species nor preferred habitat occur within the Project Area.	Unlikely – No suitable habitat within the Project Area
Curlew Sandpiper	Calidris ferruginea	CE	CE/M	Fresh and brackish water can include ephemeral and permanent lakes, dams, waterholes and bore drains, usually with bare edges of mud or sand. Neither this species nor preferred habitat occur within the Project Area.	Unlikely – Whilst the species has been recorded within 5 km of the Project Area, there is no suitable habitat within the Project Area
Eastern Curlew	Numenius madagascariensis	CE	CE/M	They are most common in mangrove areas but will also forage on intertidal flats and saltmarshes. Neither this species nor preferred habitat occur within the Project Area.	Unlikely – Whilst the species has been recorded within 5 km of the Project Area, there is no suitable habitat within the Project Area
Gouldian Finch	Erythrura gouldiae	EN	EN	The species forages in open woodland with groundcover of <i>Sorghum</i> and other annual and perennial grasses. Nests in hollows in <i>Eucalyptus tintinnans</i> . Neither this species nor preferred habitat occur within the Project Area.	Unlikely – Whilst the species has been recorded within 5 km of the Project Area, there is no suitable habitat within the Project Area
Great Knot	Calidris tenuirostris	CR	CE/M	Migratory species. In the NT birds settle on large sheltered intertidal mudflats and sandflats, especially in mangrove areas. Neither this species nor preferred habitat occur within the Project Area.	Unlikely – Whilst the species has been recorded within 5 km of the Project Area, there is no suitable habitat within the Project Area
Greater Sand Plover	Charadrius leschenaultii	VU	VU/M	In the NT, Greater Sand Plovers have been recorded from most of the coastline. In the NT they forage along sandy beaches and sheltered mudflats and have been reported them occasionally also using inland saline wetlands but always close to the coast. Neither this species nor preferred habitat occur within the Project Area.	Unlikely – Whilst the species has been recorded within 5 km of the Project Area, there is no suitable habitat within the Project Area

Common Name	Scientific Name	TPWC Act	EPBC Act	Description/Habitat	Likelihood of Occurrence
Grey Falcon	Falco hypoleucos	VU	VU	Occurs in lightly timbered lowland plains, typically on inland drainage systems, where the average annual rainfall is less than 500 mm. Neither this species nor preferred habitat occur within the Project Area.	Unlikely – Has not been recorded within 5 km of the project area and suitable habitat does not occur within the Project Area.
Lesser Sand Plover	Charadrius mongolus	EN	EN/M	Migratory species. In the NT the birds forage on sheltered mudflats, sandy beaches, estuaries and mangroves. They have also been reported to use inland saline wetlands occasionally but always close to the coast. Neither this species nor preferred habitat occur within the Project Area.	Unlikely – Whilst the species has been recorded within 5 km of the Project Area, there is no suitable habitat within the Project Area
Masked Owl (mainland Top End)	Tyto novaehollandiae kimberli	VU	VU	Occurs mainly in eucalypt tall open forests (especially those dominated by Darwin woollybutt <i>Eucalyptus miniata</i> and Darwin stringybark E. <i>tetrodonta</i>), but also roosts in monsoon rainforests, and forages in more open vegetation types, including grasslands. Although it may roost in dense foliage, it more typically roosts, and nests, in tree hollows. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - no suitable habitat within the Project Area
Nunivak Bar- tailed Godwit, Western Alaskan Bar-tailed Godwit	Limosa lapponica baueri	VU	VU	Widespread in coastal areas such as wetlands, however predominantly found in New Zealand during breeding season. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - no suitable habitat within the Project Area
Partridge Pigeon	Geophaps smithii	VU	VU	Occurs in open forest and woodland dominated by <i>Eucalyptus tetrodonta</i> and <i>E. miniata</i> with a structurally diverse understorey. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - no suitable habitat within the Project Area
Red Gosshawk	Erythrotriorchis radiatus	VU	VU	Forest and woodland with a mosaic of vegetation types, including eucalypt woodland, open forest, gallery rainforest, swamp sclerophyll forest and rainforest margins. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - no suitable habitat within the Project Area
Red Knot	Calidris canutus	EN	EN/M	Migratory species. In the NT birds settle on large sheltered intertidal mudflats and sandflats and are rarely encountered far from the coast. Neither this species nor preferred habitat occur within the Project Area.	Unlikely – Whilst the species has been recorded within 5 km of the Project Area, there is no suitable habitat within the Project Area
Sharks					
Dwarf Sawfish	Pristis clavata	VU	VU/M	The species' Australian distribution is considered to extend north from Cairns around the Cape York Peninsula in QLD, across northern Australian waters to the Pilbara coast in Western Australia. The species usually inhabits shallow (2–3 m) coastal waters and estuarine habitats. The species does not utilise any purely freshwater areas, as its range is restricted to brackish and salt water. Dwarf sawfish are considered unlikely to occur in the Darwin Harbour area although an individual has been reported from Buffalo Creek (ALA 2022a) approximately 10 km east of the Project Area.	Unlikely - The species is unlikely to occur in the Project Area based on previous records

Common Name	Scientific Name	TPWC Act	EPBC Act	Description/Habitat	Likelihood of Occurrence
Freshwater Sawfish	Pristis pristis	VU	VU/M	The Freshwater Sawfish is a marine/estuarine species that spends its first 3-4 years in freshwater then the larger mature animals tend to occur more often in coastal and offshore waters up to 25 m depth. In the NT, Freshwater Sawfish have been recorded from the Adelaide, Victoria, Daly, East Alligator, South Alligator, Goomadeer, Roper, McArthur, Wearyan and Robinson Rivers (CoA 2015). The Project Area does not contain key habitat resources for this species for foraging or breeding. The closest known record is over 20 km away from the Project Area.	Unlikely - The species is unlikely to occur in the Project Area based on previous records.
Great White Shark	Carcharodon carcharias	Not Listed	VU/M	In Australia, Great White Sharks have been recorded from central QLD around the south coast to north-west WA but may occur further north on both coasts. It has been sighted in all coastal areas except in the NT.	Unlikely - The species is unlikely to occur within the Project Area as its preferred habitat is open ocean and is not typically off the Northern Territory coast.
Green Sawfish	Pristis zijsron	VU	VU/M	The Green Sawfish was once widely distributed but it is now thought that northern Australia may be the last region where significant populations of Green Sawfish exist. They inhabit muddy bottom habitats and also enter estuaries where they can be found in shallow water. Individuals of this species have been recorded in the region e.g. reported from Buffalo Creek (ALA 2022b) approximately 10 km east of the Project Area. The Project Area does not contain key habitat resources for this species such as foraging or breeding.	Unlikely - The species is unlikely to occur in the Project Area based on previous records.
Northern River Shark	Glyphis garricki	EN	EN	Since its discovery in 1986, only 36 specimens have been recorded. Little is known of the ecology of the northern river shark but it is probably restricted to shallow, brackish reaches of large rivers. This conclusion is based on the fact that it has not yet been caught in the coastal marine areas despite considerable fishing and collecting activity in these habitats. In the NT this species is only known within the from the Adelaide and East and South Alligator River systems. Individuals of this species of have been recorded in the broader Darwin area, these records are located well away from the Project Area in different habitat then what is found in the Project Area. This species is not known in the Darwin Harbour area.	Unlikely - The species is unlikely to occur in the Project Area based on previous records.
Scalloped Hammerhead	Sphyrna lewini	Not Listed	Conservation Dependent	The Scalloped Hammerhead has a circum-global distribution in tropical and subtropical waters. The scalloped hammerhead shows strong genetic population structuring across ocean basins as it rarely ventures into or across deep ocean waters but ranges quite widely over shallow coastal shelf waters. One individual of this species has been recorded in the Darwin Harbour Region. The Project Area does not contain key habitat resources for this species such as foraging or breeding.	Unlikely – The species is unlikely to occur in the Project Area based on previous records and there is no suitable habitat within the Project.
Speartooth Shark	Glyphis glyphis	Not Listed	CE	Predominantly occurs within tidal rivers and estuaries within the NT. There are records in the Adelaide River which reflects is likely distribution in tidal rivers and estuaries. No individuals have been recorded in the Darwin Harbour region.	Unlikely - The species is unlikely to occur in the Project Area based on previous records.

Common Name	Scientific Name	TPWC Act	EPBC Act	Description/Habitat	Likelihood of Occurrence
Whale Shark	Rhincodon typus	Not Listed	VU/M	In Australia, the Whale Shark is most commonly seen in waters off northern WA, NT and QLD. The Whale Shark seasonally aggregates in coastal waters off Ningaloo Reef between March and July each year, at Christmas Island between December and January, and in the Coral Sea between November and December. The Whale Shark is an oceanic and coastal, tropical to warm-temperate pelagic shark. The Project Area does not contain any known feeding, breeding, aggregation or migratory routes.	Unlikely - The species is unlikely to occur within the Project Area as its preferred habitat is open ocean.
Migratory Marine	Birds		·		
Common Noddy, Brown Noddy	Anous stolidus	Not Listed	M	Tropical seabird with worldwide distribution. They breed on tropical and subtropical inshore or oceanic islands, which have rocky cliffs and coral or sand beaches. It nests on the ground, in trees or shrubs, and on cliffs or man-made structures, such as docks and jetties. During the non-breeding season, they will spend most of its time at sea and may roost on water, rocks, islets, flotsam and even the backs of sea turtles.	Unlikely - Species is unlikely to occur given the onshore component of the Project is located within the existing DLNG facility disturbance envelope and suitable habitat is not available for this species
				The species may only be seen transiting the area, but is unlikely to land onshore with no suitable foraging habitat present.	
Fork-tailed swift	Apus pacificus	Not Listed	М	They spend most of the year relatively high in the air column, only coming down to near ground level at times of bad weather. Seen over open country from semi deserts to coasts, islands and sometimes over forests and cities. Species may be observed as an overhead visitor.	Unlikely - Species is aerial and unlikely to be found within the Project Area.
Great Frigatebird, Great Frigatebird	Fregata minor	Not Listed	М	It is a widespread seabird, with major colonies in the Indian Ocean, West and Central Pacific and Southern Atlantic. They inhabit remote islands in tropical and sub-tropical seas, where it breeds in small bushes, mangroves and even on the ground. The species has not been recorded in the Darwin region in the last 30 years.	Unlikely - Species unlikely to occur in the Project Area and limited suitable habitat is present in the Project Area.
Lesser Frigatebird, Least Frigatebird	Fregata ariel	Not Listed	M	It is a widespread seabird, with major colonies in the Indian Ocean, West and Central Pacific and Southern Atlantic. They inhabit remote islands in tropical and sub-tropical seas, where it breeds in small bushes, mangroves and even on the ground. Outside the breeding season it is sedentary, with immature and non-breeding individuals dispersing throughout tropical seas The species has not been recorded in the Darwin region in the last 15 years. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - Species unlikely to occur in the Project Area and limited suitable habitat is present in the Project Area.
Little Tern	Sternula albifrons	Not Listed	M	Inhabits coastal waters, bays, inlets, saline or brackish lakes, salt fields and sewage ponds near coast throughout northwest, north, east and southeast Australia. It can also be found further inland, sometimes up to several kilometres from the sea. The species has not been recorded in the Darwin region in the last 15 years. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - Species unlikely to occur in the Project Area and limited suitable habitat is present in the Project Area.

Common Name	Scientific Name	TPWC Act	EPBC Act	Description/Habitat	Likelihood of Occurrence
Streaked Shearwater	Calonectris leucomelas	Not Listed	М	This species is pelagic and abundant off the north coasts of Australia from November to May. Occurs -on the west and east coasts in summer. Species is abundant off northern Australian coasts. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - Species unlikely to occur in the Project Area and the Project Area does not contain suitable habitat for the species.
White-tailed Tropicbird	Phaethon lepturus	Not listed	М	Tropicbirds are predominantly pelagic species, rarely coming to shore except to breed. The White-tailed Tropicbird forages in warm waters and over long distances, moving up to 1500 kilometres from breeding sites. The main breeding site is Christmas Island. Species may be observed as an overhead visitor.	Unlikely – Species unlikely to occur in the Project Area and the Project Area does not contain suitable habitat for the species
Migratory Marine	Species				
Australian Snubfin Dolphin	Orcaella brevirostris	Not Listed	М	They occur in inshore coastal areas and some rivers from eastern India to northeastern Australia and through southeast Asia to Vietnam. Inhabits coastal, brackish and freshwaters of the tropical and subtropical Indo-Pacific. A substantial population was located in the western Gulf of Carpentaria, and another in Blue Mud Bay. The species lives in brackish waters near coasts, river mouths and in estuaries. The Project area intersects the Australian Snubfin dolphin BIA for breeding. This species has been recorded within the Darwin Harbour.	Likely - Suitable habitat for the species is present. Individuals of the species have previously been recorded near Catalina Island, located to the east on the Project Area.
Dugong	Dugong dugon	Not Listed	М	Generally occurs in wide shallow protected bays and mangrove channels that support extensive sea grass meadows. Reported to use shallow waters such as tidal sandbanks and estuaries for calving. Australian range from Shark Bay, WA to Moreton Bay, QLD.	Likely – Suitable habitat for the species is present. The species is widely known from the Darwin harbour.
Indo-Pacific Humpback Dolphin	Sousa chinensis	Not Listed	М	The Indo-Pacific hump-backed dolphin, is found in tropical and temperate coastal waters of the Indian and Pacific Oceans from northern Australia and southern China in the east, through Indonesia, and around the coastal rim of the Indian Ocean to southern Africa. They are known to enter rivers, estuaries, and mangroves, particularly the latter. They prefer shallow waters <20 m in depth with warm temperatures between 15-36°C. The species is mostly recorded within 10 km of the coast and are on average recorded 2.8 km from the coast. The Project area intersects the Indo-Pacific Humpback dolphin BIA for breeding. This species has been recorded within the Darwin Harbour.	Likely - Suitable habitat for the species is present. The species is widely known from the Darwin Harbour.
Salt-water Crocodile	Crocodylus porosus	Not Listed	M	The Salt-water crocodile is commonly recorded in the Darwin Harbour. Nesting within Darwin Harbour is limited. As its common name implies, the saltwater crocodile has a high tolerance for saltwater, aided by salt-excreting glands on the tongue. It may be found in brackish water around coastal areas and rivers, often amongst mangrove forest, as well as occurring further out to sea, and also occurs in freshwater rivers, lakes, swamps and marshes, up to 200 kilometres inland	Likely - There is no important habitat for the species located within the Pproject Area. Individuals of the species have previously been sighted on boat ramps near the Project Area.

Common Name	Scientific Name	TPWC Act	EPBC Act	Description/Habitat	Likelihood of Occurrence
Spotted Bottlenose Dolphin	Tursiops aduncus	Not Listed	М	The Project area intersects the Spotted Bottlenose dolphin BIA for breeding. This species has been recorded within the Darwin Harbour. In Australia, the species is restricted to inshore areas such as bays and estuaries, nearshore waters, open coast environments, and shallow offshore waters including coastal areas around oceanic islands east and west of Australia including the Red Sea. Its habitat varies depending on the tides and the season but includes estuaries, coral reefs and surface waters at high seas, so it tolerates both saltwater and brackish water.	Likely - Suitable habitat for the species is present. The species is widely known from the Darwin Harbour.
Bryde's Whale	Balaenoptera edeni	Not Listed	М	The Bryde's whale can be found in tropical and sub-tropical waters throughout the Atlantic, Pacific and Indian Oceans. There appear to be two distinct habitat preferences amongst Bryde's whales, with some populations, usually comprising smaller-bodied individuals, occurring in coastal waters, while other populations can be found in the open ocean, however all Bryde's whales have a preference for warmer water above 16.3 Degrees Celsius. The Project Area does not contain any known feeding, breeding, calving, aggregation or migratory routes.	Unlikely - No suitable habitat is present within the Project Area and the species is unlikely to occur in the Project Area.
Giant Manta Ray	Manta birostris	Not Listed	М	This species is believed to have a wider distribution than the closely related reef manta ray, and is more migratory in its behaviour. It appears to be a seasonal visitor to coastal and offshore sites, and is commonly seen along productive coastlines with regular upwellings, as well as around oceanic islands, offshore pinnacles and seamounts. The south coast of Bathurst Island but are not expected to be present in large numbers. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - No suitable habitat is present within the Project Area and the species is unlikely to occur in the Project Area.
Humpback Whale	Megaptera novaeangliae	Not listed	М	Australia has two distinct Humpback Whale populations which throughout all coastal waters surrounding Australia; east coast and west coast Within the North Marine Region there are relatively few humpback whales known to travel north of their calving grounds located in Camden Sound (Jenner et al. 2001). No humpback whales were recorded during the 12 months of noise monitoring undertaken as part of the Barossa marine studies program (JASCO Applied Sciences 2016; McPherson et al. 2015). The Project Area does not contain any known feeding, breeding, calving, aggregation or migratory routes.	Unlikely - The species is unlikely to occur within the Project Area as its preferred habitat is open ocean. It is seen to occur further offshore within Commonwealth waters. A 2021 study by AECOM for the NT government confirmed there was no suitable habitat for Humpback Whales within the Darwin Harbour. The species occasionally travel through the harbour as part of migration for feeding and breeding, however the harbour is outside the main migration routes. In 2021, three humpbacks travelled 20 km inland up the alligator river. This had never been recorded before and marine scientists are still investigating the cause. It is suspected the Whales either got lost or were chased by a predator into the river mouth. All three individuals eventually made it back to open waters and there has been no further observations of Humpbacks in the river since.
Killer Whale, Orca	Orcinus orca	Not Listed	М	The Orca is found throughout all the world's oceans. The Orca occurs in virtually every marine region, from polar waters to the equator, and has even been known to enter bays, estuaries and rivers, as well as ice floes. However, it is most commonly recorded in coastal, temperate waters and in areas of high productivity. Its preferred habitat is open ocean. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - The species is unlikely to occur within the Project Area.
Longfin Mako	Isurus pacus	Not Listed	M	Widely scattered records suggest that the Longfin Mako shark has a worldwide distribution in tropical and warm-temperate oceans; the extent of its range is difficult to determine due to confusion with the Shortfin Mako. In the Indian Ocean, it has been reported from the Mozambique Channel. Its preferred habitat is open ocean likely in Commonwealth waters outside of the Project Area. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - The species is unlikely to occur within the Project Area.

Common Name	Scientific Name	TPWC Act	EPBC Act	Description/Habitat	Likelihood of Occurrence
Narrow Sawfish	Anoxypristis cuspidata	Not Listed	М	The Narrow Sawfish is found mainly in inshore coastal waters, to depths of around 40 m, where it is thought to spend most of its time on or near the bottom. It may also enter estuaries and river deltas, and has been reported to move upstream into rivers in some areas, although its occurrence in freshwater has yet to be verified Its preferred habitat is open ocean likely in Commonwealth waters outside of the Project Area. Neither this species nor preferred habitat occurs within the Project Area.	Unlikely - No suitable habitat is present within the Project Area.
Oceanic Whitetip Shark	Carcharhinus Iongimanus	Not Listed	М	The Oceanic Whitetip is found globally in deep, open oceans. Its preferred habitat is open ocean likely in the Commonwealth waters outside of the Project Area. Neither this species nor preferred habitat occurs within the Project Area.	Unlikely – The species is unlikely to occur within the Project Area.
Reef Manta Ray	Manta alfredi	Not Listed	M	The Reef Manta Ray is found in tropical and sub-tropical waters in the Pacific and Indian Oceans. Within this widespread range its populations appear to be quite patchy. It is more commonly found in shallow inshore waters and typically occurs around coastal reefs, tropical island groups, atolls, bays and productive coastlines.	Unlikely - The species is unlikely to occur within the Project Area and no suitable habitat is present within the Project Area.
Shortfin Mako	Isurus oxyrinchus	Not Listed	М	The Shortfin Mako inhabits offshore temperate and tropical seas worldwide. The closely related Longfin Mako Shark is found in the Gulf Stream or warmer offshore waters (for example, New Zealand and Maine). Its preferred habitat is open ocean likely in the Commonwealth waters outside of the Project Area. Neither this species not preferred habitat occur within the Project Area.	Unlikely – The species is unlikely to occur within the Project Area.
Migratory Terrestr	ial/Wetland Species				
Asian Dowitcher	Limnodromus semipalmatus	Not listed	М	In the NT the Asian Dowitcher is found in Darwin and Arnhem Land. The Asian Dowitcher occurs in sheltered coastal environments, such as embayments, coastal lagoons, estuaries and tidal creeks. They are known to frequent shallow water and exposed mudflats or sandflats.	Potential – Some species recorded in proximity to the Project Area. Potential habitat in the Darwin Harbour.
Common Sandpiper	Actitis hypoleucos	Not Listed	М	Shallow, pebbly, muddy or sandy edges of rivers and streams, coastal to far inland; dams, lakes, sewage ponds; margins of tidal rivers; waterways in mangroves or saltmarsh; mudflats; rocky or sandy beaches; causeways, riverside lawns, drains and street gutters.	Potential - The Project Area does not contain suitable habitat for nesting/roosting however there is suitable habitat for foraging on either side of the Project Area which may result in this species traversing the Project Area.
Grey Plover	Pluvialis squatarola	Not listed	M	Grey Plovers occur almost entirely in coastal areas, where they usually inhabit sheltered embayments, estuaries and lagoons with mudflats and sandflats, and occasionally on rocky coasts with wave-cut platforms or reef-flats, or on reefs within muddy lagoons. They also occur around terrestrial wetlands such as near-coastal lakes and swamps, or saltlakes.	Potential - The Project Area does not contain suitable habitat for nesting/roosting however there is suitable habitat for foraging on either side of the Project Area which may result in this species traversing the Project Area.

Common Name	Scientific Name	TPWC Act	EPBC Act	Description/Habitat	Likelihood of Occurrence
Oriental Plover	Charadrius veredus	Not listed	М	Oriental Plovers usually forage among short grass or on hard stony bare ground but also on mudflats or among beachcast seaweed on beaches. Oriental Plovers sometimes roost on soft wet mud or in shallow water of beaches and tidal mudflats. The species does not breed in Australia.	Potential – Some species recorded in proximity to the Project Area. Potential habitat in the Darwin Harbour and offshore of Wagait Beach.
Osprey	Pandion haliaetus	Not Listed	М	Treated as conspecific with <i>P. Cristatus</i> . The Osprey is thinly distributed around the coast of Australia where they forage for fish in fresh, brackish, or saline waters of rivers, lakes, estuaries and inshore coastal waters. Nests are usually located near a suitable area of foraging habitat and are a bulky structure made from piled sticks, often positioned in a tall dead tree or artificial structures such as telecommunication towers or poles. Breeding pairs defend breeding territory against other Ospreys, and active nests are usually more than 1 km apart.	Potential - The Project Area and surrounds contain suitable foraging habitat for the species. It is noted that there is an Osprey nest on the DLNG site (atop an artificial pole).
Bar-tailed Godwit	Limodsa lapponica	Not Listed	M	The Bar-tailed Godwit has been recorded in the coastal areas of all Australian states. It is widespread in the Torres Strait and along the east and south-east coasts of Queensland, NSW and Victoria, including the offshore islands. Populations have also been recorded in the Top End, from Darwin and Melville Island, east to the Alligator River and Croker Island. The Bar-tailed Godwit is found mainly in coastal habitats such as large intertidal sandflats, banks, mudflats, estuaries, inlets, harbours, coastal lagoons and bays. It is found often around beds of seagrass and, sometimes, in nearby saltmarsh. Species has been recorded in the Darwin Harbour. Neither this species nor preferred habitat occur within the Project Area	Unlikely - The species is unlikely to occur within the Project Area and the Project Area does not contain suitable habitat for this species.
Barn Swallow	Hirundo rustica	Not Listed	M	Species if found sporadically throughout northern Australia during non-breeding season. The barn swallow is found in vegetated areas including farmland, sports grounds, native grasslands and airstrips as well as over open water such as billabongs, lagoons, creeks and sewage treatment plants. The closest known record is over 5 km from the Project Area. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - The species is unlikely to occur within the Project Area and the Project Area does not contain suitable habitat for this species.
Clack-tailed Godwit	Limosa limosa	Not Listed	M	The Black-tailed Godwit is found in all states and territories of Australia; however, it prefers coastal regions, and the largest populations are found on the north coast between Darwin and Weipa. In Australia the Black-tailed Godwit has a primarily coastal habitat environment. The species is commonly found in sheltered bays, estuaries and lagoons with large intertidal mudflats or sandflats, or spits and banks of mud, sand or shell-grit; occasionally recorded on rocky coasts or coral islets. Species has been recorded in the Darwin Harbour. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - The species is unlikely to occur within the Project Area and the Project Area does not contain suitable habitat for this species.

Common Name	Scientific Name	TPWC Act	EPBC Act	Description/Habitat	Likelihood of Occurrence
Broad-billed sandpiper	Limicola falcinellus	Not Listed	М	Shallow, pebbly, muddy or sandy edges of rivers and streams, coastal to far inland; dams, lakes, sewage ponds; margins of tidal rivers; waterways in mangroves or saltmarsh; mudflats; rocky or sandy beaches; causeways, riverside lawns, drains and street gutters.	Unlikely - The species is unlikely to occur within the Project Area and the Project Area does not contain suitable habitat for this species.
				The closest known record is over 5 km from the Project Area. Neither this species nor preferred habitat occur within the Project Area.	
Common Greenshank	Tringa nebularia	Not Listed	М	Species is common throughout Australia from August till March. Found in mudflats, estuaries, saltmarshes, margins of lakes, wetlands, clay pans, fresh and salines, commercial salt fields, sewage ponds.	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat.
				Neither this species nor preferred habitat occur within the Project Area.	
Grey-tailed Tattler	Tringa brevipes	Not Listed	М	Found in estuaries, tidal mudflats, mangroves, wave-washed rocks and reefs, shallow river margins, coastal or inland. In Australia adults arrive in the north coast from late Aug to early Sep.	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat.
				Neither this species nor preferred habitat occur within the Project Area.	
Grey Wagtail	Motacilla cinerea	Not Listed	М	Found near running water, disused quarries, sandy rocky streams in escarpments and rainforests, sewage ponds, ploughed fields and airfields. Visitor to Australia from November to April.	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat.
				Neither this species nor preferred habitat occur within the Project Area.	
Little Curlew	Numenius minutus	Not Listed	М	The Little Curlew is most often found feeding in short, dry grassland and sedgeland, including dry floodplains and black soil plains, which have scattered, shallow freshwater pools or areas seasonally inundated. Open woodlands with a grassy or burnt understorey, dry saltmarshes, coastal swamps, mudflats or sandflats of estuaries or beaches on sheltered coasts, mown lawns, gardens, recreational areas, ovals, racecourses and verges of roads and airstrips are also used.	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat.
				The closest known record of this species is over 5 km from the Project Area and was recorded 10 years ago. While the Project Area does contain some attributes which are known to be utilised by this species (i.e. mudflats), they typically prefer to forage in short grasses which are not present at the site.	
Little Ringed Plover	Charadrius dubius	Not Listed	М	This species is associated with open plains; bare rolling country, often far from water; ploughed land; muddy or sandy wastes near inland swamps or tidal mudflats; bare clay pans; margins of coastal marshes; grassy airfields, sports fields, and lawns. They are a regular summer migrant to Australia from Sep-Mar.	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat.
				Neither this species nor preferred habitat occur within the Project Area.	

Common Name	Scientific Name	TPWC Act	EPBC Act	Description/Habitat	Likelihood of Occurrence
Long-toed Stint	Calirdirs subminuta	Not Listed	М	The long-toed stint breeds in Siberia during the Northern Hemisphere summer. It is a visitor to New Guinea and Australia and a vagrant to Sweden, South Africa, Melanesia, Hawaii, the northwestern USA and the vicinity of the Bering Sea. In its over-wintering range it visits a variety of wetland habitats including shallow freshwater or brackish areas, lakes, swamps, floodplains, marshes, lagoons, muddy shores and sewage ponds. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat.
Marsh Sandpiper	Tringa stagnatilis	Not Listed	M	It is a migratory species, with majority of birds wintering in Africa, and India with fewer migrating to Southeast Asia and Australia. They prefer to winter on freshwater wetlands such as swamps and lakes and are usually seen singly or in small groups. These birds forage by probing in shallow water or on wet mud. They mainly eat insects, and similar small prey. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat.
Oriental, Horsfield's Cuckoo	Cuculus optatus	Not Listed	M	Treated as conspecific with <i>C. saturatus</i> (Himalayan Cuckoo). Inhabits monsoon forests and rainforest edges; leafy trees in paddocks; river flats, roadsides, mangroves and islands. The closest known record is over 5 km from the Project Area. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat for this species.
Oriental Pratincole	Glareola maldivarum	Not Listed	M	Usually inhabits open plains, floodplains or short grassland, often with extensive bare areas. Often occur near terrestrial and artificial wetlands, especially around the margins. This species also occurs along the coast, inhabiting beaches, mudflats and islands, or around coastal lagoons. Does not breed in Australia. The closest known record is over 10 km from the Project Area. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat for this species
Oriental Reedwarbler	Acrocephalus orientalis	Not Listed	М	Rare migrant to coastal North and eastern Australia. Found in dense reeds, cumbungi, over and near water. It breeds mainly in reed beds and can also be found in marshes, paddy fields, grassland and scrub where it forages for insects and other invertebrates.	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat.
				Neither this species nor preferred habitat occur within the Project Area.	

Common Name	Scientific Name	TPWC Act	EPBC Act	Description/Habitat	Likelihood of Occurrence
Pacific golden Plover-	Pluvialis fulva	Not Listed	M	This species usually inhabits coastal habitats, though it occasionally occurs around inland wetlands. Usually occur on beaches, mudflats and sandflats in sheltered areas including harbours, estuaries and lagoons, and also in evaporation ponds in saltworks. The species is also sometimes recorded on islands, sand and coral cays and exposed reefs and rocks. Breeding occurs in dry areas of tundra away from the coast, usually on slopes of low hills, knolls or foothills vegetated with lichen and moss, or in bare, stony areas. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat.
Pectoral Sandpiper	Calidris melanotos	Not Listed	M	Species has patchy distribution around Australia's coastline. Found in shallow fresh waters, often with low grass and other herbage; swamp margins, flooded pastures, sewage ponds; occasionally tidal areas and saltmarshes. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat for the species.
Pin-tailed Snipe	Gallinago stenura	Not Listed	M	Pin-tailed Snipe occurs most often in or at the edges of shallow freshwater swamps, ponds and lakes with emergent, sparse to dense cover of grass/sedge or other vegetation. The species is also found in drier, more open wetlands such as clay pans in more arid parts of species' range. It is also commonly seen at sewage ponds; not normally in saline or inter-tidal wetlands. The closest known record is over 10 km from the Project Area.	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat for the species.
				Neither this species nor preferred habitat occur within the Project Area.	
Red-necked Stint	Calidris ruficollis	Not Listed	М	Species are found in tidal mudflats, saltmarshes; sandy or shelly beaches; saline and freshwater wetlands, coastal and inland; salt fields and sewage ponds. They are often in dense flocks, feeding or roosting. Spends the southern summer months in Australia and is found widely except in the arid inland. The closest known record is over 10 km from the Project Area.	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat for the species.
				Neither this species nor preferred habitat occur within the Project Area.	
Red-rumped Swallow	Cecropis daurica	Not Listed	М	Migratory bird that spends the winter months in northern Australia. This species is found in open hilly country and mountains, river gorges, valleys, sea cliffs, as well as in cultivated areas and human habitations, including towns.	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat.
				Neither this species nor preferred habitat occur within the Project Area.	
Ruddy Turnstone	Arenaria interpres	Not Listed	М	Winters on Australian coastlines. Tidal reefs and pools, weed covered rocks, pebbly shelly and sandy shores with stranded seaweed, mudflats, occasionally inland on shallow waters, sewage ponds, commercial salt fields, open or ploughed ground.	Unlikely – The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat.
				Neither this species nor preferred habitat occur within the Project Area.	

Common Name	Scientific Name	TPWC Act	EPBC Act	Description/Habitat	Likelihood of Occurrence
Rufous Fantail	Rufous rufifrons	Not Listed	М	The rufous fantail inhabits moist and moderately dense habitats. Within these areas, it has astonishingly large variations in habitat requirements. They can be found in eucalyptus forests, mangroves, rainforests and woodlands (usually near a river or swamp).	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat.
				Neither this species nor preferred habitat occur within the Project Area.	
Sanderling	Calidris alba	Not Listed	М	Broad ocean beaches of firm sand 'where waves ebb and flow', depositing strands and heaps of seaweed; often near river mouths; also inlets, tidal mudflats and coastal lagoons.	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat.
				Neither this species nor preferred habitat occur within the Project Area.	
Sharp-tailed Sandpiper	Calidris acuminata	Not Listed	М	The sharp-tailed sandpiper breeds in northern Siberia but migrates south to winter in Australia and New Zealand. In the non-breeding season they can be found in tidal mudflats, saltmarshes, mangroves; shallow fresh, brackish or saline inland wetlands; floodwaters, irrigated pastures and crops; sewage ponds and salt fields.	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat.
				Neither this species nor preferred habitat occur within the Project Area.	
Swinhoe's Snipe	Gallinago megala	Not Listed	М	Found on northern Australian coastlines. Non-breeding habitats include shallow freshwater wetlands of various kinds including paddy fields and sewage farms, with bare mud or shallow water for feeding, with nearby vegetation cover.	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat for the species
Terek Sandpiper	Xenus cinereus	Not Listed	М	In Australia, the Terek Sandpiper has been recorded on coastal mudflats, lagoons, creeks and estuaries. Records indicate that the species favours muddy beaches near mangroves but may also be observed on rocky pools and coral reefs and occasionally up to 10 km inland around brackish pools. The closest known record is over 10 km from the Project Area.	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat.
				Neither this species nor preferred habitat occur within the Project Area.	
Wandering Tattler	Tringa incana	Not Listed	М	Non-breeding habitats include shallow freshwater wetlands of various kinds including paddy fields and sewage farms, with bare mud or shallow water for feeding, with nearby vegetation cover.	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat.
				Neither this species nor preferred habitat occur within the Project Area.	
Whimbrel	Numenius phaeopus	Not Listed	М	Estuaries, mangroves, tidal flats, coral cays, exposed reefs, flooded paddocks, sewage ponds, bare grasslands, sports grounds and lawns.	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat.
				Neither this species nor preferred habitat occur within the Project Area.	

Common Name	Scientific Name	TPWC Act	EPBC Act	Description/Habitat	Likelihood of Occurrence
Wood Sandpiper	Tringa glareola	Not Listed	М	In Australia, the Terek Sandpiper has been recorded on coastal mudflats, lagoons, creeks and estuaries. Records indicate that the species favours muddy beaches near mangroves but may also be observed on rocky pools and coral reefs and occasionally up to 10 km inland around brackish pools. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat.
Yellow Wagtail	Motacilla flava	Not Listed	M	Regular summer migrant to coastal Australia, especially Darwin to Broome, but also north-eastern Queensland from November to April. Found in short grass and bare ground, swamp margins, sewage ponds, saltmarshes, playing fields, airfields, ploughed land and town lands. The closest known record over 10 km from the Project Area. This observation was recorded 30 years ago. Neither this species nor preferred habitat occur within the Project Area.	Unlikely - The species is unlikely to occur in the Project Area and the Project Area does not contain suitable habitat for the species.

CE – Critically Endangered

EN – Endangered

VU – Vulnerable

NT – Near Threatened

M - Migratory

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