Australian Government
Department of the Environment and Energy

Title of Proposal - Gold Coast Cruise Ship Terminal

Section 1 - Summary of your proposed action

Provide a summary of your proposed action, including any consultations undertaken.

1.1 Project Industry Type

Tourism and Recreation

1.2 Provide a detailed description of the proposed action, including all proposed activities.

The City of Gold Coast (the City) is investigating the opportunity to establish an ocean-side cruise ship terminal (the proposed action) at Philip Park, Main Beach, Queensland. The ocean-side cruise ship terminal has been identified as strategic marine industry infrastructure for the cruise market that has the potential to grow Queensland and regional tourism. It will provide a new gateway for the expanding cruise shipping market to access the high quality and unique tourism and recreation experiences of the Gold Coast enhancing the City's reputation as a world class tourist destination.

To maximise the economic development opportunities for the City, the proposal is to establish the cruise ship facility as a base port that will provide facilities to support cruise ships at point of origin and destination, including resupply and refuelling. The cruise shipping schedule may provide for up to 150 cruise ship visits in a year, involving a 24 hour berth for disembarking, resupply, refuelling and boarding. Options that may provide enhanced economic and social benefits include integrating a diving platform, viewing platform or combined pedestrian/cycle access.

The proposed infrastructure will involve the development of 1200 m jetty/wharf structure and berthing/mooring dolphins of raked piling construction and 800 m caisson and rock armour breakwater within Queensland State waters. Landside development will provide a terminal for passenger processing (e.g. immigration, customs and biosecurity) and visitor lounge, logistics, operations and administration buildings, transport interchange and staff car parking. The cruise ship terminal will require connection to ancillary power, potable water, sewage and waste services, as well as fuel loading capability.

Jetty: From Philip Park's northern boundary, the jetty structure will extend 950 m offshore to connect with the wharf. The jetty platform (approximately 7 m wide) will provide a single carriageway to move passengers, staff and supplies to/from berthed vessels. The jetty will be of raked piling construction using an 'over the top' type of construction (Canti-traveller or similar) to progress the jetty seaward. The construction is likely to involve driving 2-4 piles for a bent, placing the headstock on the bent; placing beams to allow the pile driving equipment to move forward; driving the next bent pile; and, laying the jetty platform into place behind – in total, 118 piles taking 3-5 days between piling each bent. Another less likely method may involve construction of a temporary bridge beside the jetty.

Wharf: The wharf structure will include mooring and berthing dolphins and a wider platform (approximately 14 m wide) to support two-way carriageway and adequate area for transfer of luggage, personnel and supplies required for a base port. The wharf is also a raked pile structure – 102 piles in total, which is likely to be constructed from barges that are either floating or a combination of floating and jack-up barges.

Breakwater: The breakwater is a structure installed in the ocean to protect the terminal infrastructure and manoeuvring or berthing cruise ships from the ocean swell and high energy waves. Breakwater design is the subject of detailed and complex hydrodynamic and engineering investigations; however current plans indicate a structure of 780 m in length will be installed perpendicular the beach and wharf in water 18 m deep and stand approximately 3-5 m above sea level. It is expected that the breakwater will be constructed using a combination of caisson blocks and rock armour. The caissons will likely be fabricated elsewhere (e.g. Cairncross wharf in Brisbane River) and floated to the site behind a tug. Dredging of sand is an option that may be considered for filling the caissons once installed on the breakwater; or alternative clean fill sources will be identified. Rock armour may be placed as a bedding material and for seaward protection of the caisson structure.

Terminal and landside facilities: The base port will require expanded landside facilities for logistics and processing (e.g. immigration, customs and biosecurity) on ground floor and visitor lounge and jetty access on upper level. The current proposal for landside development includes an integrated two-storey terminal building at the landing of the jetty as well as single level buildings to accommodate administration and logistics services and access to the jetty.

Supporting infrastructure: The terminal facility will require connection to ancillary power, potable water, sewage and waste services. Access to short term passenger drop off and bus parking will be via Seaworld Drive, south of the roundabout. Only a small amount of car parking for staff will be provided onsite. Additional infrastructure options that may provide enhanced economic and social benefits include a diving platform (from the jetty), viewing platform (from the terminal building

1.3 What is the extent and location of your proposed action? Use the polygon tool on the map below to mark the location of your proposed action.

Area	Point	Latitude	Longitude
Proposal area	1	-27.961265615648	153.42690226847
Proposal area	2	-27.961265615648	153.42690226847
Proposal area	3	-27.961265615648	153.4268808108
Proposal area	4	-27.961246662841	153.42986342722
Proposal area	5	-27.960166347308	153.4298848849
Proposal area	6	-27.96001472321	153.43524930293
Proposal area	7	-27.957456034434	153.43518492991
Proposal area	8	-27.957437080957	153.43992707545
Proposal area	9	-27.965852097223	153.43996999079

Area	Point	Latitude	Longitude
Proposal area	10	-27.965795241207	153.43537804896
Proposal area	11	-27.963104022165	153.43531367594
Proposal area	12	-27.96308506968	153.42685935313
Proposal area	13	-27.961265615648	153.42690226847

1.5 Provide a brief physical description of the property on which the proposed action will take place and the location of the proposed action (e.g. proximity to major towns, or for off-shore actions, shortest distance to mainland).

The proposal will develop Philip Park, Lot 3 on Plan SP104014, and extend approximately 1,200 m offshore into open coastal waters entirely within Queensland State waters.

Philip Park is located on Main Beach toward the southern end of the Spit. The land is highly modified with a large proportion of the lot sealed for car parking facilities and amenities. Unsealed pathways cut through a narrow band of remnant coastal vegetation to access the open surf beach. The Federation Walk starts from the car park in Philip Park, which is a designated pathway that provides north-south access through the Coastal Reserve to the Gold Coast Seaway.

This location is close to the existing Sheraton Mirage Hotel, Seaworld entrance and car park, and within 500 m of the Versace Hotel and Marina Mirage Shopping Centre. The site is also directly opposite the proposed Integrated Resort Development site. This location offers a number of advantages, including:

No impact on the existing infrastructure or complex dynamics of the existing seaway, southern seaway wall or sand bypass jetty.

No impact on surfing amenity and function of nearby surfing breaks.

Proximity to existing and proposed tourist attractions.

Opportunity to enhance amenity due to proximity to Scottish Prince wreck (diving) and safe swimming beach (from benign wave environment inside the breakwater).

The proposal area includes the landside development area (approximately 6 hectares) and proposed infrastructure components, allowing a 200 m buffer to accommodate construction activities such as equipment mobilisation, materials delivery and construction activities; discussion of indirect and facilitated impacts outside this proposal area are discussed on a case by case basis.

1.6 What is the size of the development footprint or work area?

Approximatley 98 ha

1.7 Is the proposed action a street address or lot?

Lot

1.7.2 Describe the lot number and title.3/SP104014

1.8 Primary Jurisdiction.

Queensland

1.9 Has the person proposing to take the action received any Australian Government grant funding to undertake this project?

No

1.10 Is the proposed action subject to local government planning approval?

No

1.11 Provide an estimated start and estimated end date for the proposed action.

Start date 01/2019

End date 01/2040

1.12 Provide details of the context, planning framework and State and/or Local government requirements.

The proponent is a local government authority. At this stage, the proposal is expected to require a rigorous impact assessment involving whole-of-government coordination due to complex approval requirements, contentious environmental effects and strategic significance to the locality, region or state for the infrastructure, economic and social benefits the proposal may provide.

At this stage, the proponent anticipates applying to the Coordinator-General to have the proposal declared a 'coordinated project' under the State Development and Public Works Organisation Act 1971 (SDPWO Act). The proposal is likely to require a comprehensive environmental impact statement (EIS) rather than a targeted impact assessment report (IAR). In this case, the bilateral agreement between the Commonwealth and the State of Queensland relating to environmental assessment and approval under the EPBC Act would provide one consolidated/integrated decision including conditions on approval, accounting for Queensland matters and MNES.

The proposal will be developed in accordance with Commonwealth, State and Local Government requirements outlined below. Following launch of the business case, the proponent

will consult with relevant agencies to understand requisites specific to the location, scale and nature of the proposal.

Commonwealth requirements:

Aboriginal and Torres Strait Islander Heritage Protection Act 1984

Australian Maritime Safety Authority Act 1990

Biosecurity Act 2015

Environment Protection and Biodiversity Conservation Act 1999

Environmental Protection (Sea Dumping) Act 1981

Historic Shipwrecks Act 1976

Native Title Act 1993

Navigation Act 1972

Sea Installation Act 1987

State requirements:

Aboriginal Cultural Heritage Act 2003

Coastal Protection and Management Act 1995

Environmental Protection Act 1994

Fire and Rescue Service Act 1990

Fisheries Act 1994

Land Act 1994

Nature Conservation Act 1992

Queensland Heritage Act 1992

Sustainable Planning Act 2009

State Development and Public Works Organisation Act 1971

Transport Infrastructure Act 1994

Transport Operations (Marine Safety) Act 1994

1.13 Describe any public consultation that has been, is being or will be undertaken, including with Indigenous stakeholders.

Refer to section 3.7 'Stakeholder consultation' in the technical report attached (Ocean-side Cruise Ship Terminal - Matters of National Environmental Significance).

1.14 Describe any environmental impact assessments that have been or will be carried out under Commonwealth, State or Territory legislation including relevant impacts of the project.

The current proposal and relevant impacts have not yet been the subject of environmental impact assessments carried out under Commonwealth or State legislation. To date, studies commissioned in support of the project are:

Initial terrestrial ecology assessment

Initial marine ecology assessment

Strategic assessment of service requirements (needs analysis)

Seabed contours and bathymetry mapping

Metocean assessment (tides, currents, wind, etc.)

Preliminary coastal and hydrodynamic investigations

Wave data assessment (2 nearby sites at -30 m AHD and -18 m AHD)

Dynamic behaviour and management options

Concept designs for caisson breakwater and jetty structures

Design and construction options identification and evaluation.

1.15 Is this action part of a staged development (or a component of a larger project)?

No

1.16 Is the proposed action related to other actions or proposals in the region?

No

Section 2 - Matters of National Environmental Significance

Describe the affected area and the likely impacts of the proposal, emphasising the relevant matters protected by the EPBC Act. Refer to relevant maps as appropriate. The interactive map tool can help determine whether matters of national environmental significance or other matters protected by the EPBC Act are likely to occur in your area of interest. Consideration of likely impacts should include both direct and indirect impacts.

Your assessment of likely impacts should consider whether a bioregional plan is relevant to your proposal. The following resources can assist you in your assessment of likely impacts:

• Profiles of relevant species/communities (where available), that will assist in the identification of whether there is likely to be a significant impact on them if the proposal proceeds;

• Significant Impact Guidelines 1.1 – Matters of National Environmental Significance;

• Significant Impact Guideline 1.2 – Actions on, or impacting upon, Commonwealth land and Actions by Commonwealth Agencies.

2.1 Is the proposed action likely to impact on the values of any World Heritage properties?

No

2.2 Is the proposed action likely to impact on the values of any National Heritage places?

No

2.3 Is the proposed action likely to impact on the ecological character of a Ramsar wetland?

Yes

2.3.1 Impact table

Wetlands	Impact
Moreton Bay Ramsar site	The proposed action is not expected to have a significant impact on a wetland of international importance or migratory species – potential for indirect impacts as a result of pollution (loss of containment) or increased traffic on Ramsar wetland or associated migratory species in Moreton Bay will be managed so as not to

Wetlands	Impact
	impact on such values, in accordance with: - Regard to designated shipping routes and vessel speed restrictions specified in the Moreton Bay Marine Park User Guide (2015). - Further detailed assessment of worst case loss of containment event and potential plume trajectory in local conditions as part of future environmental impact assessment process. - Maintain comprehensive emergency response systems and loss of containment controls, including state of the art equipment and trained personnel.

2.3.2 Do you consider this impact to be significant?

No

2.4 Is the proposed action likely to impact on the members of any listed threatened species (except a conservation dependent species) or any threatened ecological community, or their habitat?

Yes

2.4.1 Impact table

Species	Impact
Flora: The desktop assessment indicated that 17 flora species had potential to occur on site. No critically endangered, endangered or vulnerable flora species were recorded during the site inspection; however observed conditions were considered to provide suitable habitat for the following vulnerable flora species to possibly occur within the proposed site: • Acacia attenuata (no common name recorded) • Cryptocarya foetida (Stinking cryptocarya) • Cryptostylis hunteriana (Leafless tongue-orchid) • Thesium australe (Austral toadflax). For full likelihood assessment refer to Section 4.4 'Results of Likelihood Assessment' in the attached technical report titled - Ocean-side Cruise Ship Terminal - Matters of National Environmental Significance.	The proposed action will remove some coastal vegetation and planted landscape trees for jetty landing and construction of landside facilities; however the proposal intends to retain a large part of the existing vegetation and fore dunes that offer habitat and habitat connectivity on the Spit. Given the similar vegetation available adjacent to and surrounding the site, the proposed action is not considered likely to have a significant impact on scale, quality, or long term size of populations. Biosecurity control measures will ensure no weeds or pests are introduced. For further discussion on potential impacts refer to Section 5.0 'Potential Impacts and Specific Avoidance, Mitigation and Management Measures' in the attached technical report titled - Ocean-side Cruise Ship

Species	Impact
	Terminal - Matters of National Environmental Significance.
Fauna: The desktop assessment identified 57 threatened fauna species as potentially occurring within the search area, comprising 33 birds, 1 fish, 4 sharks, 11 mammals and 8 reptiles. No critically endangered, endangered or vulnerable terrestrial fauna species were recorded during the site inspection; however the existing vegetation, fore dunes and coastal waters are considered to provide some habitat values for foraging, nesting, roosting and connectivity for movement to the northern extent of the Spit. Based on the identified habitat values, the likelihood assessment indicated 19 conservation significant fauna species as a known or possible occurrence within the proposal area, comprising 13 birds, 2 sharks, 3 mammals and 1 reptile. • Birds - Calidris canutus (Red knot) (endangered) - Calidris ferruginea (Curlew sandpiper) (critically endangered) - Calidris tenuirostris (Great knot) (critically endangered) - Charadrius leschenaultia (Greater sand plover) (vulnerable) - Charadrius mongolus (Lesser sand plover) (endangered) - Diomedea antipodensis (Antipodean albatross) (vulnerable) - Limosa lapponica bauera (Bar-tailed godwit) (vulnerable) - Limosa lapponica menzbieri (Northern Siberian bar-tailed godwit) (critically endangered) - Macronectes giganteus (Southern giant petrel) (endangered) - Macronectes halli (Northern giant petrel) (vulnerable) - Numenius madagascariensis (Eastern curlew) (critically endangered) - Thalassarche melanophris (Black-browed albatross) (vulnerable) - Turnix melanogaster (Black-breasted button-quail) (vulnerable). • Marine species - Carcharias taurus (Grey nurse shark) (critically endangered) - Carcharodon carcharias (Great white shark) (vulnerable). • Mammals - Megaptera novaeangliae (Humpback whale) (vulnerable). - Pseudomys novaehollandiae (New Holland mouse) (vulnerable) - Pteropus poliocephalus (Grey-headed flying fox) (vulnerable) • Reptiles -	The proposed action is not expected to have a significant impact on any listed threatened species or ecological communities – where interactions with terrestrial, marine and migratory fauna have been identified, specific avoidance, mitigation and management measures have been identified so as not to have a significant impact on populations or habitats, including: - Minimise disturbance of existing vegetation and habitats, and implement rehabilitation strategy prioritising revegetation with local native species. - Implementation of traffic controls such as designated routes and speed limits for terrestrial and marine vehicle movements. - Adopt sensitive design principles and selective construction methods to minimise potential environmental impacts (sediment and turbidity, noise, etc.) on terrestrial and marine environments and fauna. - Further detailed environmental assessment of the proposal will involve an investigation conducted by a specialist underwater acoustics consultant to identify the site-specific underwater noise propagation zones for piling in an open ocean environment. - Monitor safety zones to identify approaching marine mammals and implement operational procedures to minimise the risk of impacts upon them. For further discussion on potential impacts refer to Section 5.0 'Potential Impacts and Specific Avoidance, Mitigation and Management Measures' in the attached technical report titled - Ocean-side Cruise Ship Terminal - Matters of National Environmental Significance.

Species	Impact
Dermochelys coriacea (Leatherback turtle) (endangered). For full likelihood assessment refer to Section 4.4 'Results of Likelihood Assessment' in the attached technical report titled - Ocean-side Cruise Ship Terminal - Matters of National Environmental Significance.	
x	x

2.4.2 Do you consider this impact to be significant?

No

2.5 Is the proposed action likely to impact on the members of any listed migratory species, or their habitat?

Yes

2.5.1 Impact table

Species	Impact
The desktop assessment identified 80 migratory species as potentially occurring within the search area, comprising 20 marine birds, 21 marine species, 6 terrestrial species and 33 wetland species. No migratory species were recorded during the site inspection; however the exiting vegetation, fore dunes and coastal waters are considered to provide some habitat values for foraging, nesting and roosting. In addition to the conservation significant fauna species (assessed separately), the likelihood assessment indicated 19 migratory species as a known or possible occurrence within the proposal area, comprising 13 birds, 2 sharks, 3 mammals and 1 reptile. • Migratory marine birds - Anous stolidus (Common noddy) - Apus pacificus (Fork-tailed swift) - Fregata ariel (Lesser frigatebird, Least frigatebird) - Fregata minor (Great frigatebird, greater frigatebird) - Sterna albifrons (Little tern). • Migratory wetland birds - Actitis hypoleucos (Common sandpiper) - Arenaria interpres (Ruddy turnstone) - Calidris acuminate (Sharp-tailed	The proposed action is not expected to have a significant impact on any listed migratory species – where interactions with migratory fauna may occur, specific avoidance, mitigation and management measures have been identified so as not to have a significant impact on populations or habitats, including: - Regard to designated shipping routes and vessel speed restrictions specified in the Moreton Bay Marine Park User Guide (2015). - Further detailed assessment of worst case loss of containment event and potential plume trajectory in local conditions as part of future environmental impact assessment process. - Maintain comprehensive emergency response systems and loss of containment controls, including state of the art equipment and trained personnel. - Implementation of traffic controls such as designated routes and speed limits for terrestrial and marine vehicle movements. - Adopt sensitive design principles and selective construction methods to minimise potential environmental impacts (sediment and turbidity,

Species	Impact
sandpiper) - Calidris alba (Sanderling) - Calidris ruficollis (Red-necked stint) - Charadrius bicinctus (Double banded plover) - Gallingo hardwickii (Latham's snipe) - Limicola falcinellus (Broad-billed sandpiper). • Marine mammals - Dugong dugon (Dugong) - Orcaella brevirostris (Irrawaddy) or Orcaella heinsohni (Australian snubfin dolphin) - Sousa chinensis (Indo-Pacific Humpback Dolphin) • Marine mammals - Reef and Giant Manta rays For full likelihood assessment refer to Section 4.4 'Results of Likelihood Assessment' in the attached technical report titled - Ocean-side Cruise Ship Terminal - Matters of National Environmental Significance.	noise, etc.) on terrestrial and marine environments and fauna. - Further detailed environmental assessment of the proposal will involve an investigation conducted by a specialist underwater acoustics consultant to identify the site-specific underwater noise propagation zones for piling in an open ocean environment. - Monitor safety zones to identify approaching marine mammals and implement operational procedures to minimise the risk of impacts upon them. For further discussion on potential impacts refer to Section 5.0 'Potential Impacts and Specific Avoidance, Mitigation and Management Measures' in the attached technical report titled - Ocean-side Cruise Ship Terminal - Matters of National Environmental Significance

2.5.2 Do you consider this impact to be significant?

No

2.6 Is the proposed action to be undertaken in a marine environment (outside Commonwealth marine areas)?

Yes

2.6.1 Is it likely to impact on the Commonwealth Marine environment?

Yes

2.6.2 Describe the nature and extent of the likely impact on the whole of the environment.

The proposal does not intersect any declared conservation areas however there are areas of environmental significance in the broader region, including Moreton Bay Marine Park and Ramsar wetland, Commonwealth marine areas and reserves as well as South Stradbroke Island.The bay and offshore waters of the Moreton Bay Marine Park maintain high value habitats for feeding and breeding for conservation significant marine fauna and migratory and resident shorebird and wetland bird populations. The proposal will not directly impact on these environmentally significant areas; however there may be indirect impacts due to marine vessel traffic associated with equipment and materials transport during the construction phase and fuel transport during the operations phase.

Based on the conservative description of the porposal and associated construction and operation activites, the following potenital impacts associated with the marine environment have been identified:

- Increased marine vessel traffic with potential to increase interactions with marine fauna and risk of fauna strike causing stress, injury or fatality in proposal area and on associated cruise ship and supply vessel routes through Moreton Bay Marine Park or Commonwealth marine areas.

- Marine transport of fuel and refuelling activities, and potential risk that a plume resulting from a loss of containment may impact on the adjacent coast or sensitive areas.

- Construction activities, particularly piling, generating a noise propagation zone underwater that introduces short term temporary risks for marine species.

- Construction activities, particularly dredging, in the marine environment are expected to generate sediment plumes that have the potential to impact on water quality.

- Anthropogenic lighting during construction and operation of the cruise ship terminal.

For further discussion refer to Section 5.0 'Potential Impacts and Specific Avoidance, Mitigation and Management Measures' in the attached technical report titled 'Ocean-side Cruise Ship Terminal - Matters of National Environmental Significance'.

2.6.3 Do you consider this impact to be significant?

No

2.7 Is the proposed action likely to impact on any part of the environment in the Commonwealth land?

No

2.8 Is the proposed action taking place in the Great Barrier Reef Marine Park?

No

2.9 Will there be any impact on a water resource related to coal / gas / mining?

No

2.10 Is the proposed action a nuclear action?

No

2.11 Is the proposed action to be taken by the Commonwealth agency?

No

2.12 Is the proposed action to be undertaken in a Commonwealth Heritage Place Overseas?

No

2.13 Is the proposed action likely to impact on any part of the environment in the Commonwealth marine area?

No

Section 3 - Description of the project area

Provide a description of the project area and the affected area, including information about the following features (where relevant to the project area and/or affected area, and to the extent not otherwise addressed in Section 2).

3.1 Describe the flora and fauna relevant to the project area.

For detailed discussion of flora and fauna relevant to the project area refer to sections 3.4, 4.2.4 and 4.2.5 of the attached technical report titled 'Ocean-side Cruise Ship Terminal - Matters of National Environmental Significance'.

A desktop review of available literature relevant to the project area and online sources was used to characterise site context, physical features and ecological values of the proposal area.

Philip Park primarily comprises low lying coastal land and foreshore dunes with gently sloping, sandy beaches down to the surf break. The proposal extends from the intertidal area out to a depth of approximately 18 m below the lowest astronomical tide (LAT) over the 1,200 m extent of the proposal (i.e. 1 m decline every 60 m travelled out along the seabed).

Marine environment

The proposed infrastructure will extend approximately 1,200 m into coastal waters of the Coral Sea, where within jurisdiction over the water column and subjacent seabed is vested in the State of Queensland.

Within this zone, the open ocean and smooth bathymetry indicate mobile, soft-sediment and unvegetated seabed. It is expected that the seabed offers similar benthic habitats to that mapped for coastal waters north of the proposal, which found sparse or depauperate sandy habitats (Stevens and Connolly, 2005); however further site-specific survey and assessment will be conducted as part of the detailed environmental assessment for the proposal.

The ‘Scottish Prince’ wreck, which lies in 10 m of water approximately 150 m north of the proposal, provides a stable structure for epibenthic communities to colonise and is typical of a reef ecosystem with some soft coral and sponges established. These epibenthic communities are restricted to the structures of the wreck.

Terrestrial environment

Philip Park (Lot 3 on Plan SP104014) is 5.98 hectares of designated Reserve held by the Department of Natural Resources and Mines for community or public purposes. It is part of the Federation Walk Coastal Reserve, which provides a designated pathway for north-south access through the Coastal Reserve to the Gold Coast Seaway.

In addition to desktop review, an ecologist from AECOM conducted a preliminary site inspection of the landside portion of the proposal area on 22 December 2016 over a four hour period to identify and assess the site condition and broad conservation values of vegetation communities and fauna habitat present in the area. Digital photographs were taken throughout the site for future reference.

Philip Park itself is highly modified with a large proportion of the lot sealed for car parking facilities and amenities for visitors to access the Federation Walk Coastal Reserve or Main Beach. Unsealed formal and informal pathways cut through a narrow band of remnant coastal vegetation to access the open surf beach.

Records of site inspection indicate the site supports primarily modified and regrowth vegetation with some patches of relatively intact vegetation concentrated on the coastal fore dunes. This area is dissected by several tracks used for beach access.

The vegetation is typical of the surrounding coastal regime. The canopy layer in this community was dominated by coastal sheoak (Casuarina equisetifolia subsp. incana) also containing coastal banksia (Banksia integrifolia subsp. integrifolia) and tuckeroo (Cupaniopsis anacardioides). The shrub layer consisted primarily of beach acacia (Acacia sophorae), macaranga (Macaranga tanarius) and lantana (Lantana camara*) a weed of national significance (WONS). Hairy spinifex (Spinifex sericeus), beach flax lilly (Dianella congesta) and pigface (Carpobrotus glaucescens) are all locally dominant in the ground layer.

At the western extent of the site, adjacent to Seaworld Drive, a small patch of regrowth closed forest was present. The canopy in this vegetation community was dominated by narrow-leaved red gum (Eucalyptus seeana) and black she-oak (Allocasuarina littoralis). Other tree species present included macaranga (Macaranga tanarius), Moreton Bay fig (Ficus macrophylla), coastal hibiscus (Hibiscus tiliaceus) and white cypress-pine (Callitris columellaris). Planted lomandra (Lomandra longifolia) was dominant in the ground layer.

The field survey recorded Lantana camara* (lantana), a Weed of National Significance (WONS), which is also listed as a Category 3 Restricted Matter under the Biosecurity Act 2015 (Cth).

No fauna was identified during the site visit. .

State mapping does not identify regulated vegetation or regional ecosystem (RE) within the vicinity of the proposal (DEHP, 2017) regulated under the Vegetation Management Act 1999 (Qld). The protected plants flora survey trigger map published by DEHP (2016) shows that the site does not correspond to areas where particular provisions of the Nature Conservation Act 1992 (Qld) apply to the clearing of protected plants.

No threatened ecological communities or species protected under EPBC Act were identified on

site.

The desktop assessment indicated that 17 conservation significant flora species had potential to occur on site; however no critically endangered, endangered or vulnerable flora species were recorded during the site inspection. There is potential for suitable habitat to exist for vulnerable flora species to possibly occur within the proposed site, including:

Acacia attenuata (no common name recorded)

Cryptocarya foetida (Stinking cryptocarya)

Cryptostylis hunteriana (Leafless tongue-orchid)

Thesium australe (Austral toadflax).

Of these species, historical records of Acacia attenuate and Cryptocarya foetida are mapped on Atlas of Living Australia (ALA) within 10 km of the proposed site.

3.2 Describe the hydrology relevant to the project area (including water flows).

The proposal is located along a relatively high energy, dynamic coastline, subject to ocean swells from the Coral Sea, predominantly south-easterly and north-easterly, that show strong seasonal variability. The coastal location and dynamic processes are affected by east coast lows, with the major influence being waves, and minor influence of tides and cyclones.

In this location, the coast can be affected by strong coastal surge that can result in more suspended sediment particles and reduce the visibility in nearshore waters. Coastal hazard maps published by the Department of Environment and Heritage Protection (2016) indicate a large proportion of the site is prone to erosion and inundation due to storm impact and long term trends including sediment supply deficit and channel migration.

Natural sand transport (longshore drift) can naturally vary depending on coastal processes and can result in accretion or erosion of the beach. A sand bypass system has been installed by City of Gold Coast to manage sand transport along the coast.

3.3 Describe the soil and vegetation characteristics relevant to the project area.

Marine:

The open ocean and smooth bathymetry indicate mobile, soft-sediment and unvegetated seabed. Seabed geology is expected to be comprised of a sandy substrate typically associated with high energy sandy beach coastlines. Further site-specific assessments will be undertaken as part of the detailed environmental assessment of the proposal.

Terrestrial:

The site was recorded as supporting primarily modified and regrowth vegetation on sandy soils with some patches of relatively intact vegetation concentrated on the coastal fore dunes. This area is dissected by several tracks used for beach access.

The vegetation is typical of the surrounding coastal regime. The canopy layer in this community was dominated by coastal sheoak (Casuarina equisetifolia subsp. incana) also containing coastal banksia (Banksia integrifolia subsp. integrifolia) and tuckeroo (Cupaniopsis anacardioides). The shrub layer consisted primarily of beach acacia (Acacia sophorae), macaranga (Macaranga tanarius) and lantana (Lantana camara) a weed of national significance (WONS). Hairy spinifex (Spinifex sericeus), beach flax lilly (Dianella congesta) and pigface (Carpobrotus glaucescens) are all locally dominant in the ground layer.

At the western extent of the site, adjacent to Seaworld Drive, a small patch of regrowth closed forest was present. The canopy in this vegetation community was dominated by narrow-leaved red gum (Eucalyptus seeana) and black she-oak (Allocasuarina littoralis). Other tree species present included macaranga (Macaranga tanarius), Moreton Bay fig (Ficus macrophylla), coastal hibiscus (Hibiscus tiliaceus) and white cypress-pine (Callitris columellaris). Planted lomandra (Lomandra longifolia) was dominant in the ground layer.

No threatened ecological communities or species were identified on site.

3.4 Describe any outstanding natural features and/or any other important or unique values relevant to the project area.

For detailed discussion of outsanding natural features relevant to the project area refer to section 3.2 of the attached technical report titled 'Ocean-side Cruise Ship Terminal - Matters of National Environmental Significance'.

3.5 Describe the status of native vegetation relevant to the project area.

The site was recorded as supporting primarily modified and regrowth vegetation with some patches of relatively intact vegetation concentrated on the coastal fore dunes. This area is dissected by several tracks used for beach access.

The vegetation is typical of the surrounding coastal regime. The canopy layer in this community was dominated by coastal sheoak (Casuarina equisetifolia subsp. incana) also containing coastal banksia (Banksia integrifolia subsp. integrifolia) and tuckeroo (Cupaniopsis anacardioides). The shrub layer consisted primarily of beach acacia (Acacia sophorae), macaranga (Macaranga tanarius) and lantana (Lantana camara*) a weed of national significance (WONS). Hairy spinifex (Spinifex sericeus), beach flax lilly (Dianella congesta) and pigface (Carpobrotus glaucescens) are all locally dominant in the ground layer.

At the western extent of the site, adjacent to Seaworld Drive, a small patch of regrowth closed

forest was present. The canopy in this vegetation community was dominated by narrow-leaved red gum (Eucalyptus seeana) and black she-oak (Allocasuarina littoralis). Other tree species present included macaranga (Macaranga tanarius), Moreton Bay fig (Ficus macrophylla), coastal hibiscus (Hibiscus tiliaceus) and white cypress-pine (Callitris columellaris). Planted lomandra (Lomandra longifolia) was dominant in the ground layer.

No threatened ecological communities or species were identified on site.

3.6 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.

The topography of Southport Spit primarily consists of low lying coastal land and foreshore dunes with gently sloping, sandy beaches down to surf beach. The landside development site is situated in low lying coastal land and traverses foreshore dunes and beach over open waters.

The proposal extends from the intertidal area out to a depth of approximately 18 m below the lowest astronomical tide (LAT) over the 1,200 m extent of the proposal (i.e. 1 m decline every 60 m travelled out along the seabed). This is a dynamic coastal environment subject to natural variations.

3.7 Describe the current condition of the environment relevant to the project area.

For detailed discussion on the exisiting environment refer to section 3.0 of the attached technical report titled 'Ocean-side Cruise Ship Terminal - Matters of National Enviornmental Significance'.

3.8 Describe any Commonwealth Heritage Places or other places recognised as having heritage values relevant to the project area.

No national heritage places were identified in the protected matters search (Appendix B). The Scottish Prince historic shipwreck is listed in the Australian National Shipwrecks Database (Shipwreck Id Number: 3107). This ship wreck is protected under the Commonwealth Historic Shipwrecks Act 1976; however does not lie within a protected or no-entry zone.

Historical aerials of the Spit, Main Beach and Southport taken in 1955 shows limited development. At this time, the Spit comprised a barrier dune system with some internal water, possibly perched waterholes, but most likely estuarine in nature, while mangroves grew further south on the Nerang River side. Land resumption in the late 1950s spurred development of the Spit.

The DATSIP search identified a number of historic shipwrecks located in the Broadwater, Gold Coast Seaway and open coastal waters. In the vicinity of the proposal, the Scottish Prince historic shipwreck is listed in the Australian National Shipwrecks Database (Shipwreck Id Number: 3107). This ship wreck is protected under the Commonwealth Historic Shipwrecks Act

1976; however does not lie within a protected or no-entry zone.

The ‘Scottish Prince’ grounded on the Southport bar and gradually broke up in 1887. The wreck lies in 10 m of water approximately 2 km south of the extremity of the Southport Spit and 500 m off shore. Generally the wreck is partially visible from the sand depending on the shifting sands (Queensland Museum and the Heritage Branch, Department of Communication and the Arts n.d). The wreck provides habitat for soft corals and sponges, crayfish, rays, sharks and large bream.

Local heritage and state heritage items of significance are generally located where historical development occurred at the southern end of the Spit.

3.9 Describe any Indigenous heritage values relevant to the project area.

Prior to European settlement, literature indicates the existence of thriving Aboriginal communities in the vicinity of the site that the region supported with rich food resources available year round (Jabree, 2013). The historical and archaeological record produced by the Department of Aboriginal and Torres Strait Islander Partnerships (DATSIP) indicates Indigenous heritage items at Southport and South Stradbroke Island. There is potential for heritage items such as shell middens, artefact scatters and possibly burials to be found onsite.

3.10 Describe the tenure of the action area (e.g. freehold, leasehold) relevant to the project area.

The proposal will develop Philip Park, Lot 3 on Plan SP104014 (Federation Walk Coastal Reserve) and extend approximately 1,200 m offshore into open coastal waters entirely within Queensland State waters.

Reserve

Area:5.98 ha

Name:Federation Walk Coastal Reserve

3.11 Describe any existing or any proposed uses relevant to the project area.

Beach access:

Philip Park provides direct access to the surf beach through the coastal vegetation and fore dunes, supported by public car parking, picnic facilities and amenities, which is popular with locals and tourists.

Nature and sightseeing:

The land to the east of Seaworld Drive, including Philip Park, supports a large stand of coastal vegetation and fore dunes that is continuous for the length of the Spit.

Federation walk, which forms part of the Gold Coast City Council's Oceanway Network, is located within this coastal vegetation and attracts many bikers, joggers and walkers.

The natural environment is partially disturbed and local community groups undertake regular revegetation programs along the Spit.

Water sports:

The Spit is a popular spot for surfing and diving. Surf breaks (South Stradbroke Island and Spit) are accessible from the Seaway and surf beach. The popular Gold Coast Seaway dive site and 'Scottish Prince' dive site lie in accessible depths (approximately 10-15 m) off the east coast of Southport Spit. The 'Scottish Prince' is approximately 150 m north of the proposed jetty.

Fishing:

The Spit is also a popular spot for recreational fishing and fishing spots are accessible from the Seaway.

The waters off the Gold Coast are home to many managed commercial fisheries, including prawn, demersal scalefish, demersal finfish, mackerel, oyster and several types of tuna; however these fisheries lie in nearshore waters away from the proposal. While the proposal will intersect areas that are zoned for commercial fishing and areas within which recreational fishing may intermittently occur, the frequency of these activities are not considered 'extensive'.

Section 4 - Measures to avoid or reduce impacts

Provide a description of measures that will be implemented to avoid, reduce, manage or offset any relevant impacts of the action. Include, if appropriate, any relevant reports or technical advice relating to the feasibility and effectiveness of the proposed measures.

Examples of relevant measures to avoid or reduce impacts may include the timing of works, avoidance of important habitat, specific design measures, or adoption of specific work practices.

4.1 Describe the measures you will undertake to avoid or reduce impact from your proposed action.

City of Gold Coast will avoid significant impacts to MNES through further assessment and detailed planning of the construction approach and mitigation measures and monitoring of implementation and effectiveness. This approach is based on previous similar projects where impacts on MNES were not considered to be significant. A summary of the proposed environmental outcomes and management measures required to meet these objectives is provided in below.

For detailed discussion refer to section 5.0 in attached technical report titled 'Ocean-side Cruise Ship Terminal - Matters of National Environmental Significance'.

4.2 For matters protected by the EPBC Act that may be affected by the proposed action, describe the proposed environmental outcomes to be achieved.

Outcomes for EPBC Act listed Flora and Fauna:

No significant impacts to EPBC Act listed Flora and Fauna, such that the potential impacts of the proposed action are short term and temporary (associated with construction) and do not lead to a long term decrease in size or area of a population or significantly modify, disrupt or remove habitat critical to survival or the breeding cycle of a species.

Measures will include minimising clearing and prioritising revegetation, inspection of vegetation prior to disturbance and presence of qualified fauna spotters during clearing, and monitoring of construction area and underwater noise propagation zone to implement operational procedures to avoid impacts on species. Monitoring of implementation and effectiveness will include daily inspections, weekly inspection reports and audit reports.

Outcomes for Commonwealth marine areas:

No significant impacts to Commonwealth marine areas and reserves will be caused by short term passage of marine vessels due to considering alternative routes, observation of traffic controls (e.g. speed limits) and reporting interactions as required.

Section 5 – Conclusion on the likelihood of significant impacts

A checkbox tick identifies each of the matters of National Environmental Significance you identified in section 2 of this application as likely to be a significant impact.

Review the matters you have identified below. If a matter ticked below has been incorrectly identified you will need to return to Section 2 to edit.

5.1.1 World Heritage Properties

No

5.1.2 National Heritage Places

No

5.1.3 Wetlands of International Importance (declared Ramsar Wetlands)

No

5.1.4 Listed threatened species or any threatened ecological community

No

5.1.5 Listed migratory species

No

5.1.6 Commonwealth marine environment

No

5.1.7 Protection of the environment from actions involving Commonwealth land

No

5.1.8 Great Barrier Reef Marine Park

No

5.1.9 A water resource, in relation to coal/gas/mining

No

5.1.10 Protection of the environment from nuclear actions

No

5.1.11 Protection of the environment from Commonwealth actions

No

5.1.12 Commonwealth Heritage places overseas

No

5.2 If no significant matters are identified, provide the key reasons why you think the proposed action is not likely to have a significant impact on a matter protected under the EPBC Act and therefore not a controlled action.

This assessment concludes that the proposed action is not considered to trigger related controlling provisions under the EPBC Act and the proposed action is not a controlled action based on the following:

- The proposed site has been substantially modified by development and ongoing beach nourishment programs; permanent loss of coastal vegetation and fore dune habitats will be minimised.

- The proposed action is not within a Commonwealth marine area or reserve, and potential facilitated impacts of increased traffic on marine fauna will be managed in:

-Regard to conditions under general approval for commercial vessel transit (shortest direct route) and regulatory requirements for interactions between vessels and cetaceans (EPBC Regulations 2000 – Part 8 Division 8.1 (Regulation 8.04 – Interacting with cetaceans) i.e.

-Vessels will not travel at greater than 6 knots within 300 m of a cetacean (caution zone) and minimise noise.

-Vessels will not approach closer than 50 m for a dolphin and/or 100 m for a whale (with the exception of animals bow riding).

- Proposed action is not within proximity of any World Heritage or National Heritage, and is therefore not expected to impact on such values. Historic ‘Scottish Prince’ ship wreck will be clearly demarcated within an exclusion zone to avoid interference so as not be impacted by the proposal.

- The proposed action is not expected to have a significant impact on a wetland of international importance or migratory species – potential for indirect impacts as a result of pollution (loss of containment) or increased traffic on Ramsar wetland or associated migratory species in Moreton Bay will be managed so as not to impact on such values, in accordance with:

-Regard to designated shipping routes and vessel speed restrictions specified in the Moreton Bay Marine Park User Guide (2015).

-Further detailed assessment of worst case loss of containment event and potential plume trajectory in local conditions as part of future environmental impact assessment process.

-Maintain comprehensive emergency response systems and loss of containment controls, including state of the art equipment and trained personnel.

- The proposed action is not expected to have a significant impact on any listed threatened species or ecological communities – where interactions with terrestrial, marine and migratory fauna have been identified, specific avoidance, mitigation and management measures have been identified so as not to have a significant impact on populations or habitats, including:

- Minimise disturbance of existing vegetation and habitats, and implement rehabilitation strategy prioritising revegetation with local native species.

- Implementation of traffic controls such as designated routes and speed limits for terrestrial and marine vehicle movements.

- Adopt sensitive design principles and selective construction methods to minimise potential environmental impacts (sediment and turbidity, noise, etc.) on terrestrial and marine environments and fauna.

- Further detailed environmental assessment of the proposal will involve an investigation conducted by a specialist underwater acoustics consultant to identify the site-specific underwater noise propagation zones for piling in an open ocean environment.

- Monitor safety zones to identify approaching marine mammals and implement operational procedures to minimise the risk of impacts upon them.

- Further site-specific environmental assessments will be undertaken as part of a State assessment process for project approval.

Section 6 – Environmental record of the person proposing to take the action

Provide details of any proceedings under Commonwealth, State or Territory law against the person proposing to take the action that pertain to the protection of the environment or the conservation and sustainable use of natural resources.

6.1 Does the person taking the action have a satisfactory record of responsible environmental management? Please explain in further detail.

The works will be contracted by the City of Gold Coast to a suitable contractor [yet to be selected]. The environmental performance and history of the construction contractor will be considered as part of this selection process. The City of Gold Coast will oversee the works to ensure that they are conducted in accordance with the relevant permits and management plans and in a manner which is sensitive to the environment.

6.2 Provide details of any past or present proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against either (a) the person proposing to take the action or, (b) if a permit has been applied for in relation to the action – the person making the application.

The City of Gold Coast has not been subject to such proceedings.

6.3 Will the action be taken in accordance with the corporation's environmental policy and planning framework?

Yes

6.3.1 If the person taking the action is a corporation, please provide details of the corporation's environmental policy and planning framework.

The City of Gold Coast has an internal Environmental Management System.

6.4 Has the person taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?

Yes

6.4.1 EPBC Act No and/or Name of Proposal.

City of Gold Coast has previously made a referral to determine if the EPBC Act was relevant, however it is understood that for these past projects it has been determined that the proposal did not constitute a controlled action.

A project previously referred by the proponent: The Three Point Plan for Coastal Protection.

Section 7 – Information sources

You are required to provide the references used in preparing the referral including the reliability of the source.

7.1 List references used in preparing the referral (please provide the reference source reliability and any uncertainties of source).

Reference Source	Reliability	Uncertainties
Allen, S., H. Marsh & A. Hodgson (2004). Occurrence and Conservation of the Dugong (Sirenia: Dugongidae) in New South Wales. Proceedings of the Linnean Society of New South Wales. 125:211-216.	xReliable	Nil
Bannister, J.L., C.M. Kemper & R.M. Warneke (1996). The Action Plan for Australian Cetaceans. Canberra: Australian Nature Conservation Agency. Available from: http://www.environment.gov.au/resource/action-plan-australian-cetaceans.	Reliable	Nil
Beasley, I.L., P.W. Arnold & G.E. Heinsohn (2002). Geographical variation in skull morphology of the Irrawaddy dolphin, Orcaella brevirostris. Raffles Bulletin of Zoology. 10:15-24.	Reliable	Nil
Commonwealth of Australia, 2014. Recovery Plan for the Grey Nurse Shark (Carcharias taurus). Commonwealth of Australia Canberra, ACT.	Reliable	Nil
Commonwealth of Australia, 2015. Conservation Management Plan for the Blue Whale. Commonwealth of Australia Canberra, ACT.	Reliable	Nil
Corkeron, P.J. , N.M. Morisette,	Reliable	Nil

Reference Source	Reliability	Uncertainties
L. Porter & H. Marsh 1997. Distribution and status of Humpback Dolphins, Sousa chinensis, in Australian waters. Asian Marine Biology. 14:49-59.		
CSIRO 2007, North West Shelf joint environmental management study final report. Available at: http://www.cmar.csiro.au/nwsjems/reports.htm.	Reliable	Nil
Department of the Environment (2017). Orcaella heinsohni in Species Profile and Threats Database, Department of the Environment, Canberra. Available from: http://www.environment.gov.au/sprat. Accessed Wed, 18 Jan 2017	Reliable	Nil
Department of the Environment (2017). Megaptera novaeangliae in Species Profile and Threats Database, Department of the Environment, Canberra. Available from: http://www.environment.gov.au/sprat. Accessed Wed, 18 Jan 2017	Reliable	Nil
Department of the Environment (2017). Balaenoptera musculus in Species Profile and Threats Database, Department of the Environment, Canberra. Available from: http://www.environment.gov.au/sprat. Accessed Wed, 18 Jan 2017	Reliable	Nil
Department of the Environment (2017). Lagenorhynchus obscurus in Species Profile and Threats Database, Department of the Environment, Canberra. Available from: http://www.environment.gov.au/sprat. Accessed Wed, 18 Jan 2017	Reliable	Nil
Department of the Environment (2017). Dugong dugon in Species Profile and Threats Database, Department of the	Reliable	Nil

Reference Source	Reliability	Uncertainties
Environment, Canberra. Available from: http://www.environment.gov.au/sprat. Accessed Wed, 18 Jan 2017		
Department of the Environment (2017). Dermochelys coriacea in Species Profile and Threats Database, Department of the Environment, Canberra. Available from: http://www.environment.gov.au/sprat. Accessed Thu, 19 Jan 2017	Reliable	Nil
Department of the Environment (2017). Eretmochelys imbricata in Species Profile and Threats Database, Department of the Environment, Canberra. Available from: http://www.environment.gov.au/sprat. Accessed Thu, 19 Jan 2017	Reliable	Nil
Department of the Environment (2017). Lepidochelys olivacea in Species Profile and Threats Database, Department of the Environment, Canberra. Available from: http://www.environment.gov.au/sprat. Accessed Thu, 19 Jan 2017	Reliable	Nil
Department of the Environment (2017). Natator depressus in Species Profile and Threats Database, Department of the Environment, Canberra. Available from: http://www.environment.gov.au/sprat. Accessed Thu, 19 Jan 2017	Reliable	Nil
Department of the Environment (2017). Carcharodon carcharias in Species Profile and Threats Database, Department of the Environment, Canberra. Available from: http://www.environment.gov.au/sprat. Accessed Thu, 19 Jan 2017	Reliable	Nil
Department of Sustainability, Environment, Water, Population	Reliable	Nil

Reference Source	Reliability	Uncertainties
and Communities (DSEWPaC) (2013). Recovery Plan for the Great White Shark (Carcharodon carcharias). Available from: http://www.environment.gov.au/biodiversity/threatened/publications/recovery/white-shark.html. In effect under the EPBC Act from 06-Aug-2013 as Carcharodon carcharias.		
Department of the Environment 2013. Matters of National Environmental Significance, Significant impact guidelines 1.1 Environmental Protection and Biodiversity Conservation Act 1999. Commonwealth of Australia, Canberra, ACT. 2013.	Reliable	Nil
Department of Environment, Water, Heritage and the Arts (DEWHA), 2008. EPBC Act Policy Statement 2.1 – Interaction between offshore seismic exploration and whales. Australian Government Department of the Environment, Water, Heritage and the Arts, September 2008	Reliable	Nil
Department of the Environment, Water, Heritage and the Arts 2009. Matters of National Environmental Significance, Significant impact guidelines 1.1 Environmental Protection and Biodiversity Conservation Act 1999. Australian Government	Reliable	Nil
Department of the Environment, Water, Heritage and the Arts 2009. Matters of National Environmental Significance, Significant impact guidelines 1.1 Environmental Protection and Biodiversity Conservation	Reliable	Nil

Reference Source	Reliability	Uncertainties
Act 1999. Australian Government		
Department of the Environment and Heritage (DEH) (2005a). Blue, Fin and Sei Whale Recovery Plan 2005 - 2010. Department of the Environment and Heritage. Canberra, Commonwealth of Australia. Available from: http://www.environment.gov.au/biodiversity/threatened/publications/recovery/balaenoptera-sp/index.html. In effect under the EPBC Act from 18-May-2005. Ceased to be in effect under the EPBC Act from 01-Oct-2015. Viewed: http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=36	Reliable	Nil
Department of the Environment and Heritage (DEH) (2005b). NON-CURRENT Humpback Whale Recovery Plan 2005 - 2010. Department of the Environment and Heritage. Canberra, Commonwealth of Australia. Available from: http://www.environment.gov.au/biodiversity/threatened/publications/recovery/m-novaeangliae/index.html. In effect under the EPBC Act from 18-May-2005. Ceased to be in effect under the EPBC Act from 01-Oct-2015.	Reliable	Nil
Griffith Centre for Coastal Management (2007). An overview of available information of Sandy Beach Ecology, Coastal Sand Dune, Rocky Reeks and Associated Biota on the Gold Coast. Final Report. Griffth Centre for Coastal Management Research Report No.85.	Reliable	Nil

Reference Source	Reliability	Uncertainties
Hamann, M., C. Limpus, G. Hughes, J. Mortimer & N. Pilcher (2006). Assessment of the conservation status of the leatherback turtle in the Indian Ocean and South East Asia. Bangkok: IOSEA Marine Turtle MoU Secretariat.	Reliable	NIl
Jefferson, T.A. 2000. Population biology of the Indo-Pacific hump-backed dolphin in Hong Kong waters. Wildlife Monographs. 144:65.	Reliable	Nil
Jones, A., Gladstone, W. and Hacking, N. (2004) Sandy-Beach Ecosystems and Climate Change: Potential Ecological Consequences and Management Implications. In: The Second Decdae – Coastal Planning and Management in Australia towards 2014. Proceedings of Coast to Coast 2004, Australia's 6th National Coastal Management Conference, Hobart 2004	Reliable	Nil
Limpus, C.J., C.J. Parmenter, V. Baker & A. Fleay (1983b). The flatback turtle, Chelonia depressa, in Queensland: post-nesting migration and feeding ground distribution. Australian Wildlife Research. 10:557-561.	Reliable	Nil
Limpus, C.J (2008). A biological review of Australian marine turtle species. 6. Olive Ridley Turtle, Lepidochelys olivacea (Eschscholtz). Queensland Environment Protection Agency. Available from:http://www.epa.qld.gov.au/publications/p02836aa.pdf/A_Biological_Review_Of_Australian_Marine_Turtles_4_Olive_Ridley_Turtle_emLepidochelys_olivacea/em_Escholtz.pdf.	Reliable	Nil

Reference Source	Reliability	Uncertainties
Limpus, C.J. (1995b). Global overview of the status of marine turtles: a 1995 viewpoint. In: Bjorndal, KA, ed. Biology and Conservation of Sea Turtles. Revised edition. Washington, Smithsonian Institution Press.	Reliable	Nil
Limpus, C.J. 2009, A biological review of Australian marine turtle species: 6. Leatherback turtle, Dermochelys coriacea (Vandelli), Environmental Protection Agency, Queensland.	Reliable	Nil
Limpus, C.J. & Chatto, R. 2004, 'Marine turtles', in National Oceans Office, Description of key species groups in the northern planning area, National Oceans Office, Hobart.	Reliable	Nil
McLauchlan, A and Brown A.C. (2006) The ecology of sandy shores. Burlington, MA, USA: Academy Press.	Reliable	Nil
Marshall, A., Kashiwagi, T., Bennett, M.B., Deakos, M., Stevens, G., McGregor, F., Clark, T., Ishihara, H. & Sato, K. 2011. Manta alfredi. The IUCN Red List of Threatened Species 2011: e.T195459A8969079. http://dx.doi.org/10.2305/IUCN.UK.2011-2.RLTS.T195459A8969079.en. Downloaded on 23 January 2017	Reliable	Nil
Marsh, H., H. Penrose, C. Eros & J. Hugues (2002). Dugong Status Report and Action Plans for Countries and Territories. Early Warning Assessment Reports. United Nations Environment Programme, Nairobi.	Reliable	Nil
Marsh, H., T.J. O'Shea & J.R. Reynolds (2011). The ecology	Reliable	Nil

Reference Source	Reliability	Uncertainties
and conservation of sirenia; dugongs and manatees. Cambridge University Press, London.		
Marquez, R. (1990). FAO Species Catalogue; Sea Turtles of the World. An annotated and illustrated catalogue of the sea turtle species known to date. FAO Fisheries Synopsis. 125 (11):pp 81. Rome: Food and Agriculture Organisation of United Nations.	Reliable	Nil
Parra, G.J., Schick P. & Corkeron P.J. 2006. Spatial distribution and environmental correlates of Australian snubfin and Indo-Pacific humpback dolphins. Ecography. 29:496-406.	Reliable	Nil
Peverell, S. (2007). Dwarf Sawfish Pristis clavata. Marine Education Society of Australasia website. [Online]. Available from: http://www.mesa.edu.au/seaweek2008/info_sheet05.pdf. [Accessed: 25-Sep-2008].	Reliable	Nil
Ross, G.J.B. (2006). Review of the Conservation Status of Australia's Smaller Whales and Dolphins. Page(s) 124. Report to the Australian Department of the Environment and Heritage, Canberra. Available from:http://www.environment.gov.au/resource/review-conservation-status-australias-smaller-whales-and-dolphins.	Reliable	Nil
Spring, C.S. (1982). Status of marine turtle populations in Papua New Guinea. In: Bjorndal, K. A., ed. Biology and Conservation of Sea Turtles. Page(s) 281-289. Washington D. C., Smithsonian Institute	Reliable	Nil

Reference Source	Reliability	Uncertainties
Press.		
Zangerl, R., L.P. Hendrickson & J.R.Hendrickson (1988). A redistribution of the Australian flatback sea turtle Natator depressus. Bishop Museum Bulletins in Zoology. 1:Jan-69.	Reliable	Nil

Section 8 – Proposed alternatives

You are required to complete this section if you have any feasible alternatives to taking the proposed action (including not taking the action) that were considered but not proposed.

8.0 Provide a description of the feasible alternative?

The historical development of the proposed action has considered alternative locations, configurations and operations of the cruise ship terminal and associated facilities to meet stakeholder expectations and minimise environmental impacts. The ocean side location of the cruise ship terminal minimises long term impacts on coastal processes, hydrology and sensitive environmental receptors and optimises proximity to existing tourism (hotel, retail and recreation) services. The jetty and wharf configuration has been carefully designed to optimise available services (for the cruise ship market and public) and operational efficiencies and safety (for cruise ships, operators and passengers). With further research, the breakwater design may be further optimised to maximise effectiveness (marine safety) and minimise construction cost.

8.1 Select the relevant alternatives related to your proposed action.

8.27 Do you have another alternative?

No

Section 9 – Contacts, signatures and declarations

Where applicable, you must provide the contact details of each of the following entities: Person Proposing the Action; Proposed Designated Proponent and; Person Preparing the Referral. You will also be required to provide signed declarations from each of the identified entities.

9.0 Is the person proposing to take the action an Organisation or an Individual?

Organisation

9.2 Organisation

9.2.1 Job Title

Director of Economic Development & Major Projects

9.2.2 First Name

Darren

9.2.3 Last Name

Scott

9.2.4 E-mail

darrenscott@goldcoast.qld.gov.au

9.2.5 Postal Address

Level 4, Waterside West
9 Holden Place
Bundall QLD 4217
Australia

9.2.6 ABN/ACN

ABN

84858548460 - GOLD COAST CITY COUNCIL

9.2.7 Organisation Telephone

07 5581 7792

Australian Government
Department of the Environment and Energy

9.2.8 Organisation E-mail

mail@goldcoast.qld.gov.au

9.2.9 I qualify for exemption from fees under section 520(4C)(e)(v) of the EPBC Act because I am:

Not applicable

Small Business Declaration

I have read the Department of the Environment and Energy's guidance in the online form concerning the definition of a small a business entity and confirm that I qualify for a small business exemption.

Signature:..... Date: .....

9.2.9.2 I would like to apply for a waiver of full or partial fees under Schedule 1, 5.21A of the EPBC Regulations

No

9.2.9.3 Under sub regulation 5.21A(5), you must include information about the applicant (if not you) the grounds on which the waiver is sought and the reasons why it should be made

Declaration

I, DARREN SCOTT, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf of or for the benefit of any other person or entity.

Signature: Darren Scott Date: 14.3.17

I, DARREN SCOTT, the person proposing the action, consent to the designation of LUKE ADAMS as the proponent of the purposes of the action describe in this EPBC Act Referral.

Signature: Darren Scott Date: 14.3.17

9.3 Is the Proposed Designated Proponent an Organisation or Individual?

Organisation

9.5 Organisation

9.5.1 Job Title

Coordinator Major Projects

9.5.2 First Name

Luke

9.5.3 Last Name

Adair

9.5.4 E-mail

LADAIR@goldcoast.qld.gov.au

9.5.5 Postal Address

8 Karp Court
Bundall QLD 4217
Australia

9.5.6 ABN/ACN

ABN

84858548460 - GOLD COAST CITY COUNCIL

9.5.7 Organisation Telephone

07 5581 7786

9.5.8 Organisation E-mail

mail@goldcoast.qld.gov.au

Declaration

I, Lucas Adair, the proposed designated proponent, consent to the designation of myself as the proponent for the purposes of the action described in this EPBC Act Referral.

Australian Government
Department of the Environment and Energy

Signature:..... Date: 13/3/17

9.6 Is the Referring Party an Organisation or Individual?

Organisation

9.8 Organisation

9.8.1 Job Title

Senior Environmental Engineer

9.8.2 First Name

Elisha

9.8.3 Last Name

Bawden

9.8.4 E-mail

Elisha.Bawden@aecom.com

9.8.5 Postal Address

540 Wickham Street
Fortitude Valley QLD 4006
Australia

9.8.6 ABN/ACN

ABN

20093846925 - AECOM AUSTRALIA PTY LTD

9.8.7 Organisation Telephone

07 3553 2000

9.8.8 Organisation E-mail

Elisha.Bawden@aecom.com

Declaration

Australian Government
Department of the Environment and Energy

I, ELISHA JOY BAWDEN, I declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence.

Signature: E Bawden Date: 13/03/2017

Appendix A - Attachments

The following attachments have been supplied with this EPBC Act Referral:

1. 60517891-sk-0301-a.pdf
2. p60517891_g005_epbcreferral_a4p_projectcontext_5000m.pdf
3. 60517891_cgc_gc_csgt_epbc_-_mnes_20170310_b_reduced.pdf
4. tracks-58871441-v1-signed_approval_for_variation_1_-_epbc_and_market_sounding.pdf