Northern Territory Environment Protection Authority

TERMS OF REFERENCE FOR THE PREPARATION OF AN ENVIRONMENTAL IMPACT STATEMENT

PROPOSAL NAME:	**Darwin Ship Lift and Marine Industries Project**
LOCATION:	**Darwin**
PROPONENT:	**Department of Trade, Business and Innovation (DTBI)**
ISSUED:	**12 December 2019**

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Abbreviations and Acronyms

DTBI	Department of Trade, Business and Innovation
EA Act	Environmental Assessment Act 1982
EAAP	Environmental Assessment Administrative Procedures 1984
EIS	Environmental Impact Statement
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
ESIA	Economic and Social Impact Assessment
NT	Northern Territory
NT EPA	Northern Territory Environment Protection Authority
SOR	Statement of Reasons
TOR	Terms of Reference
VOC	Volatile organic compound

PART 1 INTRODUCTION

1.1 Overview

The Northern Territory Department of Trade, Business and Innovation (DTBI) (the Proponent) - Darwin Ship Lift and Marine Industries Project (the Proposal) is being assessed by the Northern Territory Environment Protection Authority (NT EPA) under the Environmental Assessment Act 1982 (EA Act) at the level of an Environmental Impact Statement (EIS).

These Terms of Reference (TOR) set out the matters relating to the environment that are to be addressed in the Draft EIS for this Proposal, in accordance with clause 8(3) of the Environmental Assessment Administrative Procedures 1984. The Draft EIS must also address all requirements in the NT EPA General Guidance for Proponents Preparing an EIS (NT EPA 2019).

1.2 Background

A Notice of Intent was submitted to the NT EPA on 26 April 2018 for consideration under the EA Act. The Proposal is to construct and operate a common user ship lift, repair and maintenance facility approximately 700m east of the existing East Arm Wharf and Marine Supply Base in Darwin Harbour.

The key components of the Proposal comprise:

- waterside infrastructure, including a common user ship lift, wet berths and a manoeuvring basin
- landside infrastructure, including a vessel wash-down area, dry berths and a blast and paint facility.

Construction activities include dredging and the reclamation of an intertidal area (including mangroves) with dredged material.

The NT EPA decided on 14 November 2018 that the Proposal requires assessment at the level of an EIS. Further details of the Proposal and the reasons contributing to the NT EPA's decision are outlined in the Statement of Reasons available at: https://ntepa.nt.gov.au/environmental-assessments/current-projects.

On 24 September 2018, the Australian Government Minister for the Environment and Energy determined that the Proposal is not a controlled action for matters protected under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) (Referral EPBC 2018/8195). Therefore, the Proposal does not require further assessment and approval under the EPBC Act before it can proceed.

On 6 February 2019, the NT EPA was notified that DBTI had assumed responsibility for the Proposal, and is the Proponent.

1.3 Structure of these Terms of Reference

- Part 1 – Introduction: an overview of the Proposal and decisions relating to its environmental assessment.
- Part 2 – Matters to be addressed in the Draft EIS: a description of the information requirements specific to this Proposal. The Proponent is required to address all these matters, relating to the Proposal and the surrounding environment, in its Draft EIS. This part must be read in conjunction with the NT EPA General Guidance for Proponents Preparing an EIS (NT EPA 2019), which outlines the general information that is also required in the Draft EIS.
- Part 3 – Other requirements for the Draft EIS: a list of applicable guidelines and policies, and description of the public exhibition requirements.

PART 2 MATTERS TO BE ADDRESSED IN THE DRAFT EIS

2.1 Proposal description

2.1.1 Overview

Provide an overview of the objectives of the Proposal.

2.1.2 Construction and operation

Provide a detailed description of all construction and operational aspects of the Proposal as outlined in Table 1.

Table 1: Minimum information required in the Proposal description

Topic	Required information
Site layout maps	The description of the Proposal must include, but not be limited to, detailed maps and graphic illustrations of: • the location and approximate dimensions of areas to be disturbed and structures to be built including (as relevant): o all areas to be cleared, disturbed, dredged and reclaimed o roads and service infrastructure o stormwater and drainage infrastructure o buildings and structures o temporary stockpiles o waste storage facilities • the Proposal dredge spoil discharge point / disposal location • the Proposal layout overlain with the environmental values such as the location of marine values and heritage.
Design	Describe design options considered, reasons for selection and how the proposed design avoids and/or mitigates environmental constraints and potential impacts and risks to the surrounding environment including long-term legacy contamination. Outline and justify any trade-offs in the design.
Construction	Describe all elements of the construction phase including: • construction methods and limitations of construction methods in the area of the Proposal • vessels and machinery required • construction materials required – major types, quantities, qualities, sources, storage requirements and potential hazards • navigation aids • timeframes • any new ancillary infrastructure and upgrades required to service the Proposal, including supply of electricity, water, sewerage and road access. • environmental management of all aspects of the proposed construction with detailed maps and diagrams where relevant, including: o erosion and sediment control o water requirements

Topic	Required information
	o water management including stormwater drainage o biosecurity o waste classification[1] and management, including containment and disposal of contaminated wastewater and solids with details of pits, bunds, treatment and recycling o noise and vibration management (above and underwater) o controls to prevent creation of biting insects habitat • applicable legislation, guidelines and standards including the South Australia EPA Code of Practice for Vessel and Facility Management (Marine and Inland Waters) (SA EPA 2017) • any feasible construction alternatives. Where multiple alternatives exist, the choice of the preferred option(s) should be clearly explained, and a comparison provided against other options in terms of potential environmental impacts.
Dredging	All proposed dredging activities should be in accordance with the procedures, methods and minimum requirements of the NT EPA's Guidelines for the Environmental Assessment of Marine Dredging in the Northern Territory (NT EPA 2013a) and the National Assessment Guidelines for Dredging (Australian Government 2009). Information should include: • all capital dredging requirements, including area and volumes to be dredged and location where spoil will be disposed • all maintenance dredging requirements including frequency, area and volumes to be dredged and location where spoil will be disposed • dredging methods, timing and equipment, inclusive of spoil loading and disposal • location, outline and method of reclamation • an outline of all licensing and management plan requirements, including: o Construction and Operation Environmental Management Plans that demonstrate how environmental duties under Section 12 of the Water Management and Pollution Control Act 1998 will be exercised o a Dredge Spoil Disposal Environmental Management Plan, including capital and maintenance dredging management and monitoring, and environmental monitoring of potential environmental impacts associated with disposed dredge spoil • conceptual site model (NT EPA 2013c) • feasible dredging and spoil disposal alternatives, including alternative dredging methods (where multiple alternatives exist, the choice of the preferred option(s) should be clearly explained, and a comparison provided against other options in terms of potential environmental impacts).
Operation	Describe all landside and waterside elements of the proposed operation including:

[1] In accordance with NSW Waste Classification Guidelines https://www.epa.nsw.gov.au/your-environment/waste/classifying-waste/waste-classification-guidelines

Topic	Required information
	• environmental management of all aspects of the proposed operation with detailed maps, diagrams and facility design specifications and standards where relevant, including: o erosion and sediment control o water requirements o water management including stormwater drainage biosecurity measures o waste management, including containment and disposal of contaminated wastewater and solids with details of pits, bunds, treatment and recycling (including potentially hazardous grit blast waste material, antifoulant, organisms cleaned from vessels, removal of anodes, paint, sewage, run-off) o air quality management, including containment of dust and particles from sand/grit blasting, odour and emissions including paint overspray o ongoing maintenance of onshore and offshore components and servicing infrastructure o noise management (above and underwater) o applicable legislation, guidelines, and standards including the South Australia EPA Code of Practice for Vessel and Facility Management (Marine and Inland Waters) (SA EPA 2017) o proposed corrosion control method for any submerged steel structures or pipelines over water • any feasible operation alternatives (where multiple alternatives exist, the choice of the preferred option(s) should be clearly explained, and a comparison provided against other options in terms of potential environmental impacts.
Transport and traffic	Describe land and water traffic and transport activities during construction and operation, including but not limited to: • type, size, draft, number and frequency of vessels and hours of operation • details on access, haulage routes, vehicle types, volumes of traffic.
Energy	Provide relevant information with respect to energy during construction and operation, including but not limited to: • energy requirements and sources • consideration of renewable sources of energy and justification of selected option • estimate of greenhouse gas emissions • measures to maximise energy efficiency and avoid and/or reduce greenhouse gas emissions, particularly relating to source and consumption of energy.
Workforce	Provide a summary of the: • estimated number of people to be employed • skills base required • likely sources (local, regional, overseas).

2.2 Information requirements for key environmental factors

The NT EPA identified four preliminary key environmental factors (Table 2) that could be significantly impacted by the Proposal. These have been selected from the NT EPA's environmental factors and objectives (NT EPA 2018a).

Table 2: Preliminary key environmental factors potentially impacted by the Proposal

Theme	Key environmental factor	Objective
Sea	Marine environmental quality	Maintain the quality and productivity of water, sediment and biota so that environmental values are protected.
	Marine flora and fauna	Protect marine flora and fauna so that biological diversity and ecological integrity are maintained.
Air	Air quality and greenhouse gases	Maintain air quality and minimise emissions and their impact so that environmental values are protected.
People and communities	Social, economic and cultural surroundings	Protect the rich social, economic, cultural and heritage values of the Northern Territory.

For each of the preliminary key environmental factors listed in Table 2, the Draft EIS is to provide an assessment of how the NT EPA's environmental objective would be met, as outlined in the NT EPA General Guidance for Proponents Preparing an EIS (NT EPA 2019) and detailed below.

A Proposal footprint (direct disturbance) and zone of influence (indirect disturbance) are to be established to identify the components of the environment (under each environmental factor) and their specific values that could be impacted by implementation of the Proposal.

If additional potential environmental impacts are identified through the environmental impact assessment process, they must also be included in the Draft EIS, even if this requires addressing additional environmental factors not specified in Table 2.

2.2.1 Marine environmental quality

Provide sufficient information to enable assessment of whether the Proposal is likely to meet the NT EPA's objective to maintain the quality and productivity of water, sediment and biota so that environmental values are protected. Information requirements outlined in Table 3 below should be read in consideration of NT EPA General Guidance for Proponents Preparing an EIS (NT EPA 2019).

Table 3: Minimum information required for assessment of Marine environmental quality

Aspect	Specific information required
Environmental values	Describe the environmental values with respect to marine environmental quality of the Proposal area and Darwin Harbour. Include discussion of: • the influence of tides, current patterns and wave magnitudes, sediment dynamics, with consideration of extreme weather conditions

Aspect	Specific information required
	• the outcomes of geotechnical investigations and bathymetry surveys (intertidal and subtidal; depth, backscatter and water column) of the zone of influence and an assessment of the site's suitability • water quality (chemical, physical and biological) of the Proposal footprint (surveyed baseline), zone of influence and Darwin Harbour including temporal and spatial variations and reference to the metric by which water quality is measured • water quality objectives and declared beneficial uses for Darwin Harbour • the physical and chemical characteristics of the sediment within the spoil / dredge footprint, the Proposal footprint and zone of influence (surveyed baseline) as required by the Guidelines for the Environmental Assessment of Marine Dredging in the Northern Territory (NT EPA 2013a), including acid sulfate soil potential[2], toxicities and nutrients • the location and physical and biological characteristics of the spoil disposal site / reclamation site.
Potential impacts and risks	Utilise bathymetry surveys and field-verified hydrodynamic modelling to determine the areas that could feasibly experience impacts associated with the proposed activities. This is to take into account currents, waves, sediment transport, sediment plume, local-scale seabed features, dispersal and sedimentation characteristics including flocculation. Classify the areas as: • Zones of impact – or direct disturbance footprint (Proposal footprint). These are the areas of proposed infrastructure, vegetation clearing, dredging and direct use. • Zones of influence – or indirect disturbance footprint. These are surrounding areas that may be indirectly affected by proposed activities, for example via the release of contaminants (air, water, land), changes in hydrodynamics and sedimentation. Provide a detailed and comprehensive assessment of potential impacts on and risks to marine environmental quality (sediment and water) utilising hydrodynamic modelling, geotechnical investigations, outcomes of sediment quality investigations and other relevant information. As a minimum, the assessment should take into consideration: • dredging methods, equipment, timing and frequency • the likely scale, extent and fate of sediment plumes • other industries and proposals in Darwin Harbour that may contribute to cumulative impacts of this Proposal e.g. from dredging, contamination and habitat loss • environmental management requirements associated with seasonal weather, extreme weather conditions such as storms and cyclones for the 2, 10 and 100 year average recurrence interval events • details of reclamation containment and dewatering method, including expected settlement timeframe • the physical and chemical characteristics of reclamation discharge • potential contaminants and sources (including accidental spills, antifoulant, metal loading from corrosion control for submerged steel structures and

[2] Refer to Queensland Government guidance material at https://www.qld.gov.au/environment/land/management/soil/acid-sulfate

Aspect	Specific information required
	pipelines over water) from the Proposal, pathways and dispersal into the surrounding marine environment. The assessment must take into account all land and water based construction and operation activities of the Proposal including reclamation, site preparation, vessel traffic, spills, storm water discharge, biosecurity and hazardous substances used or mobilised during operations (e.g. antifouling paints, hydrocarbons, solvents, heavy metals etc.). The assessment must identify potential impacts and risks to marine water quality and quantify their significance: • against relevant guideline thresholds • on the beneficial uses, water quality objectives and identified environmental values of Darwin Harbour • on the food chain, particularly species that are consumed by people (bioaccumulation). The assessment of each aspect should consider cumulative impacts and the reversibility of potential impacts.
Mitigation and management	Outline the measures for minimising, managing and mitigating potential impacts and risks to marine environmental quality (e.g. sediment and water). These may be incorporated into management plans and address at a minimum: • facility design and layout • water management, including stormwater and wastewater management • waste management including a detailed description of management methods for all types of wastes (including bilge water, and anti-foul materials removed from and/or added to boats) • dredging management • dredge spoil management • erosion and sediment control • acid sulfate soil management (if present)[2] • emergency response management • compliance with any statutory or policy basis for the proposed measures. Discuss adaptation to a changing climate including design and resultant viability of the Proposal. All mitigation measures should be substantiated and in accordance with best practice advice from relevant Northern Territory Government advisory agencies.
Monitoring and reporting	Outline how the Proponent will monitor and report on potential impacts and risks to marine environmental quality as outlined above, including: • water quality • sediment quality • dredge plume and operation • spoil and spoil leachate, including acid sulfate soils • bioaccumulation • erosion and sediment • waste management, including antifoul removal, disposal and application.

Aspect	Specific information required
	All monitoring activities should be substantiated and in accordance with best practice advice from relevant Northern Territory Government advisory agencies.
Residual impact	Assess the significance of any residual impact or risk of the Proposal to identified values.

2.2.2 Marine Flora and Fauna

Provide sufficient information to enable assessment of whether the Proposal is likely to meet the NT EPA's objective to protect marine flora and fauna so that biological diversity and ecological integrity are maintained.

Information requirements outlined in Table 4 below should be read in consideration of the general advice provided in the NT EPA General Guidance for Proponents Preparing an EIS (NT EPA 2019).

Table 4: Minimum information required for assessment of Marine flora and fauna

Aspect	Specific information required
Environmental values	As a minimum, describe and discuss within the context of the Proposal footprint, the zone of influence and Darwin Harbour: • the distribution, abundance, habitat utilisation and seasonality for species of conservation significance (including species listed as threatened under the Territory Parks and Wildlife Conservation Act 1976 and marine megafauna) • the presence or likely presence of marine fauna and flora species with significant cultural, commercial and/or recreational value • the quality and quantity of available habitat for significant species, and provide maps of the local extent of important habitat areas • the current status of marine pests and biosecurity measures • the importance of the local population of significant species in a regional, NT, national and international context • coastal habitat values, including mangroves and saltmarshes • sensitive habitats with key ecological relationships and interdependencies (such as a food source for a threatened marine mammal), including benthic habitats and communities • detailed descriptions and fine scale maps (based on field verified modelling) of the benthic habitat and communities within the zone of influence, including reef communities, seagrass / macro algae, mangroves, intertidal and subtidal flats and keystone species[3]. Keystone species information should be suitable to be used as baseline data to establish a pre-impact reference for seasonal presence and abundance. • broad scale maps of the regional context for benthic habitat and communities. Use current data available from the Flora and Fauna Division, Department of Environment and Natural Resources and display findings in map format wherever possible.

[1]A keystone species is a species that has a disproportionate effect on its environment relative to its abundance. Such species affect many other organisms in an ecosystem and help to determine the types and numbers of various other species in a community.

Aspect	Specific information required
	Where important knowledge gaps exist, conduct surveys using appropriate methods and with sufficient sampling intensity to provide robust understanding of baseline conditions.
Potential impacts and risks	Describe potential impacts and risks to marine flora and fauna during construction and operation, including but not limited to: • collision with vessels • grounding vessels • disturbance through light, noise and vibration (e.g. temporary and permanent increase in underwater noise) • changes in water and sediment quality, and exposure to contaminants (including increased particulate matter; hazardous chemicals from spills and runoff; contact with acid sulfate soils and antifoul products; metal loading e.g. from corrosion control; bioaccumulation in the food chain) • loss of foraging habitat • the introduction or spread of marine pests or weeds. Include a detailed assessment of the nature and extent of the likely short-term and long-term impacts, including cumulative impacts, to marine species of conservation significance, and culturally, commercially and recreationally significant species in the local, regional and Territory context. The assessment should as a minimum: • Include a discussion (with reference to maps showing important habitat areas) of areas to be disturbed or altered by the proposed action, making clear how they will be disturbed or altered and how much potential habitat will be lost or impacted permanently and temporarily. • Identify potential impacts and threshold levels of underwater noise, including cumulative exposures, for species of conservation significance. This should include an evaluation of key construction and operational activities with elevated underwater noise e.g. pile-driving, dredging, shipping, rock placement, ship lifting and other operational activities with modelling taking into account geo-acoustic properties (sediment type and sediment thickness, depth, bathymetry, sound speed profiles (seasonal and spatial) and other relevant oceanic / environmental variables). Demonstrate how the model will be validated. • Consider impacts experienced at similar facilities elsewhere. • Provide a statement whether any relevant impacts to significant marine species and habitats are likely to be unknown, unpredictable or irreversible and the significance of any permanent loss of habitat on marine ecosystem integrity at an appropriate scale. Include references to relevant research, statutory advice and statutory plans, such as conservation advices, action plans, recovery plans, threat abatement plans and health guidelines (where relevant to potential bioaccumulation), when assessing potential impacts and risks. Identify if and how the action is consistent with any relevant statutory recovery plans and threat abatement plans.
Mitigation and management	Outline the measures for avoiding, minimising, managing and mitigating potential impacts and risks to marine flora and fauna. These may be incorporated into management plans and address at a minimum: • management for marine fauna of conservation significance

Aspect	Specific information required
	• underwater noise • vessel traffic, including vessel strikes • dredging operations • biosecurity • contaminant load, including fugitive emissions (e.g. from sand/grit blasting and paint overspray) and other contamination sources • compliance with any statutory or policy basis for the proposed measures.
Monitoring and reporting	Outline how the Proponent will monitor and report potential impacts and risks to marine flora and fauna as outlined above, including: • monitoring of benthic primary producer communities that contribute to marine fauna food chains • marine pest monitoring (such as marine pest settlement devices). All monitoring activities should be substantiated and in accordance with advice from relevant Northern Territory Government advisory agencies.
Residual impact	Assess residual impact or risk of the Proposal to identified values.

2.2.3 Air quality and greenhouse gases

Provide sufficient information to enable assessment of whether the Proposal is likely to meet the NT EPA's objective to maintain air quality and minimise emissions and their impact so that environmental values are protected.

Information requirements outlined in Table 5 below should be read in consideration of the NT EPA General Guidance for Proponents Preparing an EIS (NT EPA 2019).

Table 5: Minimum information required for assessment of Air quality and greenhouse gases

Aspect	Specific information required
Environmental values	As a minimum, describe ambient air quality of the area potentially impacted by emissions released by the Proposal.
Potential impacts and risks	Describe potential impacts and risks to air quality including potential impacts and risks to the environment from fugitive emissions. As a minimum: • provide an inventory of significant emissions to air likely to result from the Proposal • identify and provide the location of sensitive receptors on land and sea • include reporting requirements and compliance with relevant environmental standards • assess air emission impacts during construction and operation based on air dispersion modelling for odour and volatile organic compounds (VOCs).
Mitigation and management	Outline the measures for avoiding, minimising, managing and mitigating potential impacts and risks to air quality including: • design of painting facilities, e.g. enclosed facility with negative air capacity.
Monitoring and reporting	Describe how the Proponent will monitor and report potential impacts and risks to air quality including air quality standards and trigger values.

Aspect	Specific information required
Residual impact	Assess residual impact or risk of the Proposal to identified values.

2.2.4 Social, economic and cultural surroundings

Provide sufficient information to enable assessment of whether the Proposal is likely to meet the NT EPA's objective to protect the rich social, economic, cultural and heritage values of the Northern Territory.

Information requirements outlined in Table 6 below should be read in consideration of the NT EPA General Guidance for Proponents Preparing an EIS (NT EPA 2019).

Table 6: Minimum information required for assessment of Social, economic and cultural surroundings

Aspect	Specific information required
Environmental values	Describe, using maps where appropriate, the existing social and economic aspects and values (including key stakeholders) of Darwin Harbour that may be impacted by the Proposal including commercial and recreational values such as marine tourism, recreational fishing and the amateur fishing industry. Identify and map all places and items with historic and/or indigenous cultural heritage values and/or protected under legislation within the Proposal footprint, the zone of influence and in areas that could be otherwise impacted by the Proposal activities. Baseline information should be provided regarding historic or cultural heritage values and significance of the sites/areas, including: • areas listed on Commonwealth and Northern Territory registers of historic and/or cultural heritage • a description and location of Aboriginal and non-Aboriginal sites, places or objects of natural, historic or cultural heritage significance, current utilisation and spiritual significance. Information sources should include published archaeological and anthropological information, respective registers, consultations and other research • provision of an Authority Certificate under the Northern Territory Aboriginal Sacred Sites Act 1989 or an application under the Act • provision of information on the current status of any approvals, permits or clearances in relation to the protection of heritage items or places.
Potential impacts and risks	Describe and quantify: • the potential social and economic opportunities and impacts with an analysis of the social and economic values, benefits and potential impacts of the Proposal on a local/regional, NT and national scale, including but not limited to: o projected economic costs and benefits of the Proposal, including a cost/benefit analysis or similar studies, the estimated capital and annual operational expenditure and estimated total revenue o details of relevant costs and benefits of alternative options to the proposed action[4]

[4] as identified in section 2.2.4 NT EPA General Guidance for Proponents Preparing an EIS (NT EPA 2019).

Aspect	Specific information required
	o training and employment opportunities expected to be generated by the Proposal o opportunities for local and regional businesses o impacts on the local community such as on the amenity of the area, marine tourism, recreational fishing and the amateur fishing industry o risks of the Proposal not realising its proposed economic and social benefits[5] o social impacts associated with not achieving the proposed economic benefits • the potential impacts of Proposal infrastructure and activities, such as land transport and traffic impacts, water vessel traffic, dredging and reclamation, on cultural and historic heritage values on land, within the intertidal zone and submerged in Darwin Harbour. This should include: o the potential impacts and risks of destruction and / or damage to the Catalina A24-69 wreck site (Catalina 2) and the East Arm Flying Boat Base o the potential cumulative impacts and risks, taking into consideration other users and activities • details of unexploded ordinance clearance.
Mitigation and management	Address[6] all potential impacts and risks identified through the economic and social impact assessment, identify measures to avoid, reduce or mitigate these impacts including: • measures to protect, and avoid impacts and entry, to sacred sites[7], including transit of vessels in the vicinity of sacred sites • procedures to avoid significant heritage values and sites, and protect key sites during construction and operation • any requirement to apply to, or applications already made to, the NT Minister for Tourism, Sport and Culture to disturb or destroy a prescribed archaeological place and/or object under the Heritage Act 2011 • procedures that would be implemented in the event that any surface, sub-surface or submerged items/sites of heritage/cultural significance (additional to those identified in the EIS) are identified during implementation of the Proposal • traffic management. Describe how emerging social impacts would be identified, assessed and mitigated in the future.
Monitoring and reporting	Describe monitoring and reporting of identified potential economic, social and cultural impacts and risks.
Residual impact	Assess any residual impact or risk of the Proposal to identified values.

[5] accompanied by a summary of the economic feasibility of the Proposal

[6] potentially as part of management plans (e.g. a draft Economic and Social Impact Management Plan)

[7] Provide evidence that an Authority Certificate has been obtained or is under application in accordance with the Northern Territory Aboriginal Sacred Sites Act (NTASS Act).

PART 3 OTHER REQUIREMENTS FOR THE DRAFT EIS

3.1 Relevant guidance material / references

As outlined in section 3.1.3 of the NT EPA General Guidance for Proponents Preparing an EIS (NT EPA 2019), the Proponent is expected to refer to guidance material considered relevant to the Proposal. A list of such material is provided below, but is not exhaustive. The NT EPA expects the Proponent to refer to the most up-to-date and relevant evidence-based information.

- ANZG 2018. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Australian and New Zealand Governments and Australian state and territory governments, Canberra ACT, Australia. Available at www.waterquality.gov.au/anz-guidelines.
- ANZG, 2018. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Australian and New Zealand Governments and Australian State and Territory Governments, Australia
- Australian ICOMOS, 2013. The Burra Charter: The Australia ICOMOS charter for places of cultural significance. Australia International Council on Monuments and Sites
- Australian Government, 2009. National assessment guidelines for dredging. Commonwealth of Australia, Canberra
- Australian Government, 2015. National clean air agreement. Commonwealth of Australia
- Dear S-E, Ahern CR, O'Brien LE, Dobos SK, McElnea AE, Moore NG & Watling KM, 2014. Queensland Acid Sulfate Soil Technical Manual: soil management guidelines. Brisbane: Department of Science, Information Technology, Innovation and the Arts, Queensland Government
- DENR 2015. NT Fauna Atlas. Darwin, Northern Territory, Australia. Department of Environment and Natural Resources, Northern Territory Government
- DENR 2019b. NT Species Atlas Datasets. Darwin, Northern Territory, Australia. Department of Environment and Natural Resources, Northern Territory Government
- Department of the Environment, 1998. National environment protection (national pollutant inventory) measure. National Environment Protection Council
- Department of the Environment, 2016. National environment protection (ambient air quality) measure. National Environment Protection Council
- Department of the Environment and New Zealand Ministry for Primary Industries, 2015. Anti-fouling and in-water cleaning guidelines. Department of Agriculture, Canberra. CC BY 3.0
- DNRETAS 2010. Water Quality Objectives for the Darwin Harbour Region. Aquatic Health Unit, Department of Natural Resources, Environment, The Arts and Sports, Northern Territory Government
- DoEEa, 2019. National Inventory Report 2017. Volume 1. Department of the Environment and Energy, Australian Government

- DoEEb, 2019. State and Territory Greenhouse Gas Inventories 2017. Department of the Environment and Energy, Australian Government
- Environment Australia, 1999. Emission estimation technique manual for shipbuilding repair and maintenance. National Pollutant Inventory. Australian Government
- EPA, 2010. Environmental Assessment Guideline No.5 - environmental assessment guideline for protecting marine turtles from light impacts. Environmental Protection Authority, Western Australia
- EPA, 2016. Technical guidance – protection of benthic communities and habitats. Environment Protection Authority, Western Australia
- EPA, 2016. Technical guidance – protecting the quality of Western Australia's marine environment. Environmental Protection Authority, Western Australia
- IAIA, 2015. Social Impact Assessment: Guidance for assessing and managing the social impacts of projects. International Association for Impact Assessment
- IAP2, 2016. Core Values. International Association for Public Participation Australasia
- IECA, 2008. Best practice in erosion and sediment control manual. Picton NSW: International Erosion Control Association (Australasia), Picton NSW
- Northern Territory Heritage Register. NT Heritage Council, Department of Tourism, Sport and Culture, Northern Territory Government
- NSW EPA 2014. Waste classification guidelines, Part 1: Classifying waste. New South Wales Environment Protection Authority
- NT EPA, 2013a. Guidelines for the environmental assessment of marine dredging in the Northern Territory. Northern Territory Environmental Protection Authority
- NT EPA, 2013b. Guidelines for the preparation of an economic and social impact assessment. Northern Territory Environment Protection Authority
- NT EPA, 2013c. Guidelines on conceptual site models. Northern Territory Environmental Protection Authority
- NT EPA, 2014. Guidelines on Waste Discharge Licensing under the Northern Territory Water Act. Northern Territory Environment Protection Agency.
- NT EPA, 2018a. Environmental factors and objectives. Northern Territory Environment Protection Authority
- NT EPA, 2018b. Guidance on adaptive management. Northern Territory Environment Protection Authority
- NT EPA, 2018c. Opportunities and timeframes for community engagement in the environmental assessment process. Northern Territory Environment Protection Authority
- NT EPA, 2019a. Guidance for proponents – stakeholder engagement. Northern Territory Environment Protection Authority

- NT EPA, 2019b. General guidance for proponents preparing an environmental impact assessment. Northern Territory Environment Protection Authority
- Queensland Government. Acid sulfate soils. https://www.qld.gov.au/environment/land/management/soil/acid-sulfate

  Including:

  - National acid sulfate soil sampling and identification methods manual
  - Queensland acid sulfate soil technical manual, soil management guidelines
  - Guidelines for the dredging of acid sulfate soils sediments and associated dredge spoil management
  - National acid sulfate soils guidance: guidance for the dewatering of acid sulfate soils in shallow groundwater environments
  - National acid sulfate soils guidance: overview and management of monosulfidic black ooze (MBO) accumulations in waterways and wetlands.
- SA EPA, 2017. Code of practice for vessel and facility management (marine and inland waters). South Australia Environment Protection Authority[8]
- Simpson SL, Batley GE, Chariton AA, Stauber JL, King CK, Chapman JC, Hyne RV, Gale SA, Roach AC & Maher WA, 2005. Handbook for Sediment Quality Assessment. CSIRO, Bangor, NSW
- Simpson SL & Batley GE, 2016. Sediment Quality Assessment. A Practical Guide, Second Edition.
- Statutory weed management plans. Weed Management Branch, Department of Environment and Natural Resources, Northern Territory Government
- The national system for the prevention and management of marine pest incursions. Australian Government
- Threat abatement plans, action plans and recovery plans for listed species, Department of the Environment and Energy, Australian Government.

3.2 Public exhibition requirements

The public exhibition requirements are outlined in section 3.5.3 of the NT EPA General Guidance for Proponents Preparing an EIS (NT EPA 2019). In addition to the NT News, the Proponent is to advertise in The Australian that the Draft EIS is available for review and comment. Additional specific details are provided below.

3.2.1 Exhibition period

The NT EPA proposes a six (6) week public exhibition period for the Draft EIS. This will be confirmed or adjusted during the Draft EIS pre-lodgement phase.

[8] Where applicable, NT guidelines and legislation take precedence. The term “safety” should be taken to read “environmental safety” and references to “SafeWork SA” should be taken to be read as “NT WorkSafe”.

3.2.2 Exhibition locations

The Draft EIS should be provided to and be made available for public exhibition at:

- NT EPA, Level 1, Arnhemica House, 16 Parap Road, Parap, NT 0820
- Department of Infrastructure, Planning and Logistics, Level 1 Energy House, 18-20 Cavenagh Street, Darwin, NT 0800
- Northern Territory Library, Parliament House, Darwin, NT 0800
- Environment Centre Northern Territory, Unit 3, 98 Woods St, Darwin, NT 0800.