NORTHERN TERRITORY GOVERNMENT
Department of **LANDS, PLANNING AND ENVIRONMENT**

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12 November 2026

Our Ref: DLPE2026/0412

Mr Roland Lee
Environmental Assessment Unit
Department of Lands, Planning and Environment
GPO Box 3675
DARWIN NT 0801.

Dear Mr Lee

Re: Invitation to comment on referral – Landbridge Darwin Port Lessee Trust – Darwin Port Maintenance Dredging Campaign

The information submitted for the above referral has been assessed by the relevant divisions within the department and the following comments are provided:

Flora and Fauna Division

The Flora and Fauna Division has reviewed the referral and provides comments in **Attachment 1**.

The Flora and Fauna Division considers the potential risks to coastal processes, marine ecosystems (including benthic habitats and threatened/migratory species) and marine environmental quality to be low due to the relatively small scale of the proposed works within a previously disturbed environment.

The Flora and Fauna Division supports the proponent's commitment to undertake real-time turbidity monitoring, including accountability assessments, and to implement control actions should operations cause turbidity to exceed thresholds. The Flora and Fauna Division also supports the commitment to avoid undertaking dredging and bed levelling works when other dredging is active in the port's vicinity.

Although the risk is considered to be low, the Flora and Fauna Division provides the following recommendations:

- Monitoring, including continuous Photosynthetically Active Radiation (PAR/benthic light) sensors and pre-/post-dredging benthic sedimentation surveys, should be undertaken to quantify light reduction, verify recovery timelines, and inform and validate future assessments.
- If practicable, operations should be constrained to the Wet season to reduce the Zone of Moderate Impact (ZOMI), the Zone of Influence (ZOI), and limit the number of days where turbidity is expected to exceed local sensitive thresholds.

Lands and Planning Division

Development Assessment Services

Clause 3.9 (Darwin Harbour Dredging) of the Northern Territory Planning Scheme 2020 (NTPS) applies to the proposed maintenance dredging works. In accordance with clause 3.9(4), an application for dredging must demonstrate consideration of the *Guidelines for the Environmental Assessment of Marine Dredging in the Northern Territory* published by the Northern Territory Environment Protection Authority (NT EPA).

The proponent is encouraged to contact Development Assessment Services on (08) 8999 6046 or at das.ntg@nt.gov.au for more information.

Crown Land Estate

Crown Land Estate has reviewed the referral and has no comment in relation to the proposed dredging project.

Environment and Heritage Division

Heritage Branch

A search has found that there are no recorded Aboriginal or Macassan archaeological places and objects within the nominated dredging locations.

The search has also found that there are no nominated, provisionally declared or declared heritage places or objects within the nominated dredging locations. However, there are at least two protected heritage places that may be impacted by spoil deposited within the proposed harbour disposal areas, and multiple historically significant wrecks. These include the declared heritage places *Kelat* and *Catalina 6* (Catalina Flying Boat #4 or #8 of USN Patrol Wing 10), as well as the historically significant wrecks *Catalina 2* (A24-69), *Catalina 3* (A24-206), and the *Corinthian* (S.23 flying boat G-AEUF).

The Heritage Branch strongly recommends that dredging spoil be disposed of onshore only. Disposal of spoil within Darwin Harbour may adversely impact protected heritage places as well as other historically important wrecks. Where onshore disposal is not feasible for the duration of the project, the proponent should contact the Heritage Branch for advice on how to manage the risks associated with disposal of dredging spoil within Darwin Harbour.

The context of Heritage Branch advice

The Heritage Branch administers the *Heritage Act 2011* and provides authoritative advice about obligations under this legislation, including steps to take to manage the impact of proposed work on Aboriginal and Macassan archaeological places and objects.

It is important that advice provided by the Heritage Branch is followed. A failure to follow advice may be considered as evidence in an investigation if damage occurs to an Aboriginal or Macassan archaeological place or object.

Relevant parts of the *Heritage Act 2011*

1. All provisionally declared and declared heritage places and objects are protected;

2. All Aboriginal or Macassan archaeological places and objects are automatically protected - this includes places and objects not previously recorded;

3. Archaeological places and objects include an artefact or thing given shape by a person - examples include stone tools, stone arrangements, fish traps, rock art, modified trees, and shell middens;

4. Ancestral remains are also protected;

5. Underwater Cultural Heritage is protected, up to three nautical miles from the coast;

6. There is an obligation to notify of the discovery of Aboriginal or Macassan archaeological places or objects; and

7. Work carried out to a heritage place or object must follow the *Heritage Act 2011*.

Conditions of advice

This advice is based on the description of the proposed activity provided to the Heritage Branch. If the work expands or changes significantly, please seek further advice.

In preparing this advice, the Heritage Branch has referred to an archaeological database which includes information about Aboriginal and Macassan archaeological places and objects in the Northern Territory (NT). The database only includes information about recorded archaeological places and objects. The fact that there are no archaeological places or objects recorded may be because there have been no archaeological surveys conducted in that particular area and is not necessarily an indication that archaeology does not exist.

Further information can also be found on the Department of Lands, Planning and Environment (DLPE) website[1,2].

Environmental Regulation Division

The proponent should note that all persons are required to comply at all times with the General Environmental Duty under section 12 of the *Waste Management and Pollution Control Act 1998* (WMPC Act). To help satisfy the General Environmental Duty, the proponent is advised to take notice of the list of environmental considerations below. The list is not exhaustive, and the proponent is responsible for ensuring their activities do not result in non-compliance with NT laws.

A non-exhaustive list of environmental issues that should be considered to meet requirements under NT law are listed below:

1. **Dust**: The proposed activities have the potential to generate dust, particularly during the dry season. The proponent must ensure that nuisance dust and/or nuisance airborne particles are not discharged or emitted beyond the boundaries of the premises.

2. **Noise**: The proponent is to ensure that the noise levels from the proposed premises comply with the latest version of the NT EPA Northern Territory Noise Management Framework Guideline available online[3].

[1] https://nt.gov.au/property/building/heritage-properties/heritage-properties-building-works-and-development
[2] https://nt.gov.au/leisure/arts-culture-heritage/visit-a-cultural-or-heritage-site/aboriginal-heritage-information
[3] https://ntepa.nt.gov.au/__data/assets/pdf_file/0004/566356/noise_management_framework_guideline.pdf

3. **Erosion and Sediment Control (ESC):** The proponent must ensure that pollution and/or environment harm do not result from soil erosion.

   ESC measures should be employed prior to and throughout the construction stage of the development. Larger projects should plan, install and maintain ESC measures in accordance with the current International Erosion and Sediment Control Association (IECA) Australia guidelines and specifications.

   Where sediment basins are required by the development, the NT EPA recommends the use of at least Type B basins, unless prevented by site specific topography or other physical constraints.

   Basic advice for small development projects is provided by the NT EPA document: Guidelines to Prevent Pollution from Building Sites[4].

4. **Storage:** If an Environment Protection Approval or Environment Protection Licence is not required, the proponent should store liquids only in secure bunded areas in accordance with VIC EPA Publication 1698: Liquid storage and handling guidelines, June 2018, as amended. Where these guidelines are not relevant, the storage should be at least 110% of the total capacity of the largest vessel in the area.

   Where an Environment Protection Approval or Environment Protection Licence is required, the proponent must only accept, handle or store at the premises listed waste, including asbestos, as defined by the WMPC Act, in accordance with that authorisation.

5. **Site Contamination**: If the proposal relates to a change of land use or if the site is contaminated, including as a result from historical activities such as cyclones, a contaminated land assessment maybe required in accordance with the National Environment Protection (Assessment for Site Contamination) Measure (ASC NEPM). The proponent is encouraged to refer to the information provided on the NT EPA website[5,] and the NT Contaminated Land Guidelines[6].

6. **Waste Management - Import and Export of Fill**: The proposed activities have the potential to generate fill and/or involve the importation of fill for use on-site. Untested fill material may already be present on the site. All fill imported or generated and exported as part of the activity must either be certified virgin excavated natural material (VENM) or be sampled and tested in line with the NSW EPA Guidelines[7].

   All imported fill material must be accompanied by details of its nature, origin, volume, testing and transportation details. All records must be retained and made available to authorised officers, upon request. The proponent should also consider the following NT EPA fact sheets: How to avoid the dangers of accepting illegal fill onto your land[8], and Illegal Dumping - What You Need to Know[9].

7. **Odour or Smoke:** The proposed activities may have the potential to create odours and/or smoke. The proponent must ensure that nuisance odours or smoke are not emitted beyond the boundaries of the premises.

[4] https://ntepa.nt.gov.au/__data/assets/pdf_file/0010/284680/guideline_prevent_pollution_building_sites.pdf
[5] https://ntepa.nt.gov.au/your-environment/contaminated-land
[6] https://ntepa.nt.gov.au/__data/assets/pdf_file/0020/434540/guideline_contaminated_land.pdf
[7] https://www.epa.nsw.gov.au/your-environment/waste/classifying-waste/virgin-excavated-natural-material
[8] https://ntepa.nt.gov.au/__data/assets/pdf_file/0005/285728/factsheet_avoid_danger_accepting_illegal_fill_to_your_land.pdf
[9] https://ntepa.nt.gov.au/__data/assets/pdf_file/0008/285740/factsheet_illegal_dumping_what_you_need_know.pdf

Water Resources Division

There are no issues of concern requiring comment within the responsibilities of the Water Resources Division associated with the proposed Darwin Port Maintenance Dredging Campaign.

Should you have any further queries regarding these comments, please contact the Development Coordination Branch by email DevelopmentCoordiantion.DLPE@nt.gov.au or phone (08) 8999 4446.

Yours sincerely



Maria Wauchope
Executive Director Land Resources

Attachment 1 – Flora and Fauna Division comments

Attachment 1

Submission on the Referral

Landbridge Darwin Port Lessee Trust – Darwin Port Maintenance Dredging Campaign

This submission is made under regulation 53 of the Environment Protection Regulations 2020

Government authority: Department of Lands, Planning and Environment - Flora and Fauna Division

Theme / issue	Comment
Threatened species	The threatened species listed in **Table 1** occur, or are likely to occur, within or immediately adjacent to the proposed project area. This is based on a search of DLPE databases within a 3km radius of the area, expert knowledge of species' habitat requirements, and information about habitats occurring within the area. **Table 1** provides an assessment of the potential risk posed by the proposed project to each species, based on current available information (including that provided by the applicant) and indicates whether the available information is sufficient to make a robust assessment, including identifying where further surveys are required to address important information gaps. **Table 1** – Threatened species that are known to occur, or are likely to occur, within or adjacent to the proposed project area; their conservation status; and an assessment of the risk of impact posed by the project. Conservation status = VU – Vulnerable; EN – Endangered; CR – Critically Endangered; NT – Near Threatened; LC – Least Concern

Common Name	Scientific Name	TPWC Act* Status	EPBC Act** Status	Risk of Potential Impact	Survey Required
Greater Sand Plover	*Charadrius leschenaultii*	VU	VU	Low	No
Lesser Sand Plover	*Charadrius mongolus*	EN	EN	Low	No
Asian Dowitcher	*Limnodromus semipalmatus*	-	VU	Low	No
Bar-tailed Godwit	*Limosa lapponica menzbieri*	-	EN	Low	No

Theme / issue	Comment

Common Name	Scientific Name	TPWC Act* Status	EPBC Act** Status	Risk of Potential Impact	Survey Required
Curlew Sandpiper	*Calidris ferruginea*	CR	CR	Low	No
Far Eastern Curlew	*Numenius madagascariensis*	CR	CR	Low	No
Great Knot	*Calidris tenuirostris*	CR	VU	Low	No
Green Turtle	*Chelonia mydas*	-	VU	Low	No
Flatback Turtle	*Natator depressus*	-	VU	Low	No
Hawksbill Turtle	*Eretmochelys imbricata*	VU	VU	Low	No

**Territory Parks and Wildlife Conservation Act 1976*
***Environment Protection and Biodiversity Conservation Act 1999*

Listed Migratory Pelagic Seabirds and Shorebirds: Darwin Harbour and the Top End provide important foraging habitat for a range of listed threatened and migratory shorebirds, and pelagic seabirds. Foraging habitat for shorebird species is generally associated with intertidal areas within Darwin Harbour, while pelagic seabirds utilise broader marine and coastal areas for foraging. A large number of shorebird species (including seven threatened species) have been recorded in the vicinity of the project area. The project footprint includes the protected roosting site located at Pond D on East Arm wharf, which supports more than 15 species of migratory shorebird. This site is considered important roosting habitat for migratory shorebirds. This pond will not be used for direct placement of dredge spoil or tailwater storage, and the dredge contractor will ensure that there is no direct disturbance to the pond. While the nearby Pond K will be used for depositing dredge spoil, these operations are unlikely to create any significant disturbance to migratory shorebirds roosting on Pond D due to the long history of similar activities and vehicular movement within the vicinity that has not disturbed roosting in the past. The Flora and Fauna Division considers the risk to migratory shorebirds to be low.

Marine fauna: Three species of threatened marine turtles are known to occur within East Arm and Darwin Harbour. Given the occurrences of these species within the footprint and neighbouring areas, turtles are most likely to be using the filter feeder habitat for foraging. In addition, three species of coastal dolphin, namely Australian Humpback, Snubfin and Bottlenose, consistently use the area for foraging and social activities. These species may potentially be impacted on by the project's activities, such as vessel traffic, dredging operations, underwater noise, and lighting. The proponent has included adequate mitigation measures to minimise impacts to this fauna, including the

Theme / issue	Comment
	use of a Marine Fauna Observer, observation zones and exclusion zones, a 30-minute pre-start survey, vessel speed limits and noise control measures. The Flora and Fauna Division considers the residual risk to marine fauna to be low.
Scope of Proposal and dredge volumes	The proponent was instructed by the NT EPA, as part of a request for further information, to provide additional information to clarify the scope of works included in the referral and associated sediment volume estimates. The proponent has clarified that bed-levelling (sweep bar) works are less invasive and suitable for four of the eight proposed sites, confirming that this activity is unlikely to cause significant impact to marine or coastal environments and is appropriately excluded from the referral scope. The Flora and Fauna Division accepts this assessment. The proponent confirmed that, of the remaining four locations, three will be maintained strictly via Cutter Suction Dredge (CSD) and one (EAW Berth 2) via a combination of dredging and bed levelling (capped at 1,000m^3). Total dredge volume across all sites is estimated at 30,748m^3 (inclusive of a 300mm over-dredge allowance based on November 2024 survey bathymetry).
Hydrodynamic and Sediment Transport Modelling	The proponent utilised updated November 2024 survey bathymetry to calculate dredge volumes; but relied on the Australian Institute of Marine Science (AIMS) 2017 sediment transport modelling, which was developed using older (2015/16) bathymetric data. While this is unlikely to fundamentally alter the hydrodynamic regime or overall impact assessment, it is recommended that future sediment transport modelling utilise the most current bathymetric data available. Additionally, the sediment transport model evaluated post-dredging resuspension for up to 30 days. In a strong macro-tidal estuary like Darwin Harbour, fine sediment resuspension and bedload migration continue across multiple spring-neap cycles. Modelling should ideally run until net sediment transport reaches dynamic equilibrium (i.e. returns to natural baseline state). Future modelling should account for this extended timeframe.

Sensitive Receptors and Mitigation Measures	The referral acknowledges that hard coral and filter-feeder communities at South Shell Island fall within the predicted ZOMI and ZOI under both Wet and Dry season modelling scenarios. The proponent has committed to the following mitigation measures: 1) Work with stakeholders to coordinate operations so to avoid concurrent dredging/bed-levelling activities within the vicinity of the Port; 2) Conduct depth-averaged turbidity monitoring at dredging locations, 200m up/down-current mixing boundaries, South Shell Island (SSI-West), and a background reference site; and 3) Implement source controls when triggers are exceeded (including operating a static CSD, maintaining low cutter speeds, placing suction directly behind the cutter head, and adaptively shifting work windows to favourable tide phases). The Flora and Fauna agree that these mitigation measures are appropriate.
Assessment of Impact, Benthic Light, and Habitat Recovery	The referral report evaluates impacts to South Shell Island as 'Moderate' (defined by WA EPA 2016 as short-term recoverable damage where habitat mortality may occur, but full recovery is expected without permanent modification). However, no empirical post-dredging benthic survey data from past maintenance campaigns (e.g. 2018/19) was provided to confirm that benthic recovery actually occurred. Because hard corals respond primarily to light attenuation and sedimentation, the proponent should undertake monitoring - including continuous PAR/benthic light sensors and pre-/post-dredging benthic sedimentation surveys - to quantify light reduction, verify recovery timelines, and inform and validate future assessments.
Operational Timing	Plume modelling demonstrates that dredging during the Dry season results in threshold exceedances for eight days during dredging plus two days post-dredging (10 days total), compared to only three days during the Wet season. Furthermore, the Dry Season ZOMI and ZOI extend significantly further south and east, encompassing additional sensitive receptors (hard corals and filter feeders) further up Elizabeth River towards Short Islet. The Flora and Fauna Division recommends that, to the maximum extent practicable, dredging and bed-levelling operations are restricted to the Wet season (while maintaining timing avoidance protocols with adjacent port developments).