

Ms Mandy Trueman
Department of Environment, Parks and Water Security
PO Box 3675
DARWIN NT 0801

Dear Ms Trueman

Re: Invitation to comment on Referral - Aurizon Berriman Referral

The Department of Environment, Parks, and Water Security has assessed the information submitted for the above referral and provides the following comments:

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 that the Berrimah Freight Terminal Expansion Project poses a low risk to threatened species and significant and sensitive vegetation. There are additional risks from the proposal associated with Acid Sulphate Soils (ASS) and changes to the local drainage. The proponent has committed to implementing an ASS Management Plan and aligning drainage lines in a way that minimises hydrological changes to mangrove vegetation outside of the footprint.

Environment Division

The Environment Division has reviewed the information submitted and provides advice in **Attachment 2**.

Water Resources Division

The Water Resources Division has reviewed the referral and provides advice in **Attachment 3**.

Rangelands Division

Weed Management Branch

A desktop assessment of the NT Weeds Database for the property, and surrounding parcels and roads revealed data records of the following:

Common Name	Botanical Name	Declared
Gamba grass	<i>Andropogon gayanus</i>	Class B

All land in the Northern Territory is subject to the *Weeds Management Act 2001* (WM Act). The WM Act describes the legal requirements and responsibilities that apply to all persons, owners, and occupiers of land regarding declared and potential weeds. General duties described in Division 1 of the WM Act include the requirement for owners or occupiers of land to take all reasonable measures to prevent land being infested with a declared weed and to prevent a declared weed from spreading.

There are four types of classifications for a declared or potential weed under the WM Act: Class A (to be eradicated); Class B (growth and spread to be controlled); Class C (not to be introduced into the Territory or part of the Territory); and Class D (prevent the growth and spread by actions of persons).

Gamba grass is subject to a statutory weed management plan. Management obligations outlined in this plan must be adhered to by all land holders.

'Preventing Weed Spread is Everybody's Business' is a document highlighting the areas of risk for all activities associated with weed spread. The document available online¹, details the pathways through, which weeds are spread and provides actions to reduce weed spread. Proponents seeking to develop land for any purpose should address these actions.

Information regarding weed management is available online² or alternatively contact the Weed Management Branch for further advice on (08) 8999 4567.

Should you have any further queries regarding this comment, please contact the Development Coordination Branch by email DevelopmentAssessment.DEPWS@nt.gov.au or phone (08) 8999 4446.

Yours sincerely



Alaric Fisher
Executive Director Flora and Fauna

14 May 2024

Attachment 1 – Flora & Fauna Division

Attachment 2 – Environment Division

Attachment 3 - Water Resources Division

¹ https://denr.nt.gov.au/_data/assets/pdf_file/0011/257987/preventing-weed-spread.pdf

² <https://nt.gov.au/environment/weeds>

Attachment 1

Submission on the referral

Aurizon Operations Ltd – Berrimah Freight Terminal Expansion Project

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

Government authority: Department of Environment, Parks and Water Security – Flora and Fauna Division

Section of Referral	Theme or issue	Comment																																								
LAND, WATER, SEA Section 9.3	Biodiversity - Threatened Species (Terrestrial Ecosystems; Marine Ecosystems)	Based on a search of DEPWS databases within 2km of the boundary of the project area and fauna recorded during the terrestrial vertebrate fauna assessment for the proposed Berrimah Freight Terminal Expansion, expert knowledge of species' habitat requirements, and information about habitats occurring within the site, the following threatened species have been recorded or may occur within or adjacent to the referral area.																																								
		<table border="1"> <thead> <tr> <th>Common Name</th> <th>Scientific Name</th> <th>*TPWC Act</th> <th>**EPBC Act</th> </tr> </thead> <tbody> <tr> <td>Black-footed Tree-rat (Kimberley and mainland Northern Territory)</td> <td><i>Mesembriomys gouldii gouldii</i></td> <td>Endangered</td> <td>Endangered</td> </tr> <tr> <td>Common Brushtail Possum (north-western)</td> <td><i>Trichosurus vulpecula arnhemensis</i></td> <td>-</td> <td>Vulnerable</td> </tr> <tr> <td>Bare-rumped Sheath-tailed Bat</td> <td><i>Saccolaimus saccolaimus nudicluniatus</i></td> <td>-</td> <td>Vulnerable</td> </tr> <tr> <td>Yellow-spotted Monitor</td> <td><i>Varanus panoptes</i></td> <td>Vulnerable</td> <td>-</td> </tr> <tr> <td>Mitchell's Water Monitor</td> <td><i>Varanus mitchelli</i></td> <td>Vulnerable</td> <td>Critically Endangered</td> </tr> <tr> <td>Green Turtle</td> <td><i>Chelonia mydas</i></td> <td>-</td> <td>Vulnerable</td> </tr> <tr> <td>Hawksbill Turtle</td> <td><i>Eretmochelys imbricata</i></td> <td>Vulnerable</td> <td>Vulnerable</td> </tr> <tr> <td>Flatback Turtle</td> <td><i>Natator depressus</i></td> <td>-</td> <td>Vulnerable</td> </tr> <tr> <td>Ruddy Turnstone</td> <td><i>Arenaria interpres</i></td> <td>-</td> <td>Vulnerable</td> </tr> </tbody> </table>	Common Name	Scientific Name	*TPWC Act	**EPBC Act	Black-footed Tree-rat (Kimberley and mainland Northern Territory)	<i>Mesembriomys gouldii gouldii</i>	Endangered	Endangered	Common Brushtail Possum (north-western)	<i>Trichosurus vulpecula arnhemensis</i>	-	Vulnerable	Bare-rumped Sheath-tailed Bat	<i>Saccolaimus saccolaimus nudicluniatus</i>	-	Vulnerable	Yellow-spotted Monitor	<i>Varanus panoptes</i>	Vulnerable	-	Mitchell's Water Monitor	<i>Varanus mitchelli</i>	Vulnerable	Critically Endangered	Green Turtle	<i>Chelonia mydas</i>	-	Vulnerable	Hawksbill Turtle	<i>Eretmochelys imbricata</i>	Vulnerable	Vulnerable	Flatback Turtle	<i>Natator depressus</i>	-	Vulnerable	Ruddy Turnstone	<i>Arenaria interpres</i>	-	Vulnerable
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		Common Name	Scientific Name	*TPWC Act	**EPBC Act
		Sharp-tailed Sandpiper	<i>Calidris acuminata</i>	-	Vulnerable
		Red Knot	<i>Calidris canutus</i>	Endangered	Vulnerable
		Curlew Sandpiper	<i>Calidris ferruginea</i>	Critically Endangered	Critically Endangered
		Great Knot	<i>Calidris tenuirostris</i>	Critically Endangered	Vulnerable
		Greater Sand Plover	<i>Charadrius leschenaultii</i>	Vulnerable	Vulnerable
		Lesser Sand Plover	<i>Charadrius mongolus</i>	Endangered	Endangered
		Asian Dowitcher	<i>Limnodromus semipalmatus</i>	-	Vulnerable
		Bar-tailed Godwit	<i>Limosa lapponica</i>	-	Endangered
		Black-tailed Godwit	<i>Limosa limosa</i>	-	Vulnerable
		Far Eastern Curlew	<i>Numenius madagascariensis</i>	Critically Endangered	Critically Endangered
		Grey Plover	<i>Pluvialis squatarola</i>	-	Vulnerable
		Common Greenshank	<i>Tringa nebularia</i>	-	Endangered
		Terek Sandpiper	<i>Xenus cinereus</i>	-	Vulnerable
		-	<i>Cycas armstrongii</i>	Vulnerable	-
		-	<i>Stylidium ensatum</i>	Endangered	Endangered
		-	<i>Typhonium praetermissum</i>	Vulnerable	-
		* Territory Parks and Wildlife Conservation Act 1976 ** Environment Protection and Biodiversity Conservation Act 1999 (Cth)			
		<p>Common Brushtail Possum (north-western): This species is known to use woodland, riparian and mangrove habitats which occur within the project area. Targeted surveys within and adjacent to the proposal confirmed that this species is present across the whole area and are likely to use the habitat for foraging and potentially denning. The species is relatively common in the greater Darwin region and the individuals using the site are considered to be part of this larger 'population'. Construction and operation of the proposal would remove up to 40ha of suitable habitat for the species but there are extensive areas of</p>			

Section of Referral	Theme or issue	Comment
		<p>woodland and mangrove habitats remaining outside of the proposal footprint. The Flora and Fauna Division considers that the proposal poses a low risk to local population this species.</p> <p><u>Black-footed Tree-rat</u>: The Darwin region is considered to be an important area for the Black-footed Tree-rat, as they appear to have declined less in Darwin compared to many other areas across its range. The main risks to the species are direct habitat loss through clearing, as well as the degradation of habitat due to weed incursions and fire. The proposal area contains a relatively small patch of eucalypt woodland that may be suitable habitat for Black-footed Tree-rat. Targeted surveys of the site using camera trap surveys found no evidence of the species using the woodland area or the adjacent mangrove habitats. As the habitat is very small and already fragmented, the Flora and Fauna Division considers that there is a very low chance for the species to occur on site and that they would be impacted by the proposal.</p> <p><u>Yellow-spotted Monitor</u>: This species typically uses coastal, wetland, riparian and floodplain habitats across the Top End and have been observed foraging in mangrove vegetation on occasions. The Flora and Fauna Division considers that the loss of ~40ha of vegetation poses a very low risk to the species due to the relatively large area of habitat available in the greater Darwin region. Furthermore, the proposal is unlikely to exacerbate the key threat to the species (Cane Toads).</p> <p><u>Mitchell's Water Monitor</u>: This species has been recently recorded in the proposal area, with the vegetation considered suitable habitat for this species. The Flora and Fauna Division notes that while there will be a small loss of mangrove vegetation for this species, the construction of built infrastructure would provide additional habitat for individuals. Similar use of non-natural habitats has been observed along coastal and intertidal areas in the greater Darwin area. The proposed works are unlikely to exacerbate the known threat to the species (Cane Toads).</p> <p><u>Green Turtle, Hawksbill Turtle, Flatback Turtle</u>: Suitable habitat for these marine turtles is known from Darwin Harbour. The area adjoining the proposal footprint is located within Bleasers Creek and provides suboptimal foraging habitat for marine turtles due to an absence of hard or sandy substrates. The Flora and Fauna Division considers that the risk to these species from the proposal is low.</p> <p><u>Bare-rumped Sheath-tail Bat</u>: This species is a typically high-flying forager with a single individual recorded using the site. A lack of further records suggests that this is likely to be a single individual foraging or transiting the site. The lack of additional calls suggests that the site is unlikely to contain or be located near a roost for the species. The Flora and Fauna Division considers that risk to the species from the loss of a small area of foraging habitat is very low.</p> <p><u>Migratory Shorebirds</u>: Patches of samphire/salt flat occur within the proposal area and would provide foraging and potentially roosting habitat for numerous shorebirds. Shorebirds were identified by the proponent as a key risk, and an assessment was undertaken to determine the value of the area for these species. The assessment resulted in the proposal being refined, with a large area to the northwest being excluded from the proposal footprint. The current area (~40ha) is still considered suitable but is a very small proportion of available foraging habitat for shorebirds in Darwin Harbour. The Flora and Fauna Division</p>

Section of Referral	Theme or issue	Comment
		<p>considers that the proposal is unlikely to have a significant impact on an ecologically significant proportion of the flyway population of any shorebird species.</p> <p><i>Cycas armstrongii</i>: Targeted surveys identified two Darwin Cycads within the proposal area. As the density of the species is low (<400 stems/ha), the Flora and Fauna Division considers that the site is not important for the conservation of the species, and that the loss of these individuals poses no risk.</p> <p><i>Stylidium ensatum, Typhonium praetermissum</i>: DEPWS modelling has identified very small areas of 'high suitability' habitat for both species within the proposal area. These habitats have been previously disturbed by existing infrastructure and are fragmented and small. As such, the Flora and Fauna Division considers that there is a low risk that these areas provide suitable habitat.</p>
<p>LAND Section 9.3</p>	<p>Biodiversity – Vegetation (Terrestrial Ecosystems)</p>	<p><u>Sensitive and/or Significant Vegetation</u>: Mangroves are considered a type of sensitive and significant vegetation, as per the Northern Territory Planning Scheme Land Clearing Guidelines (NTPS LCG). Approximately 28.1 ha of mangroves have been mapped within the project area and are proposed to be cleared, and extensive areas of mangroves also adjoin the project site. The area of mangroves proposed to be cleared represents 0.13% of mangroves mapped within Darwin Harbour and 0.03% of mangroves mapped within the Darwin region (from Native Point to Adelaide River³). Continuity of the mangrove extent around Bleasers Creek will be maintained, including via a section of mangroves between the project area (north of the proposed seawall) and Bleasers Creek.</p> <p>The direct impact of the works (clearing) on the mangrove extent is considered to be localised and the impacts on biodiversity at a regional scale are considered to be low. Indirect impacts of the works may include changes in drainage, erosion, increased waterlogging of soils and downstream effects associated with water quality and ASS. These impacts may affect mangrove health, community composition and extent.</p> <p>Additionally, construction of a new access road from the Berrimah Road/Wishart Road intersection to the new site entrance will fragment an area of mangroves covering approximately 5ha. No information on the risks or potential impacts to this vegetation has been provided in the referral.</p>
<p>LAND Section 9.2</p>		<p><u>Acid Sulphate Soil</u>: ASS is likely to occur in the proposal area and if exposed, poses a risk to biota and sensitive receptors in receiving environments. The proponent intends to limit clearing to the above ground biomass, leaving behind the root ball and limiting disturbance of the soil. This risk has therefore been minimised, and the impact from ASS is expected to be low.</p>

³ Brocklehurst P., Edmeades B. & Munns P. (2019). *Mangroves of the Darwin Region: Native Point to Adelaide River, Northern Territory, 1996-2016*. Technical Report: 3/2017D. Department of Environment and Natural Resources, Darwin, NT.

Section of Referral	Theme or issue	Comment
WATER Section 10.1 Section 10.2	Terrestrial environmental quality Hydrological processes Inland water environmental quality	Monitoring of nearby communities is recommended to detect any potential impacts. The Flora and Fauna Division supports the proponent's commitment to prepare and implement an ASS Management Plan (Section 9.2.5.2). <u>Drainage:</u> The works proposed will create hardstand surfaces that will affect natural drainage flows and may also redirect and/or concentrate flows in certain areas. Increased flow rates, particularly at points of discharge, may cause erosion, create new channels, and introduce contaminants and pollutants (e.g., from sediment, equipment, spills). A site stormwater management system is mentioned in the referral with no further details provided. The proponent states they intend to ensure stormwater drainage outlets are aligned with existing natural channels to reduce potential drainage impacts to native vegetation and be designed to minimise velocities and the potential for scouring.
SEA Section 11.1 Section 11.2 Section 11.3	Coastal processes Marine environmental quality Marine ecosystems	

Attachment 2

Submission on the referral

Aurizon Operations Ltd – Berrimah Freight Terminal Expansion Project

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

Government authority: Department of Environment, Parks and Water Security–Environment Division

Summary: The proposed action has potential to cause significant impact across a number of environmental factors. An environmental impact assessment is recommended.

Requirements for secondary approval

In addition, the action may require an approval and/or licence under other NT legislation administered by the Environment Division such as the *Water Act 1992* (NT) and the *Waste Management and Pollution and Control Act 1998* (NT). The proponent should be advised to contact the Environmental Operations section of the Environment Division to establish which secondary approvals will be required, after the assessment process under the *Environmental Protection Act 2019* has been completed.

If the proponent will collect, transport, store, recycle or treat listed wastes on a commercial or fee for service basis as part of the development or operations of the activity, then an Environment Protection Approval or Licence will be required to authorise the activity under the *Waste Management and Pollution Control Act 1998* (NT). Further information is available on the NT EPA webpage⁴.

If the activity requires the discharge of waste to water or could cause water to be polluted, then a waste discharge licence under the *Water Act 1992* (NT) will be required. Please refer to the Guidelines⁵.

Requirements for implementing a General Environmental Duty

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* (NT) (WMPC Act). To help satisfy the General Environmental Duty, the proponent is advised to take notice of the list of environmental considerations below.

⁴ <https://ntepa.nt.gov.au/your-business/licensing-and-approvals>.

⁵ https://ntepa.nt.gov.au/_data/assets/pdf_file/0005/950603/guidelines-waste-discharge-licensing.pdf

The list is not exhaustive, and the proponent is responsible for ensuring their activities do not result in non-compliance with NT laws.

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 online⁶.
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 Sites⁷ and Keeping Our Stormwater Clean⁸

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 website⁹ and the NT Contaminated Land Guidelines¹⁰.

⁶ https://ntepa.nt.gov.au/_data/assets/pdf_file/0004/566356/noise_management_framework_guideline.pdf

⁷ https://ntepa.nt.gov.au/_data/assets/pdf_file/0010/284680/guideline_prevent_pollution_building_sites.pdf

⁸ https://ntepa.nt.gov.au/_data/assets/pdf_file/0006/284676/guideline_keeping_stormwater_clean_builders_guide.pdf

⁹ <https://ntepa.nt.gov.au/your-environment/contaminated-land>

¹⁰ https://ntepa.nt.gov.au/_data/assets/pdf_file/0020/434540/guideline_contaminated_land.pdf

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 Guidelines¹¹

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 land¹², and Illegal Dumping - What You Need to Know¹³.

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.

¹¹ <https://www.epa.nsw.gov.au/your-environment/waste/classifying-waste/virgin-excavated-natural-material>

¹² https://ntepa.nt.gov.au/_data/assets/pdf_file/0005/285728/factsheet_avoid_danger_accepting_illegal_fill_to_your_land.pdf

¹³ https://ntepa.nt.gov.au/_data/assets/pdf_file/0008/285740/factsheet_illegal_dumping_what_you_need_know.pdf

Attachment 3

Submission on the referral

Aurizon Operations Ltd – Berrimah Freight Terminal Expansion Project

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

Government authority: Department of Environment, Parks and Water Security – Water Resources Division

Section of Referral	Theme or issue	Comment
Appendix F – Surface Water Assessment	Legislative requirements – <i>Water Act 1992</i> and <i>Water Regulation 1992</i>	<ul style="list-style-type: none"> It is noted that no new bores are required for construction, however, should any new bores be required to be drilled throughout the duration of the project, a bore work permit¹⁴ will be required. Based on the information provided within section 2.2 – Surface Water, the proponent states they will be utilising water from PowerWater mains supply, therefore a water extraction licence will not be required. However, should water be required to be extracted via ground or surface water, an application for a water extraction licence¹⁵ under section 45 and/or 60 of the <i>Water Act 1992</i> may be required. An application is required to be reviewed, advertised and assessed. The Controller of Water Resources will then make a decision on whether to grant the licence. Section 3.0 – Potential impacts indicates that there are potential risks to changes to water quality, erosion and sedimentation, changes to substrate and states that there will be changes to the natural catchment from the creation of hardstand surfaces through construction and operation of the project, which would result in the interruption to, or reduction of natural drainage flows and may also redirect and/or concentrate flows. <p>This indicates that some of the works may require the proponent to apply for a permit to interfere with a waterway under section 41 of the <i>Water Act 1992</i>. Please refer to the application form¹⁶ and Guidelines¹⁷.</p> <p>An interference of a waterway includes activities that cause a material change in the shape of a waterway, the volume, speed or direction of flow into a waterway and activities that alter the stability of the bed or banks of a waterway, including the removal of vegetation.</p>

¹⁴ <https://nt.gov.au/environment/water/licensing/bore/bore-work-permit>

¹⁵ <https://nt.gov.au/environment/water/licensing/water-extraction-licence/apply-for-a-water-extraction-licence>

¹⁶ <https://nt.gov.au/environment/water/licensing/interfere-with-waterway#:~:text=You%20must%20have%20a%20permit,stability%2C%20including%20by%20vegetation%20removal>

¹⁷ https://nt.gov.au/_data/assets/pdf_file/0007/1348189/interference-with-a-waterway-guideline.pdf

