

Ms Holly Durrant
Department of Environment, Parks and Water Security
Floor 1, Arnhemica House, 16 Parap Street, Parap
Darwin NT 0801

Dear Ms Durrant

Re: Environmental Impact Statement Holtze Development Area

The Department of Environment, Parks and Water Security (DEPWS) has assessed the information contained in the above application and provides the following comments:

Environment Division

The action may require approvals and licences 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). See below information on when a secondary approval might be required.

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). 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. Residential properties to the North of the development, East and the Palmerston Hospital area all at risk of dust nuisance.

2. Noise

The proposed development zone borders on several residential properties to the North, to the East and the Palmerston Hospital, construction activities have the potential to generate noise nuisance. The proponent is to ensure that the noise levels from the proposed action comply with the latest version of the Northern Territory Environment Protection Authority Northern Territory Noise Management Framework Guideline¹.

¹ https://ntepa.nt.gov.au/_data/assets/pdf_file/0004/566356/noise_management_framework_guideline.pdf

3. Erosion and Sediment Control

The proposed development area attaches to what appears to be a seasonal wetland with poor draining soils, with a first order non-perennial stream in the South East of the land Parcel. 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 use of at least Type B basins are recommended, unless prevented by site specific topography or other physical constraints. Basic advice for small development projects is provided by the NT EPA documents: Guidelines to Prevent Pollution from Building Sites² and Keeping Our Stormwater Clean³.

4. Site Contamination

Historical activities (including impacts from Cyclone Tracy) may have resulted in contamination at the premises. At least one area within the proposed development zone has had asbestos contamination identified, and several other areas have evidence of general illegal dumping activities. An assessment in accordance with the National Environment Protection (Assessment for Site Contamination) Measure (ASC NEPM) is required to determine whether the land is suitable for the intended land use. The proponent is encouraged to refer to the information provided on the NT EPA website⁴ and the NT Contaminated Land Guideline⁵.

5. Waste Management - Import and Export of Fill :

The proposed activities have the potential to generate fill (waste material) and/or involve the importation of fill for use on-site. Prior to the removal of fill (waste material) from the site, or the importation of fill onto the site, waste classification assessment is to be undertaken in accordance with NSW EPA *Waste Classification Guidelines, Part 1: Classifying Waste, 2014*, and associated waste classification guidelines⁶.

All imported material must be accompanied by details of its nature, origin, volume, and transportation details. All records must be retained and made available to authorised officers, upon request, to confirm compliance with the General Environmental Duty detailed in the *Waste Management and Pollution Control Act 1998*. The proponent should also consider the following NT EPA fact sheets⁷: (a) *How to avoid the dangers of accepting illegal fill onto your land*, and (b) *Illegal Dumping - What You Need To Know*.

Flora and Fauna Division

The Flora and Fauna Division has provided comment on related proposals during the environmental impact assessment processes under the *Environmental Assessment Act* and *Environment Protection and Biodiversity Conservation Act 1999* and post-approval Management Plans and monitoring programs.

The Flora and Fauna Division has reviewed the referral documentation and comments are provided in **Attachment 1**.

The Flora and Fauna Division considers the loss of some *Typhonium praetermissum* plants from within the development footprint does not represent a significant impact on the species, providing an appropriate proportion of the 'sub-population' within the Greater Holtze area is retained and protected. The

² https://ntepa.nt.gov.au/_data/assets/pdf_file/0010/284680/guideline_prevent_pollution_building_sites.pdf

³ https://ntepa.nt.gov.au/_data/assets/pdf_file/0006/284676/guideline_keeping_stormwater_clean_builders_guide.pdf

⁴ <https://ntepa.nt.gov.au/your-environment/contaminated-land>

⁵ <https://ntepa.nt.gov.au/your-environment/contaminated-land/contaminated-land-databases-and-resources>

⁶ <http://www.epa.nsw.gov.au/your-environment/waste/classifying-waste/waste-classification-guidelines>

⁷ <https://ntepa.nt.gov.au/publications-and-advice/environmental-management>

commitments in the referral made to reduce risks to biodiversity values, particularly to *Typhonium praetermissum*, could be strengthened by planning arrangements that provide greater long-term security to retained *Typhonium praetermissum* plants in the Holtze Development Area, specifically the large cluster in the northwestern corner.

Parks

Parks and Wildlife make the following comments:

- Howard Springs Nature Park is in close proximity and adjoins to the north east.
- While the Holtze North and Howard Springs North localities are not proposed in this Area Plan, these sites will have significant bearing on Howard Springs Nature Park and other nearby hunting reserves under the care and responsibility of Parks and Wildlife.
- Parks and Wildlife have concerns over access to nearby Howard Springs Hunting Reserve. Access is currently off Howard Springs Road via Willard Road and on to a series of dirt tracks. We recommend providing dedicated access to the western side of Howard Springs Hunting Reserve and Shoal Bay Coastal Reserve. Any development must ensure the continued access to these reserves.
- Parks and Wildlife also have concerns over the risk to public safety being in close proximity to the hunting reserve. The Hunting Reserve is a dedicated firearms discharge area. Also note that the area abutting these hunting areas is a Crown Lands firearms discharge area, adding to concerns over public safety. Future planning must assess the risk and accommodate being in proximity to firearm discharge areas.
- Parks and Wildlife also note that is essential that any development avoids stormwater impacting Howard Springs Nature Park jungle, spring and creek environments, beyond natural drainage flows.

Rangelands Division

Weed Management Branch

The Weed Management Branch conducted an inspection on 19 January 2023 of NT Portion 4229, 4231, 2295 (the sites) in relation to this referral. Observations from the inspection and an assessment of the NT Weeds Database for the sites and surrounding areas and adjoining roads provide the following data records of declared species:

Common Name	Botanical Name	Declared
Gamba grass	Andropogon gayanus	Class B
Neem	Azadirachta indica	Class B
Sida spiny head	Sida acuta	Class B
Mission grass - perennial	Cenchrus polystachios	Class B
Hyptis	Hyptis suaveolens	Class B

Of the species listed above, gamba grass spread is of particular concern and is subject to a statutory weed management plan. Gamba grass and mission grass are identified as part of the listed key threatening process 'Invasion of northern Australia by Gamba grass and other introduced grasses'.

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 additional duties including a prohibition on buying, selling, cultivating, moving or propagating any declared weed and the requirement to notify the Weed Management Branch of a declared weed not previously present on the land within 14 days of detection.

The WM Act enables a plant to be a declared weed or a potential weed for the purposes of preventing the plant entering into, or managing the plant in the Territory or a part of the Territory.

There are four types of classifications for a declared or potential weed under the WM Act:

- A. To be eradicated
- B. Growth and spread to be controlled
- C. Not to be introduced into the Territory or part of the Territory.
- D. Prevent the growth and spread by actions of persons.

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

Comment

The following issues are raised in relation to the EIA and should be considered for addressing:

- The species *Andropogon gayanus*, *Cenchrus polystachios*, *Cenchrus pedicellatus* are identified as components of the Key Threatening Process 'Invasion of northern Australia by gamba grass and other introduced grasses' listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).
- There is a general obligation under the *Weeds Management Act 2001* to control weeds on land, this would extend to reasonable steps to contain or control seed production and spread from infested areas.

Any works that cause disturbance to vegetation and soils will create conditions favourable for weed growth. Control should be undertaken prior to seed set and should be carried out in all areas affected by the proposed project area.

During the clearing process, the proponent will need to ensure that all vehicles and machinery are free of weeds, weed seeds, soil and vegetative material prior to entering or exiting the site. Vehicles must avoid driving through seeding weeds already present on-site to prevent further spread. If feasible areas containing seeding weeds should be cleared last to prevent accidental spread.

Additional Information

Preventing Weed Spread is Everybody's Business is a document produced to highlight the areas of risk for all activities associated with weed spread. The document⁸ 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.

Further management requirements and copies of the statutory weed management plans for gamba grass and neem⁹. Alternatively contact the Weed Management Branch for further advice on (08) 8999 4567.

Water Resources Division

The project is located within the Darwin Rural Water Control District; it is not subject to a water allocation plan. The project proposes water supply will be provided by reticulated services.

Comments on the project have been provided previously on application DEPWS2022/0123 and reiterated on application DEPWS2022/0242. These comments are:

⁸ https://denr.nt.gov.au/_data/assets/pdf_file/0011/257987/preventing-weed-spread.pdf

⁹ <https://nt.gov.au/environment/weeds/weed-management-planning>

The Greater Holtze Area plan (GHAP) is within the Darwin Rural Water Control District.

Groundwater resources in the study area include the Howard Groundwater System (West management zone) and the Mount Partridge formation (Howard Springs/Howard River, Kings Creek and Mitchell Creek management zones).

The discussion paper states that the intended water supply for future development is the established reticulated (town) water services. Future submissions should comment on any potential changes to water supply infrastructure and / or intentions to utilise local groundwater resources. Use of underlying groundwater resources will be subject to suitability and availability of the resource.

An assessment of the use of the groundwater resources underlying the GHAP area was completed in 2021. The assessment found most of the water resources are considered to be over used or approaching full use (more than 90% of the water resource is likely to be used), with the exception of the Kings Creek management zone which is estimated to be low use.

Future rural subdivision in these high use or over allocated use areas will most likely cause the water resource to be unsustainably used. Section 14 of the *Water Act 1992* specifies the statutory right for a land holder to access groundwater under their property for stock and domestic purposes without a groundwater extraction licence. However, in a water control district a bore work permit is required.

The 'green network', is based largely on drainage lines and areas subject to moderate to severe waterlogging. Avoiding development in these areas is supported. The aim for management of the green network should be to maintain natural water regimes. Note that works on a waterway may require a permit to interfere with a waterway.

In urban and peri-urban areas there are significant risks to water quality especially from stormwater entering waterways. Stormwater management should be designed to maintain water quality to support natural water dependent ecosystems and water quality in Darwin Harbour.

Water Resources Division does not have any further comment supplementary to the comments already provided for the previous applications.

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

Yours sincerely



Jason Hill

A/Executive Director, Rangelands

/0 February 2023

Attachment 1 – Flora and Fauna Division Comments

Department of Infrastructure, Planning and Logistics – Holtze Development Area - Referral under the Environment Protection Act 2019

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

Section of Referral	Theme or issue	Comment																																				
Referral report Terrestrial Ecosystems	<u>Threatened Species:</u>																																					
		Based on a search of DEPWS databases within 5km of the referral area, expert knowledge of species' habitat requirements and information about habitats occurring within the proposed locality, the following threatened species may occur.																																				
		<table border="1"> <thead> <tr> <th>Common Name</th> <th>Scientific Name</th> <th>TWPC Act*</th> <th>EPBC Act**</th> </tr> </thead> <tbody> <tr> <td>Darwin Cycad</td> <td><i>Cycas armstrongii</i></td> <td>Vulnerable</td> <td>Not listed</td> </tr> <tr> <td>Fawn Antechinus</td> <td><i>Antechinus bellus</i></td> <td>Endangered</td> <td>Vulnerable</td> </tr> <tr> <td>Northern Quoll</td> <td><i>Dasyurus hallucatus</i></td> <td>Critically Endangered</td> <td>Endangered</td> </tr> <tr> <td>Partridge Pigeon (eastern)</td> <td><i>Geophaps smithii smithii</i></td> <td>Vulnerable</td> <td>Vulnerable</td> </tr> <tr> <td>Black-footed Tree-rat</td> <td><i>Mesembriomys gouldii gouldii</i></td> <td>Endangered</td> <td>Endangered</td> </tr> <tr> <td>Pale Field-rat</td> <td><i>Rattus tunneyi</i></td> <td>Vulnerable</td> <td>Not listed</td> </tr> <tr> <td>Mertens' Water Monitor</td> <td><i>Varanus mertensi</i></td> <td>Vulnerable</td> <td>Not listed</td> </tr> <tr> <td>Mitchell's Water Monitor</td> <td><i>Varanus mitchelli</i></td> <td>Vulnerable</td> <td>Not listed</td> </tr> </tbody> </table>	Common Name	Scientific Name	TWPC Act*	EPBC Act**	Darwin Cycad	<i>Cycas armstrongii</i>	Vulnerable	Not listed	Fawn Antechinus	<i>Antechinus bellus</i>	Endangered	Vulnerable	Northern Quoll	<i>Dasyurus hallucatus</i>	Critically Endangered	Endangered	Partridge Pigeon (eastern)	<i>Geophaps smithii smithii</i>	Vulnerable	Vulnerable	Black-footed Tree-rat	<i>Mesembriomys gouldii gouldii</i>	Endangered	Endangered	Pale Field-rat	<i>Rattus tunneyi</i>	Vulnerable	Not listed	Mertens' Water Monitor	<i>Varanus mertensi</i>	Vulnerable	Not listed	Mitchell's Water Monitor	<i>Varanus mitchelli</i>	Vulnerable	Not listed
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Field studies confirmed that the following threatened species – Darwin Cycad, Typhonium and Black-footed Tree-rat occur onsite. Based on the vegetation present and historical records, Flora and Fauna consider that this assessment is adequate. Further advice on the likely presence and risk to each threatened species is provided below:

Black-footed Tree-rat, Common Brushtail Possum (north-western): The Darwin rural area is known to be contain important habitat for these species, particularly areas of eucalypt (*Eucalyptus tetradonta*) woodland and open forest as well as adjacent riparian vegetation. Targeted surveys on the site confirmed the presence of the Black-footed Tree-rat at one location and identified that suitable habitat is either present across part of the site or within close proximity to the referral area. The Division consider it likely that suitable habitat for these species occurs across most of the proposal area.

The proponent has used the available information to inform a 'high-level' impact assessment and has concluded that the proposal is unlikely to have significant impacts on the Black-footed Tree-rat and Common Brushtail Possum (north-western). The Division generally agrees with the result of the assessment, but notes that the information used to address the criteria were based on subjective statements rather than quantitative field data about the habitat use and quality by either species.

Pale Field-rat, Fawn Antechinus, Northern Quoll, Partridge Pigeon: Camera trapping surveys within the referral area did not detect these species as being present onsite. It is possible that mobile species such as Northern Quoll and Partridge Pigeon may use the site for foraging or as part of a larger home-range. The risks to these species from the development is considered to be low due to the availability of habitat outside the referral area. Further advice on the cumulative risks to woodland fauna has been provided below in this table.

Mertens' Water Monitor, Mitchell's Water Monitor: The Flora and Fauna Division considers that there is moderate to low chance of these species occurring within the referral footprint, due to the area lacking permanent water and riparian vegetation. It is noted that the referral is located in the headwaters of Mitchell Creek and the Mertens' Water Monitor has been recorded in more permanent pools downstream. It is possible that Mertens' Water Monitor uses the site during times when ephemeral streams contain water in the Wet season. The Flora and Fauna Division is satisfied that the proposal poses a low risk of directly impacting the species as limited, seasonally suitable habitat occurs within the development footprint.

Darwin Cycad: Surveys undertaken for the referral identified varying densities of cycad stands within the referral area. Areas were identified as very high (> 700 stems/ha) and high density (700-200 stems/ha). The Division considers that high density stands with a stem density of >400 per hectare are considered important for genetic diversity and function as source populations which are important for maintaining the species.

The referral states that “The passive public open space supports the highest density of Darwin Cycads – see Figure 7-3. Because land clearing within that area will be minimal, it is unlikely that there will be a significant impact to this species”. Section 3.2 of the referral identifies an open space and drainage zone on the southern area of the development footprint, within which clearing for drainage infrastructure will occur and the residual will remain as natural vegetation for community recreational use. Figure 7-3 shows areas of “high” and “very high” cycad density occurring throughout the development area. The Flora and Fauna Division recommends that the NT EPA request further information quantifying the area of “high” and “very high” cycad density to be retained within the open space and that proposed for removal by the development, to ensure that the ongoing management and use of the space is consistent with retaining high density patches of Darwin Cycad.

Typhonium praetermissum: The assessment provided in the referral is accurate. There are a large number of plants within the proposal area, which are part of a ‘sub-population’ within the broader region referred to as Greater Holtze in the referral. The removal of some plants from within the proposal footprint is not considered by Flora and Fauna Division to represent a significant impact on the species, providing an appropriate proportion of the ‘sub-population’ within the Greater Holtze area is retained and protected. The Division has determined that retaining the NW cluster of *Typhonium* individuals within the Holtze Development Area provides sufficient security to the sub-population, in the context of the other large clusters of individuals in the Greater Holtze area also being retained.

Flora and Fauna are working with DIPL to develop a Conservation Strategy for *T. praetermissum*. The strategy aims to maintain the spatial and genetic diversity of the species across its range. The species range will be split into a number of management zones. Within each zone key areas for conservation and interconnecting patches to allow genetic flow will be identified. Implementation of the strategy will require the priority areas and associated patches to be made secure for long term viability. The appropriate size and boundaries of management zones have not yet been defined but the Greater Holtze area will be part of a single zone, either at the sub-regional land use planning or larger scale. The scale of retention being applied here is suitable for the smallest scale that is likely to be used for the Conservation Strategy.

The Division acknowledge the proactive approach of DIPL in collaborating on the development of the *T. praetermissum* Conservation Strategy. However, the Division notes that it will be important that there is a commitment to securing important patches by using ‘conservation land’ classification (outside of that already zoned) within planning, rather than multi-use land use classifications, such as ‘open space’ or ‘green corridors’, that may be in conflict with conservation objectives. Currently the Draft Greater Holtze Area Plan allocates land use of the area where the NW population occurs as Urban Residential. This suggests that future land uses may compromise the NW population despite commitments in the referral to have it retained. The commitments made in section 7.3.4 could be strengthened by some formal arrangement for conservation management specific to this proposal.

The Division also notes that at present, successful translocation of *T. praetermissum* has not been sufficiently well demonstrated for it to be considered a mitigation technique. Experimental translocation programs could possibly be considered as indirect offsets.

Section of Referral	Theme Comment or issue
	<p><u>Cumulative Impacts on Woodland Species</u>: This individual development within the context of surrounding current land use this development is unlikely to have a significant impact of these woodland reliant species. However, in the context of the HESLUP and Greater Holtze Area Plan, and encroaching extractive tenements, this development will contribute to cumulative impacts on these species.</p> <p>This referral does not provide an adequate assessment of cumulative impacts, rather defers the consideration to a conceptual Darwin Regional Conservation Strategy. The strategy is in early stages of development and DEPWS is working with DIPL to obtain commitment to, and resources for, full development of the plan.</p>
	<p><u>Use of open-space as a mitigation</u>: The referral relies upon the retention of open-space to mitigate against the loss of habitat for threatened species. However, the definition of open-space and how this area is managed in the future is not clear. The referral notes that some parts of the open space will be modified for recreational purposes (recreational parks), which will decrease their value in relation to habitat for threatened species.</p>
Table 5-1 of the Referral	<p>The proponent has provided an assessment against the principles of ecologically sustainable development, which has a strong focus on anthropogenic and economic benefits from the referral rather than consideration of how the environmental and biodiversity values of the site have been considered, compensated for, or retained and protected for future generations.</p>
Section 7.3.5 of the Referral	<p>This section states that: <i>“Retention of vegetation as passive public open space minimises the impacts of habitat fragmentation due to land clearing. Managed appropriately to minimise weeds and fire (under relevant Council and/or Crown Land procedures) this public open space can act as a wildlife corridor, providing for fauna movement through the area and into adjacent Kowandi”</i>.</p> <p>The referral provides commitments described above to mitigate impacts to terrestrial ecosystems. Based on the referral information it is unclear how the <i>“passive public open space”</i> would be designed to achieve this outcome. No information has been provided in relation to how the <i>“relevant Council”</i> or the Crown Land procedures minimise impacts from weeds and fire. In the absence of this information, the Flora and Fauna Division has concerns about the long-term value of the <i>“passive open space”</i> as viable habitat for threatened and as a wildlife corridor for biodiversity. The Darwin Conservation Strategy may be the appropriate tool for ensuring that retained areas of <i>“Open Space”</i> are identified and maintained for the benefit of biodiversity values.</p>

Section of Referral	Theme or issue	Comment
Section 7.3.5 of the Referral		The referral states that “Dipl is working with DEPWS to develop a Darwin Regional Conservation and Offset Strategy to ensure future development is undertaken in a way that supports the persistence across the region of the threatened species potentially impacted by the Proposal”. The Flora and Fauna Division confirms that this is the case, although it is in the early stages of development.