

Pre-Referral Screening Report

Project: Farrar West subdivision



EcOz Environmental Consultants was engaged by Cuttone Property Group to undertake pre-referral screening of their proposal to develop Farrar West, in Palmerston NT. The proposed subdivision location and layout is shown on Figure 1.

The purpose of the screening is to determine whether the development has the potential for significant environmental impact under the *Environment Protection Act 2019*. A significant environmental impact is defined by Section 11 of the *Environment Protection Act 2019* as:

An impact of major consequence having regard to:

- *the context and intensity of the impact; and*
- *the sensitivity, value and quality of the environment impacted on, and the duration, magnitude and geographic extent of the impact.*

Pre-referral screening was undertaken using the tool provided in the *Guideline – Referring a Proposal to the NT EPA* <https://ntepa.nt.gov.au/publications-and-advice/environmental-management>. The screening records answers to the questions shown in Figure 2.

The pre-referral screening results are documented in Table 1 below. The screening indicates that the development is unlikely to have a significant impact and therefore does not need to be referred under the *Environment Protection Act 2019*. However, the screening did identify that there are sensitive receptors proximate to the development – namely existing residences – and specific controls are required to ensure that impacts to these are avoided and minimised to the greatest extent practicable.

This report also considers whether the development is likely to have a significant impact on Matters of National Environmental Significance (MNES) which are protected under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). There is one MNES identified as relevant to this proposal, being listed threatened species. Significant impact assessments were undertaken in accordance with the Commonwealth *Significant impact guidelines 1.1*, for each threatened species and the assessments concluded that the project is unlikely to have a significant impact on MNES.

Key project description

- The [Palmerston Eastern Suburbs Planning Principles and Area Plans](#) were introduced into the NT *Planning Scheme* in 2007. The principles and plans set the standard for all future developments in the region. The Farrar West development area has been recognised in the Palmerston Eastern Suburbs Area Plan (Map 1 of 3) since December 2015.
- The site is zoned Future Development under the NT *Planning Scheme*.
- The concept design for the development is for five-stages of predominantly residential lots – including some social housing, but also commercial lots (mostly in the northern portion of the site in Stage 3).
- The proposed development encompasses an area of 42.42 ha, which is comprised of 17.75ha (42%) of lot development area, 5.91ha (14%) of roads and 18.77 ha (44%) of a combination of public open space, retained bushland and drainage reserve.
- Typical activities during construction will include:
 - Site establishment, fencing, installation of temporary construction infrastructure (site offices, cribs sheds etc.) and installation of environmental controls (i.e., erosion and sediment controls)
 - Clearing and grubbing
 - Construction of new roads to service the area (earthworks, pavement installation, sealing works)

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- Stormwater drainage installation, including detention basins
 - Installation of services including water and sewer mains, electrical reticulation and street lighting, and telecommunication
 - Building construction works (foundations, structural work, internal services, fit-out, painting)
 - Landscaping.
- Typical activities during operations will include:
 - Residential living
 - Community recreation
 - Public and private transport access
 - Asset management of services and roads
 - Irrigation of parks and verges.
- Enabling infrastructure required to support the development is being delivered separately by the NT Government and is expected to include upgrades to existing services (as opposed to construction of new infrastructure beyond the immediate area). For example, headworks to tie-into the development area from existing developed areas will be required; however, the construction of new sewer pump stations elsewhere are unlikely.
- Proposed upgrades to the existing drainage line traversing the subdivision will reduce the current biting insect habitat and improve existing modelled flood impacts downstream.

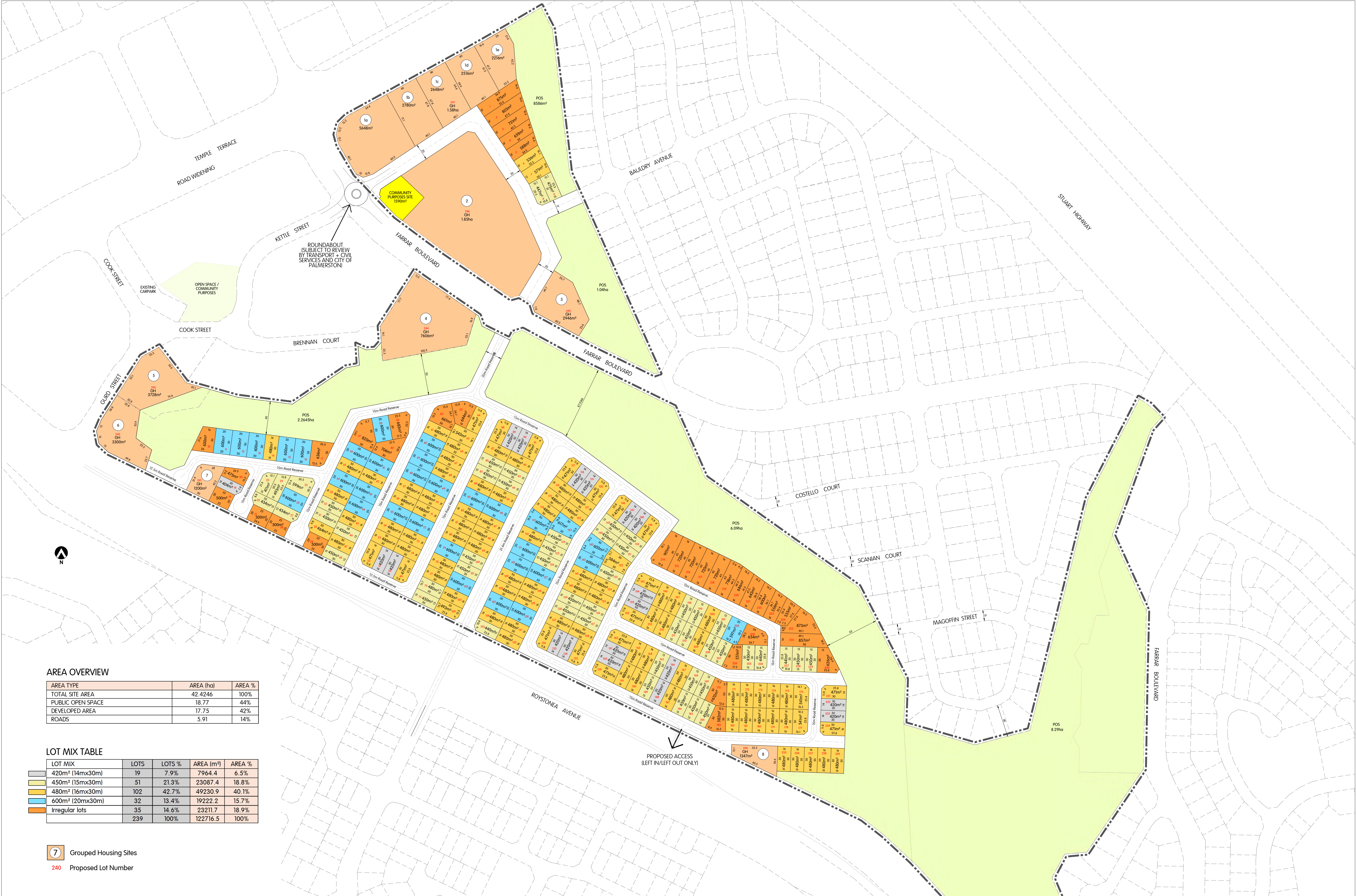
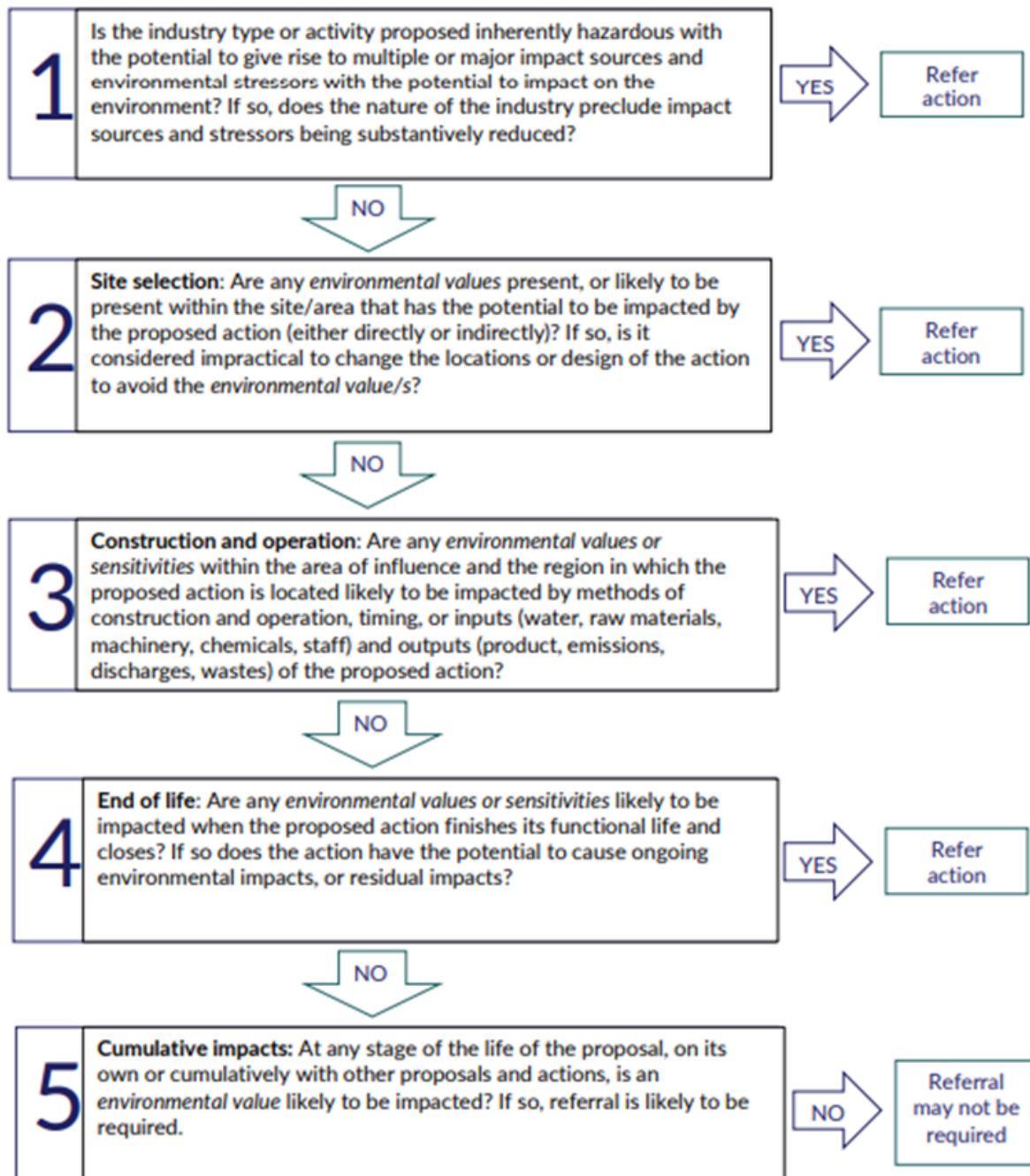


Figure 1. Subdivision location and layout

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The questions from the NT EPA pre-referral screening tool are provided here for ease of reference.



Note: The questions in the tool are used as a guide to assess whether a referral may be required. Answering 'yes' to a particular question for an environmental factor does not automatically mean that the proposal will have a significant impact on the environment. Where a 'yes' answer was recorded, further assessment was then undertaken to determine whether a referral is required.

Figure 2. Pre-screening tool screening questions (Source: NT EPA 2021)

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Table 1. Pre-referral screening tool checklist prepared for Farrar West

Theme	Factor and Objective	Background information/project activities	Environmental values, sensitivities (based on desktop and/or surveys)	Pre-referral screening questions					Assessment of potential for significant impact
					Q1	Q2	Q3	Q4	
				Yes No	☐ ☒				
Land	Landforms <u>Objective:</u> Conserve the variety and integrity of distinctive physical landforms.	None	No distinct natural landforms.	Yes No Uncertain N/A	☐ ☒ ☐ ☐	☐ ☒ ☐ ☐	☐ ☒ ☐ ☐	☐ ☒ ☐ ☐	The development will not have a significant impact on landforms because there are no distinct natural landforms present in the development footprint.
	Terrestrial Environmental Quality <u>Objective:</u> Protect the quality and integrity of land and soils so that environmental values are supported and maintained.	- Land clearing and exposure of soils will create potential for erosion during construction. - Use of chemicals and fuels on-site during construction works. - Following construction works, development areas will be progressively landscaped in line with their intended land use – i.e. parklands, verges, residential garden areas.	- The site is predominantly comprised of land units 2b2 and 4c, with most of the development area (for housing) on 2b2. - Land unit 2b2 is described as brown kandosols which are typical across the region. They generally feature a sandy to loamy surface and can be prone to sheet and rill erosion after land clearing. - Land unit 4c is described as hydrosols which are seasonally inundated and associated with the drainage line and future passive open space area. - The site is not registered as a contaminated site under the WMPC Act. There may be some instances of dumped rubbish due to the site's proximity to other urban areas.	Yes No Uncertain N/A	☐ ☒ ☐ ☐	☐ ☒ ☐ ☐	☐ ☒ ☐ ☐	☐ ☒ ☐ ☐	The development will disturb land and soils, but is not considered to have the potential to significantly impact on terrestrial environmental quality for the following reasons: - To avoid and mitigate impacts from erosion and generation of turbid stormwater run-off the development is required to engage a Certified Practitioner to prepare Erosion and Sediment Control Plans (ESCP) that meet the IECA Guidelines and specifications. - Contaminating materials such as fuels will only be stored in small volumes and in accordance with relevant guidelines. Any accidental spill of such materials will be remediated, and materials transported to an appropriate facility by a licensed waste handler. - The above measures are accepted practice on construction projects and are expected to be effective in protecting the environment when implemented.
	Terrestrial Ecosystems <u>Objective:</u> Protect terrestrial habitats to maintain environmental values including biodiversity, ecological integrity and ecological functioning.	Direct removal of approximately 45 ha of native vegetation.	- Two threatened flora species – <i>Typhonium praetermissum</i> and Darwin Cycad (<i>Cycas armstrongii</i>) – have been recently recorded on the site. - One threatened fauna species – Northern Brushtail Possum (<i>Trichosurus vulpecula arnhemensis</i>) – has been recently recorded on the site. - The threatened Mertens' Water Monitor has been recorded in Mitchell Creek, and therefore may occur in the drainage line vegetation that crosses the site. - The habitat values of the site have already been substantially altered by the urbanisation of surrounding areas, which has led to prevalence of weeds and pests such as Cane Toads, and frequent bushfire.	Yes No Uncertain N/A	☐ ☒ ☐ ☐	☐ ☐ ☐ ☐	☒ ☐ ☐ ☐	☐ ☒ ☐ ☐	The development will result in the loss of habitat but is not considered to have the potential to significantly impact on terrestrial ecosystems for the following reasons: - The clearing is small scale and is located within a highly-developed suburb of Palmerston. - Weeds will be managed in accordance with the requirements of the <i>Weeds Management Act</i>. - Significant impact assessments have been prepared for the four threatened species relevant to the project (see Appendix A), and conclude that the likelihood of a significant impact is low.
Water	Hydrological Processes <u>Objective:</u> Protect the hydrological regimes of groundwater and surface water so that environmental values including ecological health, land uses and the welfare and amenity of people are maintained.	- Surface water flows and groundwater recharge are significantly altered from natural conditions by the existing urban development. - Flood modelling for Palmerston East shows existing potential flood impacts downstream of the Farrar West development, but the development area sits outside of the flood zone. - The increase in impervious surfaces associated with the subdivision represents a small fraction of the catchment area. - The Palmerston stormwater drainage system will be extended through the new development. - There is no groundwater extraction proposed.	- There is a drainage line traversing the site that flows into Mitchell Creek. Mitchell Creek typically only flows between December and June in response to wet season rainfall. Mitchell Creek is the only creek in Palmerston with a defined channel. - Land use within the Mitchell Creek catchment is predominantly urban and community purpose, future development, and conservation. - The development is underlain by the Mount Partridge aquifer. This aquifer system is of local scale, low yielding and has moderate to low storage capacity. The aquifer is comprised of fractured and weathered rocks.	Yes No Uncertain N/A	☐ ☒ ☐ ☐	☐ ☐ ☐ ☐	☒ ☐ ☐ ☐	☐ ☒ ☐ ☐	The development is not considered to have the potential to significantly impact on the hydrological regimes of groundwater and surface water or declared beneficial uses for the following reasons: - The development is small scale and located within an existing urban catchment. The retention of drainage corridors will help maintain hydrological flows and groundwater interactions where these exist. - To avoid and mitigate impacts from erosion and generation of turbid stormwater run-off the development is required to engage a Certified Practitioner to prepare Erosion and Sediment

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					Q1	Q2	Q3	Q4	
				Yes No	☐ ☒				
			The Mitchell Creek sub-zone of the Mount Partridge aquifer covers an area of 1,642 ha with a total estimated recharge of 3,283 ML.						Control Plans (ESCP) that meet the IECA Guidelines and specifications. - The proposal will potentially introduce drainage alterations to mitigate existing downstream flood impacts. - In accordance with the NT Subdivision Guidelines, the development will be required to install stormwater infrastructure (i.e. detention basins) to ensure post-development flows do not elevate the downstream flood impacts.
	Inland Water Environmental Quality <u>Objective:</u> Protect the quality of groundwater and surface water so that environmental values including ecological health, land uses and the welfare and amenity of people are maintained.	- The development has potential to impact the quality of surface water run-off that discharges towards Mitchell Creek. - During construction, surface water quality could be impacted by erosion and turbid run-off, spills and leaks of hazardous chemicals from construction equipment and machinery. - Residential land use could impact water quality through the introduction of nutrients from parks and gardens and inappropriate disposal of chemicals to the stormwater system.	- As described above, Mitchell Creek flows through Palmerston's eastern suburbs and receives stormwater discharge from urban drainage systems. - Stormwater quality plays a role in maintaining the ecological health of the ecosystem within Mitchell Creek. - It is assumed that there is moderate to high level of resilience within the ecosystem due to the existing urbanisation around Mitchell Creek and its potential effects on water quality.	Yes No Uncertain N/A		☐ ☒ ☐ ☐	☐ ☒ ☐ ☐	☐ ☒ ☐ ☐	The development could release contaminated or turbid run-off, but is not considered to have the potential to significantly impact on inland water quality or declared beneficial uses for the following reasons: - The small scale of the project is not expected to result in a tangible alteration to the existing water quality that is already influenced by urbanisation. - Contaminating materials such as fuels will only be stored in small volumes and in accordance with relevant guidelines. - The landscaping of green corridors along the drainage line will help manage stormwater quality. - Stormwater management system design will comply with City of Palmerston standards, and NT subdivision guidelines, which includes water quality considerations.
	Aquatic Ecosystems <u>Objective:</u> Protect aquatic habitats to maintain environmental values including biodiversity, ecological integrity and ecological functioning.	Alteration of the existing drainage line, including disturbance to riparian vegetation.	- The drainage lie supports a thin line of riparian vegetation which may, as mentioned under Terrestrial Ecosystems, occasionally support Mertens' Water Monitor. - Flows are intermittent and during the wet season only.	Yes No Uncertain N/A		☒ ☐ ☐ ☐	☒ ☐ ☐ ☐	☐ ☒ ☐ ☐	The development will have localised impacts on aquatic features however the proposal is not considered to significantly impact on aquatic ecosystems for the following reasons: - In accordance with the NT Subdivision Guidelines, the development will be required to install stormwater infrastructure (i.e. detention basins) to ensure downstream flow regimes are not altered post-development. - The location (at the top of the catchment) and small extent of riparian vegetation means it does not have high biodiversity value. Functionally, it maintains the integrity of this drainage line. If the drainage line is left uncleared, that function will remain; if developed, then it will be engineered to maintain that function.
Air	Air Quality <u>Objective:</u> Protect air quality and minimise emissions and their impact so that environmental values are maintained.	Construction activities will create dust and exhaust emissions from construction plant and equipment.	There are existing residential properties immediately adjacent to the development footprint.	Yes No Uncertain N/A		☐ ☒ ☐ ☐	☒ ☐ ☐ ☐	☐ ☒ ☐ ☐	The development will temporarily cause dust emissions but is not considered to have the potential to significantly impact on air quality because: - Developer must implement all measures in the <i>Guideline for preventing pollution on buildings sites</i> (NT EPA 2015) to control dust and limit nuisance. - ESCPs to include dust mitigation measures.

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					Q1	Q2	Q3	Q4	
				Yes No	☐ ☒				
									- Impacts will be limited to a small geographic extent. Nearby residents will be impacted but impacts are not expected to be experienced by the broader community. - Consultation will be ongoing with impacted residents to ensure they are kept informed of project activities and mitigations.
	Atmospheric Processes <u>Objective:</u> Minimise greenhouse gas emissions so as to contribute to the NT Government's aspirational target of achieving net zero greenhouse gas emissions by 2050.	Construction activities will create GHG emissions from construction plant and equipment, and clearing of vegetation.	The site is within an existing urban environment.	Yes No Uncertain N/A	☐ ☒ ☐ ☐	☐ ☒ ☐ ☐	☐ ☒ ☐ ☐	☐ ☒ ☐ ☐	The development is not considered to have the potential to significantly impact atmospheric processes because: - It does not involve any construction activities that release large volumes of GHG emissions. - Once developed, the scale and location of the project will not result in a measurable increase in GHG emissions.
People	Culture and Heritage <u>Objective:</u> Protect sacred sites, culture and heritage	- The development footprint encompasses previously-disturbed land. - The land has been leased to the Larrakia Development Corporation to develop the subdivision, and is part of a compensation package that arose from the Kenbi land claim.	- There are no nominated or declared heritage places within or proximate to the development. - The site is substantially disturbed from natural conditions. - It is likely that Aboriginal archaeological sites would have existed in the area prior to the development of Palmerston; however, the likelihood of sites being present in the development footprint or surrounds now is low based on the previous disturbance and development.	Yes No Uncertain N/A	☐ ☒ ☐ ☐	☐ ☒ ☐ ☐	☐ ☒ ☐ ☐	☐ ☒ ☐ ☐	The development is not considered to have the potential to significantly impact culture and heritage because: - There are no known cultural or heritage sites present, and such sites are unlikely to occur given the previous disturbance and location of the development. - It is assumed an AAPA Authority Certificate has been or will be obtained.
	Communities and Economy <u>Objective:</u> Enhance communities and the economy and foster resilience to a changing climate, for the welfare, amenity and benefit of current and future generations of Territorians.	- Consultation relevant to the development has been ongoing since 2015 throughout the land use framework planning process by the NT Planning Commission. The area is identified in the <i>Holtze to Elizabeth River Subregional Land Use Plan</i> (HESLUP) and the <i>Palmerston Eastern Suburbs Area Plan</i>, both of which have gone through multiple stages of public consultation prior to adoption into the NT Planning Scheme. - The land has been leased to the Larrakia Development Corporation to develop the subdivision, and is part of a compensation package that arose from the Kenbi land claim. The development includes plans for an affordable housing program which will also assist Larrakia families into homeownership. - Noise and dust emissions from construction activities will reduce amenity for neighbouring residences over periods of months when earthworks are being undertaken. - The creation of new residences may impact amenity and privacy for those residences that currently do not have any neighbours along the back boundary of their properties. - Additional traffic during construction could be a nuisance for existing residents.	- There are existing residential properties immediately adjacent to the proposed subdivision. - The development lies within an existing urban residential area.	Yes No Uncertain N/A	☐ ☒ ☐ ☐	☐ ☐ ☐ ☐	☒ ☐ ☐ ☐	☐ ☒ ☐ ☐	The development will affect the amenity of existing residential properties, but is not considered to have the potential to significantly impact communities and economy because: - Traffic management requirements will be conditioned in a future Development Permit. - Impacts to amenity will be greatest during earthworks which will be limited in duration. - Impacts will be limited to a small geographic extent. Nearby residents will be impacted but impacts are not expected to be experienced by the broader community. - Consultation will be ongoing with impacted residents to ensure they are kept informed of project activities and mitigations. - Developer must implement all measures in the <i>Guideline for preventing pollution on buildings sites</i> (NT EPA 2015) to control dust and limit nuisance.

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Theme	Factor and Objective	Background information/project activities	Environmental values, sensitivities (based on desktop and/or surveys)	Pre-referral screening questions						Assessment of potential for significant impact
					Q1	Q2	Q3	Q4	Q5	
				Yes No	☐ ☒					
	Human Health <u>Objective:</u> Protect the health of Northern Territory population.	- Dust emissions from construction activities may impact the health of vulnerable residents in neighbouring properties. - Alterations to the existing drainage line are proposed to mitigate the current biting insect risk. - Construction activities can result in the creation of biting insect habitat (ponding water, vessels holding water).	There are existing residential properties immediately adjacent to the proposed subdivision.	Yes No Uncertain N/A	☐ ☒ ☐ ☐	☐ ☒ ☐ ☐	☒ ☐ ☐ ☐	☐ ☒ ☐ ☐	☐ ☒ ☐ ☐	The development is not considered to have the potential to significantly impact human health because: - Impacts will be limited to a small geographic extent. Nearby residents will be impacted but impacts are not expected to be experienced by the broader community. - Consultation will be ongoing with impacted residents to ensure they are kept informed of project activities and mitigations. - The design is proposed to improve the current biting insect risk. - Developer must implement all measures in the <i>Guideline for preventing pollution on buildings sites</i> (NT EPA 2015) to control dust and limit nuisance.

This pre-referral screening checklist was prepared by a suitably qualified professional who is appropriately accredited and experience in impact assessment

Name: Emma Lewis – Team Leader Impact Assessment & Approvals
Qualifications: Bachelor of Science, 15+ years experience
Signature: 

Appendix A Threatened Species Significant Impact Assessment

In 2025, a report was produced by SLR Consulting that documented the outcomes of ecological surveys of the proposed Farrer West Residential Subdivision site and included threatened species' significant impact assessments. The purpose of this appendix is to revise some of the conclusions reached in some of those significant impact assessments. It is noted that the conclusions presented here differ from those in SLR Consulting (2025) report. The sections below provide the data and assumptions that have informed EcOz's assessment and conclusions.

Mertens' Water Monitor and Mitchell's Water Monitor

The conclusion by SLR that the project is likely to result in a significant impact to Northern Blue-tongued Skink, Mertens' Water Monitor and Mitchell's Water Monitor assumes that the riparian vegetation which will be disturbed or cleared is 'habitat critical to the survival' of these species. This assumption is based on a literal, uncritical application of the definition of 'habitat critical to the survival of' these species provided in the Conservation Advices published for these species., and does not take into account the quality of that habitat which, due to its urban setting, is degraded by fragmentation, compromised water quality, and proliferation of weeds. Such marginal habitat value means it is unlikely to be critical to the survival of these species. Therefore, the loss of this small extent of marginal habitat is unlikely to have a significant impact on these species.

In addition, by far the most substantive threat to these species – and the reason why they are threatened – is mortality due to ingestion of Cane Toads. The significant impact assessments for the Northern Blue-tongued Skink, Mertens' Water Monitor and Mitchell's Water Monitor should focus on whether the project will introduce, or lead to the proliferation of, Cane Toads in the region, which it will not. That key impact pathway is not relevant.

Typhonium johnsonianum

The Data Deficient flora species *Typhonium johnsonianum* was recorded on the project site. The classification of 'Data Deficient' does not give such a species any special protection under the TPWC Act. What it does, however, is highlight the need to scrutinise the presence of the species in the project footprint and determine whether the site is of particular importance to that species. That species' habitat is described in EfloraNT as 'mixed woodland on poorly-drained sandy soils' which is not a restricted habitat type within the greater Darwin region. There are only 78 records of the species in the NT Flora Atlas, meaning that the two records from the project site equate to 1.4% of the known occurrences. However, this is almost certainly a substantial overestimate because it is based on the highly-unlikely situation that each of the other records represent the sole occurrence of that species in that location – rather than one of many plants within a local patch – and therefore strongly overstates the potential impact to the species from the project. The most likely reason why there are so few records is that this species is under surveyed. Consequently, *Typhonium johnsonianum* is not so range-restricted or rare that the loss of a few plants from the project site is likely to constitute a significant impact to the species.

Typhonium praetermissum

The locally-abundant (but restricted-range) flora species *Typhonium praetermissum* was recently classified as Endangered under the EPBC Act. In a recent abundance survey undertaken by EcOz within the project footprint (using transects 5 m apart) there were 222 *Typhonium praetermissum* plants recorded. The site is surrounded by urban development, is already subject to substantial disturbance from weeds, excessive burning and informal tracks, and will be subject to ongoing invasion by grassy weeds. The long-term persistence of the species at this site is unlikely, even if the proposed development does not go ahead. Because the *Typhonium praetermissum* plants are spread across most of the project footprint, impact avoidance will be difficult. The proponent will retain some small patches of *Typhonium praetermissum*, where located within the upper areas of the drainage corridor. The drainage corridor be vested with the Crown upon completion of subdivision works. For this impact assessment, it is assumed that 48 *Typhonium praetermissum* plants (i.e. 22 % of the total occurrence at Farrar West) will be conserved *in situ*.

Typhonium praetermissum plants are assumed to belong to the same sub-population if they are less than 2.5 km away, preferably within continuous and intact potential habitat (Cuff & Green 2019¹). The project site is less than 1 km from *Typhonium praetermissum* plants associated with the Holtze-Palmerston sub-population – see

Figure 3 – and the Conservation Advice for *Typhonium praetermissum* (DCCEEW 2026)² maps the project site as occurring within the extent of the Holtze-Palmerston sub-population. The species is almost non-existent in the Palmerston area due to the removal of its habitat by urban development, although it possibly persists in a reserve just to the south along Maluka Drive near Ridge St (based on records there from 2005 in habitat that still appears to be suitable for the species). *Typhonium praetermissum* is still abundant in the Holtze area (see below).

DCCEEW (2026) considers there to be 1,770 individuals within the Holtze-Palmerston sub-population based on 2024 data. Since then, many more plants have been detected within the extent of the sub-population (primarily in surveys undertaken by EcOz on behalf of DLI). A 2025 survey across previously-unsurveyed, high-likelihood, modelled habitat in the northern portion of Greater Holtze yielded 577 new records using detection surveys (using transects 17 m apart). Applying a conservative detection-to-abundance multiplier³ of three (to make that survey comparable to the one undertaken for this project) brings that total to 1,731 new records for the sub-population. Combining these new records with those from the project area and the number of individuals stated in DCCEEW (2026) gives a total of 3,723 *Typhonium praetermissum* (i.e. nearly doubling the Conservation Advice estimate), and that number is likely still an under-estimate because many other areas of modelled, high-likelihood habitat within the extent of the sub-population have either not been surveyed or have only had a detection survey.

DLPE is currently developing a *Conservation Strategy for Typhonium praetermissum* that allows for planned development to progress in the Darwin region without significantly impacting the geographic distribution or genetic diversity of the species. The aim is to secure adequate representation of every sub-population in line with best-practice principles for species conservation. This requires maintaining the integrity of the species at a landscape level (sub-populations) by conserving spatially- and habitat-representative large patches and supporting connectivity between them. Whilst the strategy is yet to be finalised, the draft principles are the best available guidance for assessing whether the proposed Farrar West subdivision is likely to have a significant impact on the species.

Informed by the *Conservation Strategy for Typhonium praetermissum*, DLPE is also developing a draft environmental strategy for the Greater Holtze area to support future development in the region for urban growth. The strategy will include avoidance and conservation measures for *Typhonium praetermissum* to ensure the protection of the Holtze-Palmerston sub-population. This is in addition to the existing *Typhonium* Protection Area which has recently been established as part of the smaller Holtze Development (see Figure 3).

The table below assesses whether the project is likely to have a significant impact upon *Typhonium praetermissum* using the criteria presented in the *EPBC Significant Impact Guidelines 1.1* (DoE 2013)⁴. Only the first criterion is triggered – namely, that a loss of 174 individual *Typhonium praetermissum* plants is likely to result in a long-term decrease in the species' population size. The loss of plants represents – at most –

¹ Cuff, N. and Green, C. (2019). Threatened Species Distribution in the Greater Darwin Region – *Typhonium praetermissum* (Version 3.2). Population Status of *Typhonium praetermissum*. Department of Environment and Natural Resources, Northern Territory Government. https://www.ntlis.nt.gov.au/metadata/export_data?type=html&metadata_id=35A8F264A830E4BCE050CD9B214471C4

² Department of Climate Change, Energy, the Environment and Water (2026). Conservation Advice *Typhonium praetermissum*. Canberra: Department of Climate Change, Energy, the Environment and Water. <http://www.environment.gov.au/biodiversity/threatened/species/pubs/65859-conservation-advice-06022026.pdf>

³ The *Typhonium* survey guidelines contain two survey techniques – one for detecting whether the species is present at a site (involving walking along transects spaced 17 m apart), the other for then determining the abundance of plants within the site (involving walking along transects spaced 5 m apart). Some surveys only use the detection survey methodology. To compare the results of those surveys with the results from abundance surveys, a multiplier needs to be applied. Based on EcOz's many years of experience surveying for this species, a conservative estimate for a multiplier of 3:1 (the ratio has never been less than that, and has been up to 10:1).

⁴ Department of the Environment (DoE) (2013) Matters of National Environmental Significance. Significant impact guidelines 1.1 Environment Protection and Biodiversity Conservation Act 1999, Australian Government. https://www.dcceew.gov.au/sites/default/files/documents/nec-guidelines_1.pdf

4.7% of the Holtze-Palmerston sub-population and 1.4% of the lower bound estimated total population (12,316 individuals according to DCCEEW 2026).

The loss of 174 individual plants on the Farrar West subdivision site is not inconsistent with the regional conservation objectives for *Typhonium praetermissum* because sufficient individuals remain within the Holtze-Palmerston sub-population (i.e. at the landscape level – which is identified as the most important consideration in regional strategy discussed above) to ensure the sub-populations ongoing viability. On the basis that the regional conservation objectives will be met, it is concluded that the proposed action is unlikely to have a significant impact on the species.

There is potential for cumulative impacts from other residential developments to threaten the ongoing viability of the Holtze-Palmerston sub-population of *Typhonium praetermissum*. Nevertheless, the future persistence of an adequate proportion of the Holtze-Palmerston sub-population of *Typhonium praetermissum* is likely because approval of a large-scale, residential development proposed by the NT Government within that area will be contingent on securing and managing large patches of the species across the sub-population.

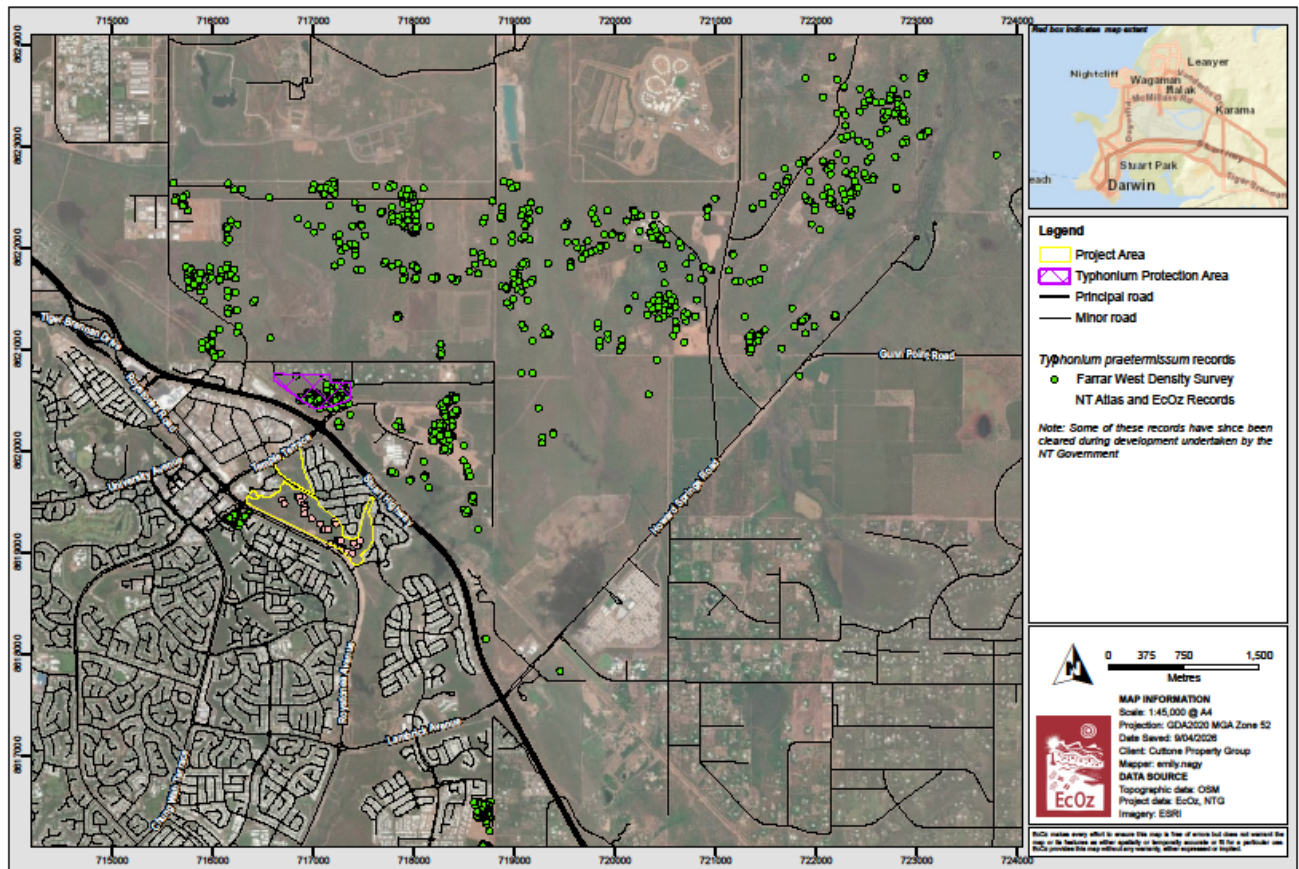
Significant impact assessment for *Typhonium praetermissum*

Is there is a real chance or possibility that it will...	Assessment
Lead to a long-term decrease in population size?	YES. Development of the project will result in the loss of 174 <i>Typhonium praetermissum</i> . The loss of these plants will lead to a long-term decrease in the size of the <i>Typhonium praetermissum</i> population.
Reduce the area of occupancy ⁵ of an important population?	NO. The AOO of <i>Typhonium praetermissum</i> is estimated to be 564 km ² (DCCEEW 2026). There are records of <i>Typhonium praetermissum</i> in the project footprint and therefore there is one AOO grid cell (2 x 2 km) within the project footprint. There are also records from 2005 of <i>Typhonium praetermissum</i> located on Maluka Drive / Ridge Ct just a few hundred metres to the south-west of the project site. If those plants are still extant, they are almost certainly in the same grid cell. To the north (~750 m away) and east (~900 m away) there are additional recent <i>Typhonium praetermissum</i> records which may be in the same grid cell. Because some <i>Typhonium praetermissum</i> plants will be retained within the project footprint after development, there will still be records in the relevant AOO grid cell, therefore the AOO will not be reduced.
Fragment an existing population into two or more populations?	NO. Development of the project will include retaining some patches of <i>Typhonium praetermissum</i> . This will prevent fragmentation of the species into more populations, and avoid disruption to the breeding cycle, by maintaining the current gap between the <i>Typhonium praetermissum</i> to the south (if still extant) and the bulk of the sub-population to the north and east.
Disrupt the breeding cycle of a population?	
Adversely affect habitat critical to the survival of the species?	NO. Critical habitat has not been identified for <i>Typhonium praetermissum</i> . This concept is arguably not relevant for rare species with restricted habitat requirements; it can be assumed that the few locations within which the species occurs constitutes critical habitat. Potential impacts to such habitat are assessed throughout this table, and it is concluded that loss of very small areas of habitat will not affect the survival of the species.
Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline?	NO. For the reasons given in this table and preceding text, it is unlikely that the loss, or decrease in quality, of habitat because of proposal activities will cause a decline in the species outside of the project footprint.
Result in invasive species that are harmful to a Critically Endangered or Endangered species becoming established in the Critically Endangered or	NO. The Conservation Advice for <i>Typhonium praetermissum</i> (DCCEEW 2026) identifies the proliferation of the weed species Gamba Grass and Mission Grass as having a high level of threat on <i>Typhonium praetermissum</i> by dramatically increasing fuel loads, resulting in more intense fires which may reduce habitat quality. Post-development, there is unlikely to be much, if any, habitat left within the project area for <i>Typhonium praetermissum</i> , and so this criterion is not relevant.

⁵ According to IUCN (2024), the area of occupancy (AOO) is a scaled metric that represents the area of suitable habitat currently occupied by the taxon. It is used to assess IUCN Criterion 2 for determining threatened status. AOO is particularly relevant to species with small populations and/or that occur within a few small patches, and hence are exposed to elevated extinction risks because there is a greater chance that a threat/s will affect all or most of the distribution within a given time frame.

Is there is a real chance or possibility that it will...	Assessment
Endangered species' habitat?	
Introduce disease that may cause the species to decline?	NO. Disease is not listed as a threatening process for this species. The author is not aware of any literature on diseases that could be introduced by the proposal and that would detrimentally affect this species.
Interfere with the recovery of the species?	NO. There is no Recovery Plan for this species. The Conservation Advice for <i>Typhonium praetermissum</i> (DCCEEW 2026) lists some recommended management and research actions, none of which would be compromised by this proposal. NTG (2012) consider the main threats to be land clearing for development and weed invasion by Gamba Grass and Mission Grass.

Figure 3. Map of *Typhonium praetermissum* records relevant to the project site



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 Layout: Figure X-X. Map of Typhonium records within the region

Figure X-X. Map of Typhonium records within the region