GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 10740/1
Permit Holder:	City of Gosnells
Duration of Permit:	From 6 February 2025 to 6 February 2030

The permit holder is authorised to clear *native vegetation* subject to the following conditions of this permit.

PART I – CLEARING AUTHORISED

1. Clearing authorised (purpose)

The permit holder is authorised to clear *native vegetation* for the purpose of reconstruction of a drainage channel and basin and improvement of the surrounding public open space.

2. Land on which clearing is to be done

Lot 105 on Diagram 67847, Maddington

Lot 3874 on Plan 19306 (Crown Reserve 41566), Maddington

Unnamed road reserve (PIN 12279448), Maddington

3. Clearing authorised

The permit holder must not clear more than 0.48 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

PART II – MANAGEMENT CONDITIONS

4. Avoid, minimise, and reduce impacts and extent of clearing

In determining the *native vegetation* authorised to be cleared under this permit, the permit holder must apply the following principles, set out in descending order of preference:

(a) avoid the clearing of *native vegetation*;

(b) minimise the amount of *native vegetation* to be cleared; and

(c) reduce the impact of clearing on any environmental value.

5. Weed and dieback management

When undertaking any clearing authorised under this permit, the permit holder must take the following measures to minimise the risk of introduction and spread of *weeds* and *dieback*:

(a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;

(b) ensure that no known *dieback* or *weed*-affected soil, *mulch*, *fill*, or other material is brought into the area to be cleared; and

(c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

6. Directional clearing

The permit holder must conduct clearing activities in a slow, progressive manner to allow fauna to move into adjacent *native vegetation* ahead of the clearing activity.

7. Fauna management

(a) The permit holder must inspect the area authorised to be cleared under this permit prior to clearing commencing and for the duration of clearing for any native fauna that may be present.

(b) Where fauna have been identified under condition 7(a), works must cease until the fauna have escaped into adjacent habitat ahead of the clearing activity or translocated into adjacent native vegetation.

8. Erosion management

(a) Clearing is not to be undertaken during May to September.

(b) The permit holder must commence the drainage channel and basin reconstruction and improvement of the surrounding public open space no later than three (3) months after undertaking the authorised clearing activities.

PART III - RECORD KEEPING AND REPORTING

9. Records that must be kept

The permit holder must maintain records relating to the listed relevant matters in accordance with the specifications detailed in Table 1.

Table 1: Records that must be kept

No.	Relevant matter	Specifications
1.	In relation to the authorised clearing activities generally	(a) the species composition, structure, and density of the cleared area; (b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings; (c) the date that the area was cleared;

No.	Relevant matter	Specifications
		(d) the size of the area cleared (in hectares); (e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 4; (f) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with condition 5; (g) Fauna management actions taken in accordance with condition 7. (h) Erosion management actions taken in accordance with condition 8.

10. Reporting

The permit holder must provide to the *CEO* the records required under condition 9 of this permit when requested by the *CEO*.

DEFINITIONS

In this permit, the terms in

Table have the meanings defined.

Table 2: Definitions

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*.
clearing	has the meaning given under section 3(1) of the EP Act.
condition	a condition to which this clearing permit is subject under section 51H of the EP Act.
fill	means material used to increase the ground level, or to fill a depression.
dieback	means the effect of *Phytophthora* species on native vegetation.
department	means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
EP Act	*Environmental Protection Act 1986* (WA)
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
weeds	means any plant – (a) that is a declared pest under section 22 of the *Biosecurity*

Term	Definition
	and Agriculture Management Act 2007; or (b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or (c) not indigenous to the area concerned.

END OF CONDITIONS

Jessica Burton
MANAGER
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

15 January 2025

Schedule 1

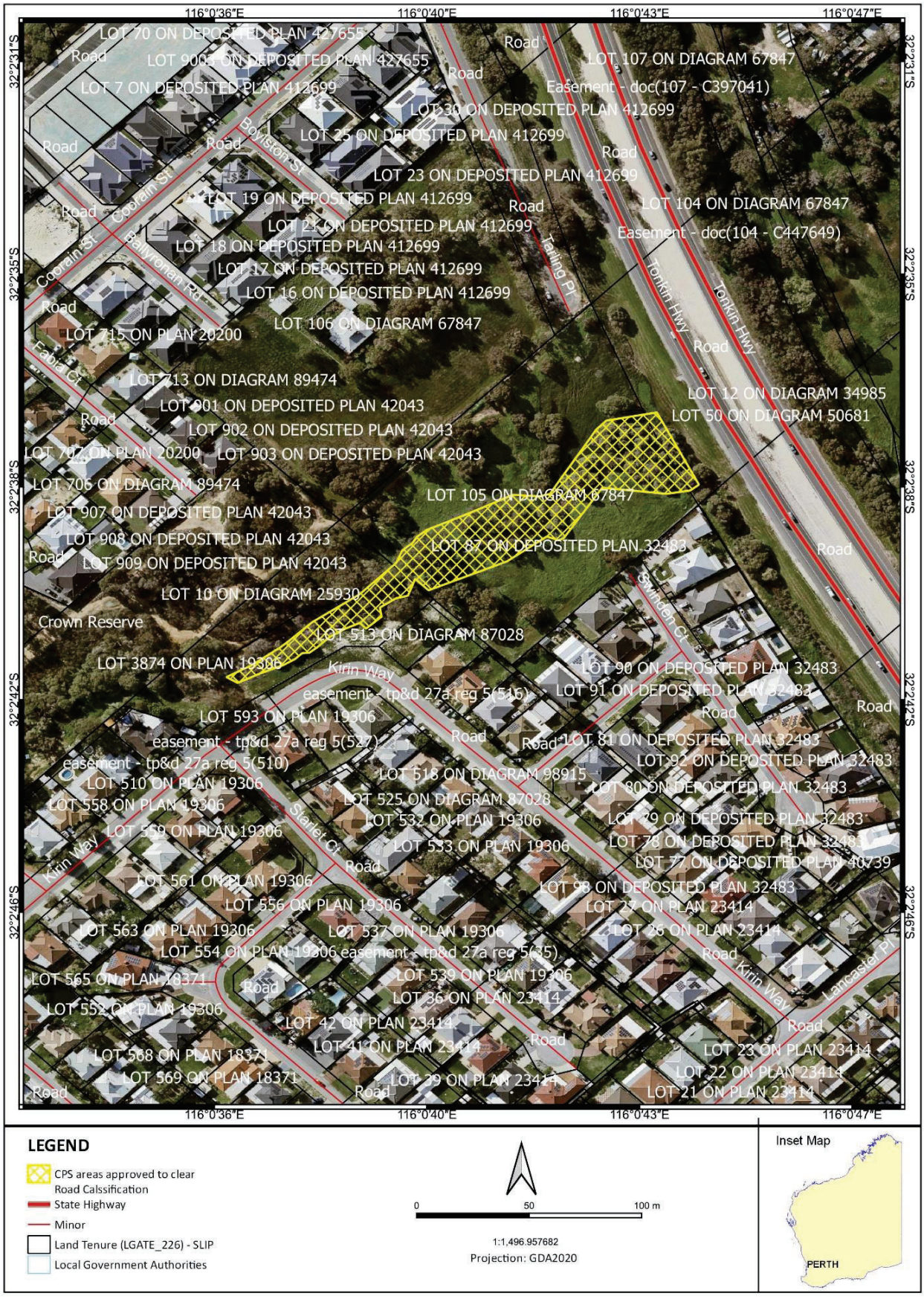


Figure 1: Map of the boundary of the area within which clearing may occur

Government of Western Australia
Department of Water and Environmental Regulation

Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 10740/1
Permit type:	Purpose permit
Applicant name:	City of Gosnells
Application received:	29 August 2024
Application area:	0.48 hectares of native vegetation
Purpose of clearing:	Reconstruction of a drainage channel and basin and improvement of the surrounding public open space
Method of clearing:	Mechanical
Property:	Lot 105 on Diagram 67847 Lot 3874 on Plan 19306 (Crown Reserve 41566) Unnamed road reserve (PIN 12279448)
Location (LGA area/s):	Shire of Gosnells
Localities (suburb/s):	Maddington

1.2. Description of clearing activities

The vegetation proposed to be cleared is 0.48 hectares contained within a single contiguous 0.5 hectare area in Peace Park, Maddington (see Figure 1, Section 1.5). The application is to selectively clear vegetation within and surrounding a drainage channel and basin to allow the channel and basin to be recontoured and upgraded to improve their operation and drainage capacity. The recontoured channel and surrounding flooded and terrestrial areas will be revegetated. The surrounding public open space will also be improved to include a footpath, boardwalk and rest area.

1.3. Decision on application

Decision:	Granted
Decision date:	15 January 2025
Decision area:	0.48 hectares of native vegetation within a 0.5-hectare footprint as depicted in Section 1.5, below.

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (DWER) advertised the application for 21 days and one submission was received. Consideration of matters raised in the public submission is summarised in Appendix A.

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix B), relevant datasets (see Appendix F.1), the findings of a site inspection, the clearing principles set out in Schedule 5 of the EP Act (see Appendix CAppendix C), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3).

The assessment identified that:

- The proposed clearing area may contain suitable habitat for black cockatoo species, Australasian bittern, little bittern, blue-billed duck, southern death adder, quenda and peregrine falcon, although the proposed clearing is unlikely to result in significant impact to habitat for these species.
- The proposed clearing will result in impacts to a local ecological linkage of for local fauna, however impacts are likely to be short term and temporary.
- The proposed clearing may result in erosion and impacts to water quality; however it is considered that these impacts will likely be local and short term, and clearing is unlikely to impact sensitive surface water receptors.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the impacts of proposed clearing can be minimised and managed such that they are unlikely to lead to an unacceptable risk to environmental values. The applicant has suitably demonstrated avoidance and minimisation measures.

The Delegated Officer decided to grant a clearing permit subject to the following conditions:

- Avoid, minimise to reduce the impacts and extent of clearing
- Take hygiene steps to minimise the risk of the introduction and spread of weeds
- Pre-clearing site inspections prior to works commencing and ongoing during works for any fauna that may be present. If found and are not able to escape into adjacent habitat, the permit holder is to cease works until the identified fauna has left the clearing area; and
- Undertake slow, progressive one directional clearing to allow fauna to move into adjacent habitat ahead of the clearing activity.
- Clearing is not to be undertaken during May to September.
- The permit holder must commence the drainage channel and basin reconstruction and improvement of the surrounding public open space no later than three months after undertaking the authorised clearing activities.

1.5. Site map

Figure 1. Map of the application area. The area crosshatched yellow indicates the area in which clearing is authorised under the granted clearing permit.

2 Legislative context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity
- the principle of the conservation of biological diversity and ecological integrity.

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

The applicant provided the following information demonstrating their consideration of avoidance and mitigation measures (City of Gosnells, 2024):

- The City intends to clear the minimum amount of vegetation to undertake the required drainage channel and retention basin maintenance improvements.
- Where significant earthworks are required, and trees cannot be retained due to levels, trees have been identified for clearing. These are primarily located in the watercourse diversion locations at the eastern end, or on the side slopes of the watercourse where works will be undertaken. Where possible, tree retention has tried to be achieved by locating footpaths and POS infrastructure in open areas or manipulating the watercourse earthworks to avoid trees. Trees will be retained if they not affect the performance of the drainage channel,
- Trees to be retained will be protected during the works with tree protection zones
- The POS area will retain existing vegetation including 34 trees to create a natural recreation area
- Weeds shall be treated and controlled prior to any excavation works
- The disturbance of areas outside of the site extents shall be kept to an absolute minimum
- Cleared vegetation, trees and topsoil shall be separated stored in temporary stockpiles and carted (in covered transport) off site for disposal by material type
- Contaminated topsoil will not be reused on site
- Where suitable tree limbs and mulch from removed trees will be used in the POS
- Following the basin recontouring, the area will be revegetated with native plants and trees

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values.

3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix B) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The assessment against the clearing principles (see **Error! Reference source not found.**) identified that the risk of impacts of the proposed clearing to biological values (flora and fauna), significant remnant vegetation and land and water resources required further consideration. The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

3.2.1. Biological values (fauna) - Clearing Principles (a) and (b)

Assessment

The application area may provide habitat for the following fauna species:

- *Zanda baudinii* (Baudin's cockatoo) (Endangered)
- *Zanda latirostris* (Carnaby's cockatoo) (Endangered)
- *Botaurus poiciloptilus* (Australasian bittern) (Endangered)
- *Calyptorhynchus banksii naso* (forest red-tailed black cockatoo) (Vulnerable)

- *Acanthophis antarcticus* (southern death adder) (Priority 3)
- *Isoodon fusciventer* (quenda, southwestern brown bandicoot) (Priority 4)
- Ixobrychus dubius (Little bittern) (Priority 4)
- *Oxyura australis* (blue-billed duck) (Priority 4)
- *Falco peregrinus* (peregrine falcon) (Other specially protected)

Black cockatoo species

Zanda baudinii (Baudin's cockatoo), Zanda latirostris (Carnaby's cockatoo) and *Calyptorhynchus banksii naso (forest red-tailed black cockatoo)* (hereafter referred to as black cockatoo species) have been recorded using *Eucalyptus rudis* (flooded gum) trees for nesting and roosting (C. Bourke, personal communication, November 8, 2024). While there are no black cockatoo roost sites recorded within the application area, some of the flooded gum trees within the application area are of sufficient size for roosting (DWER, 2024a). However, noting the extent of the clearing and that large *Eucalyptus wandoo* (wandoo) and *Corymbia calophylla* (marri) trees that also provide suitable roosting habitat will remain adjacent to the application area, it is considered that the loss of roosting habitat will not significantly impact black cockatoo species. None of the flooded gum trees in the application area contained hollows suitable for breeding (DWER, 2024a), and therefore the proposed clearing will not impact upon breeding habitat for black cockatoo species.

Flooded gum trees are not known to provide foraging habitat for black cockatoo species (C. Bourke, personal communication, November 8, 2024). Marri does provide foraging habitat for all three black cockatoo species (DAWE, 2022), however there was only one small marri sapling within the application area with a few gumnuts present (DWER, 2024a). It is considered that this seeded from larger marri trees surrounding the application area. No other plants known to provide significant sources of black cockatoo foraging were found within the application area (DWER, 2024a). The loss of this sapling is not considered likely to result in significant impacts to black cockatoo foraging habitat.

Australasian bittern, little bittern and blue-billed duck

The Australasian Bittern occurs mainly in freshwater wetlands (Marchant & Higgins 1990). It favours wetlands with tall dense vegetation, where it forages in still, shallow water up to 0.3 m deep, often at the edges of pools or waterways, or from platforms or mats of vegetation over deep water. It favours permanent and seasonal freshwater habitats, particularly those dominated by sedges, rushes and reeds (e.g. *Phragmites, Cyperus, Eleocharis, Juncus, Typha, Baumea, Bolboschoenus*) or cutting grass (*Gahnia*) growing over a muddy or peaty substrate (Marchant & Higgins 1990). The application area is considered unlikely to provide habitat for this species noting its extent and degraded nature, however its presence cannot be ruled out.

The little bittern often inhabits small patches of dense wetland vegetation such as Typha along drains or in small urban lakes (Birdlife Australia, n.d.). The application area may provide habitat for this species.

The Blue-billed Duck is almost wholly aquatic, and is seldom seen on land (Australian Museum, 2024). Non-breeding flocks, often with several hundred individuals, congregate on large, deep open freshwater dams and lakes in autumn. Breeding habitat is typically secluded densely vegetated situations, with the nest constructed in Typha beds or other vegetation, in permanent water. Nests are usually constructed from dead Typha leaves and sometimes thinly lined with down. The application area is considered unlikely to provide habitat for this species noting its extent and degraded nature, however its presence cannot be ruled out.

While the above species may be present within dense typha or other sedges within the application area, noting the extent of the clearing and degraded nature of the vegetation present, it is considered that the proposed clearing is unlikely to significantly impact these species. A condition to conduct slow directional clearing will prevent impacts to individuals. Impacts to any nesting individuals that may be particularly vulnerable to clearing can be managed by a condition to conduct preclearing site inspections.

Other conservation significant fauna

While the proposed clearing area may contain habitat for the southern death adder, quenda and peregrine falcon, it is considered unlikely to provide significant habitat given its extent and the degraded nature of the vegetation. A condition to conduct slow directional clearing will prevent impacts to individuals.

Conclusion

Based on the above assessment, while the proposed clearing area may contain habitat for black cockatoo species, Australasian bittern, little bittern, blue-billed duck, southern death adder, quenda and peregrine falcon, the proposed clearing is unlikely to result in significant impacts to these species. Impacts to any fauna individuals present can be managed through conditions on the permit.

Conditions

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- Pre-clearing site inspections prior to works commencing and ongoing during works for any fauna that may be present. If found and are not able to escape into adjacent habitat, the permit holder is to cease works until the identified fauna has left the clearing area; and
- Undertake slow, progressive one directional clearing to allow fauna to move into adjacent habitat ahead of the clearing activity.

3.2.2. Biological values (flora) - Clearing Principles (a) and (c)

Assessment

Six threatened and 24 priority flora species recorded within the local area have been recorded in either similar mapped vegetation or soil types, and are found within riparian habitats:

- *Acacia lasiocarpa* var. *bracteolata* long peduncle variant (G.J. Keighery 5026) (Priority 1)
- *Amanita quenda (*Priority 1)
- *Amanita wadjukiorum* (Priority 3)
- *Aponogeton hexatepalus* (Priority 4)
- *Austrostipa bronweniae* (Threatened)
- *Babingtonia urbana* (Priority 3)
- *Calectasia grandiflora* (Priority 2)
- *Calytrix breviseta* subsp. *breviseta (*Threatened)
- *Chamaescilla gibsonii* (Priority 3)
- *Conospermum undulatum* (Threatened)
- *Eleocharis keigheryi (*Threatened)
- *Eremophila glabra* subsp. *chlorella* (Threatened)
- *Eryngium pinnatifidum* subsp. Palustre (G.J. Keighery 13459) (Priority 3)
- *Eryngium* sp. *Subdecumbens* (G.J. Keighery 5390) (Priority 3)
- *Haemodorum loratum* (Priority 3)
- *Hydrocotyle lemnoides* (Priority 4)
- *Isotropis cuneifolia* subsp. *glabra* (Priority 3)
- *Johnsonia pubescens* subsp*. cygnorum* (Priority 2)
- *Lepidosperma rostratum* (Threatened)
- *Lepyrodia curvescens* (Priority 2)
- *Meionectes tenuifolia* (Priority 3)
- *Myriophyllum echinatum* (Priority 3)
- *Ornduffia submersa* (Priority 4)
- *Schoenus benthamii* (Priority 3)
- *Schoenus capillifolius* (Priority 3)
- *Schoenus natans* (Priority 4)
- *Schoenus pennisetis* (Priority 3)
- *Schoenus* sp. Beaufort (G.J. Keighery 6291) (Priority 1)
- *Stylidium longitubum* (Priority 4)
- *Verticordia lindleyi* subsp. *lindleyi* (Priority 4)

None of these species were found during a site inspection (DWER, 2024a). It is considered unlikely that most of these species would be present within the application area, given the Degraded condition of the vegetation, and that the application area has been previously cleared in the past (Landgate, 2025). While *Conospermum undulatum* and *Verticordia lindleyi* subsp. *lindleyi* are sometimes found within disturbed environments (WA Herbarium, 1998-), it is considered likely that these species would have been found during the site inspection if they were present. As such, it is considered unlikely that threatened or priority species occur within the application area.

Conclusion

Based on the above assessment, the proposed clearing is unlikely to result in impacts to threatened or priority flora.

Conditions

Nil.

3.2.3. Significant remnant vegetation - Clearing Principle (e)

Assessment

The application area is part of a local ecological linkage connecting vegetation along a drainage channel to vegetation alongside Tonkin Highway. This linkage is considered likely to be of relatively minor importance to fauna, as the small extent of vegetation associated with this linkage is in degraded condition and is bounded by roads. The proposed clearing will not completely sever this linkage, however the trees to the north of the application area that will remain in this linkage following clearing are comparatively sparse and will not provide habitat for aquatic species.

However, noting that the City plan to reinstate native vegetation around the drainage channel once it is has been recontoured, it is considered that impacts to this linkage will be mitigated in the long term. Given this, and that this linkage is relatively minor, impacts of the clearing to ecological linkages are not considered to be significant.

Conclusion

Based on the above assessment, while the proposed clearing will result in impacts to a local ecological linkage of relatively low importance to fauna, impacts are likely to be only temporary.

Conditions

Nil.

3.2.4. Land and water resources - Clearing Principles (g, and i)

Assessment

The proposed clearing will remove vegetation within and immediately surrounding a minor, non-perennial tributary of the Bickley Brook. This drainage channel has been highly modified downstream of the application area, with part of this channel in Peace Park downstream contained within underground pipes. The Bickley Brook is approximately 1 kilometre downstream of the application area. As such, while some erosion may occur during the clearing, which could result in sedimentation and increased nutrients within the watercourse, it is considered this would be unlikely to result in significant impacts to sensitive aquatic ecosystems. It is also considered that any impacts to water quality are likely to be short term, given the proposed recontouring and revegetation of the drainage channel will help to prevent erosion and phosphorus export in the future. Erosion management conditions will reduce the likelihood of impacts to erosion and water quality.

Given the degraded condition of the watercourse and the riparian vegetation to be removed, the clearing is considered unlikely to have significant impacts upon aquatic fauna or flora. It is considered that the drainage configuration and revegetation proposed, which will incorporate an aquatic macrophyte zone, embankment vegetation, and terrestrial plants (Murphy, 2024), is likely to support a healthier aquatic ecosystem than the one present, which is heavily infested with weeds.

Conclusion

Based on the above assessment, while the proposed clearing may result in erosion and impacts to water quality, it is considered that these impacts will likely be local and short term, and clearing is unlikely to impact sensitive surface water receptors. Erosion management conditions will reduce the likelihood of impacts to erosion and water quality.

Conditions

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- Clearing is not to be undertaken during May to September.
- The permit holder must commence the drainage channel and basin reconstruction and improvement of the surrounding public open space no later than three months after undertaking the authorised clearing activities

3.3. Relevant planning instruments and other matters

The applicant is not required to have a bed and banks permit under the RIWI Act to undertake the proposed works noting they are occurring in drain channel, and not a water course (DWER, 2024b).

No aboriginal sites occur within the application area.

End

Appendix A. Details of public submissions

One submission was received from the public in relation to CPS 10740/1, which is summarised below.

Summary of comments	Consideration of comment
The Proposal involves the clearing of native vegetation associated with a natural watercourse that flows towards the Canning River. The vegetation supports the integrity of the watercourse, protecting against erosion and maintaining water quality	The impacts of clearing to water quality have been considered in Section 3.2.4. While clearing may result in short term impacts to erosion and water quality, it is considered that these can be mitigated through erosion management condition, and the recontouring and revegetation of the drainage channel are likely to mitigate long term impacts to water quality and erosion.
The Proposal will also increase pedestrian traffic and possibly add to hardstand, increasing wildlife disturbance and changing hydrological patterns.	This is outside the scope of the clearing permit assessment.
The Proposal area will result in the clearing of trees (*Eucalyptus ?rudis, Corymbia Calophylla, Melaleuca ?rhaphiophylla* and others.) that provide habitat for conservation significant wildlife, including foraging and roost sites for black cockatoos.	The impacts of clearing to fauna have been considered in Section 3.2.1. It is noted that no large marri trees or other signifciant black cockatoo foraging was present within the application area.
The Proposal will result in the loss of an east-west wildlife corridor which is becoming increasingly fragmented due to urbanisation, and the replacement of the native vegetation corridors with paved open pathways and parks with manicured lawns (for example Peace Park)	The impacts of clearing to ecological linkages are considered in Section 3.2.3. While clearing may result in impacts to an ecological linkage, revegetation of the recontoured drainage channel will mitigate impacts to this linkage.

Appendix B. Site characteristics

B.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is part of an approximately 4.5 hectare isolated patch of native vegetation in the intensive land use zone of Western Australia. It is surrounded by native vegetation to the north and cleared land within a public open space and a housing development to the south. Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 31 per cent of the original native vegetation cover.
Ecological linkage	The application area is approximately 400 metres southeast of an ecological linkage, associated with the Bickley Brook, mapped in the Perth Regional Ecological linkages (Del Marco et al, 2004). The application area is part of a local ecological linkage associated with a drainage channel and vegetation alongside Tonkin Highway.
Conservation areas	The nearest formally reserved conservation area to the application area is Banyowla Regional Park, located approximately 1 kilometre to the southeast.
Vegetation description	Photographs supplied by the applicant indicate the vegetation within the proposed clearing area consists of: • Within the drainage channel – *Melaleuca* sp. trees and shrubs with an understorey of *Typha* sp., other sedges and rushes and weeds (including *Persicaria* sp and grass species), • Banks of the drainage channel – *Eucalyptus rudis* (flooded gum) and *Melaleuca* sp. trees over an understorey of weeds (including *Oxalis* sp. and grass species) Representative photos are available in Appendix E.

Characteristic	Details
	This is consistent with the mapped vegetation type: • Forrestfield Complex, which is described as Vegetation ranges from open forest of *Corymbia calophylla* (Marri) - *Eucalyptus wandoo* (Wandoo) - *Eucalyptus marginata* (Jarrah) to open forest of *Eucalyptus marginata* (Jarrah) - *Corymbia calophylla* (Marri) - *Allocasuarina fraseriana* (Sheoak) - *Banksia* species. Fringing woodland of *Eucalyptus rudis* (Flooded Gum) in the gullies that dissect this landform (Heddle et. al., 1980). The mapped vegetation type retains approximately 12 per cent of the original extent (Government of Western Australia, 2019).
Vegetation condition	Photographs supplied by the applicant indicates the vegetation within the proposed clearing area is in Degraded (Keighery, 1994) condition, described as: • Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing. The full Keighery (1994) condition rating scale is provided in Appendix D. Representative photos are available in Appendix E.
Climate and landform	The southwest of WA has a Mediterranean climate with mild wet winters and hot dry summers. The average annual rainfall received over the application area is 890-900 millimetres.
Topography	Elevation is mapped at approximately 20 m AHD, although it is likely to be lower within the drainage channel
Soil description	The soil is mapped as EnvGeol Cs phase (213Pj__Cs), described as Sandy clay - white-grey to brown, fine to coarse-grained, subangular to rounded sand, clay of moderate plasticity gravel and silt layers near scarp.
Land degradation risk	The mapped soil type has risks of the following land degradation factors as follows: • Flood risk - 30-50% of the map unit has a moderate to high flood risk • Salinity risk - 30-50% of map unit has a moderate to high salinity risk or is presently saline • Phosphorus export - 30-50% of map unit has a high to extreme phosphorus export risk • Water erosion - 10-30% of map unit has a high to extreme water erosion risk • Waterlogging risk - 50-70% of map unit has a moderate to very high waterlogging risk • Wind erosion risk - <3% of map unit has a high to extreme wind erosion risk Soils within the application area mapped as having a moderate to low risk of acid sulphate soils.
Waterbodies	The desktop assessment indicates that a minor, non-perennial watercourse, a tributary of the Bickley Brook, runs through the application area. A multiple use palusplain wetland is also mapped over the application area. A site inspection (DWER, 2024a) confirmed the presence of a drainage channel running through the application area. The southwestern end of the drainage channel contained water. The banks of the drainage channel were variable in slope, with some deeply incised portions and some with gentle slopes.
Hydrogeography	The application area is within the Perth Groundwater Area proclaimed under the RIWI Act. Minimum GW level: 16 m AHD, Maximum GW level: 16 m AHD

Characteristic	Details
	Salinity: 500-1000 mg/L TDS Hydrogeology: Surficial Sediments - Shallow Aquifers (Surficial sediments lithology)
Flora	There are records of 26 Threatened and 82 Priority flora species within the local area (10 kilometre radius from application area), 39 of which are found within the same mapped soil type and 24 of which are found within the same mapped vegetation type as the application area. The closest record of these species to the application area is Priority 3 species *Schoenus pennisetis* located approximately 915 metres southwest.
Ecological communities	There are records of 11 Threatened and 4 Priority ecological communities within the local area (10 kilometre radius from application area). One mapped record of these, the Priority 3 listed *Banksia* Woodlands of the Swan Coastal Plain ecological community, overlaps the application area. A site inspection (DWER, 2024a) found that the vegetation present within the application area was not indicative of a conservation significant ecological community.
Fauna	There are records of 19 Threatened, 15 Priority, one conservation dependent, 18 migratory and one other specially protected fauna species within the local area (10 kilometre radius from application area). The closest record of these species to the application area is Priority 4 species *Isoodon fusciventer* (quenda) located approximately 240 metres southeast. The application area is within the known distributions of forest red-tailed black cockatoo (core distribution), Carnaby's cockatoo (breeding range) and Baudin's cockatoo. There is one recorded white-tailed black cockatoo breeding site (6.4 km southeast) and 59 recorded black cockatoo roosts (closest 1.7 km southeast) within the local area.

B.2. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre-European extent in all DBCA managed land
IBRA bioregion*					
Swan Coastal Plain	1501221.93	579813.47	38.62	222916.97	14.85
Vegetation complex					
Heddle vegetation complex 29 (Forrestfield complex)**	22,812.92	2,803.36	12.29	381.57	1.67
Post clearing calculation					
Heddle vegetation complex 29 (Forrestfield complex)**	22,812.92	2802.88	12.29	-	-
Local area					
10km radius	31,945.93	9,807.403	30.70	-	-

*Government of Western Australia (2019a)

**Government of Western Australia (2019b)

B.3. Flora analysis table

With consideration for the site characteristics set out above and relevant datasets (see Appendix F.1) impacts to the following conservation significant flora required further consideration.

Species name	Conservation status	Suitable habitat features ?	Same mapped vegetation type?	Same mapped soil type?	Distance of closest record to application area (km)	Number of records in local area	Number of known records (total)	Are surveys adequate to identify?
Acacia horridula	P3	N	Y	Y	2.4	10	33	N/A
Acacia lasiocarpa var. *bracteolata* long peduncle variant (G.J. Keighery 5026)	P1	Y	Y	Y	3.2	2	9	N/A
Acacia oncinophylla subsp. patulifolia	P4	N	Y	Y	1.1	33	31	N/A
Amanita quenda	P1	Y	N	Y	3.9	1	11	N/A
Amanita wadjukiorum	P3	Y	N	Y	3.8	2	25	N/A
Andersonia sp. Blepharifolia (F. & J. Hort 1919)	P2	N	Y	Y	2.6	9	10	N/A
Aponogeton hexatepalus	P4	Y	Y	Y	3.7	14	31	N/A
Asteridea gracilis	P3	N	Y	N	1.8	8	11	N/A
Austrostipa bronweniae	T	Y	N	Y	3.9	8	13	N/A
Babingtonia urbana	P3	Y	N	Y	3.2	11	26	N/A
Banksia mimica	T	N	Y	N	1.6	16	72	N/A
Banksia pteridifolia subsp. *vernalis*	P3	N	Y	N	5.2	4	38	N/A
Borya subulata	P4	N	Y	N	3.8	1	43	N/A
Calectasia grandiflora	P2	Y	N	Y	4.0	3	12	N/A
Calothamnus accedens	P4	N	Y	N	2.0	3	40	N/A
Calytrix breviseta subsp. *breviseta*	T	Y	Y	N	3.4	19	16	N/A
Chamaescilla gibsonii	P3	Y	N	Y	4.1	1	29	N/A
Comesperma griffinii	P2	N	N	Y	4.1	2	16	N/A
Comesperma rhadinocarpum	P3	N	N	Y	3.9	2	18	N/A
Conospermum undulatum	T	Y	Y	N	1.3	177	92	N/A
Cyanothamnus tenuis	P4	N	Y	N	2.0	15	45	N/A
Darwinia apiculata	T	N	Y	N	2.3	20	11	N/A
Diuris brevis	P2		N	Y	4.1	2	2	N/A
Eleocharis keigheryi	T	Y	Y	Y	3.4	7	59	N/A
Eremophila glabra subsp. *chlorella*	T	Y	N	Y	4.0	15	31	N/A
Eryngium pinnatifidum subsp. *Palustre (G.J. Keighery 13459)*	P3	Y	N	Y	4.0	2	12	N/A
Eryngium sp. *subdecumbens* (G.J. Keighery 5390)	P3	Y	N	Y	3.7	3	4	N/A
Haemodorum loratum	P3	Y	Y	N	4.4	5	25	N/A
Halgania corymbosa	P3	N	Y	N	2.9	6	18	N/A
Hydrocotyle lemnoides	P4	Y	N	Y	3.7	9	26	N/A
Isopogon autumnalis	P3	N	Y	N	1.6	21	62	N/A
Isotropis cuneifolia subsp. glabra	P3	Y	N	Y	3.9	1	20	N/A
Johnsonia pubescens subsp. cygnorum	P2	Y	Y	N	5.1	5	14	N/A
Lasiopetalum glutinosum subsp. *glutinosum*	P3	N	Y	Y	2.4	21	48	N/A
Lepidosperma rostratum	T	Y	N	Y	3.1	42	36	N/A
Lepyrodia curvescens	P2	Y	N	Y	3.9	1	21	N/A
Meionectes tenuifolia	P3	Y	N	Y	2.6	1	28	N/A
Myriophyllum echinatum	P3	Y	N	Y	3.6	2	19	N/A
Ornduffia submersa	P4	Y	Y	Y	3.5	8	61	N/A
Schoenus benthamii	P3	Y	Y	Y	3.9	11	22	N/A
Schoenus capillifolius	P3	Y	N	Y	3.6	10	31	N/A

Species name	Conservation status	Suitable habitat features ?	Same mapped vegetation type?	Same mapped soil type?	Distance of closest record to application area (km)	Number of records in local area	Number of known records (total)	Are surveys adequate to identify?
Schoenus loliaceus	P2	N	N	Y	4.1	1	12	N/A
Schoenus natans	P4	Y	N	Y	4.0	4	66	N/A
Schoenus pennisetis	P3	Y	N	Y	0.9	10	44	N/A
Schoenus sp. Beaufort (G.J. Keighery 6291)	P1	Y	N	Y	4.1	1	4	N/A
Stylidium aceratum	P3	N	N	Y	4.0	4	27	
Stylidium longitubum	P4	Y	N	Y	4.3	3	52	N/A
Thelymitra magnifica	T	N	Y	N	3.6	22	14	N/A
Thelymitra stellata	T	N	Y	Y	3.4	9	20	N/A
Verticordia lindleyi subsp. lindleyi	P4	Y	N	Y	1.1	37	83.	N/A

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

B.4. Fauna analysis table

With consideration for the site characteristics set out above and relevant datasets (see Appendix F.1) impacts to the following conservation significant fauna required further consideration.

Species name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Number of records in local area	Are surveys adequate to identify? [Y, N, N/A]
Acanthophis antarcticus (southern death adder)	P3	Y	4.67	11	N/A
Botaurus poiciloptilus (Australasian bittern)	EN	possible but unlikely	9.61	7	N/A
Calyptorhynchus banksii naso (forest red-tailed black cockatoo)	VU	Y	0.31	141	N/A
Falco peregrinus (peregrine falcon)	OS	Y	2.29	23	N/A
Glossurocolletes bilobatus (a short-tongued bee (southwest))	P2	N	3.84	1	N/A
Hydromys chrysogaster (water-rat, rakali)	P4	unlikely	2.31	18	N/A
Isoodon fusciventer (quenda, southwestern brown bandicoot)	P4	possible but unlikely	0.24	1693	N/A
Oxyura australis (blue-billed duck)	P4	possible but unlikely	4.05	57	N/A
Zanda baudinii (Baudin's cockatoo)	EN	Y	0.55	220	N/A
Zanda latirostris (Carnaby's cockatoo)	EN	Y	0.25	1290	N/A

Appendix C. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (a): *"Native vegetation should not be cleared if it comprises a high level of biodiversity."* Assessment: The area proposed to be cleared does not contain significant flora, fauna, habitats or assemblages of plants.	Not likely to be at variance	Yes *Refer to Sections 3.2.1 and 3.2.2 above.*
Principle (b): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."* Assessment: The area proposed to be cleared contains foraging and roosting habitat for black cockatoo species, although noting its extent it considered is unlikely to be significant. The application area is considered unlikely to provide significant habitat for other conservation significant fauna, although it may provide nesting habitat for some aquatic bird species.	May be at variance	Yes *Refer to Section 3.2.1 above.*
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: The area proposed to be cleared is unlikely to contain flora species listed under the BC Act.	Not likely to be at variance	Yes *Refer to Section 3.2.2 above.*
Principle (d): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community."* Assessment: The area proposed to be cleared does not contain species indicative of a threatened ecological community: a) as defined in the *Biodiversity Conservation Act 2016* section 5(1); or b) any other ecological community listed, designated or declared as threatened, endangered or vulnerable under or for the purposes of a written law; or (c) a listed threatened ecological community as defined in the Commonwealth Environment Act section 528**.**	Not likely to be at variance	No
Environmental value: significant remnant vegetation and conservation areas		
Principle (e): *"Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."* Assessment: The extents of the mapped vegetation type and native vegetation in the local area are consistent with the national objectives and targets for biodiversity conservation in Australia. The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001). Within constrained areas (areas of urban development in cities and major towns) on the SCP, the threshold for representation of the pre-clearing extent of a particular native vegetation complex is 10 per cent (EPA, 2008). The application area is classified as a constrained area. The vegetation proposed to be cleared is part of a local ecological linkage.	Not likely to be at variance	Yes *Refer to Section 3.2.3 above.*

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (h): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area."* Assessment: Given the distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.	Not likely to be at variance	No
Environmental value: land and water resources		
Principle (f): *"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."* Assessment: The application area intersects a minor, non-perennial watercourse and surrounding floodplain area.	At variance	Yes *Refer to Section 3.2.4 above.*
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: Noting the mapped soils are moderately susceptible to water erosion and the slopes of the banks of the drainage channel, the clearing is considered likely to result in some erosion. The proposed recontouring and rehabilitation of the drainage channel is likely to mitigate long term impacts of the clearing to erosion and phosphorus export.	Not likely to be at variance	Yes *Refer to Section 3.2.4 above.*
Principle (i): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."* Assessment: The proposed clearing may result in short term impacts to surface water quality within the drainage channel and downstream. The proposed recontouring and rehabilitation of the drainage channel is likely to mitigate long term impacts of the clearing to water quality.	May be at variance	Yes *Refer to Section 3.2.4 above.*
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment: Noting the extent of the proposed clearing and the minor nature of the associated watercourse, the clearing is unlikely to contribute to increased incidence or intensity of waterlogging and flooding, particularly given that the applicant plans to revegetate the recontoured banks of the drainage channel and surrounding flood extent.	Not likely to be at variance	No

Appendix D. Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types. Considering its location, the Keighery (1994) scale below was used to measure the condition of the vegetation proposed to be cleared.

Measuring vegetation condition for the South West and Interzone Botanical Province (Keighery, 1994)

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.

Condition	Description
Very good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.
Completely degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

Appendix E. Photographs of the vegetation

Photo 1

Photo 2

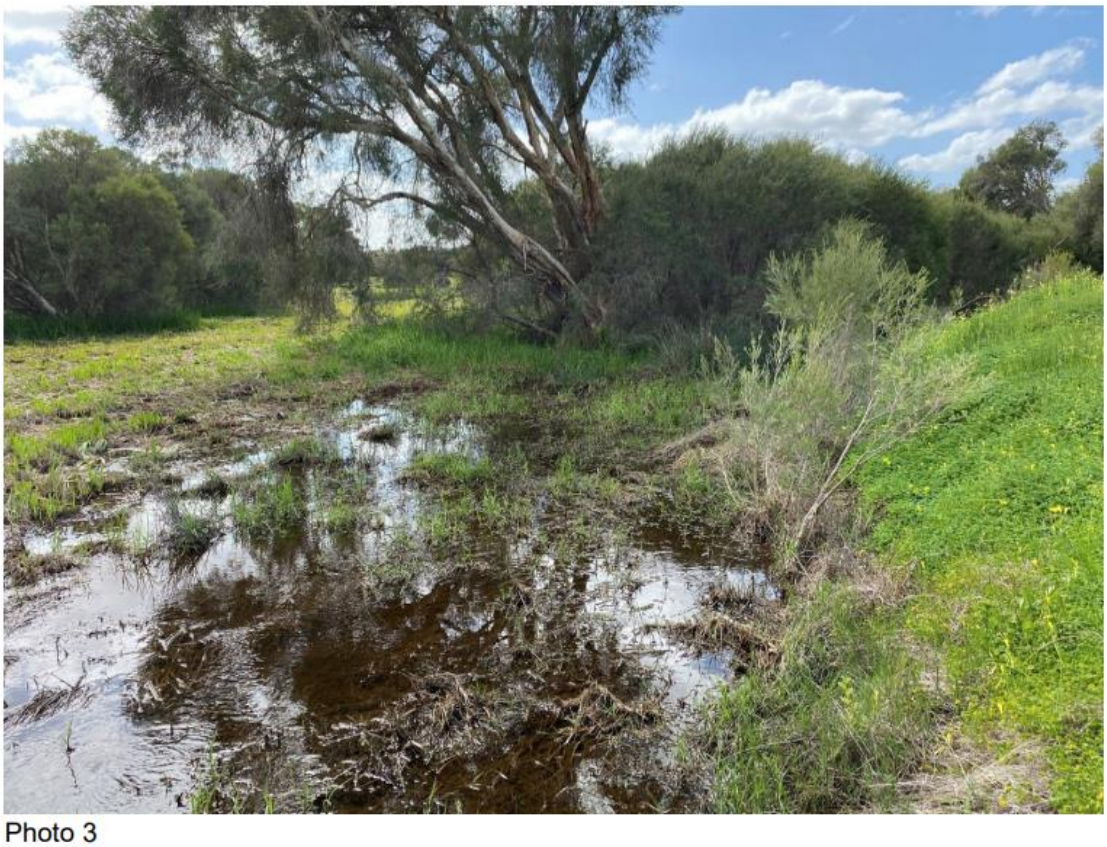


Photo 3

Photo 4

Photo 5

Photo 6

Photo 7

Photo 8

Photo 9

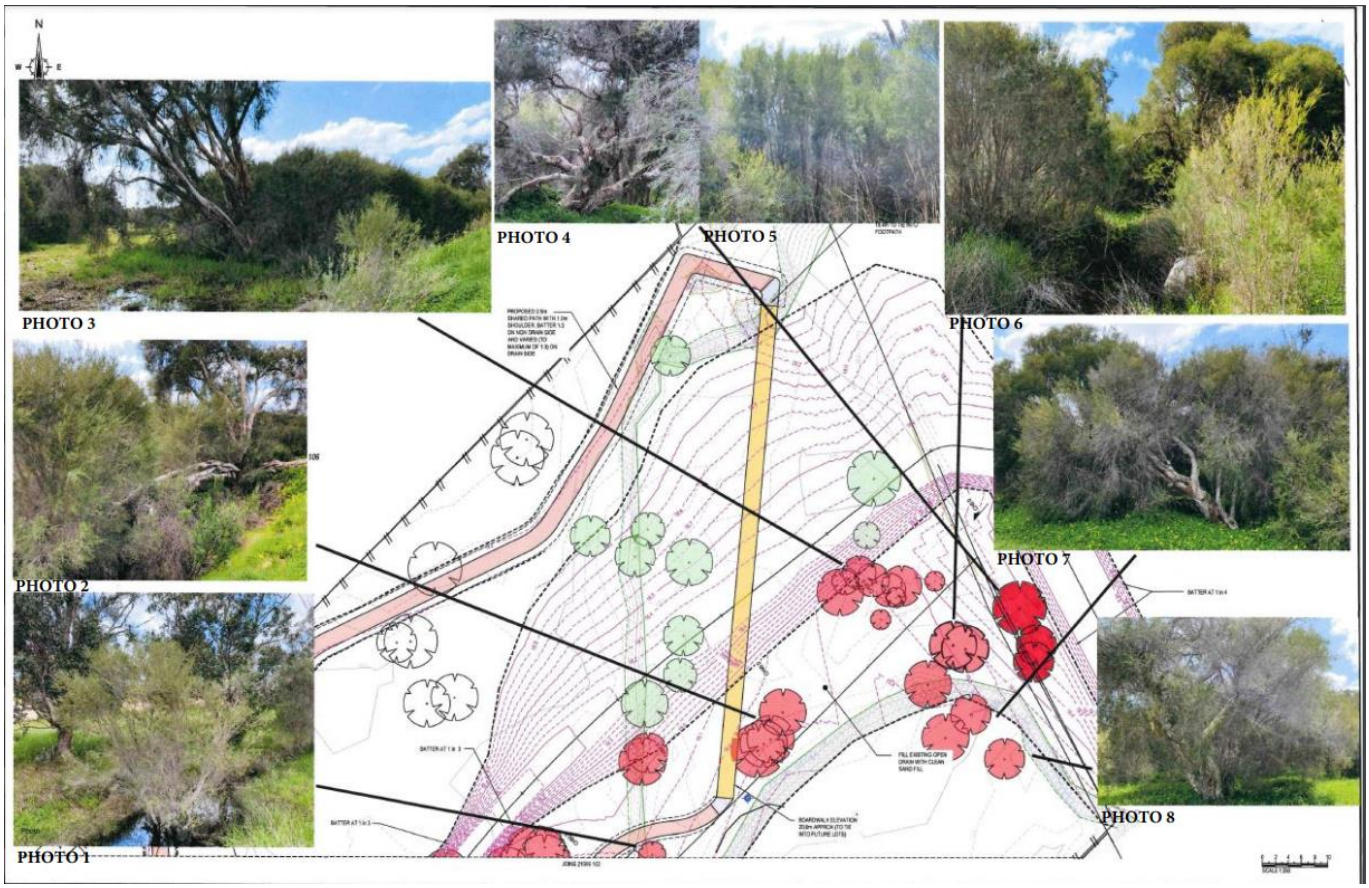
Photo 10

Photo 11

Photo 12

Photo 13

Photo 14



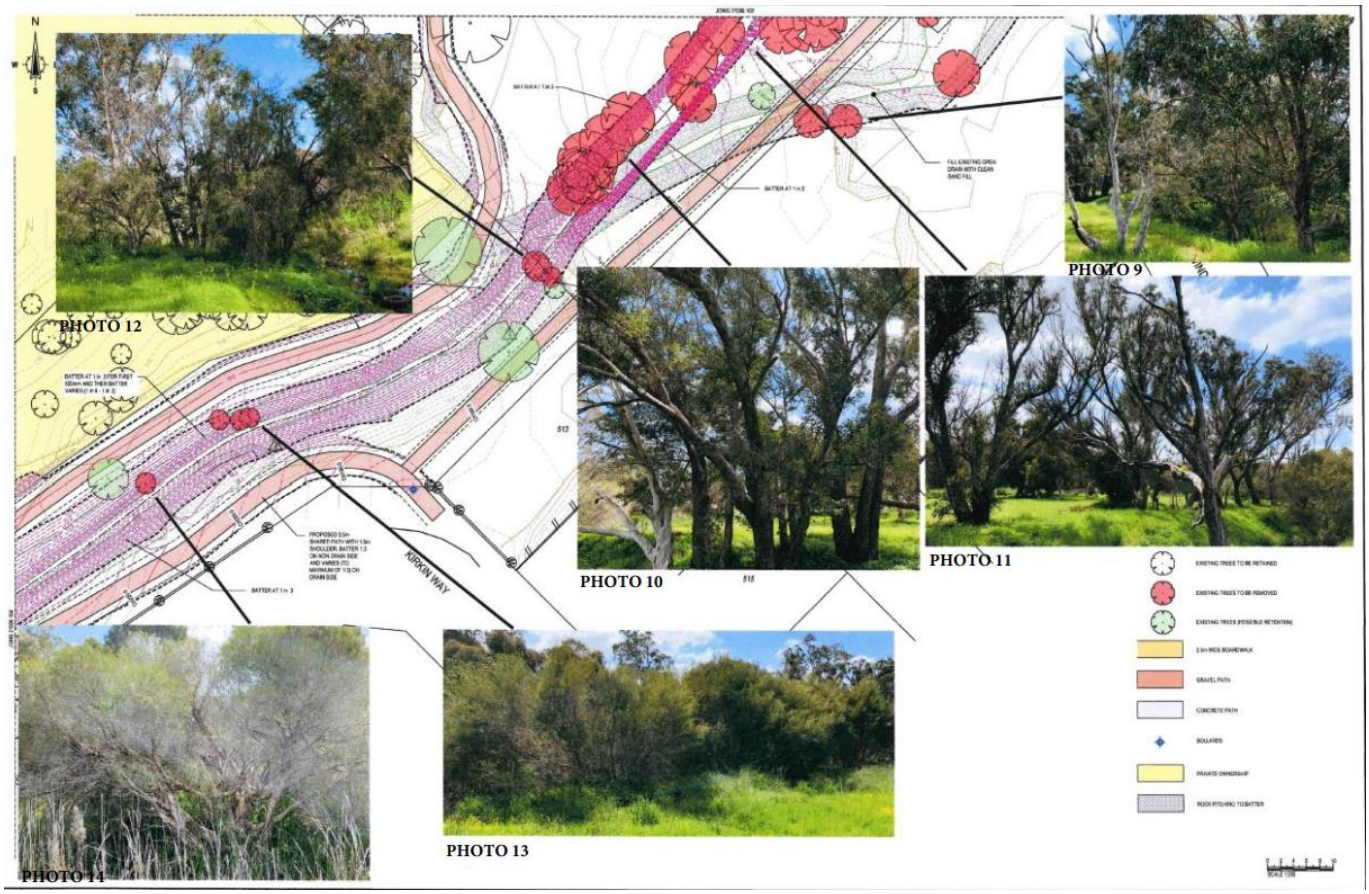


Figure F.1. Photos 1 to 14 and a map of photo locations (City of Gosnells, 2024).

Appendix F. Sources of information

F.1. GIS databases

Publicly available GIS Databases used (sourced from www.data.wa.gov.au):

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Geomorphic Wetlands – Swan Coastal Plain (DBCA-019)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas

- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) – Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities

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