Clearing Desktop Report – CPS 818

We're working for Western Australia.

Ablution Block Installation

Wubin RTAA

October 2022

EOS 2497

D22#195037

Contents

Amendments

Report Compilation & Review	Name and Position	Document Revision	Date
Author:	Environment Officer	Draft v1	09/03/2022
Reviewer:	Senior Environment Officer	Draft v1	22/03/2022
Author:	Environment Officer	Draft v2	28/03/2022
Reviewer:	Senior Environment Officer	Rev 0	28/03/2022
Author:	Environment Officer	Draft v3	6/10/2022
Reviewer:	Environment Officer	Rev 1	6/10/2022

1 PURPOSE

This Clearing Desktop Report (CDR) is a desktop assessment of native vegetation clearing that is proposed to be cleared using the Statewide Clearing Permit CPS 818 issued to Main Roads Western Australia (Main Roads).

2 SCOPE

2.1 Project Scope

Project Name: Ablution Block Installation Wubin Road Train Assembly Area

Project Purpose / Components: The purpose of the proposal is to install a new ablution block at the Wubin Road Train Assembly Area (RTAA). The ablution block will consist of shower and toilet facilities contained within a converted sea container, a septics tank and leach drains.

The proposed clearing under CPS 818 is: 0.02 hectares (ha).

The proposed temporary clearing under CPS 818 is: 0 ha.

Project Location(s): The proposal area is located in the Wubin RTAA, near Great Northern Hwy (GNH) Straight Line Kilometre (SLK) 253, in the town of Wubin and the Shire of Dalwallinu, as shown in Figure 1.

- MGA reference: GDA94
- Latitude: 30.103653°S
- Longitude: 116.631221°E

The extent of the proposal area is shown in Figure 2.

2.2 Desktop Assessment Scope

The assessment area is confined to a local area of a 20 km radius, as shown in Figure 3.

Figure 1. Proposal location

Figure 2. Proposal envelope and indicative clearing area

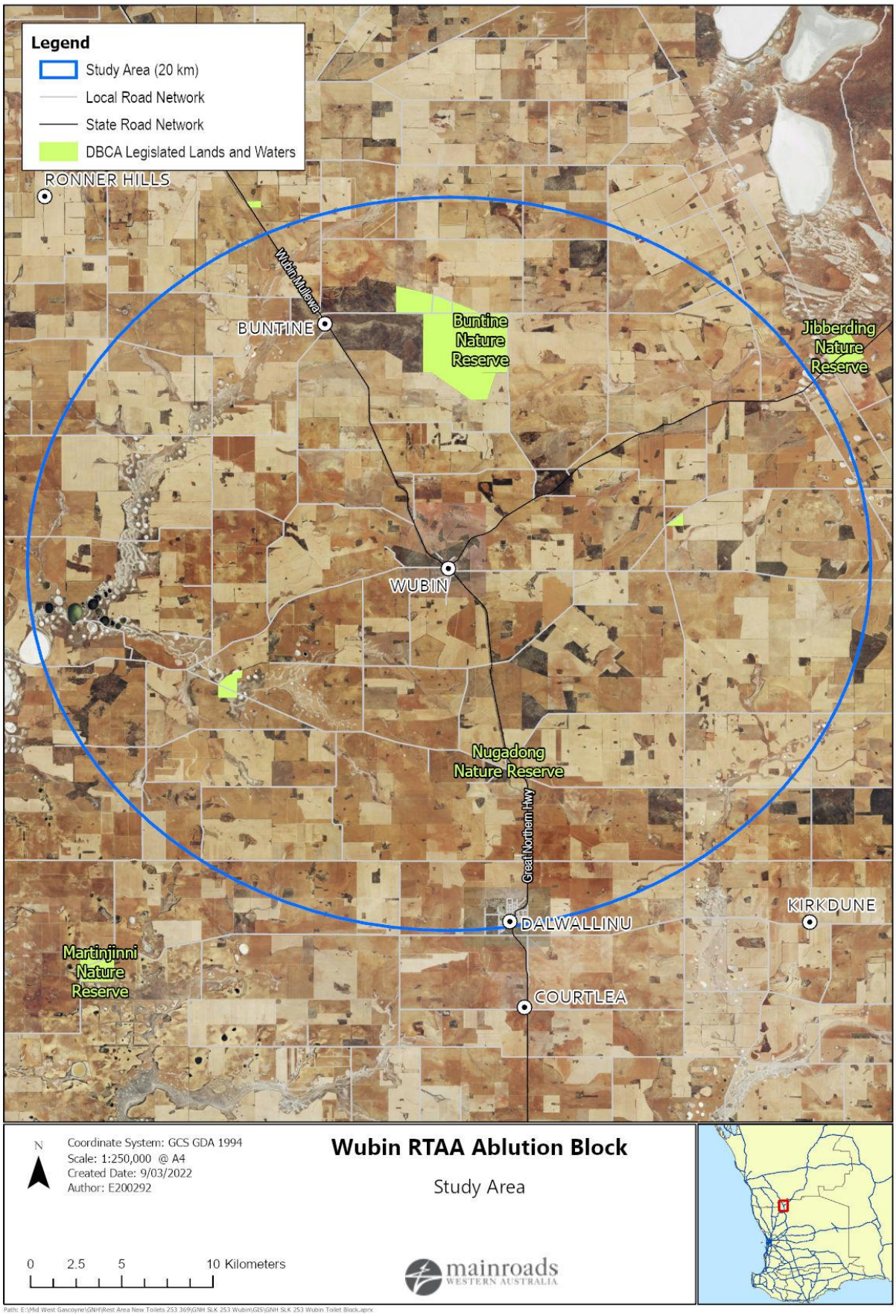

Figure 3. Study area

2.3 Alternatives to Clearing

Main Roads in constrained in the positioning of the ablution block. The facilities need access to existing water and power services, in close proximity to the existing abolition block and in a safe distance away from high traffic areas. Consequently, the only location that meets these criteria is the proposal area and therefore, some clearing of native vegetation is required. However, the abolition block will be positioned to reduce vegetation clearing by utilising sparsely vegetated and Degraded areas.

2.4 Measures to Avoid, Minimise, Mitigate and Manage Project Clearing Impacts

The following design and management measures have been implemented to avoid and minimise the proposal clearing impacts:

- The ablution block is a converted sea container that requires minimal disturbance to assemble and install. The ablution block will be crane-lifted into position on concrete footings. Accordingly, the proposal can reduce the area required for construction.
- The ablution block has been positioned in an area that is sparsely vegetated and in a Degraded condition (in accordance with vegetation condition ratings EPA 2016). The final position will be assessed onsite to avoid as much vegetation clearing as possible.
- The clearing area will be demarcated onsite by Main Roads to avoid inadvertent clearing outside of the approved area.
- All machinery will be required to be clean on entry to avoid the introduction and spread of weeds.
- Priority flora outside of the clearing area will be avoided.

2.5 Approved Policies and Planning Instruments

The clearing of native vegetation in Western Australia is regulated under the *Environmental Protection Act 1986* (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 1.3), Main Roads has also had regard to

EPPs

- Environmental Protection (Peel Inlet - Harvey Estuary) Policy 1992;
- Environmental Protection (Western Swamp Tortoise Habitat) Policy 2011

Relevant other policies and guidance documents:

- The Western Australian Environmental Offsets Policy (Government of Western Australia, 2011)
- A guide to the assessment of applications to clear native vegetation (Department of Water and Environment Regulation (DWER), December 2014)
- Procedure: Native vegetation clearing permits (DWER, October 2019)
- Environmental Offsets Guidelines (Government of Western Australia, August 2014)
- Technical guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (Environmental Protection Authority (EPA), 2016)
- Technical guidance – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment (EPA, 2020)
- Approved conservation advice under section 266B of the *Environment Protection and Biodiversity Conservation* Act 1999 (EPBC Act) for Threatened flora/fauna/vegetation communities
- Approved Recovery Plans for Threatened species
- EPBC Act Referral guidelines for the three Threatened black cockatoo species
- Strategic advice - EPA

Other Legislation of relevance for assessment of clearing and planning/other matters

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Country Areas Water Supply Act 1947* (WA) (CAWS Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Planning and Development Act 2005* (WA) (P&D Act)
- *Soil and Land Conservation Act 1945* (WA)
- *Rights in Water and Irrigation Act 1914*
- *Aboriginal Heritage Act 1972* (WA)

3 Methodology

3.1 Desktop Study

A desktop assessment of the proposal area and an assessment of native vegetation clearing was undertaken by reviewing a number of government agency managed databases, Main Roads GIS database and consulting with relevant stakeholders where necessary. Results from searches can be found in the relevant Appendix.

GIS layer viewing and mapping is done using ArcMap and / or Main Roads Integrated Mapping System (IMS). Referencing of the GIS layers accessed is done under the relevant methodology section of each clearing principle. Government managed databases were searched to locate additional information, these are referenced in Section 7.

Three historical biological/flora surveys of nearby vegetation were reviewed as part of the desktop assessment:

Wubin Road Train Assembly Area Targeted Flora Survey – GHD, 2016 (Appendix 1)
GHD conducted a targeted flora survey in October 2012 to support the northern extension of the Wubin RTAA. This survey was a targeted search for five conservation significant flora species, [redacted] and [redacted] The survey area covered a 19.5 ha area of native vegetation between the original extent of the RTAA and Thomas Rd (Figure 4), approximately 160 metres northwest of the proposal area.

Three priority species were identified in the survey area, [redacted].

[REDACTED]

Figure 4. Wubin RTAA extension targeted flora survey

Great Northern Highway Muchea to Wubin Upgrade Stage 2 Project – Flora and fauna assessment for Calingiri to Wubin study areas – Phoenix, 2016 (Appendix 2)

Phoenix conducted a flora and fauna assessment for a number of packages of work associated with the GNH Muchea to Wubin Stage 2 project. The assessment comprised a desktop study, flora and fauna field survey, fauna habitat assessment and Carnaby's cockatoo (*Calyptorhynchus latirostris*) assessment. The study area relevant to this assessment is Nugadong to Wubin and covers vegetation 10 – 80 metres south of the proposal area along GNH and vegetation 35 – 55 metres east of the proposal area along an unnamed local road (Figure 5).

The nearest quadrat to the proposal area described the vegetation in completely degraded to good condition and comprising the following:

1024: Isolated low *Eucalyptus leptopoda* subsp. *arctata* trees over low sparse *Allocasuarina campestris*, *Acacia isoneura* subsp. *nimia* and *Melaleuca cordata* shrubland over isolated mid *Ecdeiocolea monostachya* and *Schoenus pleiostemoneus* sedges and isolated low *Austrostipa elegantissima*, **Avena barbata* and **Pentameris airoides* subsp. *Airoides tussock* grasses and isolated low **Freesia alba* x *leichtlinii*, **Hypochaeris glabra* and *Drosera macrantha* subsp. *macrantha forbs*.

Acacia isoneura subsp. *nimia* (P3) and *Acacia scalena* (P3) were recorded at this location.

Fauna habitat was described as Shrublands (thicket). No significant fauna or habitat was recorded near the RTAA. No Carnaby's cockatoo breeding or roosting habitat was recorded. Foraging habitat was assessed as being of low value due to the paucity of foraging species and absence of foraging records.

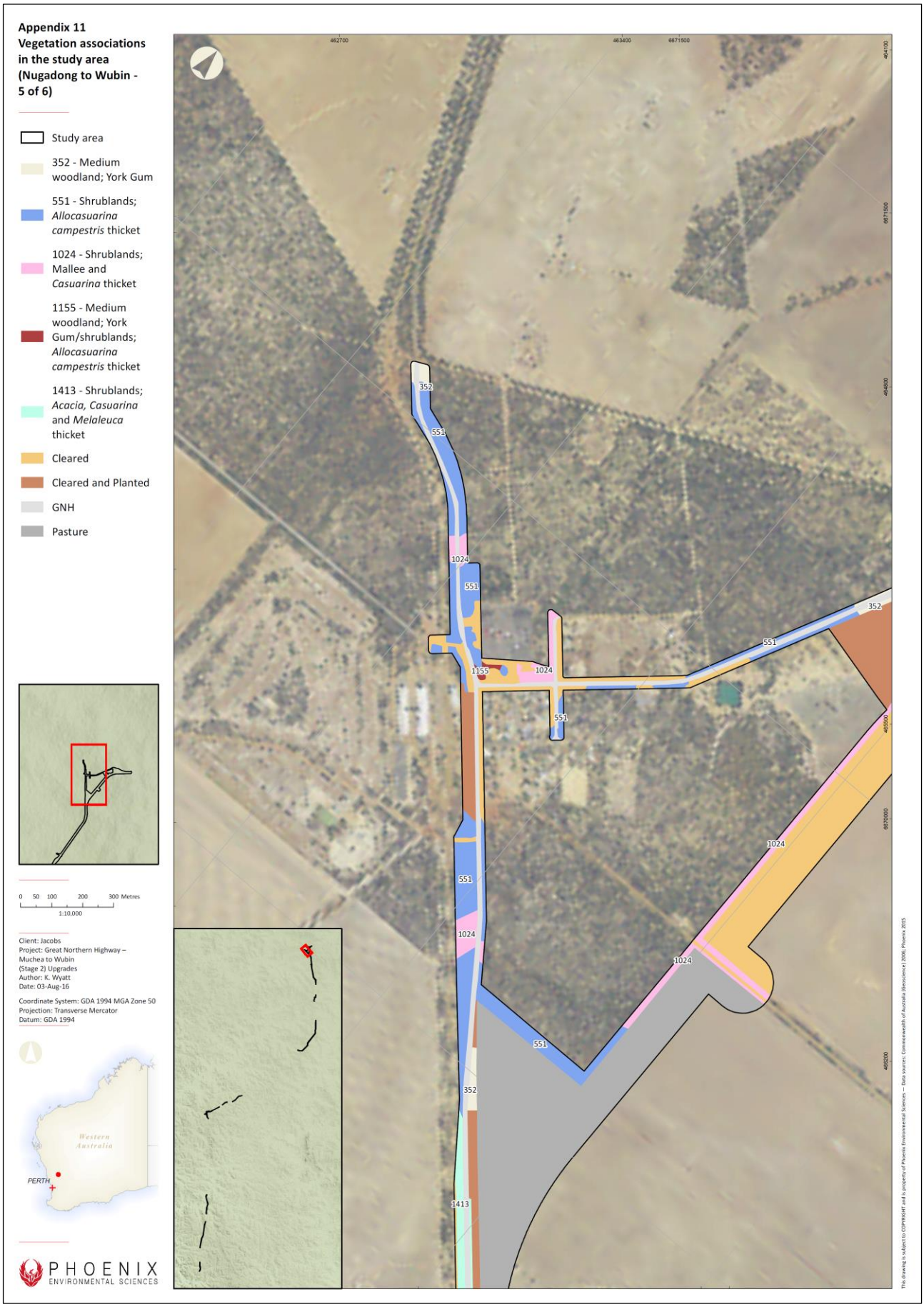

Figure 5. GNH Muchea to Wubin Survey – Vegetation types

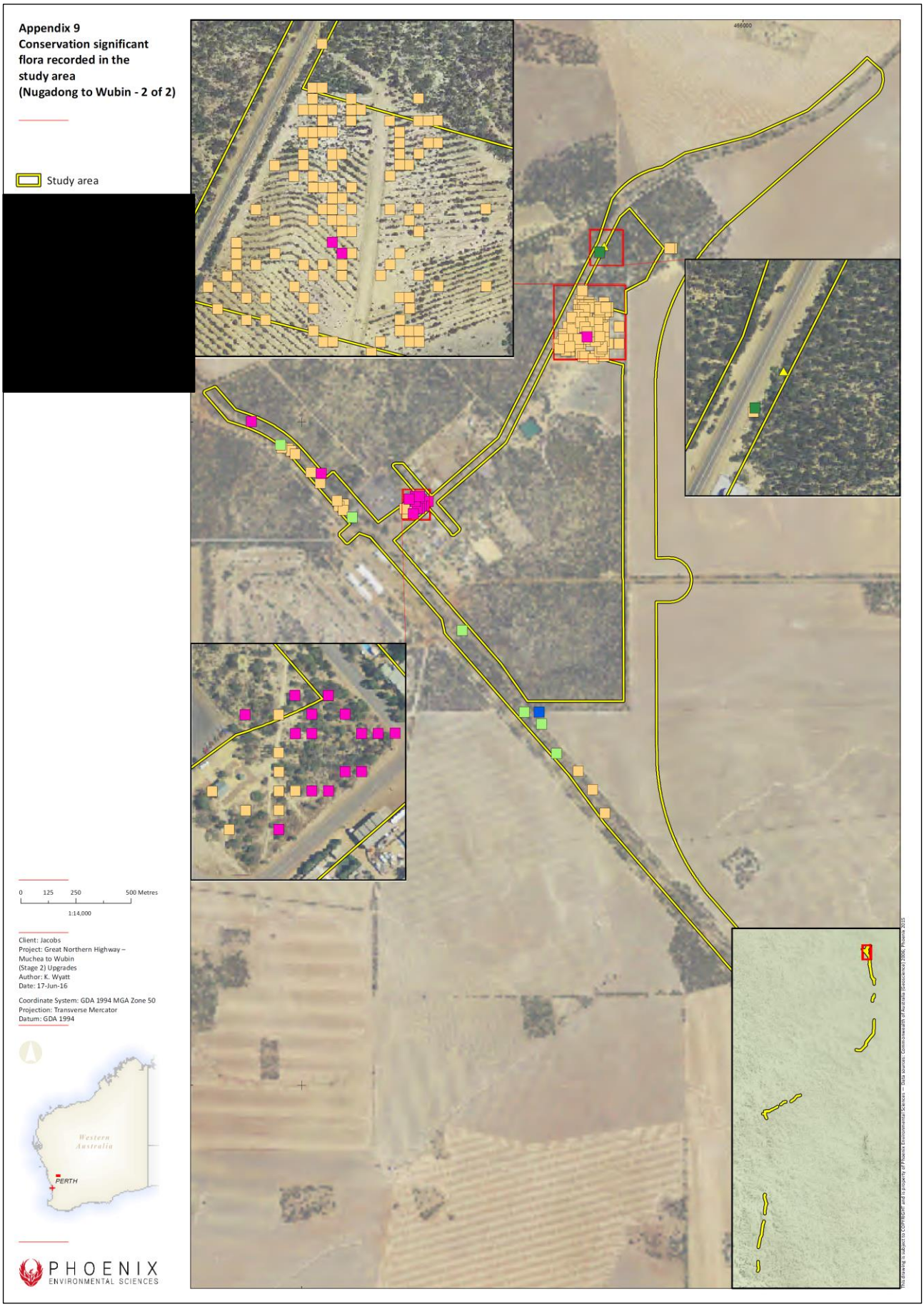

Figure 6. GNH Muchea to Wubin Survey – Conservation significant flora

GNH 254-297 SLK Widening and Materials Pits Biological Survey – Ecoscape, 2019 (Appendix 3)
Ecoscape conducted a biological survey along GNH from SLK 254-297 and of four potential material pits in September – October 2018. The survey started approximately 250 m east of the proposal area (Figure 7). The results of this survey were used in the assessment of the 20 km study area.

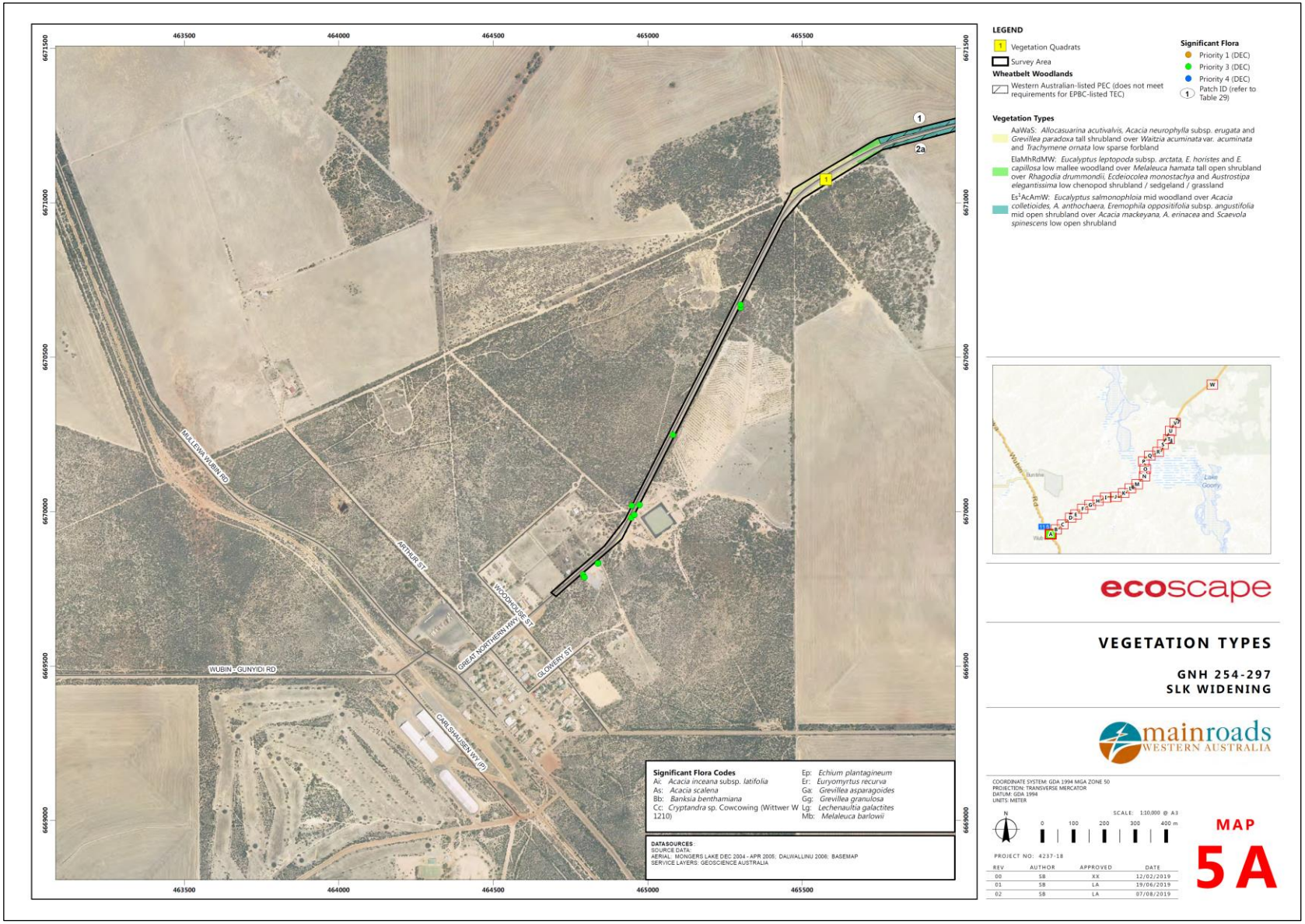

Figure 7. GNH Widening Biological Survey

An environmental site inspection was undertaken by the Main Roads Environment Officer to ground truth desktop information on 8 February 2022 (Appendix 4). The site inspection involved an assessment of vegetation condition and composition, visiting known records of *Acacia scalena*, *Banksia benthamiana* and *Grevillea leptopoda* to aid plant identification, assessing fauna habitat and taking representative photos (Main Roads, 2022).

4 VEGETATION DETAILS

4.1.1 Project Site Vegetation Description

The area under application has been broadly mapped as vegetation association 435, which is described as shrublands; *Acacia neurophylla*, *A. beauverdiana* and *A. resinimarginea* thicket (WA Government, 2018). The site inspection described the vegetation as predominantly comprising *Acacia*, *Allocasuarina* and *Melaleuca* shrublands with scattered Eucalypt mallee over sedges and herbs. The vegetation condition was in degraded condition (EPA 2016).

Tables 1 and 2 provide details of the Pre-European Vegetation Associations with the proposal area and the remaining extents of these associations.

For a full description of the existing vegetation, refer to the Site Inspection Report in Appendix A.

Table 1. Summary of Proposal Area's Mapped Pre-European Vegetation Associations

Pre-European Vegetation Association(s)	Clearing Description	Vegetation Condition	Comments
Vegetation Association 435 described as shrublands; *Acacia neurophylla*, *A. beauverdiana* & *A. resinimarginea* thicket.	Clearing of up to 0.02 ha for the installation of a new ablution block at Wubin RTAA.	Degraded (EPA, 2016)	Vegetation description and condition determined from Main Roads site visit on 08/02/2022 and aerial imagery.

Table 2. Pre-European Vegetation Representation

Pre-European Vegetation Association	Scale	Pre–European (ha)	Current Extent (ha)	% Remaining	% Remaining in DBCA reserves
Veg Assoc No. 435	**Statewide**	994,575.28	762,428.26	76.66%	21.51%
	IBRA Bioregion Avon Wheatbelt	255,983.96	29,580.84	11.56%	2.01%
	IBRA Sub-region Merredin	255,983.96	29,580.84	11.56%	2.01%
	Local Government Authority Shire of Dalwallinu	144,488.45	16,083.66	11.13%	2.07%

5 Assessment Against the Ten Clearing Principles

In assessing whether the proposal's proposed clearing is likely to have a significant impact on the environment, the proposal was assessed against the ten Clearing Principles (EP Act, Schedule 5).

Each principle has been assessed in accordance with DWER's 'A Guide to the Assessment of Applications to Clear Native Vegetation'.

The proposed clearing is not likely to be at variance with the ten Clearing Principles.

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Proposed clearing is not likely to be at variance to this Principle

Comments

The proposal requires the clearing of up to 0.02 ha of native vegetation for the purpose of installing a new ablution block, septic tank and leach drains. The clearing will occur in a remnant patch of native vegetation directly adjacent to the already cleared Wubin RTAA. The proposal area comprises *Acacia, Allocasuarina* and *Melaleuca* shrublands in degraded condition (Main Roads, 2022). The vegetation has been affected by edge effects from the RTAA as well as previous clearing, rubbish disposal and burning/camping.

A desktop assessment identified two state listed Priority Ecological Communities (PEC) in the study area:

- Eucalypt Woodlands of the Western Australian Wheatbelt (P3)
- York Gum Woodlands of the Wheatbelt (P3)

Both of these communities are synonymous with the EPBC Act-listed Eucalypt Woodlands of the Western Australian Wheatbelt TEC (EN). The approximate mapping for these PECs does not intersect the proposal area. A site visit in February 2022 found that the vegetation proposed to be cleared does not comprise Eucalypt woodlands and is not considered representative of these PECs (Main Roads, 2022).

A flora database search identified three Threatened (listed under BC Act and EPBC Act) and 17 Priority flora species known to occur in the study area in similar vegetation or soil type as the proposal area. Suitable habitat may be located in the proposal area to support the following species:

- *Boronia adamsiana* (T)
- *Dasymalla axillaris* (T)
- *Hemiandra gardneri* (T)
- *Acacia nigripilosa* subsp. *latifolia* (P1)
- *Eremophila sargentii* (P2)
- *Grevillea nana* subsp. *abbreviata* (P2)
- *Thryptomene shirleyae* (P2)
- *Acacia isoneura* subsp. *nimia* (P3)
- *Acacia scalena* (P3)
- *Calytrix plumulosa* (P3)
- *Cryptandra subtilis* (P3)
- *Goodenia perryi* (P3)
- *Grevillea asparagoides* (P3)
- *Grevillea leptopoda* (P3)
- *Grevillea granulosa* (P3)
- *Lechenaultia galactites* (P3)
- *Melaleuca barlowii* (P3)
- *Urodon capitatus* (P3)
- *Verticordia venusta* (P3)
- *Banksia benthamiana* (P4)

None of the records from the desktop assessment are located in the proposal area (GIS Database). The priority species *Acacia scalena*, *Banksia benthamiana* and *Grevillea leptopoda* have been previously located within 200 to 250 metres of the proposal area by GHD (2012). Another two priority species, *Acacia scalena* and *Acacia isoneura* subsp. *nimia,* were previously recorded within 10 metres from the proposal area by Phoenix (2012).

The site inspection in February 2022 found the proposal area is in degraded condition from previous clearing and disturbance associated with adjoining land uses. None of the threatened flora species identified in the desktop study area were observed. One priority species, *Acacia isoneura* subsp. *nimia* was potentially recorded within the proposal envelope, however outside of the indicative clearing area and will not be impacted. This species was not collected (photo only) and cannot be confirmed as the P3 species, however, in the absence of further data for the purposes of this assessment this plant is assumed to be *Acacia isoneura* subsp. *nimia*.

Acacia isoneura subsp. *nimia* is a medium to tall shrub that occurs on sandplains and sand ridges with yellow, brown or red sand, and stony soils (WA Herbarium, 2022). According to DBCA data, there are approximately 29 known records of this species, mostly occurring to the north-west of the proposal area in the Wubin-Perenjori area. Phoenix (2016) recorded a total of 40 plants in four populations in the Wubin area, with at least 15 occurring in vegetation adjacent to the proposal area. Any impacts (not anticipated) to this one potential individual of this species as a result of the proposed clearing are unlikely to be significant, given the species is well represented in surrounding vegetation and the extent of suitable habitat that will remain.

The vegetation to be cleared is in a Degraded condition and impacted by adjacent land use (Wubin RTAA) with weeds and rubbish observed during the site inspection. Clearing 0.02ha of this vegetation is unlikely to significantly affect Threatened or Priority flora or their habitat. Better condition vegetation of considerable extent has been mapped in the surrounding area (GHD 2012, Phoenix 2016) and provides more suitable habitat for flora (known to support Priority species).

Eleven significant fauna species have been recorded within the study area (refer to principle b). The small area of vegetation in close proximity to a high traffic volume area (impacted by light, noise etc) is not likely to contain relatively high fauna diversity and fauna species are unlikely to be reliant on the proposal area for habitat. Clearing 0.02ha of shrubland fauna habitat is unlikely to significantly impact fauna, fauna habitats or fauna movement.

The small scale and selective clearing of vegetation in a Degraded condition is not likely to result in the loss of vegetation with a high level of biological diversity. The proposed clearing is therefore not at variance to this clearing principle.

Methodology

GHD (2012)
Main Roads (2022)
Phoenix (2016)
WA Herbarium (2022)
GIS Database:

- Threatened and Priority Fauna
- Threatened and Priority Flora
- Threatened and Priority Ecological Communities
- WA Herbarium

(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 indigenous to Western Australia.

Proposed clearing is not likely to be at variance to this Principle

Comments

The proposal area contains one main habitat type in the form of open shrublands on sandy soil. The vegetation is in degraded condition and near a high vehicle traffic area (Wubin RTAA). No fauna was observed using the proposal area at the time of the site inspection (Main Roads, 2022). No fauna habitat values such as hollows, logs, leaf litter etc were recorded at the time of the site inspection.

A desktop assessment of significant fauna species in the study area has identified the following species (GIS Database):

- *Calyptorhynchus latirostris* Carnaby's cockatoo (EN).
- *Idiosoma kopejtkaorum* Lake Goorly shield-backed trapdoor spider (EN).
- *Egernia stokesii badia* Western spiny-tailed skink (VU).
- *Leipoa ocellata* Malleefowl (VU).
- *Macrotis lagotis* Bilby (VU).
- *Tringa glareola* Wood sandpiper (MI).
- *Falco peregrinus* Peregrine falcon (OS).
- *Aspidites ramsayi* Woma (southwest subpop. – P1).
- *Ninox connivens connivens* Barking owl (southwest subpop. – P3).
- *Oxyura australis* Blue-billed duck (P4).
- *Thinornis rubricollis* Hooded plover (P4).

No significant fauna or habitat has been recorded in the adjacent vegetation by Phoenix (2016).

The proposal is located at the north-eastern margin of the Carnaby's cockatoo range (EPA, 2019). The survey of adjacent vegetation did not record any suitable breeding habitat (Phoenix, 2016), and no suitable DBH trees were recorded in the clearing area (Main Roads, 2022). The proposal area may provide limited foraging habitat; however, no breeding or roosting habitat will be impacted.

The Lake Goorly shield-backed trapdoor spider is restricted to the north-eastern Wheatbelt in a relatively small area surrounding Lake Goorly. The distribution seems to be strongly correlated with annual rainfall of 250-300 mm, and red clay soils in the Lake Goorly and southern Lake Moore catchments (Rix *et al*, 2018). The nearest record to the proposal area is approximately 11 km north in the Buntine Nature Reserve (GIS Database). As the soils of the proposal area are chiefly yellow sands and not clayey, the Lake Goorly shield-backed trapdoor spider is not expected to occur. In addition, the vegetation to be cleared is small in scale, is located in a disturbed area affected by adjacent land uses and does not represent high quality habitat.

Western-spiny tailed skink is mostly found in York Gum woodland, with some records occurring in Gimlet and Salmon Gum woodland (Department of the Environment, 2022). Hollow logs in woodland habitat provide refuge sites consisting of a combination of basking and shelter sites. The proposal area does not occur in woodland habitat and lacks hollow logs that provide preferred habitat (Main Roads, 2022). The proposal area does not contain suitable habitat for this species.

The Malleefowl is found in semi-arid to arid shrublands and low woodlands, especially those dominated by mallee and/or acacias. A sandy substrate and abundance of leaf litter are required for breeding (Benshemesh, 2007). There are three records of Malleefowl in bushland that surrounds Wubin, the closest record being an opportunistic sighting 150 m north east to the proposal area. The proposal area comprises Acacia, Allocasuarina and Melaleuca shrublands with occasional mallees on sandy soils. It is possible Malleefowl may use vegetation in or near the proposal area on a transitory basis. However, the proposal area lacks dense vegetation and abundant litter conducive for breeding. Given the small scale of clearing

and proximity to frequent heavy vehicle movements, Malleefowl is unlikely to utilise the proposal area for habitat. No breeding mounds were observed at the time of the site inspection (Main Roads, 2022).

The distribution of Bilby across the state has contracted to the northern regions of Western Australia, and is not expected to occur in the local area.

There is no suitable habitat for Wood Sandpiper, Woma, Barking Owl, Blue-billed duck or Hooded plover in the proposal area.

Peregrine falcon may potentially forage in the proposal area however it is a highly mobile species and there are relatively large areas of similar habitat in the local area. This species is not likely to be affected by the proposed clearing.

The proposal area is considered of low value to fauna, with only one habitat type present and no habitat values such as logs or hollows. The proposal area is not likely to comprise significant habitat for any local fauna and is not likely to be at variance to this clearing principle.

Methodology

Benshemesh (2007)
Department of the Environment (2022)
EPA (2019)
Main Roads (2022)
Rix *et al* (2018)
GIS Database:

- Threatened and Priority Fauna

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Proposal is not likely to be at variance to this Principle

Comments

The desktop assessment identified seven Threatened flora species known to occur in the study area. Three of these species have the potential to occur in the proposal area based on the availability of suitable habitat:

[redacted] is an erect shrub that generally occurs on flats and road verges, on yellow sand/loam over laterite (WA Herbarium, 2022). Based on DBCA records, there is one record of this species in the study area approximately eight kilometres north east of the proposal area. Outside the study area, this species is typically found 100 kilometres east of Wubin and extending over a range of approximately 175 km (GIS Database).

[redacted] is a prostrate shrub that generally occurs on sandplains of grey or yellow sand, or clayey sand (WA Herbarium, 2022). This species is represented in the study area by one record approximately 900 metres southwest of the proposal area. Outside the survey area, the nearest records are approximately 40 kilometres west of the proposal area between Moora and Coorow.

The single DBCA records of [redacted] and [redacted] in the study area are very old, dating back to 1966 and 1959 respectively. Recent flora surveys undertaken in areas of nearby vegetation have not identified these species (GHD, 2012; Phoenix 2016; Ecoscape, 2019) and neither species were observed in the site inspection of the proposal envelope (Main Roads, 2022). Considering the lack of

recent records in the local area, [redacted] and [redacted] are unlikely to occur in the proposal area.

[redacted] is a low, diffuse shrub that is found in disturbed areas of deep yellow sand in *Allocasuarina* and *Acacia* shrubland (DEC, 2008). The nearest records of [redacted] are near Buntine Nature Reserve approximately 11 kilometres north of the proposal area. This species was not recorded in flora surveys of nearby vegetation (Ecoscape, 2019; GHD, 2012; Pheonix 2016), or during the site inspection (Main Roads, 2022). While the proposal area may contain potential habitat for this species, it was not recorded in the February 2022 site visit or recent surveys of adjacent vegetation, therefore considered unlikely to occur in the proposal area.

The proposal will not impact any rare flora. The proposed clearing is not at variance to this clearing principle.

Methodology

DEC (2008)
Ecoscape (2019)
GHD (2012)
Main Roads (2022)
Phoenix (2016)
WA Herbarium (2022)
GIS Database:

- Threatened and Priority Flora
- WA Herbarium Flora

(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.

Proposed clearing is not likely to be at variance to this Principle

Comments

The desktop assessment did not identify any state listed TECs in the study area. The vegetation is not considered representative of any TECs (Main Roads, 2022).

The proposed clearing is not likely to be at variance to this principle.

Methodology

Main Roads (2022)
GIS Database:

- Threatened and Priority Ecological Communities

(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.

Proposed clearing is not likely to be at variance to this Principle

Comments

The proposal area is in the Avon Wheatbelt IBRA bioregion and Merredin subregion, in which approximately 29.06% and 20.96% of pre-European vegetation extent remains respectively (WA Government, 2019).

The vegetation of the proposal area has been broadly mapped as vegetation association 435, described as shrublands; *Acacia neurophylla*, *A. beauverdiana* and *A. resinimarginea* thicket. The National Objectives and Targets for Biodiversity Conservation recognise that the retention of 30 per cent or more of the pre-clearing extent of each ecological community is necessary if Australia's biological diversity is to be protected (Commonwealth of Australia, 2001). There is approximately 77% of vegetation association 435 remaining in the state, however less than this threshold in the bioregion, subregion and Shire of Dalwallinu. Noting the size of the clearing area (0.02 ha) with respect to the remaining extent of vegetation association 435 in the Avon Wheatbelt bioregion and Merredin subregion (29,580.84 ha) and Shire of Dalwallinu (16,083.66 ha), the proposed clearing is not likely to significantly reduce the representation of this vegetation community in the local area.

Based on aerial imagery, the local study area retains approximately 10% of native vegetation. The proposal area is located in a block of native vegetation situated between the cleared RTAA parking area and the Wubin townsite. The vegetation is connected to a larger area of native vegetation that surrounds Wubin, which comprises conservation reserves, shire reserves and vacant crown land. The proposed clearing of 0.02 ha of Degraded vegetation in a disturbed area adjacent to the Wubin RTAA, which represents less than 0.001% of vegetation association 435 in the local study area, is not likely to cause or accelerate habitat fragmentation or diminish the values of this remnant vegetation.

Given the proposed clearing will not significantly reduce the representation of vegetation association 435 in the bioregion, subregion or shire, and comprises only 0.02 ha of Degraded vegetation in the local area, the clearing is unlikely to represent significant remnant vegetation loss. Proposed clearing is not likely to be at variance to this Principle.

Summary of Proposal Area's Mapped Pre-European Vegetation Associations

Pre-European Vegetation Association(s)	Clearing Description	Vegetation Condition	Comments
Vegetation Association 435 described as shrublands; *Acacia neurophylla*, *A. beauverdiana* & *A. resinimarginea* thicket.	Clearing of up to 0.02 ha for the installation of a new ablution block at Wubin RTAA.	Degraded (EPA 2016)	Vegetation description and condition determined from Main Roads site visit on 08/02/2022 and aerial imagery.

Pre-European Vegetation Representation

Pre-European Vegetation Association	Scale	Pre–European (ha)	Current Extent (ha)	% Remaining	% Remaining in DBCA reserves
Veg Assoc No. 435	**Statewide**	994,575.28	762,428.26	76.66%	21.51%
	IBRA Bioregion Avon Wheatbelt	255,983.96	29,580.84	11.56%	2.01%
	IBRA Sub-region Merredin	255,983.96	29,580.84	11.56%	2.01%
	Local Government Authority Shire of Dalwallinu	144,488.45	16,083.66	11.13%	2.07%

Methodology

Commonwealth of Australia (2001)
WA Government (2019)

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Proposed clearing is not at variance to this Principle

Comments

There are no mapped watercourses or wetlands in the proposal area (GIS Database). No surface water features were identified in the site inspection (Main Roads, 2022).

The proposed clearing is not at variance to this principle.

Methodology

Main Roads (2022)

GIS Database

- Hydrology South

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Proposed clearing is not at variance to this Principle

Comments

The proposal area has been broadly mapped as occurring on the Ballidu System, which is described as gently undulating sandplain, with narrow flat valleys, from weathered granite, yellow to brown sands with some gravel on rises, and red to brown earths to duplexes in valleys (GIS Database). The soils of the proposal area are chiefly yellow to grey sands (Main Roads, 2022).

According to DAFWA soil risk mapping, the proposal area has a low to very low risk of land degradation from waterlogging, water erosion, salinity and flooding, with a moderate risk of wind erosion. The clearing area is relatively small compared with the surrounding area of vegetation and cleared areas will be sealed by the new ablution block. Therefore, the proposed clearing will not increase the incidence of wind erosion.

No land degradation will occur. The proposed clearing is not likely to be at variance to this principle.

Methodology

Main Roads (2022)

GIS Database

- DAFWA Landsystems
- DAFWA Soil Risk Mapping

(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.

Proposed clearing is not at variance to this Principle

Comments

The proposal area is located on freehold land owned by Main Roads for the purpose of the Wubin RTAA.

There are several conservation areas in the study area, the nearest being unnamed reserve R18245, which is vested in the Shire of Dalwallinu for the purpose of conservation of flora and fauna. The reserve is approximately 1 km north west of the proposal area. Based on the distance to this reserve, and the small scale of clearing proposed, the proposal will not impact on the values of this reserve.

Buntine Nature Reserve (R26837), which is vested in DBCA, is located approximately 9 km north of the proposal area. Based on the distance to this reserve, the proposed clearing will not impact on the values of this reserve.

Based on the above, the proposed clearing will not be at variance to this principle.

Methodology

GIS Database:

- DBCA Legislated Lands and Waters

(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.

Proposed clearing is not likely to be at variance to this Principle

Comments

The proposal area is not located in a Public Drinking Water Source Area or proclaimed surface or ground water area.

The proposal area does not intersect any watercourses or wetlands. Clearing activities are unlikely to affect surface water quality as there will be no change to drainage or hydrological conditions over current conditions

Groundwater salinity within the proposal area is 14,000 to 35,000 milligrams per litre total dissolved solids, which is considered brackish to saline. Clearing 0.02 ha of native vegetation is not likely to impact on groundwater quality or lead to an increase in salinity.

Surrounding vegetation is not expected to be affected by the disposal of effluent via the leach drains given the low volume of effluent that will be produced and high evaporation rate of the area. The effluent disposal system will be designed and constructed in accordance with state and local health regulations.

Based on the above, the proposed clearing is not likely to be at variance to this principle.

Methodology

GIS Database:

- PDWSAs
- RIWI Proclaimed Areas
- Salinity

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Proposed clearing is not likely to be at variance to this Principle

Comments

Risk of waterlogging or flooding in the area has been assessed as low, and the proposal area does not intersect any watercourses. The clearing is not of a scale that would result in an increase in the incidence or intensity of flooding.

Based on the above, the proposed clearing is not likely to be at variance to this principle.

Methodology

6 ADDITIONAL ACTIONS REQUIRED

The clearing associated with the proposal is unlikely or not at variance with the Clearing Principles. Additional management actions under CPS 818 are detailed in Table 3.

Table 3. Summary of Additional Management Actions Required by Permit CPS 818

Impact of Clearing	Yes/No or NA	*Further Action Required*
1. The project involves clearing for temporary works (as defined by CPS 818).	**N**	No further action required.
2 a. Project is within Region that: - Has rainfall greater than 400mm and - Is South of the 26th parallel and - Works are in 'Other than dry conditions' and - Works have potential for **uninfested** areas to be impacted	**N**	Proceed with standard Vehicle and Plant management actions from PEMR's and Vehicle and Plant Hygiene Checklists
3. Main Roads has been notified by DWER or an environmental specialist that the area to be cleared is susceptible to a pathogen other than dieback	**N**	No further action required.
4. The vegetation within the area to be cleared and/or the surrounding vegetation in a good or better condition and weeds likely to spread to and result in environmental harm to adjacent areas of native vegetation that are in good or better condition	**N**	No further action required.

7 VEGETATION MANAGEMENT

Main Roads will avoid clearing native vegetation where possible. Where clearing cannot be avoided then this clearing is kept to a minimum. Vegetation will be managed in accordance with the Principal Environmental Management Requirements (PEMR's), which will include project specific requirements that protect Priority flora known to occur in the vicinity of the proposal area.

8 REFERENCES

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9 APPENDICES

Appendix	Title
Appendix 1	GHD (2012) Wubin Road Train Assembly Area Targeted Flora Survey (refer to D14#78556)
Appendix 2	Phoneix (2016) Great Northern Hwy Muchea to Wubin Upgrade State 2 Project – Flora and fauna assessment for Calingiri to Wubin study areas (refer to D17#282837)
Appendix 3	Ecoscape (2019) GNH 254-297 SLK Widening and Material Pits Biological Survey (refer to D19#162064)
Appendix 4	Environmental Site Inspection Report - Clearing Desktop Report (refer to D22#153439)