WESTERN ENVIRONMENTAL

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Tuesday, 11 March 2025

Our Ref: A25.039-LRP-FVSR_0_FINAL

Jardim Property
Nita Subramaniam
88 Marine Terrace
Fremantle WA 6160

ATTENTION: Nita

SUBJECT: SEWER ALIGNMENT ON LOT 2 (727) ANKETELL ROAD, WANDI – VEGETATION AND FAUNA HABITAT SURVEY

Western Environmental Approvals Pty Ltd (WEPL) presents the following letter report to satisfy Condition 3 and Advice Note 1 within WAPC 26-7269-3 to support the development of a main sewer on Lot 2 Anketell Road, Wandi (the Site, Figure 1).

Condition 3 states:

Prior to the commencement of works, vegetation (including any potential habitat or foraging trees for threatened fauna species) on Lot 2 (No. 727) Anketell Road, Wandi, located within the area affected by works and worthy of retention, is to be identified and measures put in place to protect that vegetation, to the specifications of the City of Kwinana and the satisfaction of the Western Australian Planning Commission.

Advice Note 1 states:

In regard to Condition 3, the Western Australian Planning Commission and the City of Kwinana acknowledge that the alignment of the sewer main is in accordance with plans endorsed by the Water Corporation. This condition has been imposed to protect significant trees in proximity to the alignment, where possible.

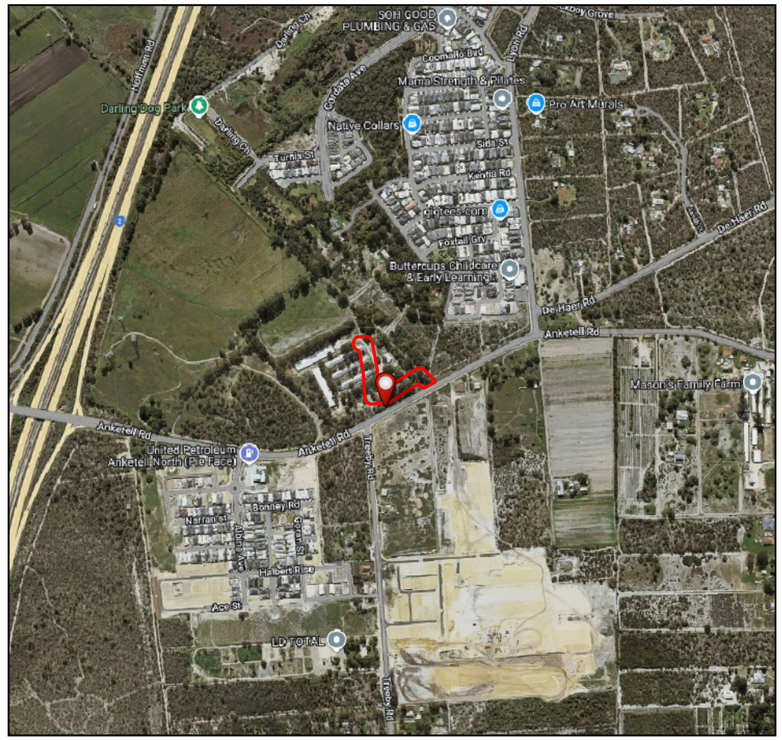
For the purpose of satisfying Condition 3 a buffer of 15 m to either side of the centre of the sewer alignment has been applied to identify vegetation worthy of retention. The applied buffer constitutes the Survey Area for this report as shown in Figure 1.

Scope of Work

A site assessment was undertaken on 7 March 2025 to inform decision making with regard to trees potentially worthy of retention and to investigate the presence of breeding, roosting and foraging habitat for threatened fauna species. In the context of the Site, it was inferred that within Condition 3 the term 'fauna' is referring to threatened black cockatoo species, which have the potential to occur in the area. For this report, the term black cockatoos refers collectively to Carnaby's black cockatoo (*Zanda latirostris*), Baudin's black cockatoo (*Zanda baudinii*) and Forest Red-tailed black cockatoo (*Calyptorhynchus banksii naso*).

The following was undertaken to inform opportunities to address Condition 3:

- Map the condition of vegetation present (as per Environmental Protection Authority *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment*) (EPA, 2016).
- Broadly describe the vegetation community types present.
- Undertake a habitat assessment for black cockatoo breeding trees, foraging and roosting habitat as per Commonwealth guidelines (DAWE, 2022).
- Preparation of this letter report describing site assessment methodology and results including maps showing vegetation condition/vegetation type, potential black cockatoo breeding trees/foraging and roosting habitat.
- Provide recommendations on trees or areas of vegetation potentially worthy of retention.



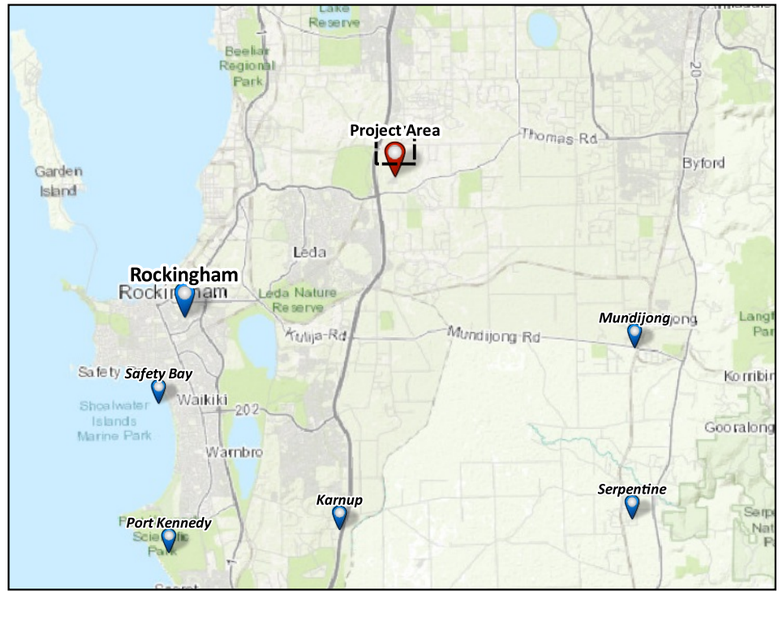


Figure 1: Site Location

N

0 60 100 m

SCALE: 1:2,000	SHEET SIZE: A3 COLOUR	CLIENT: Jardim Property	
COORDINATE REFERENCE SYSTEM: GDA2020 / MGA zone 50		PROJECT NUMBER: A25.039	VERSION: 0
DATA SOURCE: Nearmap Imgaery (6th December, 2024)		DRAWN BY / REVIEWED BY: JP/JB	DATE: 7/3/2025

PROJECT/REPORT NAME: Vegetation and Fauna Habitat Survey
Lot 2 (727) Anketell Road, Wandi

Legend

- Survey Area
- Site Boundary
- Sewer Alignment
- Cadastre (No Attributes) (LGATE-001)

Road Network

- Local Road
- Miscellaneous Road

No	Description	Drawn	Approved	Date
A	Original issue	JP	JB	7/3/2025

NOTES:

Cadastral boundary (LGATE-002). Base map ESRI Topo. Townsites (LGATE-248).

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Methodology

WEPL undertook a site assessment on 7 March 2025. The Survey Area comprised the sewer alignment and a 15 m buffer from the centre on both sides of the alignment on the Site. All areas were readily accessible and no constraints to the planned survey were encountered.

A broad vegetation and condition assessment was undertaken considering guidance provided in EPA 2016 *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment* for Reconnaissance level flora and vegetation surveys.

A habitat assessment for black cockatoo breeding trees, foraging and roosting habitat was undertaken as per *Referral guidelines for 3 WA threatened black cockatoo species* (DAWE, 2022). The Commonwealth defines breeding habitat as that which contains known, suitable or potential nesting trees, and which occurs within the range of the species. Terminology used in this report for breeding habitat trees follows that defined in glossary of DCCEEW (2022) as shown in 1.

Table 1: Breeding Habitat Terminology

Breeding Habitat Term	Definition (DCCEEW, 2022)
Known nesting trees	Trees (live or dead but still standing) which contains a hollow where black cockatoo breeding has been recorded or which demonstrates evidence of breeding (i.e. showing evidence of use through scratches, chew marks or feathers).
Suitable nesting trees	Trees with suitable nesting hollows present, although no evidence of use.
Suitable nesting hollows	Any hollow with dimensions suitable for use for nesting by black cockatoos. See Table 2 for further discussion on nesting hollow characteristics.
Potential nesting trees	Trees that have a suitable Diameter at Brest Height (DBH) to develop a nest hollow, but do not currently have hollows. For most species of trees, suitable nest hollows are only found in live trees with a DBH of at least 500 mm.
Potential future nesting trees	Trees suitable to develop a nest hollow in the future are 300-500 mm DBH.

The site assessment also included recording evidence of roosting or feeding and any observations of black cockatoos.

In addition to Commonwealth guidelines for assessing potential breeding trees, a scoring system developed by Dr Mike Bamford was applied to class potential breeding trees, shown in Table 2. All trees satisfying criteria for a potential black cockatoo breeding tree were recorded by GPS and numbered.

Table 2: Black Cockatoo Potential Breeding Tree Class

Class	Description of Tree and Hollows/Activity
1	Active nest observed; adult (or immature) bird seen entering or emerging from hollow, eggs present.
2	Hollow of suitable size and angle visible with chew marks around entrance.
3	Potentially suitable hollow visible but no chew marks present; or potentially suitable hollow present (as suggested by structure of tree, such as large, vertical trunk broken off at a height of >10m).

Class	Description of Tree and Hollows/Activity
4	Tree with large hollows or broken branches that might contain hollows, but hollows or potential hollows are not of a suitable size, or are aligned or obstructed so as to prevent access
5	Tree lacking large hollows or broken branches that might have large hollows; a tree with more or less intact branches and a spreading crown.

The Commonwealth defines foraging habitat as areas including plants of species known to support foraging within the range of each black cockatoo species. Marri and jarrah woodlands are particularly important to Baudin's and the forest red-tailed black cockatoo, while proteaceous heaths (shrublands dominated by Banksia, Hakea and Grevillea species) are also utilised by Carnaby's black cockatoo (DCCEEW, 2022).

During the field survey, searches were conducted for evidence of roosting (e.g. piles of scats, feeding debris chewed trees).

General comments were recorded regarding the species and health and growth form of trees to assess potential suitability of trees to be considered for retention (Appendix A). This assessment was observational in nature and does not comprise a formal arborist assessment.

Results

Vegetation and Condition

Analysis of historical imagery (1953-2024) shows that the majority of the Site was cleared between 1989 and 1995. Portions of remnant native vegetation have been retained along the south-eastern boundary of the Site (Landgate, 2025).

The vegetation within the Survey Area was in Degraded to Completely Degraded condition, as per the Southwest Province Vegetation Condition Scale (EPA, 2016), shown in Figure 2.

Vegetation Composition

The Site showed pockets of native vegetation along the south-eastern boundary. The majority of the vegetation within the Site was however comprised by non-native and planted garden trees, as shown on Figure 3. For the purpose of representing the impact on native species more accurately, individual trees have also been mapped within the Survey Area and shown in Figure 3. The following vegetation types have been identified within the Survey Area:

VT01 – Non-native & planted garden trees

This vegetation was comprised by planted, non-native *Eucalyptus* spp., bottlebrush, fig trees and two isolated *Eucalyptus gomphocephala* (Tuart). No intact mid or understory was present.

This vegetation type comprises 0.34 ha. VT01 is not considered to represent intact native vegetation.

VT02 – *Agonis flexuosa* open woodland

This vegetation type was dominated by *Agonis flexuosa* (peppermint) trees with scattered non-native *Eucalyptus* spp., and scattered *Corymbia calophylla* (marri) over weedy grasses. No intact mid or understory was present.

This vegetation type comprises 0.16 ha.

Figure 2: Vegetation Condition

N

0 16 32 48 64 m

SCALE: 1:1,100	SHEET SIZE: A3 COLOUR
COORDINATE REFERENCE SYSTEM: GDA2020 / MGA zone 50	PROJECT NUMBER: A25.039 / VERSION: 0
DATA SOURCE: Nearmap Imgaery (6th December, 2024)	DRAWN BY / REVIEWED BY: JP / JB / DATE: 10/3/2025

PROJECT/REPORT NAME
Vegetation and Fauna Habitat Survey
Lot 2 (727) Anketell Road, Wandi

CLIENT
Jardim Property

Legend

- Survey Area
- Site Boundary
- Sewer Alignment

Vegetation Condition

- Completely degraded
- Degraded

No	Description	Drawn	Approved	Date
A	Original issue	JP	JB	10/3/2025

NOTES:

Cadastral boundary from LANDGATE 2022. Label corresponds to the vegetation association number.

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Figure 3: Vegetation Assessment

N 0 15 30 45 60 m		PROJECT/REPORT NAME: Vegetation and Fauna Habitat Survey Lot 2 (727) Anketell Road, Wandi	
SCALE: 1:1,000	SHEET SIZE: A3 COLOUR	CLIENT: Jardim Property	
COORDINATE REFERENCE SYSTEM: GDA2020 / MGA zone 50		PROJECT NUMBER: A25.039	VERSION: 0
DATA SOURCE: Nearmap Imgaery (6th December, 2024)		DRAWN BY / REVIEWED BY: JP / JB	DATE: 9/3/2025

Legend

- Survey Area
- Site Boundary
- Sewer Alignment

Tree Species

- Dead
- Marri
- Tuart
- Casuarina
- Jarrah
- Melaleuca
- Agonis flexuosa (peppermint)
- Non-native & planted garden trees

Vegetation Type

- Cleared
- VT01
- VT02

No	Description	Drawn	Approved	Date
A	Original issue	JP	JB	9/3/2025

NOTES:

Cadastral boundary from LANDGATE 2022. Label corresponds to the vegetation association number.

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Black Cockatoo Habitat Assessment

The results of the black cockatoo habitat assessment are summarised below. No black cockatoos were observed during the site visit.

Potential Breeding Habitat

Any *Eucalyptus* sp. trees with a DBH ≥ 500 mm are classified as potential breeding trees and were assessed for the presence of hollows during the survey. Locations of potential breeding trees are presented in Figure 4. Key findings of the assessment were:

- The Site is located approximately 44 km south-west of a buffered Black Cockatoo Breeding Site (2 km buffer) *(DBCA-063)* and 5.4 km west of an unconfirmed buffered breeding area for Carnaby's black cockatoo (12 km buffer) (*DBCA-055*).
- Twelve trees within the Survey Area were *Eucalyptus* sp. with a DBH ≥ 500 mm and are considered to be potential black cockatoo breeding trees:
    - Eight Eastern States *Eucalyptus* sp. (Tree ID 6, 18, 55, 71, 72, 73, 74, 77).
    - Two Tuarts (*Eucalyptus gomphocephala)* (Tree ID 17 and 56).
    - One Marri (*Corymbia calophylla*) (Tree ID 82).
    - One dead tree (Tree ID 69).
- None of the trees surveyed showed potentially suitable hollows for black cockatoo breeding.

A further sixteen *Eucalyptus* sp. with a DBH ≥ 500 mm were located immediately on the boundary or in close proximity of the Survey Area. The species are six Marris, three Tuarts, five Eastern State Eucalypts and two dead trees. These trees will not be impacted by the project (Tree IDs 18, 50, 51, 53, 57, 58, 50, 63, 64, 66, 80, 81, 83-86).

See Appendix A for detailed tree attributes and field observations.

Foraging Habitat

Foraging habitat for black cockatoo was limited within the Survey Area. There were five small Marri trees (DBH 300-400 mm) and one mature Marri tree (DBH 500 mm, ID 82) located within the Survey Area, which have high foraging value for black cockatoo species. One of the small Marris (Tree ID16) is located within the sewer alignment. The specimen was assessed as being of poor health and partially dead. No foraging evidence was observed. Two Tuarts (DBH 800-1000 mm) were present within the Survey Area, which provide moderate foraging value for black cockatoo.

A further nine Marri trees and two Tuarts are located directly on the boundary of the Survey Area or in proximity. These trees will not be impacted by the project.

The isolated non-native trees were either small-fruited Eucalypts or other non-native species. These are not considered to provide any foraging value for black cockatoo.

Roosting Habitat

According to DBCA dataset *Black Cockatoo Roosting Sites-Buffered (DBCA-064)* the Site is located 1.7 km southeast of the buffer of a known black cockatoo roosting site. The buffer has a radius of 1 km from the roosting site. No evidence of roosting behaviour was recorded during the assessment. The Site does not contain any groves of very large mature trees or large dead trees and does not contain any surface water sources. The Site is therefore not considered to provide roosting habitat.

Figure 4: Black Cockatoo Assessment (DBH >500 mm)

N

0 16 32 48 64 m

PROJECT/REPORT NAME	Vegetation and Fauna Habitat Survey Lot 2 (727) Anketell Road, Wandi
SCALE	1:1,100
SHEET SIZE	A3 COLOUR
CLIENT	Jardim Property
COORDINATE REFERENCE SYSTEM	GDA2020 / MGA zone 50
PROJECT NUMBER	A25.039
VERSION	0
DATA SOURCE	Nearmap Imgaery (6th December, 2024)
DRAWN BY / REVIEWED BY	JP/JB
DATE	10/3/2025

Legend

- Survey Area
- Site Boundary
- Sewer Alignment

Bamford Tree Class

- 4
- 5

Tree Species

- Dead
- Eucalyptus
- Marri
- Tuart

No	Description	Drawn	Approved	Date
A	Original issue	JP	JB	05/06/2023
B	Revision			10/3/2025

NOTES:

Cadastral boundary from LANDGATE 2022. Label corresponds to the vegetation association number.

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Impact Assessment

The project necessitates the clearing of 0.20 ha of native vegetation described as VT02 - *Agonis flexuosa* (peppermint) trees with scattered non-native *Eucalyptus* spp., and scattered *Corymbia calophylla* (marri). While VT01 is not considered representative of native vegetation within the surrounding area and has been planted post historical clearing, it contains two mature Tuarts, which will be impacted by the development (Tree ID 8 & 33).

The following tree species will be impacted:

- Twelve native peppermint trees (*Agonis flexuosa*).
- Seven Marri (*Corymbia calophylla*).
- Two Tuart (*Eucalyptus gomphocephala*).
- One Sheoak (*Casuarina* sp.).
- Five dead trees.
- 28 non-native & planted garden trees.

Out of these, the following trees are *Eucalyptus* sp. with a DBH ≥ 500 mm, which classify as potential future black cockatoo breeding trees:

- Two Tuarts (ID 8 & 33).
- One Marri (ID 26).
- Eight non-native & planted Eucalypts (IDs 7, 17, 19, 20, 21, 22, 32, 34).
- Two dead trees (ID 16 & 23)

None of the above trees showed suitable breeding hollows.

Avoidance Measures

Jardim has implemented a 15 m buffer (referred to as Survey Area) from the centre of the sewer alignment to allow for vehicle movement. A commitment was made to avoid any trees located immediately on the boundary of the buffer or in proximity.

Impact to the following native trees will be avoided:

- Eight Marri trees.
- Three Tuarts.
- Three dead trees.
- One Jarrah.

Of these, ten trees have a DBH ≥ 500 mm (five Marris, three Tuarts, two dead).

Additionally, ten non-native trees will be avoided, of which five trees were assessed to be Eucalyptus sp. with a DBH ≥ 500 mm.

Assessment Against Ten Clearing Principles

The proposed clearing within the Survey Area is not at variance with any of the Ten Native Vegetation Clearing Principles contained in Schedule 5 of the EP Act.

An assessment of the potential clearing of native vegetation against the clearing principles is provided in Table 3.

Table 3: Assessment of Proposed Clearing on Lots 16 and 988 against Clearing Principles

Principle (Schedule 5 of the EP Act)	Assessment	Outcome
(a) Native vegetation should not be cleared if it comprises a high level of biological diversity	The impact area does not support a high diversity of flora species. Most of the area has been historically cleared and supports areas of regrowth, planted non-native vegetation and existing dwellings. Out of two vegetation types identified, only VT02 is considered to represent native vegetation. There was no intact mid- or understory present. The canopy cover consisted of Marri (*Corymbia calophylla*), *Agonis flexuosa* and scattered sheoak (*Casuarina* sp.). There were two Tuart trees (*Eucalyptus gomphocephala*) present within the Survey Area. Areas of native vegetation were assessed to be in Degraded Condition. Areas of non-native vegetation were assessed to be in Degraded to Completely Degraded Condition.	Proposed clearing is not at variance to this 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 indigenous to Western Australia.	Thirteen potential Black Cockatoo breeding trees will be removed as part of the Proposal; two *Eucalyptus gomphocephala* (Tuarts) (ID 8 & 33), one *Corymbia calophylla* (Marri) (ID 82), eight non-native and planted Eucalypt species (IDs 7, 17, 19, 20, 21, 22, 32, 34) and two dead trees (ID 16 & 23). All these trees have a DBH ≥ 500 mm and therefore classify as potential future black cockatoo breeding trees. However, no hollows were observed from the ground. Five small Marri trees (DBH 300-400 mm) and one mature Marri tree (ID 82) were identified within the Survey Area and represent high foraging value for Black Cockatoos. The two Tuarts mentioned above provide moderate foraging value for Black Cockatoos. No evidence of Black Cockatoo roosting behaviour was recorded within the Survey Area	Proposed clearing is unlikely to be variance to this Principle.

Principle (Schedule 5 of the EP Act)	Assessment	Outcome
	and given the lack of large mature tree groves or surface water sources within the Survey Area, no roosting habitat is present. Potential Black Cockatoo breeding trees and foraging habitat in good condition have been retained where possible. Removal of thirteen potential Black Cockatoo breeding habitat trees and six trees representing foraging habitat from degraded and completely degraded habitat within the Survey Area is not expected to significantly impact the overall foraging or breeding habitat value of this area.	
(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.	No Threatened flora pursuant the Commonwealth EPBC Act or the State BC Act were recorded, or are expected to occur, within the proposed impact area or its surroundings.	Proposed clearing is not at variance to this 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.	No TEC occurs within the Site or in the adjacent area. Therefore, no TECs will be affected by the clearing.	Proposed clearing is not at variance to this 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.	The vegetation complexes within the impact area is the Bassendean Complex – Central and South. This system has 26.87 % remaining on the Swan Coastal Plain and 1.86% being managed for conservation purposes. The proposed clearing area is mainly comprised by non-native vegetation. The impacted native vegetation comprises an area of 0.16 ha and is in Degraded to Completely Condition. The proposed clearing is considered to not impact the maintenance of the vegetation complex.	Proposed clearing is not at variance to this 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.	The proposed clearing area does not intersect any surface wetlands or drainage lines. The vegetation within the Site is not comprised of wetland species.	Proposed clearing is not at variance to this Principle.

Principle (Schedule 5 of the EP Act)	Assessment	Outcome
(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	The disturbance of native vegetation is confined to 0.16 ha of vegetation considered to be native, including twelve native peppermint trees (*Agonis flexuosa*), seven Marri trees, two Tuarts, one sheoak (*Casuarina* sp.), six dead trees and 28 non-native and planted garden trees. The proposed clearing is considered unlikely to cause appreciable land degradation given: • Majority of the Site has been cleared historically and replanted. • Stable soil type. • Not adjacent to permanent water source. • Relatively flat topography. • Degraded to Completely Degraded vegetation condition	Proposed clearing is not at variance to this 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	There are no conservation areas within the Site or in close proximity. The proposed clearing activity does not impact any conservation areas.	Proposed clearing is not at variance to this 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.	The survey area does not intersect with any surface water or occurs within any Public Drinking Water Source Areas. The closest wetland is a Multiple Use wetland associated with Mandogalup Swamp, which is located in the north of the Lot. Part of Mandogalup Swamp is mapped as a Conservation Category wetland, approximately 600 m north of the survey area. Sandy Lake, a Conservation Category wetland, is located approximately 900 m south of the survey area. The project will not change the hydrology of the area, as no surface water will be taken for this project, and the clearing is not located within the mapped extent of Mandogalup Swamp. It is therefore considered unlikely	Proposed clearing is not at variance to this Principle.

Principle (Schedule 5 of the EP Act)	Assessment	Outcome
	that there will be a significant impact to the surface or underground water quality of this area.	
(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.	The proposed earthworks have no significant impact on the natural surface and groundwater processes. The proposal is not likely to cause, or exacerbate, the incidence or intensity of flooding.	Proposed clearing is not at variance to this Principle.

Conclusions and Recommendations

Conclusions and recommendations following the site assessment are as follows:

- The majority of the Site has been historically cleared between 1989 and 1995. Small pockets of native vegetation are present along the south-eastern boundary of the Site.
- The vegetation within the Survey Area is considered to be Degraded to Completely Degraded condition.
- Two vegetation types were identified within the Survey Area, of which only VT02 is considered to represent native vegetation (*Agonis flexuosa* open woodland). VT01 was assessed as Non-native & planted garden trees.
- The project necessitates the clearing of 0.16 ha of native vegetation (VT02) (which includes ten potential future black cockatoo breeding trees) and a further two isolated Tuart trees (Tree IDs 17 and 56).
- Foraging habitat for black cockatoo is limited within the Survey Area. High value foraging habitat was comprised by one mature marri tree (DBH 500 mm) and three small marri trees, of which one showed poor health and was located within the sewer alignment (Tree ID 16). These trees are located within VT02, which is considered native vegetation. In addition, there are two mature Tuart trees within VT01 that provide moderate foraging value.
- The Site did not show any evidence of foraging for any of the three species of black cockatoo.
- 12 trees within the Survey Area were Eucalyptus sp. with a DBH ≥ 500 mm and therefore qualified as potential future black cockatoo breeding trees. None of the trees had suitable breeding hollows:
    - Eight Eastern States *Eucalyptus* sp. (Tree ID 6, 18, 55, 71, 72, 73, 74, 77).
    - Two Tuarts (*Eucalyptus gomphocephala*) (Tree ID 17 and 56).
    - One Marri (*Corymbia calophylla*) (Tree ID 82).
    - One dead tree (Tree ID 69).
- The Survey Area is not considered to provide valuable roosting habitat.
- No black cockatoo were observed during the site visit.

Impacts of the proposed project works can be summarised as follows in Table 4.

Table 4: Impact Summary

Environmental Asset	Impact
Flora and Vegetation	• Loss of 0.16 ha of native vegetation (including ten potential future breeding trees) • Loss of two isolated Tuart trees.
Fauna	Breeding habitat • Loss of twelve potential future black cockatoo breeding trees (Eucalyptus sp. with a DBH ≥ 500 m). Foraging habitat • Loss of five small marri trees (DBH 300-400 mm) and one mature marri tree providing high value foraging habitat. • Loss of two mature Tuart trees providing moderate value foraging habitat.

Avoidance measures of the project can be summarised as follows in Table 5:

Table 5: Summary of Avoidance Measures

Environmental Asset	Avoidance summary
Flora and Vegetation	Impact to the following native trees will be avoided: • Eight Marri trees. • Three Tuarts. • Three dead trees. • One Jarrah.
Fauna	Breeding habitat • Avoidance of ○ Ten native Eucalypt trees with a DBH ≥ 500 mm (five Marris, three Tuarts, two dead). ○ Five non-native Eucalypts with a DBH ≥ 500 mm. Foraging habitat • Loss of five mature marri trees (DBH ≥ 500 mm) providing high value foraging habitat. • Loss of three mature Tuart trees providing moderate value foraging habitat.

This report should be read in conjunction with the Schedule - Statement of Limitations. Should you have any queries regarding the above, please contact the undersigned on (08) 6162 8980.

Yours sincerely,
Western Environmental Approvals Pty Ltd

Dale Newsome
Director

Schedule

- Statement of Limitation

Appendices

- Appendix A: Black Cockatoo Tree Survey Results

SCHEDULE Statement of Limitation

Statement of Limitations

Copyright Statement

Scope of Services

This environmental report ("this report") has been prepared for the sole benefit and exclusive use of the Client for the purpose for which it was prepared in accordance with the agreement between the Client and WEPL ("the Agreement"). However, in addressing the requirements of the Contaminated Sites Act 2003, an Accredited Contaminated Sites Auditor may be engaged by the Client to undertake review of this report, prior to its submission to the DWER. The report shall be made available and can be relied upon for the purposes of the Contaminated Sites Act.

WEPL disclaims any and all liability with respect to any use of or reliance upon this report for any other purpose whatsoever.

In particular, it should be noted that this report is based on a scope of services defined by the Client, and is limited by budgetary and time constraints, the information supplied by the Client (and its agents) and, in some circumstances, access and/or site disturbance constraints.

The scope of services did not include any assessment of the title to or ownership of the properties, buildings and structures referred to in this report, or the application or interpretation of laws in the jurisdiction in which those properties, buildings and structures are located.

Reliance on Data

In preparing this report, WEPL has relied on data, surveys, analyses, designs, plans and other information provided by the Client (or its agents), other individuals and organisations ("the data").

Except as otherwise stated in this report, WEPL has not verified the accuracy or completeness of the data. WEPL does not represent or warrant that the data is true or accurate, and disclaims any and all responsibility or liability with respect to the use of the data.

To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in this report ("conclusions") are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data.

WEPL does not accept any responsibility or liability for any incorrect or inaccurate conclusions should any data be incorrect, inaccurate or incomplete or have been concealed, withheld, misrepresented or otherwise not fully disclosed to WEPL.

The conclusions must also be considered in light of the agreed scope of services (including any constraints or limitation therein) and the methods used to carry out those services, both of which are as stated or referred to in this report.

Environmental Conclusions

In accordance with the scope of services, WEPL has conducted environmental field monitoring and/or testing in the preparation of this report. The nature and extent of monitoring and/or testing conducted is described in this report.

On all sites, varying degrees of non-uniformity of vertical and horizontal conditions in media (soil, water, air, waste or other media as described in the report) are encountered. Hence no monitoring, common testing or sampling technique can eliminate the possibility that monitoring or testing results/samples are not totally representative of media conditions encountered. The conclusions are based on the data and the environmental field monitoring and/or testing actually undertaken, and are therefore merely indicative of the environmental condition of the site at the time of preparing this report, including the presence or otherwise of contaminants or emissions. It should be recognised that site conditions, including the extent and concentration of contaminants, can change.

Within the limitations imposed by the scope of services, the monitoring, testing, sampling and preparation of this report have been undertaken and performed in a professional manner, in accordance with generally accepted practices and using a degree of skill and care ordinarily exercised by reputable environmental consultants under similar circumstances. To the maximum extent permitted by law, no other warranty, express or implied, is made.

Report for Benefit of Client

This report is confidential. Neither the whole nor any part of this report, or any copy or extract thereof, may be disclosed or otherwise made available to any third party without the prior written approval of WEPL.

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If an Auditor is engaged by the Client to undertake review of this report, it shall be made available subject to the terms and conditions of the agreement between the Client and WEPL and the caveats in this statement.

Other Limitations

This report is intended to be read in its entirety, and sections or parts of this report should therefore not be read and relied on out of context.

WEPL will not be liable to update or revise this report to take into account any events or circumstances or facts becoming apparent after the date of this report.

References

Department of Agriculture, Water and the Environment (DAWE). (2022). *Referral guideline for 3 WA threatened black cockatoo species – Carnaby's Cockatoo* (Zanda latirostris), *Baudin's Cockatoo* (Zanda baudinii) *and the Forest Red-tailed Black-cockatoo* (Calyptorhynchus banksia naso). Retrieved on 20 February 2025, from https://www.dcceew.gov.au/sites/default/files/documents/referral-guideline-3-wa-threatened-black-cockatoo-species-2022.pdf.

Department of Biodiversity, Conservation and Attractions (DBCA). (2019a). *Black Cockatoo Breeding Sites-Buffered (DBCA-063).* Retrieved on 20 February 2025, from https://catalogue.data.wa.gov.au/dataset/black-cockatoo-breeding-sites-buffered.

Department of Biodiversity, Conservation and Attractions (DBCA). (2019b). *Black Cockatoo Roosting Sites-Buffered (DBCA-064).* 20 February 2025, from https://catalogue.data.wa.gov.au/dataset/black-cockatoo-roosting-sites-buffered.

Environmental Protection Authority (EPA). (2016). *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment.* Retrieved on 20 February 2025, from https://www.epa.wa.gov.au/policies-guidance/technical-guidance-flora-and-vegetation-surveys-environmental-impact-assessment.

Western Environmental Approvals (WEPL). (2025). Fauna Management Plan. Report prepared for Jardim Propoerty.

APPENDIX A Black Cockatoo Tree Survey Results

Tree ID	Species	Habitat Score	DBH (mm)	Comment	Retention Suitability	Easting (GDA2020 / MGA zone 50)	Northing (GDA2020 / MGA zone 50)	Forage Tree
2	*Eucalyptus* sp.	5	800	Within Survey Area	High	392514.4628	6435773.721	No
17	Tuart *(Eucalyptus gomphocephala)*	5	800	Within Survey Area	High	392460.0295	6435794.843	Yes
18	*Eucalyptus* sp.	5	500	Within Survey Area	High	392454.3991	6435789.213	No
50	Marri (*Corymbia calophylla*)	4	600		Moderate	392520.5412	6435757.697	Yes
51	Marri (*Corymbia calophylla*)	4	700		Low	392435.8461	6435826.973	Yes
53	*Eucalyptus* sp.	5	700		High	392423.0979	6435867.984	No
54	*Eucalyptus* sp.	5	600		Moderate	392411.9694	6435862.269	No
55	*Eucalyptus* sp.	5	500	Within Survey Area	Moderate	392446.5579	6435900.467	No
56	Tuart *(Eucalyptus gomphocephala)*	5	1000	Within Survey Area	High	392444.1518	6435786.174	Yes
57	Tuart *(Eucalyptus gomphocephala)*	5	800		High	392438.4372	6435781.362	Yes
58	Tuart *(Eucalyptus gomphocephala)*	5	750		High	392433.0233	6435778.053	Yes
60	Dead	5	700		Low	392467.6119	6435726.622	No
63	*Eucalyptus* sp.	5	1200		High	392524.8905	6435813.855	No
64	Marri (*Corymbia calophylla*)	5	600		High	392535.6691	6435832.694	Yes
66	*Eucalyptus* sp.	5	600		High	392541.6954	6435836.114	No

Tree ID	Species	Habitat Score	DBH (mm)	Comment	Retention Suitability	Easting (GDA2020 / MGA zone 50)	Northing (GDA2020 / MGA zone 50)	Forage Tree
69	Dead	5	550	Within Survey Area	Low	392571.1755	6435800.282	No
71	*Eucalyptus* sp.	5	500	Within Survey Area	High	392568.8953	6435800.119	No
72	*Eucalyptus* sp.	5	700	Within Survey Area	High	392572.9366	6435815.694	No
73	*Eucalyptus* sp.	5	500	Within Survey Area	Low	392580.8209	6435813.441	No
74	*Eucalyptus* sp.	5	650	Within Survey Area	High	392589.9925	6435802.983	No
77	*Eucalyptus* sp.	5	650	Within Survey Area	Moderate	392596.9114	6435796.546	No
80	Dead	5	900		Low	392580.3382	6435784.64	No
81	Tuart *(Eucalyptus gomphocephala)*	5	850		High	392544.694	6435771.652	Yes
82	Marri (*Corymbia calophylla*)	5	500	Within Survey Area	Moderate	392531.8074	6435770.879	Yes
83	Marri (*Corymbia calophylla*)	5	500		Low	392533.6115	6435765.209	Yes
84	*Eucalyptus* sp.	5	800		High	392524.0755	6435759.024	No
85	Marri (*Corymbia calophylla*)	5	600		High	392506.0343	6435747.168	Yes
86	Marri (*Corymbia calophylla*)	5	650		High	392502.6838	6435744.848	Yes