

Friday, 22 November 2024



Our Ref: P22.100A-LRP-FVSR_0_FINAL-KenwickTunnelNorth

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██████████
153 Abernethy Road
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ATTENTION: ██████████

SUBJECT: NATIVE VEGETATION CLEARING PERMIT AMENDMENT (CPS 10433-1) - ADDITION OF SITE #96 KENWICK TUNNEL NORTH

Project Background

Western Environmental Pty Ltd (WEPL) was commissioned by UGL Engineering Pty Limited (the Client) to undertake Environmental Site Assessments (ESA) at several sites associated with the Public Transport Authority (PTA) Radio Systems Replacement (RSR) Project.

The RSR Project will upgrade the radio system of Perth's rail transport by replacing the existing analogue system with a digital system. This involves the installation of monopoles and new Western Power (WP) pillars across the rail network. The Project will help to deliver High Capacity Signalling, which will provide increased reliability and flexibility of trains, to support a more efficient rail network for Perth's growing population (Metronet, 2023).

The assessments undertaken included a desktop review of the environmental site conditions and relevant surrounding and historical land uses. Where relevant, site assessments for flora, vegetation and fauna were undertaken to identify present environmental values.

UGL has requested five Sites to be surveyed due to design changes and identified Western Power works required within the sites. The purpose of the biological assessment was to identify and qualify the existing vegetation in the areas and determine the project impacts within the proposed clearing footprints.

Based on the survey findings and the site reference designs provided by UGL, site #96 - Kenwick Tunnel North was identified requiring a Native Vegetation Clearing Permit under Part V of the *Environmental Protection Act 1986* (EP Act). Site location and clearing extent are displayed in Figure 1.

Table 1: Site Identification and Land Descriptions

Site Name	Property Details
Site #96	Lot: 320 P215879
Kenwick Tunnel North	Land ID Number: 3813580
	LGA: City of Gosnells





Figure 1: Site Location - Kenwick Tunnel North #96

0

7

14

21

28 m

N

SCALE

1:479

COORDINATE REFERENCE SYSTEM

GDA2020 / MGA zone 50

DATA SOURCE

LANDGATE AERIAL IMAGERY Summer 2023

PROJECT / REPORT NAME

Environmental Site Assessment
Kwinana Station

CLIENT

UGL Engineering Pty Limited

PROJECT NUMBER

P22.100

VERSION

0

DRAWN BY / REVIEWED BY

MD/LT

DATE

4/11/2024

Legend

Survey Area

25m Buffer

Site #96

No.	Description	Drawn	Approved	Date
A	Original issue	MD	L	4/11/2024

NO ES:

Cadastral boundary from LANDGA E 2022
Label corresponds to the vegetation association number

WESTERN

ENVIRONMENTAL

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Survey Methodology

A flora and vegetation assessment was undertaken on 18 October 2024. The following elements were assessed:

- Broad description of vegetation types, including broad species composition and weed invasion.
- Vegetation Condition in consistence with the EPA *Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessments* (EPA, 2016).
- Opportunistic sampling of flora species where taxa could not be identified on Site.
- Presence of potential black cockatoo habitat values and other significant fauna habitat values.
- Presence of TECs, Threatened and Priority Flora and other Environmentally Sensitive Areas (ESAs).

Results

The results of the assessment are presented in Table 2 and displayed in Figure 2 below.

Table 2: Kenwick Tunnel North – Site Inspection Form

Site Inspection Form – Western Environmental				
Date	21 July 2023	Site Name	96 – Kenwick Tunnel North, Armadale / Thornlie	
Coordinates (GDA2020-Z50)			Portion No.	8
Environmental Scientist				
Vegetation present	Yes			
Vegetation description	Half is cleared with isolated non-native Eucalyptus trees and the other half is Marri trees over weeds.			
Vegetation condition	Completely degraded			
Weed percentage cover	85%			
Disturbance	Historical clearing, weed invasion			
Wetland mapped	No			
Is vegetation indicative of wetland vegetation?	No			
Does the condition align with MU/RE/CCW?	N/A			
Black cockatoo foraging habitat	Yes			
Black cockatoo roosting habitat	Yes			
Black cockatoo breeding habitat	Yes			



Site Inspection Form – Western Environmental	
Fauna evidence	No
Site Photos	See Appendix A
General Comments	
<p><u>Flora and Vegetation</u></p> <p>The site was mainly covered in weed, with the only native vegetation being the Marri trees in the overstory. A total of 30 individuals of Bridal creeper (<i>Asparagus asparagoides</i>) was recorded at two locations during the survey (Figure 2). Five individuals were recorded within the Site boundary and the rest was recorded in the buffer zone. Bridal creeper is a Declared Plant (DP) under the <i>Biosecurity and Agriculture Management Act 2007</i> (BAM Act) and is considered a Weed of National Significant (WoNS). See Appendix B for species list.</p> <p><u>Black Cockatoo Habitat</u></p> <p>Breeding</p> <p>The Commonwealth defines breeding habitat as trees species, known to support breeding, within the range of the species, which either have a suitable nest hollow or are of a suitable diameter at breast height (DBH) to develop a hollow, with the suitable DBH being >50 cm. Two Marri trees with a DBH >50 cm were recorded within the Site (Figure 2). An additional two trees with DBH >50cm were recorded within the buffer area, one Marri tree and one non-native Eucalyptus. All were considered class 5 as there were no hollows or potential hollows within the trees.</p> <p>Foraging</p> <p>There were two foraging species within the Site, a 0.027 ha (36.49%) patch of Marri trees which has high foraging value for all three black cockatoos and a non-native Eucalyptus tree covering 0.009 ha (12.44%) which has low foraging value. The Department of Climate Change, Energy, the Environment and Water (DCCEEW) created a black cockatoo foraging scoring tool in 2023 (see Appendix C). According to this tool, the patch of Marri trees has a score of 10 (Very High) and the non-native Eucalyptus tree has a score of 1 (Negligible). An additional 0.030 ha of Very High foraging value and 0.011 ha of Negligible foraging value was recorded within the buffer area.</p> <p>No evidence of foraging from any of the three black cockatoos were found during the survey.</p> <p>Roosting</p> <p>Roosting is generally any tall tree with close proximity to water. Considering the site was covered in Marri trees and that the site is <2 km from Canning River.</p> <p>No roosting evidence such as scats to chewed off twigs were found during the survey.</p>	



Summary of Residual Clearing Impact and Significance Assessment

A summary of the clearing necessitated by the Project is presented in Table 3. The impact significance was assessed to comply with the EPBC Act *Significant impact guidelines 1.1 – Matters of National Environmental Significance* (DoE, 2013).

Table 3: Clearing Impact for Kenwick Tunnel North

Site	Impacted Vegetation - Description	Clearing Impact (ha)	Significance Assessment under the EPBC Act
Site #96 Kenwick Tunnel North	<ul style="list-style-type: none">• Remnant native vegetation is in Completely Degraded condition.• The project necessitates clearing of 0.027 ha of native vegetation under the EP Act (Marri trees over weeds).<ul style="list-style-type: none">○ The vegetation is considered high value foraging habitat for Threatened black cockatoo.○ This includes clearing of two potential black cockatoo breeding trees with a DBH > 50 cm. The trees did not show any signs of potential breeding hollows.• No TECs, Threatened or Priority Flora were identified within the Site and will be impacted.• One non-native <i>Eucalyptus</i> sp. will be cleared (0.009 ha).	0.027 ha	Not significant*

*In accordance with the *Referral guideline for 3 WA threatened black cockatoo species* (DAWE, 2022) the threshold of impacting foraging habitat for formal referral under the *Environment and Biodiversity Protection Act 1999* (EPBC Act) is 1 ha. With the clearing extent being way below that 1 ha threshold, formal referral is not considered required. It is however noted that additional impacts to black cockatoo habitat at other project sites will count towards the cumulative impact of the project. If the cumulative loss of foraging habitat exceeds 1 ha, EPBC referral may be required.

Conclusions

Based on review of publicly available data and biological assessment of the Site, the following key findings have been identified:

- No functional native vegetation units have been identified on the Site.
- A total of 30 individuals of Bridal creeper (DP, WoNS) were recorded within the Site and buffer area.
- The Site contains black cockatoo habitat values, including:
 - Two potential breeding trees (DBH >50 cm) for black cockatoos were recorded within the Site. None of them showed any potential breeding hollows. An additional two mature trees were recorded within the buffer area.



- A total of 0.027 ha of Very High value and 0.009 ha of Negligible value foraging habitat for all three black cockatoo species were located within the clearing extent. An additional 0.030 ha of Very High value foraging habitat and 0.011 ha of Negligible value foraging habitat are located within the buffer area.
- No evidence of foraging was recorded during the survey.

Based on the findings of the flora and vegetation assessment Site #96 – Kenwick Tunnel North, the Project necessitates clearing of 0.027 ha of native vegetation described as Marri trees over weeds. This vegetation is considered Very High value foraging habitat for Threatened black cockatoo species. In accordance with the *Referral guideline for 3 WA threatened black cockatoo species* (DAWE, 2022) the clearing of less than 1 ha of foraging habitat does not require formal referral under the *Environment and Biodiversity Protection Act 1999* (EPBC Act).

Due to the impact extent being below 1 ha of high value foraging habitat, a formal referral under the EPBC Act is not considered required. If the Project will require additional clearing of black cockatoo habitat at any sites, the cumulative impact should be assessed. An EPBC referral may be required if the impact threshold of 1 ha foraging habitat is exceeded.

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

[Redacted Signature]

[Redacted Name]

Director

Schedule

- Statement of Limitation

Appendices

- Appendix A: Site Photos
- Appendix B: Species List
- Appendix C: Habitat Scoring System for WA black cockatoo foraging habitat (DCCEEW, 2023)



Statement of Limitations

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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.

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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.

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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 the Environment (DoE). (2013). *Significant impact guidelines 1.1 – Matters of National Environmental Significance*. Accessed on 1 November from https://www.dcceew.gov.au/sites/default/files/documents/nes-guidelines_1.pdf

Metronet. (2023). *High Capacity Signalling: Radio Systems Replacement Fact Sheet*. Retrieved on 1 November 2023 from <https://metronet.wa.gov.au/Portals/31/Project%20Documents/High%20Capacity%20Signalling/Radio%20Systems%20Replacement%20Fact%20Sheet.pdf>.

Appendix A

Site Photos





Photo 1

Date: 18 October 2024

Description: Vegetation present within the Site



Appendix B

Species List



Species	Stratum	Cover
<i>Corymbia calophylla</i>	Upper	55%
<i>Eucalyptus sp.</i>	Upper	10%
<i>Xanthorrhoea preissii</i>	Mid	0.5%
<i>Jacksonia sternbergiana</i>	Mid	2%
<i>Acacia celastrifolia</i>	Mid	1%
<i>Watsonia meriana</i> var. <i>bulbillifera</i>	Ground	35%
<i>Oxalis pes-capre</i>	Ground	2%
<i>Eragrostis curvula</i>	Ground	1%
<i>Avena barbata</i>	Ground	5%
<i>Fumaria capreolata</i>	Ground	3%
<i>Ehrarta calycina</i>	Ground	2%
<i>Asparagus asparagoides</i> (DP, WoNS)	Ground	2%



Appendix C

**Habitat Scoring System for WA black
cockatoo foraging habitat (DCCEEW,
2023)**



Habitat Scoring System for WA black cockatoo foraging habitat

This habitat scoring system describes elements indicative of suitable foraging habitat¹ for the three WA black cockatoo species (Carnaby's Black Cockatoo, Baudin's Black Cockatoo and the Forest Red-tailed Black Cockatoo) in WA. Its use must be supported by survey information and reporting, undertaken by suitably qualified and experienced ecologists.

Appropriate scores will best fit a description. Where all components of the 'detail' column description are not met, this must be specified, and justification provided for that score to be accepted by the Department.

For an offset site to be considered by the Department, the offset site must have a start score of 1 for each indicator (e.g., there must be a species stocking rate score of at least 1).

Indicator	Score	Detail		Impact site	Offset start quality	Without offset	With offset
Site Condition							
		Foraging value	Details				
Vegetation condition and structure. Habitat features	7	Very High	Carnaby's Black Cockatoo				
			Native kwongan heath and shrubland (>30% projected foliage cover), banksia and eucalypt woodlands with >50% projected foliage cover. Low percentage (< 5%) of tree deaths².				
			Baudin's Black Cockatoo				
			Marri-Jarrah Forest and woodlands with >50% projected foliage cover. Low percentage (< 5%) of tree deaths.				
			Forest Red-tailed Black Cockatoo				
			Marri-Jarrah-Karri Forest, other eucalypt woodlands, or allocasuarina woodlands, with >50% projected foliage cover. Low percentage (< 5%) of tree deaths.				
	6	High	Carnaby's Black Cockatoo				
			Native kwongan heath and shrubland (>25% projected foliage cover), banksia and eucalypt woodlands with >40% projected foliage cover. Low percentage (< 10%) of tree deaths.				
			Baudin's Black Cockatoo				
			Marri-Jarrah Forest and woodlands with >40% projected foliage cover. Low percentage (< 10%) of tree deaths.				
			Forest Red-tailed Black Cockatoo				
			Marri-Jarrah-Karri Forest, other eucalypt woodlands, or allocasuarina woodlands, with >40% projected foliage cover. Low percentage (< 10%) of tree deaths.				

¹ In some cases, an impact or offset site may contain or require both foraging and breeding habitat for one or more black cockatoos. Breeding habitat is species of trees known to support breeding within the range of the species which either have a suitable nest hollow or are of a suitable diameter at breast height (DBH) to develop a nest hollow. For most species of trees, suitable DBH is 500 mm. For salmon gum and wandoo, suitable DBH is 300 mm.

² No tree deaths indicate robustness of habitat, unlikely for the habitat to decline in the medium-term. Tree deaths may be owing to disease, water stress, fire, etc.

Vegetation condition and structure. Habitat features	5	Moderate to high	Carnaby's Black Cockatoo				
			Native kwongan heath and shrubland (>20% projected foliage cover), banksia and eucalypt woodlands with 30-40% projected foliage cover; OR > 60% projected foliage cover but veg. condition reduced due to tree deaths (up to 20%).				
			Baudin's Black Cockatoo				
			Marri-Jarrah Forest or woodlands with 30-40% projected foliage cover; OR > 60% projected foliage cover but veg. condition reduced due to tree deaths (up to 20%).				
			Forest Red-tailed Black Cockatoo				
			Marri-Jarrah-Karri Forest, other eucalypt woodlands, or allocasuarina woodlands, with 30-40% projected foliage cover; OR > 60% projected foliage cover but veg. condition reduced due to tree deaths (up to 20%).				
	4	Moderate	Carnaby's Black Cockatoo				
			Native kwongan heath and shrubland, banksia or eucalypt woodlands with 20-30% projected foliage cover. Moderate percentage of tree deaths (30-40%).				
			Baudin's Black Cockatoo				
			Marri-Jarrah Forest or woodlands with 20-30% projected foliage cover; OR Marri-Jarrah Forest with 40-60% projected foliage cover but vegetation condition reduced due to tree deaths (up to 30-40%).				
			Forest Red-tailed Black Cockatoo				
			Marri-Jarrah-Karri Forest, other eucalypt woodlands, or allocasuarina woodlands with: 20-30% projected foliage cover; OR 40-60% projected foliage cover but veg. condition reduced due to tree deaths (up to 30-40%).				
	3	Low to moderate	Carnaby's Black Cockatoo				
			Native kwongan heath and shrubland, banksia or eucalypt woodlands with 10-20% projected foliage cover.				
			Baudin's Black Cockatoo				
			Marri-Jarrah Forest or woodlands with 5-20% projected foliage cover.				
			Forest Red-tailed Black Cockatoo				
			Marri-Jarrah-Karri Forest, other eucalypt woodlands, or allocasuarina woodlands with 5-20% projected foliage cover.				
	2	Low	Carnaby's Black Cockatoo				
			Native kwongan heath and shrubland, banksia and eucalypt woodlands with <10% projected foliage cover; OR Paddocks and/or urban areas with scattered foraging trees such as banksias, marri.				
			Baudin's Black Cockatoo				
			Marri-Jarrah Forest or woodlands with 1-5% projected foliage cover; OR Paddocks and/or urban areas with scattered foraging trees such as banksia, hakea, dryandra.				

Vegetation condition and structure.			Forest Red-tailed Black Cockatoo				
			Marri-Jarrah-Karri Forest, other eucalypt woodlands, or allocasuarina woodlands with 1-5% projected foliage cover; OR Paddocks and/or urban areas with scattered food plants such as Cape Lilac, <i>Eucalyptus caesia</i> and <i>E. erythrocorys</i> .				
	1	Negligible to low	All species				
			Scattered specimens of known food plants but projected foliage cover of these is <2%. May include: paddocks or urban areas with scattered foraging trees.				
Habitat features	0	None	All species				
			No Proteaceae, eucalypts or other potential sources of food. May include bare ground or developed sites devoid of vegetation (e.g. infrastructure, roads, gravel pits).				
			Totals				

Site Context							
Proximity of the site in relation to other habitat.	3	Site is within 6km of known breeding site.	or	Site is within 12km of other foraging resources with site condition of at least 3.			
	2	Site is within 12km of known breeding site.	or	Site is within 15km of other foraging resources with site condition of at least 4.			
	1	Site is within 15km of known breeding site.	or	Site is between 15km and 20km of other foraging resources with site condition of at least 5.			
	0	Site is further than 15km from known breeding site.	or	Site is further than 20km from other foraging resources.			
Totals							

Final Totals								
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Indicator		Species Stocking Rate ³	Impact Site			Offset Site		
			CBC	BBC	FRT	CBC	BBC	FRT
Confirm presence/absence of species.	Yes	Species is seen or reported regularly and/or there is abundant foraging evidence, e.g. chewed nuts can be identified as this species. Regularly is when the species is seen at intervals of every few days or weeks for at least several months of the year.						
	No	Species is recorded or reported very infrequently and there is little or no foraging evidence.						

³ Species stocking rate is indicated by yes or no to confirm if any of the species is frequently present or not. If yes, the presence must be for the species being impacted by the proposal, not for a species that will not be impacted.

Legend	
	If the site scores between 0-2 (low to no value) for site condition, 0 for the site context score, or is No for species stocking rate, it is extremely unlikely to be considered as suitable habitat. This would not be appropriate to use as an offset site.

The metrics used to determine Site Condition, Site Context, and Species Stocking Rate were developed by the Department of Climate Change, Energy, the Environment, and Water in consultation with species experts in WA.

A standard habitat quality scoring system for a species allocates scores out of 3 for both site condition and site context, and out of 4 for species stocking rate. However, as black cockatoos are very mobile, this HQS uses a score out of 7 for site condition and a score out of 3 for site context. Site condition is considered the key factor in determining the quality of habitat for these black cockatoo species. Species stocking rate is considered only in terms of presence or absence of the species and does not add to the total score. Note that the species, or strong indicators of the species, must be present, consistent with the presence/usage description above, for an offset to be considered suitable.