Tuesday, 18 November 2025

WESTERN

Our Ref: P22.100A-LRP-NVCR-KwinanaSouth\_0\_FINAL

**UGL Engineering Pty Limited** 

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ATTENTION:

SUBJECT: RADIO SYSTEM REPLACEMENT PROJECT - REFERRAL OF NATIVE VEGETATION

**CLEARING AT SITE #42 KWINANA SOUTH** 

# **Project Background**

UGL Engineering Pty Limited is undertaking works 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).

UGL has identified that works required to install a Western Power cable route at Site #42 – Kwinana South (the Site) will necessitate the clearing of native vegetation. The location of the Site is presented in Figure 1.

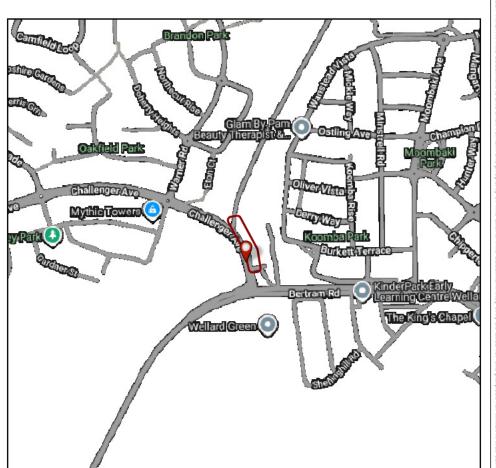
Western Environmental Approvals Pty Ltd was commissioned to undertake an ecological assessment of the Site. The assessments undertaken included a desktop review of the environmental site conditions and relevant surrounding and historical land uses as well as a reconnaissance level flora and vegetation survey.

A summary of cadastral lots intersecting with the Site as well as landowners is presented in Table 1.

Table 1: Site Identification and Land Descriptions

L. Site #42 Kwinana South L.	Land ID Number: 3138492  Lot 3 P076173  Land ID Number: 4061121  LGA: City of Kwinana  Lot 1 P076173, Challenger Av, Bertram  Land ID Number: 4061119  LGA: City of Kwinana  Land ID Number: 31377990  LGA: City of Kwinana  Lot 8003 P069103
	Land ID Number: 3974528 LGA: City of Kwinana





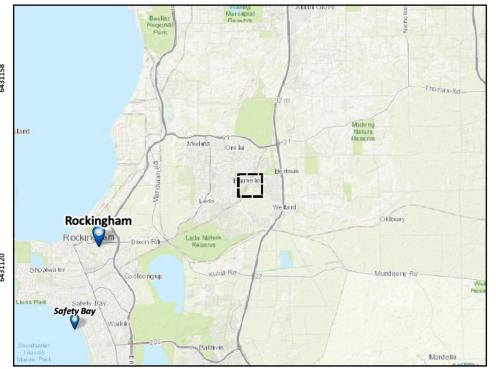
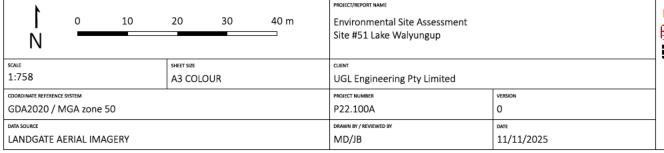


Figure 1: Site Location – Site #42 Kwinana South



Legend Survey Area

WPC Disturbance Footprint



# **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 accordance 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: Kwinana South - Site Inspection Form

	Site Inspection Form – Western Environmental				
Date	18 October 2024	Site Name	42 – Kwinana South, Mandurah		
Coordinates (GDA2020-Z50) Portion No. 4			4		
Enviro	Environmental Scientist				
Vegetation present					
Vegeta	ation description	VT01 – Kunzea shrubland: <i>Kunzea glabra</i> over grassy weeds with isolated shrubs and forbs of <i>Adenanthos cygnorum, Macrozamia riedlei, Burchardia congesta, Xanthorrhoea gracilis, Jacksonia furcellata</i> and *Conostylis aculeata.  The western portion and south of the survey area has been assessed as 'Parkland Cleared with isolated planted trees', roads and street trees.			
Vegeta	ation condition	Degraded to	Degraded to Completely Degraded		
Weed	percentage cover	75-100%%	75-100%%		
Distur	bance	Weeds, clea	Weeds, cleared area		
Wetla	nd mapped	No	No		
	etation indicative of nd vegetation?	No	No		
	he condition align //U/RE/CCW?	N/A	N/A		
Black o	cockatoo foraging t	No			

PTA RSR Project - Native Vegetation Clearing Referral

Site Inspection Form — Western Environmental		
Black cockatoo roosting habitat	No	
Black cockatoo breeding habitat	No	
Fauna evidence	No	
Site Photos	See Appendix A	

#### **General Comments**

Vegetation appears to be a mixture of landscaping/revegetation. Vegetation is partially representative of that which is naturally occurring in adjacent areas outside the rail corridor and is therefore considered native under the EP Act. The vegetation within the survey area was assessed as VT01 – Kunzea shrubland with a total extent of 0.18 ha. 0.09 ha of VT01 are located within the maximum clearing extent. The vegetation is comprised of *Kunzea glabra* over grassy weeds and isolated native shrubs and forbs.

The vegetation is in Degraded condition.

All other vegetation was assessed as Completely Degraded and not being representative of native vegetation. It was assessed as 'Parkland cleared' with isolated planted non-native trees and planted non-native street trees. Other cleared areas present have been developed for road infrastructure.

See Figure 2 for vegetation mapping and Figure 3 for mapping of vegetation condition.







G:\GIS\Project Data\2022\22.100A\P22.100A.qgz

MD/JB

11/11/2025

LANDGATE AERIAL IMAGERY

## **Bush Forever Site No 272**

The Site is mapped as intersecting with Bush Forever Site No. 272, known as Sicklemore Road Bushland, Parmelia/Casuarina (Figure 2).

The southern portion of the clearing extent intersects with the mapped Bush Forever Site. This area has however been historically cleared and is void of native vegetation. The vegetation was assessed as 100% weedy grasses. This area is therefore not considered to represent the vegetation, which is protected within the Bush Forever reserve.

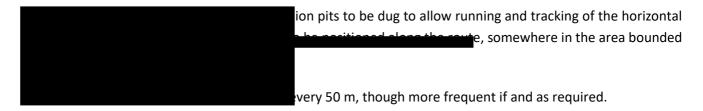
No clearing of native vegetation will therefore be required within the mapped Bush Forever Site.

# **Clearing Methodology**

The clearing of native vegetation at Kwinana South is required for the installation of the power cable route from existing pillar S8148819 on Lot 61 to the new pillar located on Lot 8003.

UGL has confirmed that clearing will be undertaken in a way that will minimise impacts. Due to the uncertainty regarding the exact location of inspection pits and the potential for structural root damage to adjacent vegetation caused by boring activities, a conservative approach to the quantification of potential impacts to native vegetation has been applied. Therefore, the full extent of the Disturbance Footprint has been submitted as potential clearing area. The clearing works required to be undertaken are as follows:

• Horizontal boring along the route shown in the design drawing MP215220 revision B (attached).



- Receival and inspection pits will be 2 m x 2 m area, and a maximum of 1.5 m deep.
- Some localised clearing required at the various pit locations (concept locations only shown in Figure 4 below, final position to be determined by installation contractor during execution of works).
- There is no intent to clear the entire area bounded by Zone A-B-C-D-E-F (Figure 4).
- Some inadvertent root damage may occur to vegetation located under the route where the
  horizontal boring is being carried out. Therefore, a conservative approach was taken, and a larger
  Disturbance Footprint has been submitted to cover any potential impacts, including impacts related
  to site access.
- The route will be adjacent to existing services, including Water, Comms and Gas. The route will be located on Challenger Av Lot, cross over the Bertram/Parmelia Boundary. This is shown in Plate 1 and Plate 2.



No clearing is expected on Lot 61, to allow connection into the existing WPC S8148819.

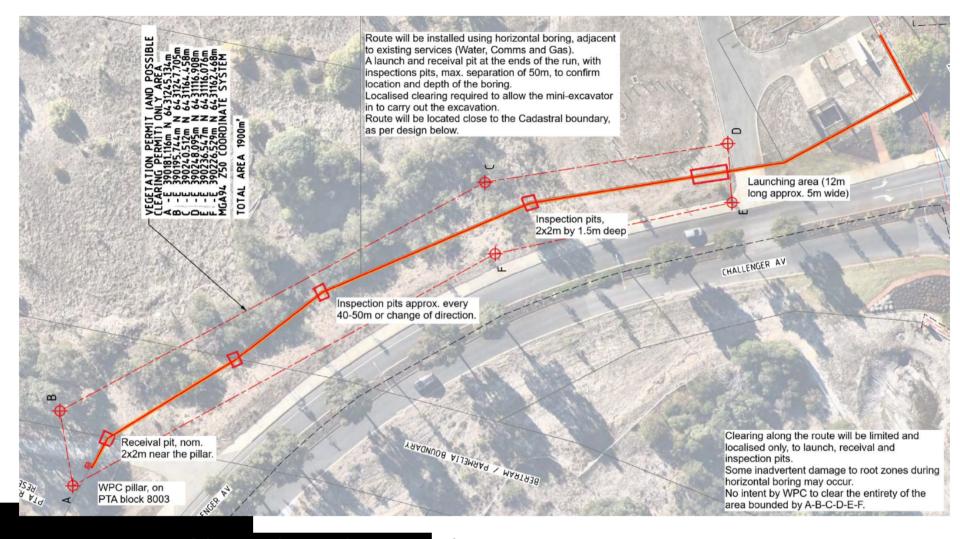


Figure 4: Concept Drawing of Clearing Works Required at Kwinana South



Plate 1: View looking north, close to points C-F, showing existing service locations, water, gas and comms.

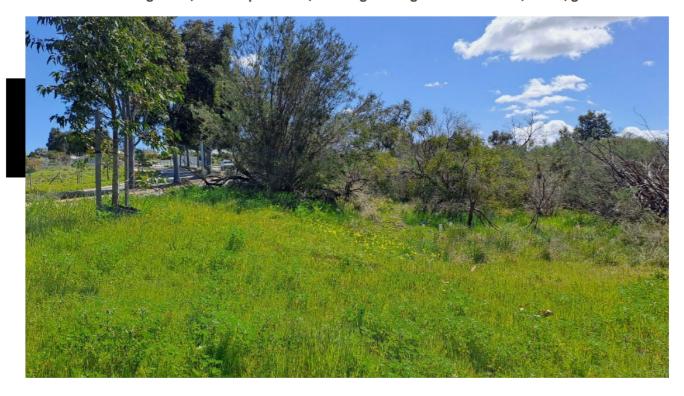


Plate 2: View looking north, from approximate location of the launch pit, up Challenger Ave, towards Lot 8003.

# **Assessment against the Ten Clearing Principles**

An assessment of this clearing extent against the Ten Clearing Principles contained in Schedule 5 of the *Environmental Protection Act 1986* (EP Act,) is provided in Table 3. The proposed clearing activities are not considered at variance to any of the clearing principles. The impacts are further not considered significant.



Table 3: Assessment against Ten 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 clearing extent contains vegetation, that has been historically cleared or revegetated. The 0.09 ha of native vegetation to be cleared is in Degraded condition with high percentages of weed cover.  No Threatened or Priority flora species were recorded.  Vegetation within the clearing extent consists of native shrubland over grassy weeds with relatively low species diversity.	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.	The clearing extent does not contain any black cockatoo habitat values. No other Threatened fauna species were recorded or are expected to occur within the Site.	Proposed clearing is not at variance to this Principle.
(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.	No threatened flora pursuant to the Commonwealth EPBC Act or the State BC Act were recorded or are expected to occur within the clearing extent.  No Priority flora species were recorded.	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.	The clearing extent does not contain any Threatened or Priority Ecological Communities. No impacts to TECs or PECs are expected to occur.	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 Site is located within the area of the Herdsman Complex. There is 3,103.70 ha (32.11%) of the complex remaining within the San Coastal Plain (DBCA, 2019)  The National Objectives and Targets for Biodiversity Conservation 2001-2005 (Commonwealth of Australia, 2001) recognises that the retention of 30% or more of the pre-clearing extent of each ecological community is necessary if Australia's biodiversity is to be protected. Below this level, species loss appears to accelerate exponentially (EPA, 2000). State Planning Policy 2.8: Bushland Policy for the Perth Metropolitan Region	Proposed clearing is not at variance to this Principle.

Principle (Schedule 5 of the EP Act)	Assessment	Outcome
	recognises a target of at least 10 per cent of the original extent of each vegetation complex (as representative of ecological communities at the regional scale) for the Swan Coastal Plain portion of the Perth Metropolitan Region, which is recognised as a constrained area.	
	The proposed clearing of 0.09 ha of native vegetation considered to represent the Herdsman Complex (0.003%) is not considered likely to reduce the maintenance of any vegetation complexes given the scale of impacts in proportion to the remaining extents.	
(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 wetlands or watercourses.  Therefore, no impacts are proposed to vegetation growing in, or in association with an environment associated with a water or wetland, and the proposed clearing is not at variance to this principle.	Proposed clearing is not at variance to this Principle.
(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	The clearing extents are all located in areas of relatively flat topography with only slight slopes. Standard mitigation measures will be implemented during clearing and earthworks as part of the CEMP and are considered appropriate given the scale of impacts.	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.	Bush Forever Site No. 272 intersects with the southern portion of the Site which is clear of native vegetation and has been cleared historically. No clearing will occur in this area. Due to the lack of vegetation, this area is not considered to represent the vegetation that is protected within the Buh Forever reserve.  As a result, the clearing is not considered to impact Bush Forever Site No 272.  Further, the values present within the planned clearing extents provide lower ecological value in comparison with the Bush Forever Site.	Proposed clearing is not at variance to this Principle.
	As a result, the proposed clearing extent is not considered to significantly impact on conservation areas, including TECs/PECs and Bush Forever sites.	

Principle (Schedule 5 of the EP Act)	Assessment	Outcome
(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.	No wetlands or surface water features are present within the clearing extents. Excavation is anticipated to be limited and is not expected to impact the groundwater table. Any potential impacts to surface water or groundwater will be managed through implementation of the CEMP. It is therefore unlikely that the removal of 0.09 ha of native vegetation will result in a significant impact to the underground water quality of the clearing extents.	Proposed clearing is not at variance to this Principle.
clearing the vegetation is likely to cause, or  any changes in surface water runoff as a result of the clearing. However given the scale at variation and the control of the clearing and the control of the clearing. However given the scale at variation and the control of the clearing and the control of the clearing.		Proposed clearing is not at variance to this Principle.

## **Conclusions**

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

- The following two vegetation types have been identified within the survey buffer area:
  - VT01: Kunzea shrubland over weedy understory. The vegetation is in Degraded condition.
    This vegetation type is located within the railway corridor and impacted by the project works.
    The total extent of this vegetation within the survey area is 0.18 ha, of which 0.09 ha is located within the clearing extent boundaries.
  - Other vegetated areas are parkland cleared with isolated planted non-native trees over weedy grasses.

Based on the findings of the flora and vegetation assessment at Site #42 – Kwinana South, the Project necessitates the clearing of 0.09 ha of VT01 (native vegetation) at the Site. The loss of this vegetation is not considered a significant impact.

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



Director

### Schedule

Statement of Limitation

## **Appendices**

- Appendix A: Site Photos
- Appendix B: Species List



# **SCHEDULE** Statement of Limitation

# **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.

this report is based on a scope of services defined by the dime 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").

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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 undertaken and performed in a professional manner, in consultants under similar circumstances. To the maximum ranty, express or implied, is made.

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## **Other Limitations**

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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 <a href="https://www.dcceew.gov.au/sites/default/files/documents/nes-guidelines">https://www.dcceew.gov.au/sites/default/files/documents/nes-guidelines</a> 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 within VT01 Kunzea shrubland within clearing extent, Degraded



Photo 2 Date: 18 October 2024

Description: Vegetation within VT01 Junzea shrubland within clearing extent, Degraded



Photo 3 Date: 18 October 2024

**Description:** Parkland cleared areas with isolated planted trees and street trees on Challenger Avenue



Photo 4 Date: 18 October 2024

**Description:** Vegetation within VT01 Kunzea shrubland, Degraded, immediately adjacent to the east of the clearing extent

# Appendix B Species List

Species	Stratum
Kunzea glabra	Mid
Adenanthos cygnorum	Mid
Macrozamia riedlei	Mid
Xanthorrhoea gracilis	Mid
Acacia saligna	Mid
Jacksonia furcellata	Mid
Burchardia congesta	Ground
*Conostylis aculeata	Ground
*Avena barbata	Ground
*Lupinus consentinii	Ground
*Bromus diandrus	Ground
*Hypochaeris glabra	Ground
*Arctotheca calendula	Ground
*Euphorbia terracina	Ground
*Pelargonium capitatum	Ground
*Eragrostris curvula	Ground
*Carpobrotus edulis	Ground
*Ehrharta calycina	Ground
*Gladiolus caryophyllaceus	Ground