

Kwinana Surplus Land Development – Native Vegetation Clearing Referral Application Supporting Document

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Aurizon Operations Limited

Kwinana Surplus Land Development
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1. Introduction

1.1 Purpose and Scope

This document has been prepared to support a Native Vegetation Clearing Referral. The purpose of this document is to provide additional information to the Department Water and Environmental Regulation (DWER) in the form of an assessment against the four-criterion set out in 'Guideline: Native vegetation clearing referrals' (DWER, 2021) (presented in **Section** Error! Reference source not found.).

1.2 Proposed Clearing

Aurizon Operations Limited (Aurizon) is seeking to expand its current operations at the Kwinana Rail Depot located in Kwinana, Western Australia. This expansion will involve the construction of two new warehouses on previously cleared areas of the site. For trucks to safely access these new warehouses, some existing access roads at the site will require widening. Widening of the access roads will require the removal of two isolated tuart (*Eucalyptus gomphocephala*) trees. These two trees are shown in **Figure 1** and **Figure 2**.

As seen in **Figure 1** and **Figure 2**, there is no understorey aside from weeds / introduced grasses at the location of these two trees. The trees are situated in a highly disturbed area bounded by sealed access roads and unsealed cleared areas used for laydown or vehicle parking. It is considered that the removal of these two isolated tuart trees from the site will not result in significant impacts to environmental values.

1.2.1 Relevant Surveys

The following ecological surveys have been undertaken at the Kwinana Rail Depot and have been used in preparing this document:

- *Kwinana Railway Depot Site Visit Report* Report prepared for Australian Western Railroad by Strategen (Strategen, 2011)
- Lots 511 and 512 Rockingham Road, Kwinana Beach. Reconnaissance flora and vegetation survey and black cockatoo habitat assessment. Report prepared for Aurizon Operations Limited by Strategen 2019 (Strategen, 2019)
- Reconnaissance Biological Assessment Aurizon Kwinana Depot Expansion Report prepared for Jacobs by Focused Vision Consulting (FVC, 2022)



Figure 1: Picture taken in May 2022 showing one of the two tuart trees proposed to be cleared at the Kwinana Rail Depot.



Figure 2: Picture taken in May 2022 showing both two tuart trees proposed to be cleared at the Kwinana Rail Depot.

2. Clearing Referral Criteria

The following sub-sections address the four-criterion specified in DWER (2021) as relevant to the proposed clearing.

2.1 Criterion 1

Criterion 1: The area proposed to be cleared is small relative to the total remaining vegetation.

Includes consideration of the proposed area to be cleared relative to:

- the total remaining vegetation in the region where the proposed clearing is located; and
- the total remaining vegetation of the ecological community that the vegetation proposed to be cleared forms a part of.

Threshold*	Justification	Threshold Met?
Extent of proposed clearing for each referral - If more than 1 ha is proposed to be cleared, a permit is required.	Two trees, equating to 0.02 ha (i.e. < 1 ha) of clearing, are proposed to be cleared.	No
Threshold for remaining extent of that native vegetation association or complex in the relevant IBRA bioregion - If less than 10% of that native vegetation association or complex is remaining within the relevant IBRA bioregion, a permit is required.	<p>The Project is located within the Swan Coastal Plain (SCP) IBRA bioregion.</p> <p>A review of the DBCA 046 SCP Vegetation Complexes dataset shows that the two isolated tuart trees are located within the Quindalup Vegetation Complex.</p> <p>The pre-European extent of this vegetation association within the SCP is 54,573.87 ha; the current extent is 33,011.63 ha; meaning that the remaining extent by percentage is 60.49%.</p> <p>This is above both the 10% threshold at which a vegetation community is regarded as Endangered and the 30% threshold at which species loss appears to accelerate exponentially within an ecosystem.</p> <p>Subsequently, the 10% threshold for the native vegetation association in the relevant IBRA bioregion (the SCP) has not been met.</p> <p>A review of other related datasets also identified the following:</p> <ul style="list-style-type: none"> • It is also noted that the DPIRD 005 remnant vegetation dataset does not overlap the two trees that are proposed to be cleared (although it does include other areas of native vegetation within Lot 511). • A review of the DWER 046 Environmentally Sensitive Areas (ESA) dataset indicates that the two isolated trees lie within an ESA (hence a clearing exemption cannot apply). 	No
Threshold for remaining native vegetation surrounding the boundary of the proposed clearing - If less than 10% native vegetation is remaining within a 5 km buffer of the proposed clearing, a permit is required.	<p>The 5 km area surrounding the two tuart trees proposed to be cleared largely comprises areas cleared for industrial, residential and agricultural purposes; as well as areas for recreational use (e.g. the Perth Motorplex and golf courses) and the Leda Bush Forever site.</p> <p>A review of satellite imagery indicates that approximately 35% of the land within this 5 km buffer remains as vegetated.</p>	No

*Thresholds as specified by DWER (2021) for the 'Metropolitan Perth and Greater Bunbury Region Schemes Constrained Areas' region, within which the Project is located.

2.2 Criterion 2

Criterion 2: There are no known or likely significant environmental values within the area

Includes consideration of potential impacts on environmental values within the area, including:

- biological values (e.g. flora, fauna, ecological communities)
- conservation values (e.g. impact to ecological linkages, conservation areas, heritage values)
- land and water resource values (e.g. wetlands and watercourses, water resources, land and soil quality).

Environmental Value	Description
WA listed ecological communities	<p>DBCA mapping records (DBCA-038) indicate that the two tuart trees proposed to be cleared are overlapped by the Sedgeland in Holocene dune swales of the southern Swan Coastal Plain threatened ecological community (TEC).</p> <p>The community is a sub-type of FCT SCP 19 'Segdelands in Holocene dune swales' and occurs within wetland depressions (swales) between parallel Holocene dunes, mostly located on the Rockingham-Becher Plain but also extending further north to Lancelin and south to Dalyellup. Typical and common native species in the community are the shrubs <i>Acacia rostellifera</i> (summer-scented wattle), <i>Acacia saligna</i> (orange wattle) and <i>Xanthorrhoea preissii</i> (balga), the sedges <i>Baumea juncea</i> (bare twigrush), <i>Ficinia nodosa</i> (knotted club rush) and <i>Lepidosperma gladiatum</i> (coastal sword-sedge), and the grass <i>Poa porphyroclados</i> (DBCA, 2020).</p> <p>Typical landforms and dominant species, which occur within this TEC were not recorded during the FVC (2022) survey. Therefore, it is concluded that none of the vegetation units defined during assessment are considered to be represent of this state listed TEC (FVC, 2022).</p> <p>FVC (2022) identified, however, that the two isolated tuart trees (as part of a larger patch 'T04' of vegetation on the site) are included in a Priority 3 ecological community; Tuart (<i>Eucalyptus gomphocephala</i>) Woodlands of the Swan Coastal Plain ecological community ('Tuart Woodlands').</p> <p>It is noted that it is the 30 m buffer (DoEE, 2019) associated with the canopy of the two tuart trees which groups them with the remaining vegetation in 'T04' (FVC, 2022). They are in fact separated from this vegetation by a stack of containers, a truck and trailer parking area, a bitumen access road and laydown areas; and have an understorey of weeds / introduced grasses. The removal of these two trees is not therefore anticipated to result in impacts to the remainder of patch T04 which has been identified by FVC (2022) as eligible for listing as the Priority 3 ecological community.</p> <p>It is, therefore, considered that the removal of the two isolated tuart trees will not have a significant impact on state listed ecological communities.</p>
Vegetation Condition	<p>The FVC (2022) report describes the vegetation condition within the survey area as 'Degraded' to 'Completely Degraded', and the two tuart trees specifically are mapped as 'Completed Degraded-Degraded'.</p> <p>The removal of the two isolated tuart trees is not anticipated to further reduce vegetation condition at the site.</p>
Significant Flora	<p>No flora of conservation significance were recorded within the survey area (which overlaps the proposed area to be cleared) during the FVC (2022) survey. Similarly, no flora of conservation significance were recorded during a survey by Strategen (2019) of the full extent of Lot 511 (and the adjacent Lot 512), and none were considered likely to be found.</p> <p>The understorey of the two isolated tuart trees is also noted to comprise weeds and introduced grasses (as shown in Figure 1 and Figure 2).</p>

Criterion 2: There are no known or likely significant environmental values within the area

Significant Fauna & Fauna
Habitat

The desktop review undertaken by FVC (2022) found 37 *Biodiversity Conservation Act* 2016 (BC Act) listed fauna species as potentially occurring within the survey area (which overlaps the two tuart trees proposed to be cleared).

Of these, seven species (excluding marine species for which there is no habitat within the survey area) have been recorded in close proximity to the FVC (2022) survey area, as follows:

- Carnaby's Black-Cockatoo (*Calyptorhynchus latirostris*) - Endangered
- Forest Red-tailed Black-Cockatoo (*Calyptorhynchus banksii naso*) – Vulnerable
- Peregrine Falcon (*Falco preigrinus*) – Specially Protected
- Perth Slider (*Lerista lineata*) – Priority 3
- Quenda (*Isodon fusciventer*) – Priority 4.
- Swan Coastal Plain shield-backed trapdoor spider (*Idiosoma sigillatum*) – Priority 3
- Water Rat/Rakali (*Hydromys chrysogaster*) - Priority 4.

No direct sightings or indirect evidence of any fauna of conservation significance were recorded during the FVC (2022) survey.

The following species were considered to be either regular or irregular visitors (FVC, 2022):

- Regular Visitor:
 - Carnaby's Black-Cockatoo (*Calyptorhynchus latirostris*) – Endangered
 - Forest Red-tailed Black-Cockatoo (*Calyptorhynchus banksii naso*) – Vulnerable
 - Quenda (*Isodon fusciventer*) – Priority 4.
- Irregular Visitor:
 - Baudin's Black-Cockatoo (*Calyptorhynchus baudinii*) – Endangered

The FVC survey report found the following regarding Black Cockatoos (FVC, 2022):

- Foraging:
 - The study area is considered to provide 'Moderate' foraging habitat quality for Carnaby's Black Cockatoo within areas mapped as Tuart Woodland.
 - The study area is considered to provide 'Low' foraging habitat quality for Baudin's Black Cockatoo and Forest Red-tailed Black Cockatoo within areas mapped as Tuart Woodland.
- Breeding - There are no confirmed or unconfirmed breeding sites within the survey area, or within 20 km of the survey area; and
- Roosting - There are no confirmed or unconfirmed roosting sites within the study area. The nearest unconfirmed roosting site (species not specified) is 1.5 km east (as well as 2.7 km, 3 km and 4.2 km south-east) of the survey area. The nearest confirmed roosting site for the Carnaby's Black Cockatoo is 6 km south of the survey area.

The two isolated tuart trees proposed to be cleared were surveyed and the Diameter Breast Height (DBH) was determined not to be adequate to provide potential breeding habitat, and there were no hollows within the two trees.

Subsequently, the two tuart trees proposed to be cleared are not anticipated to support BC Act listed fauna species and, therefore, the removal of these two trees is not anticipated to impact on BC Act listed fauna.

Criterion 2: There are no known or likely significant environmental values within the area

Wetlands	<p>There are no wetlands within the proposed area of clearing.</p> <p>It is noted that there is a Conservation Category Wetland (UFI 6389) within 1 km of the two isolate trees proposed to be cleared, and one Resource Enhancement Wetland (UFI 6375) directly to the east of the Lot 5 11. Neither the CCW nor the REW are anticipated to be impacted by the removal of the two isolated tuart trees.</p>
Land and soil quality	<p>The removal of the two isolated tuart trees is not anticipated to have a significant effect on the quality of the land or soil at the site, or surrounding areas. The cleared area is part of a cleared, flat landscape and will form part of a bitumen access road which will be maintained for vehicle use.</p>
Conservation Areas	<p>The following conservation areas are located within 5 km of the proposed clearing:</p> <ul style="list-style-type: none"> • Bush forever site, Leda (Site 349), to the east and south of Lot 5 11. • Lake Cooloongup, Lake Walyungup and adjacent bushland, Hillman to Port Kennedy (site 356). • An area identified in the DBCA 'Lands of Interest' dataset (DBCA 012) to the DBCA the south of the Survey Area, immediately to the south of Wellard Rd (Figure 3). <p>These areas are not anticipated to be impacted by the removal of the two isolated tuart trees.</p>

2.3 Criterion 3

Criterion 3: The state of scientific knowledge of native vegetation within the region is adequate

DWER or DMIRS will use the information included in the referral along with scientific data from various databases, spatial datasets, and other relevant and readily available information to determine the adequacy of the level of scientific knowledge about native vegetation within the region in which the area is situated. If the available information is not adequate, and additional information is required, a permit is highly likely to be required.

Justification

The Swan Coastal Plain IBRA bioregion has been extensively surveyed and there are numerous spatial datasets and literature available regarding the environmental sensitivities of the region. These information sources have been consulted in addressing Criterion 1 and 2.

Recent surveys have also been undertaken of the land parcel on which the proposed clearing is located (Lot 511) and the adjacent land parcel (Lot 512), as referenced in the response to Criterion 2 and detailed in **Section 1.2.1**.

It is considered that adequate information is available regarding the state of scientific knowledge of native vegetation within the SCP IBRA region.

2.4 Criterion 4

Criterion 4: Conditions will not be required to manage environmental impacts

Applicants and referrers should, as much as practicable, avoid and minimise environmental impacts to the area while planning their clearing activity. Clearing activities that are likely to require conditions to minimise, mitigate, offset, or otherwise manage effects on the environment are highly likely to need a permit.

Justification

Due to the limited clearing proposed to be undertaken and as the two tuart trees proposed to be cleared have been found to show no evidence of foraging, roosting or nesting habitat by conservation listed species (Strategen 2019, FVC 2022), a management plan for the clearing is not proposed and conditions are not considered to be required to manage environment impacts.

The following measures will be employed prior to and/or during the proposed clearing:

- Pre-start or similar to clearly communicate to workers the clearing boundary (i.e. the two trees to be cleared) and the method to be used.
- Use of an auditory deterrent (e.g. truck horn) to 'move off' any avifauna which may be present in the two trees immediately prior to clearing.
- Spotter in place to temporarily halt clearing should fauna be spotted.

As the two trees are isolated from other native vegetation at the site by existing cleared areas (e.g. parking area, access roads, laydown areas), it is considered that there is no risk of clearing outside of the proposed clearing boundary. The clearing boundary will, however, be clearly communicated to the team undertaking the clearing works prior to commencement of clearing works (as noted above).

With the above management measures in place, no environmental impacts are anticipated. It is therefore considered that conditions will not be required to manage environmental impacts associated with the proposed clearing.

3. Conclusion

As presented in this document, an assessment against the four-criterion set out in DWER (2021) has been undertaken regarding the proposed clearing of two isolated tuart trees at Aurizon's Kwinana Rail Depot.

In summary, the proposed clearing is considered to have very low environmental impacts as it satisfies these four-criterion. Specifically, no values listed under the BC Act or EP Act are anticipated to be impacted by the proposed clearing.

4. References

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