Clearing Assessment Report/ Vegetation Management Plan (VMP) – CPS 818

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South Western Highway (H009) Willowdale Road Intersection Upgrade
South West Region
EOS 3083

D24#365361
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1 PROPOSAL

1.1 Purpose and Justification

The intersection of South Western Highway and Willowdale Road requires upgrading due to traffic safety concerns for vehicles entering/exiting the Alcoa Wagerup alumina refinery and Willowdale mine (Figure 1). A Road Safety Inspection was conducted in July 2022 following the Austroads Guide to Road Safety Part 6: Road Safety Audit and in accordance with the requirements in the Main Roads Western Australia Policy and Guidelines for Road Safety Audit. The inspection found that there were three reported crashes in the five-year period to the end of December 2021. All crashes were a result of turning right into Willowdale road for northbound traffic on South Western Highway. Of these, one was fatal and the other two required medical assistance. Two crashes occurred at dawn/dusk and one was during the night.

Black spot funding was allocated to upgrade the intersection in mid 2023 prior to a further two right angle crashes in June and July 2023 from vehicles travelling northbound on South Western Highway turning right into Willowdale Road. As a result, speed limits have been reduced from 110 to 80 km/hr in August 2023 until the improvement works can be undertaken.

1.1.1 Main Roads Approach to Road Safety and the Environment

Main Roads is committed to minimising the environmental impacts of all of its activities, and manages the State road network to achieve balanced economic, social, safety and environmental benefits for the community. Main Roads recognises that Western Australia's environment is significant from a global perspective and the unique conservation values that are contained within its road reserve. Main Roads road network often adjoins natural areas and, in some locations, the reserve itself hosts remnant vegetation with high environmental values. Although the reserves were not established for this purpose, Main Roads recognises that it has a responsibility to conserve the environmental values that occur within the State's road network and minimise the impact its proposals have on the environment. In addition to providing a safe and efficient road network for all people using the roads under its control, Main Roads is also committed to protecting and enhancing the natural environment.

In accordance with National and State Government road safety policies, Main Roads is also committed to substantially reducing road trauma on the road network through Safe System principles. The Safe System approach acknowledges that more than two thirds of all serious crashes are due to human error rather than deliberate risk taking (e.g. speeding or drink driving) and seeks to improve behaviour through education and enforcement while managing the safety of vehicles, speeds and the road and road infrastructure. It is shown that improving sub-optimal road formation will substantially reduce the likelihood and severity of road crashes. For example, according to the Road Safety Management Guideline, increasing the sealed shoulder from 0.5 m to 2 m will reduce Killed and Seriously Injured numbers by more than 50%.

As the statutory authority responsible for providing and managing a safe and efficient main road network in Western Australia, Main Roads focuses on improving road safety by thoroughly considering all environmental, economic and community benefits and impacts. It operates on a hierarchy of avoiding, minimising, reducing and then, if required, offsetting our environmental impacts. This has been achieved through changes in proposal scope and design. Main Roads regularly reduces its clearing footprint by restricting earthworks limits for proposals, steepening batters, installing barriers, establishing borrow pits in cleared paddocks and avoiding temporary clearing for storage, stockpiles and turn around bays to avoid and minimise its impacts.

Further details on measures to avoid, minimise and reduce are provided in Section 1.5.

1.2 Proposal Scope

As a result of the Road Safety Audit, the proposal includes upgrading the intersection with the following activities to improve road safety:

- introduction of a separated southbound slip lane entrance to Willowdale Road from South Western Highway;
- modify and extend left turning lane to Willowdale Road, install splitter island to increase sight distance, improve lighting, drainage and clear vegetation;
- modifications to existing lighting; and
- constructing and/or upgrading ancillary infrastructure including;
    - drains;
    - culverts; and
    - kerbs.

1.3 Proposal Location

The Clearing Area is located on South Western Highway, Wagerup, SLK 89.68 – 90.17 within the Shire of Waroona as shown in Figure 1. The central coordinate of the proposal is -115.9057990° E, 32.8970130° S.

1.4 Clearing Details

Proposed Clearing to be undertaken using CPS 818: 0.033 ha.

Areas of Native Vegetation Clearing:
The areas of native vegetation to be cleared are shown in Figure 1. The 5 km Study Area is shown in Figure 2. Street view images of the proposed clearing are shown in Figure 3 and Figure 4.

Type of Native Vegetation:
Five remnant Marri (*Corymbia calophylla*), one resprouting flooded gum (*Eucalyptus rudis*) and paperbark (*Melaleuca rhaphiophylla*) trees in a completely degraded condition.

Figure 1. Clearing Area

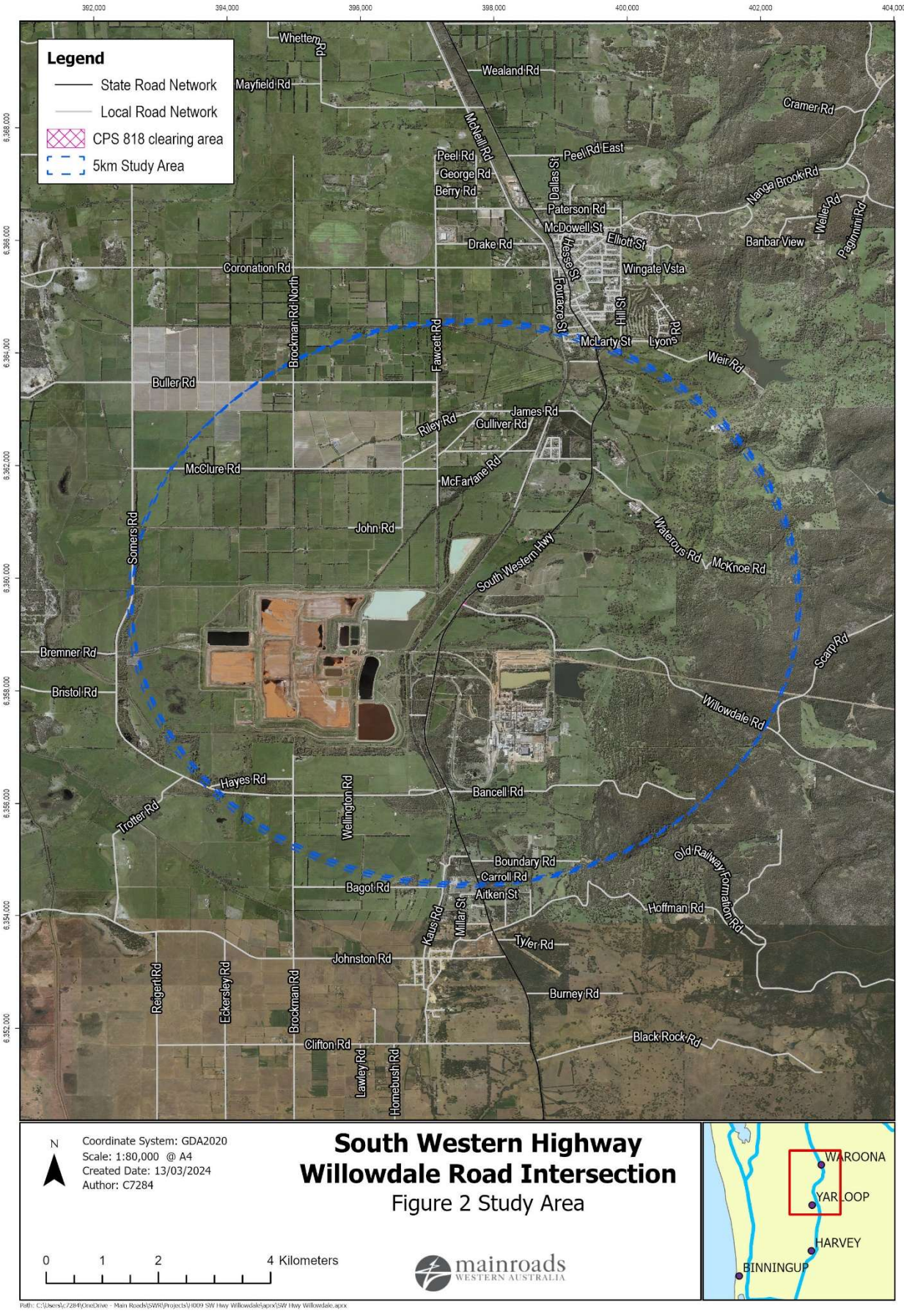

Figure 2. Study Area

Figure 3. Street View Clearing south of Willowdale Road

Figure 4. Street View Clearing north of Willowdale Road

1.5 Alternatives to Native Vegetation Clearing Considered During Proposal Development

The following alternatives to clearing were considered during the development of intersection upgrade:

- do not upgrade the intersection, however this will result in a poorer safety outcome and is highly likely to result in future fatalities or serious injuries and further degradation of the State road asset;
- upgrade the intersection without full implementation of the findings of the Road Safety Audit. This was immediately rejected as the purpose of the upgrade is to improve road safety as has been supported by Black Spot funding; and
- reducing the speed limit to minimise clearing requirements, while still balancing safety (driver fatigue) and freight efficiency. Speed limits were reduced at the intersection from 110 to 80 km/hr in August 2023 following major crashes in June and July 2023. Further reducing the speed limit is not considered feasible for a national highway. Ongoing safety concerns still exist despite the speeds limit being reduced and upgrading the intersection is considered high priority.

1.6 Measures to Avoid, Minimise, Reduce and Manage Proposal Clearing Impacts

The design and management measures implemented to avoid and minimise the potential clearing impacts of the Proposal are provided in Table 1.

Table 1. Measures Undertaken to Avoid, Minimise, Reduce and Manage the Proposal Clearing Impacts

Design or Management Measure	Discussion and Justification
Alignment to one side of existing road	Due to the requirement to upgrade the intersection to the east, the proposed works can only be located on the eastern side of South Western Highway. No clearing on the western side of the Highway is proposed.
Alternative alignment located within pasture or degraded areas	Locating the intersection within pasture areas would require more overall clearing and therefore it was not considered further.
Simplification of design to reduce complexity of intersection	Significant traffic volumes, including heavily vehicles, utilise this intersection on South Western Highway to access the Alcoa Wagerup refinery and Willowdale mine. If the upgrade works were not undertaken, this would result in no improvements in crash statistics, which is unacceptable to Main Roads on this dangerous intersection of the road network.
Steepen batter slopes	Alternative designs and modelling undertaken by Main Roads for steepening batters did not result in any significant reduction in the clearing required. Given the non-optimal road design and construction and nil to negligible environmental gain, these alternatives are not being pursued.
Installation of barriers	The installation of safety barriers would not reduce the clearing footprint. Thus, this is not a suitable measure to avoid clearing vegetation.
Installation of kerbing	Kerbing has been designed where possible but will have limited impact on the construction footprint (and thus clearing footprint) due to the offsets required for road safety and drainage requirements.
Mitigation planting	To mitigate the loss of six (6) trees that provide foraging habitat for black cockatoo species, Main Roads proposes to plant and maintain twelve (12) marri (*Corymbia calophylla*) trees within adjacent Alcoa of Australia (Alcoa) land to ensure the clearing will not result in a decline in foraging habitat on the Swan Coastal Plain.

1.7 Approved Policies and Planning Instruments

The clearing of native vegetation in Western Australia is regulated under the EP Act and the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act, Main Roads has also had regard to the below instruments where relevant.

Other Legislation potentially relevant for assessment of clearing and planning/other matters:

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

Environmental Protection Policies:

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

Other relevant policies and guidance documents:

- Environmental Offsets Policy (Government of Western Australia, 2011)
- A guide to the assessment of applications to clear native vegetation (Government of WA, December 2014)
- Procedure: Native vegetation clearing permits (Government of WA, October 2019)
- Environmental Offsets Guidelines (Government of Western Australia, 2014)
- Technical guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2016)
- Technical guidance – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment (EPA, 2020)
- Approved conservation advice under section 266B of the EPBC Act for threatened flora/fauna/vegetation communities.
- EPA Advice: Carnaby's Cockatoo in Environmental Impact Assessment in the Perth and Peel Region. In accordance with section 16(j) of the Environmental Protection Act 1986. (EPA, 2019)
- Referral guideline for 3 WA threatened black cockatoo species (DCCEEW, 2022)

2 SCOPE AND METHODOLOGY ASSESSMENT OF CLEARING

Native vegetation will be cleared to accommodate the intersection upgrade. This clearing will be undertaken using the Main Roads Statewide Clearing Permit CPS 818. To comply with CPS 818, Main Roads must prepare a Clearing Assessment Report (CAR).

This CAR outlines the key activities associated with the Proposal, the existing environment and an assessment of native vegetation clearing. This assessment provides an evaluation of the vegetation clearing impacts associated with the Proposal using the ten Clearing Principles listed under s51 of the *Environmental Protection Act 1986* (EP Act) and strategies used to manage vegetation clearing.

2.1 Report Terminology and Sources

The following terms are used in this assessment:

- **Clearing Area** – The maximum amount of native vegetation to be cleared that will accommodate the designed earthworks and, typically, a nominal (2 m) buffer to allow for the safe movement of machinery during construction.
- **Study Area** – Area covered by the Desktop Assessment. The Study Area is a 5 km radius of the Clearing area.

2.2 Desktop Assessment

A desktop assessment was undertaken by viewing internal datasets and other government agency managed databases, and consulting with relevant stakeholders where necessary. GIS layer viewing and mapping is done using ArcMap. Referencing of the GIS layers accessed is done under the relevant methodology section of each clearing principle. Government managed databases were searched to locate additional information, which are found under References in Section 10.

2.3 Surveys and Assessments

The following surveys/assessments were undertaken to inform this CAR:

- Reconnaissance Flora and Vegetation Assessment (Mattiske 2021)
- Site Inspection, including a Black Cockatoo Habitat Assessment (Main Roads 2024)

The assessments conducted are outlined in Table 2 and a summary of the findings are presented in Section 3.1.

Table 2. Summary of Biological and Targeted Surveys Relevant to the Proposal

Consultant & Survey Name	Survey Details
Mattiske (2021) Assessment of Remnant Native Vegetation on Southwest Highway Willowdale Intersection. Unpublished report prepared for Alcoa World Alumina Australia, December 2021.	**Survey Area:** Wider Proposal area **Type:** Reconnaissance flora and vegetation. **Timing:** 7 October 2021 **Document TRIM Ref:** D23#630017
Main Roads (2024) South Western Highway Willowdale Road Intersection Site Inspection	**Survey Area:** Wider Proposal Area **Type:** A high-level Black Cockatoo breeding habitat assessment was completed through the measurement of the Diameter at Breast Height (DBH) of trees within the Proposal Area. **Timing:** April 2023, January 2024 **Survey Results Shapefile TRIM Ref:** NA **Document TRIM Ref:** D24#277301

3 SURVEY RESULTS

In accordance with condition 8 eii of CPS 818, a copy of the relevant sections of the executive summary from the biological survey is provided in Appendix 1.

3.1 Summary of Biological Assessments

Mattiske (2021) conducted a spring assessment of the biological values of flora and vegetation of the area in accordance with the methods outlined in Technical Guidance – Flora and vegetation surveys for environmental impact assessment (EPA 2016). The survey area was assessed by establishing five plots (10m x 10m) and also through targeted searching for any native species of conservation significance. The flora and vegetation values within the plots was assessed by recording the presence and percentage cover of all vascular plant species growing in or overhanging the quadrats (Mattiske 2021).

A total of 33 vascular plant species from 29 genera and 14 families were recorded during the 2021 assessment. Of those, ~79% of which are introduced species (weeds). No Threatened or Priority flora species were recorded during the 2021 spring assessment. The lack of Threatened and Priority flora species reflects the completely degraded nature of the vegetation. No Threatened or Priority Ecological Communities were recorded within the assessment area in 2021. The latter again reflected the completely degraded nature of the assessment area.

Trees within the area had either been severely burnt in the 2016 Yarloop fire or were planted and no evidence of any hollows suitable for fauna species of conservation significance were located.

A site visit was conducted for the Willowdale Project to undertake a Black cockatoo assessment to supplement the botanical survey conducted by Mattiske (2021). A high-level Black Cockatoo breeding habitat assessment was completed through the measurement of the Diameter at Breast Height (DBH) of trees within the survey area given the potential to be utilised by Black Cockatoos. Methodology followed that in Main Roads (2023). Five remnant *Corymbia calophylla* (marri) and one *Eucalyptus rudis* were identified within the clearing area. Besides one tree that was less than 500 DBH, all other *Corymbia calophylla*, suitable DBH tree without hollows. Along South Western Highway north of Willowdale road, *Melaleuca rhaphiophylla* and *Eucalyptus rudis* appear to have regenerated from past disturbances and also following the bushfire in 2016.

4 VEGETATION DETAILS

4.1 Proposal Site Vegetation Description

The majority of the construction footprint for the intersection upgrade is within cleared and disturbed areas primarily covered by grassy weeds from the long history of agriculture, clearing for the original South Western Highway and the Wagerup refinery. Remnant native vegetation in the clearing area is completely degraded, consisting of *Corymbia calophylla* (Marri), regenerating *Melaleuca rhaphiophylla* (paperbark) and *Eucalyptus rudis* (flooded gum) (Photos 1 – 4) (Mattiske, 2021; Main Roads 2024). For a detailed description, refer to Mattiske (2021) and Main Roads (2024) for more details.

The Proposal area is located within the pre-European Pinjarra (968) Vegetation Association. This Vegetation Association is characterised by *Eucalyptus marginata* (Jarrah), *Corymbia calophylla* (marri) and *Eucalyptus wandoo* (wandoo). Table 3 provide details of the remaining extent of vegetation association 968.

Table 3. Pre-European Vegetation Representation

Pre-European Vegetation Association	Scale	Pre–European Extent (ha)	Current Extent (ha)	% Remaining	% Current Extent in DBCA Managed Land (proportion of pre-European Extent)
Veg Assoc 968	**Statewide**	296,877.84	95,048.82	32.02	18.79
	IBRA Bioregion Swan Coastal Plain	136,188.20	9,017.32	6.62	1.84
	IBRA Sub-region Perth	136,188.20	9,017.32	6.62	1.84
	Local Government Authority Shire of Waroona	11,226.53	393.21	3.50	0.30

4.2 Vegetation Complexes and Representation

The following vegetation complexes within the Proposal area are provided in Table 4.

Table 4. Vegetation Complexes (Heddle/Mattiske) within the Development Envelope

Heddle/Mattiske Veg Complex	Pre-European Extent (ha)	Current Extent (ha)	% Remaining
Guildford	90,513.13	4,607.91	5.09

Photo 1. Multi-stem DBH *Corymbia calophylla* (CC01), NE corner Willowdale Road/South Western Highway.

Photo 2. Patch of four *Corymbia calophylla* (CC02-05), SE corner Willowdale Road/South Western Highway

Photo 3. Resprouted *Eucalyptus rudis* (ER01), NE corner Willowdale Road/South Western Highway near fence line

Photo 4. Regenerating *Melaleuca rhaphiophylla* and *Eucalyptus rudis,* north of Willowdale Road/South Western Highway

5 ASSESSMENT AGAINST THE TEN CLEARING PRINCIPLES

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

Each principle has been assessed in accordance with the former Department of Environment Regulation (now Department of Water and Environmental Regulation (DWER) '*A Guide to the Assessment of Applications to Clear Native Vegetation*' (Department of Environment Regulation, 2014) and other relevant clearing permit application decision reports prepared by DWER.

The proposed clearing is likely at variance with Principle b, not likely at variance with Principle a, and g, and not at variance with the remaining Clearing Principles.

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

Proposed clearing may be at variance to this Principle.

Assessment:

The area proposed to be cleared consists of five remnant *Corymbia calophylla* (marri) trees along with regenerating *Melaleuca rhaphiophylla* (paperbark) and one *Eucalyptus rudis* (flooded gum) tree following the 2016 Yarloop fire. Of the trees, four Corymbia *calophylla* (marri) trees and one *Eucalyptus rudis* (flooded gum) trees are suitable DBH trees.

Database searches identified that there are five conservation significant flora species recorded within the 5km study area, being:

- *Drakaea elastica,* Threatened;
- *Morelotia australiensis,* Threatened;
- *Synaphea stenoloba,* Threatened;
- *Synaphea odocoileops,* P1; and
- *Conostylis pauciflora subsp. pauciflora,* P4

Database searches identified four Threatened Ecological Communities (TEC) and a further Priority Ecological Community (PEC) within the 5km study area:

- *Banksia attenuata* and/or *Eucalyptus marginata* woodlands of the eastern side of the Swan Coastal Plain (floristic community type 20b as originally described in Gibson et al. 1994) (TEC – Critically Endangered);
- *Corymbia calophylla — Eucalyptus marginata* woodlands on sandy clay soils of the southern Swan Coastal Plain (floristic community type 3b as originally described in Gibson et al. 1994) (TEC – Endangered);
- *Corymbia calophylla — Xanthorrhoea preissii* woodlands and shrublands, Swan Coastal Plain (floristic community type 3c as originally described in Gibson et al. 1994) (TEC – Endangered);
- Dense shrublands on clay flats (floristic community type 9 as originally described in Gibson et al. 1994) (TEC – Endangered); and
- Banksia Woodlands of the Swan Coastal Plain ecological community (Priority 3).

A total of 33 vascular plant species from 29 genera and 14 families were recorded during the 2021 assessment. Of those, ~79% of which are introduced species (weeds). No Threatened or Priority flora species were recorded during the 2021 spring assessment (Mattiske 2021) or during the site inspection (2024). No TECs or PECs were recorded within the assessment area in 2021 or in 2024. No Threatened or Priority species or communities have the potential to occur. The lack of diversity reflects the completely degraded nature of the vegetation and the long history of disturbances (agricultural, adjacent to the existing South Western Highway, industrial activities related to the refinery).

As discussed further under Principle b, the Proposal area provides suitable habitat for the three Black Cockatoo species, namely:

- Carnaby's Black Cockatoo (*Zanda latirostris*) – Endangered under BC Act 2016 and EPBC Act 1999 – Likely to occur;
- Baudin's Black Cockatoo (*Zanda baudinii*) – Endangered under BC Act 2016 and EPBC Act 1999 – May occur; and
- Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*) – Vulnerable under BC Act 2016 and EPBC Act 1999 – May occur.

The clearing area has similar or worse values to native vegetation occurring within the local area. Small patches of intact vegetation remain on the Swan Coastal Plain, with larger intact vegetation areas to the east in the Jarrah Forest. The removal of 0.033 ha of native vegetation does not sever any local or regional ecological linkages with the closest regional linkage in the Darling Scarp ~ 3.4 km to the east. Given the proposed clearing is adjacent to existing roads and in completely degraded condition, separated from good or better condition vegetation by disjunct isolated trees and planted vegetation interspersed with cleared areas, it does not provide a high regional ecological value.

As a result of the above, the proposed clearing may be at variance with this principle.

Methodology

- Biological Survey Field Assessment (2021)
- DCCEEW Protected Matters Search Tool Report (February 2024)
- Government GIS Shapefiles:
  - DBCA Threatened and Priority Ecological Community database search (Accessed 27 February 2024)
  - DBCA Threatened and Priority flora database search (Accessed 27 February 2024)
  - DBCA Threatened and Priority fauna database search (Accessed 27 February 2024)
  - South West Regional Ecological Linkages Axis Lines (Accessed 12 March 2024)
- Main Roads Site Inspection (2024)

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

Proposed clearing is at variance to this Principle.

Assessment

The area proposed to be cleared consists of five remnant *Corymbia calophylla* (marri) trees along with regenerating *Melaleuca rhaphiophylla* (paperbark) and one *Eucalyptus rudis* (flooded gum). Of the trees, four Corymbia *calophylla* (marri) trees and one *Eucalyptus rudis* (flooded gum) tree are suitable DBH trees.

Database searches identified that there are nine conservation significant fauna species recorded within the 5km study area, being:

- Forest red-tailed black cockatoo (*Calyptorhynchus banksii* subsp. *naso*);
- Baudin's cockatoo (*Zanda baudinii*) ;
- Carnaby's cockatoo (*Zanda latirostris*);
- Carter's freshwater mussel (*Westralunio carteri*);
- Peregrine falcon (*Falco peregrinus*);
- Rakali – water rat (*Hydromys chrysogaster*);
- Quenda (*Isoodon fusciventer*);
- Phascogale (*Phascogale tapoatafa wambenger*); and
- Blue-billed duck (*Oxyura australis*).

No significant fauna species were recorded by Mattiske (2021) or during the site inspection (Main Roads 2024). There is no aquatic habitat therefore Carter's freshwater mussel, rakali and the blue-billed duck will not occur. The peregrine falcon may be a seasonal vagrant to the area, but there is no significant habitat for the species. Quenda and Phascogale are unlikely to occur due to the discontinuous nature of the vegetation and the absence of native understorey species.

Signs of Black cockatoo foraging were observed during the site inspection, namely chewed *Corymbia calophylla* (marri) nuts and a feather of a white-tailed Black Cockatoo species. Black cockatoos prefer foraging habitat that includes jarrah and marri woodlands and forest heathland and woodland dominated by proteaceous plant species such as *Banksia, Hakea* and *Grevillea* species. The clearing area provides suitable habitat for the three Black Cockatoo species, namely:

- Carnaby's Black Cockatoo (*Zanda latirostris*) – Endangered under BC Act 2016 and EPBC Act 1999 – Likely to occur;
- Baudin's Black Cockatoo (*Zanda baudinii*) – Endangered under BC Act 2016 and EPBC Act 1999 – May occur; and
- Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*) – Vulnerable under BC Act 2016 and EPBC Act 1999 – May occur.

The overall native vegetation clearing will result in the removal of Black Cockatoo habitat as follows:

- 0.033 ha of medium quality foraging habitat *Corymbia calophylla* (marri);
- four *Corymbia calophylla* (marri) and one *Eucalyptus rudis* (flooded gum) suitable DBH trees;
- no known roosting trees;
- no trees that contain suitable hollows
- no vegetation within 5 km of a known black cockatoo roosting site; and
- no vegetation with 6 km of a known black cockatoo breeding site.

Given the above, the proposed clearing area provides significant medium quality foraging habitat for the conservation significant black cockatoos. However, no known roosting or suitable breeding trees are proposed to be cleared. Evidence from the 2016 Yarloop fire was obvious, and the overall health of trees was questionable. It is likely that all marri have some degree of plant disease (Marri Canker (*Quambalaria coyrecup*); however, given the damage from the fire, it is not directly apparent. Older evidence of foraging was observed on planted Marri (*Corymbia calophylla*) outside of the clearing area; therefore, Black Cockatoo species may possibly utilise foraging habitats within the local area on occasion. Due to the linear nature of the proposed clearing, the completely degraded condition, the context of the wider Swan Coastal Plain and the proximity to remnant vegetation in the Jarrah Forest, clearing for the proposal is unlikely to significantly impact on foraging resources for the three Black Cockatoo species. As such, clearing for the proposal is at variance with this principle.

Methodology

- Biological Assessment (2021)
- DCCEEW Protected Matters Search Tool Report
- Government GIS Shapefiles:
  - DBCA Threatened and Priority fauna database search (Accessed 27 February 2024)
- Main Roads Site Inspection (Februray 2024)
- EPA (2019) and DECEEW (2022)

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

Proposal is not likely to be at variance to this Principle.

Assessment

Database searches identified that there are three Threatened flora species recorded within the 5km study area, being:

- *Drakaea elastica,* Threatened;
- *Morelotia australiensis,* Threatened; and
- *Synaphea stenoloba,* Threatened.

No Threatened flora were recorded by Mattiske (2021) or during the Site Inspection (2024). Due to the completely degraded nature of the area proposed to be cleared, Threatened flora do not occur and therefore the proposed clearing is not likely to be at variance to this principle.

Methodology

- Biological Survey Field Assessment (2021)
- DCCEEW Protected Matters Search Tool Report (February 2024)
- DBCA Threatened and Priority flora database search (Accessed 27 February 2024)
- Main Roads Site Inspection (2024)

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

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

Assessment

Database searches identified four TECs within the 5km study area:

- *Banksia attenuata* and/or *Eucalyptus marginata* woodlands of the eastern side of the Swan Coastal Plain (floristic community type 20b as originally described in Gibson et al. 1994);
- *Corymbia calophylla — Eucalyptus marginata* woodlands on sandy clay soils of the southern Swan Coastal Plain (floristic community type 3b as originally described in Gibson et al. 1994);
- *Corymbia calophylla — Xanthorrhoea preissii* woodlands and shrublands, Swan Coastal Plain (floristic community type 3c as originally described in Gibson et al. 1994); and
- Dense shrublands on clay flats (floristic community type 9 as originally described in Gibson et al. 1994).

No TECs were recorded by Mattiske (2021) or during the Site Inspection (2024). Due to the completely degraded nature of the area proposed to be cleared, no TECs occur and therefore the proposed clearing is not likely to be at variance to this principle.

Methodology

- Biological Survey Field Assessment (2021)
- DCCEEW Protected Matters Search Tool Report (February 2024)
- DBCA Threatened and Priority Ecological Community database search (Accessed 27 February 2024)
- Main Roads Site Inspection (2024)

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

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

Assessment

The National Objectives and Targets for Biodiversity Conservation recognise that the retention of 30% or more of the pre-clearing extent of each ecological community is necessary if Australia's biological diversity is to be protected (Commonwealth of Australia 2001) except in constrained areas (Perth & Peel) where 10% representation should be maintained.

The Proposal area is located on the Swan Coastal Plain, an area that has been cleared for agriculture and urban development. Within the Shire of Waroona, there is around 5% of the Guildford complex remaining and less than 0.3% of Vegetation Complex 968 within DBCA managed land. However, there is 18.79% of Vegetation Complex 968 remaining in DBCA managed land and 32.02% remaining within WA.

Notwithstanding the above, the vegetation within the clearing area only consists of isolated remnant trees including Marri (*Corymbia calophylla*), flooded gum (*Eucalyptus rudis*) and paperbark (*Melaleuca rhaphiophylla*) in a predominately completely degraded condition. Whilst the clearing is mapped within the pre-European Vegetation Complex 968 area, the vegetation does not form any valuable ecological function of that complex due to being in a completely degraded condition.

The 0.033 ha of proposed clearing is not significant as a remnant due to:

- the very small area of isolated trees proposed to be cleared in the road reserve;
- the Completely Degraded nature of the vegetation, consisting of trees over a ground cover strata dominated by introduced weed species to the exclusion of native species; and
- the significant impacts to the vegetation from the Yarloop bushfires further degrading the vegetation and structure.

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

Methodology

- Biological Survey Field Assessment (2021)
- Main Roads Site Inspection (2024)
- Aerial photography
- Government GIS shapefiles:
  - Pre-European vegetation (Accessed 28 February 2024)
  - Vegetation complexes (Accessed 28 February 2024)
- Statewide Vegetation Statistics (Government of Western Australia 2019)

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

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

Assessment

The clearing area is located within a Palusplain that is characterised as a multiple use wetland according to the Geomorphic Wetlands Swan Coastal Plain dataset. Multiple Use Wetlands are characterised as wetlands with few remaining important attributes and functions. The Palusplain within which the Proposal is located is highly modified from the long history of agricultural and industrial activities and the existing South Western Highway. Upgrading the intersection will not change any natural wetland functions. The clearing area contain trees species which are not limited in their distribution to watercourses or wetland

environments, and the site inspection did not indicate that there are growing in association to these environments.

As the vegetation is in a completely degraded condition, will not have a significant impact on the environmental values of the palusplain and does not contain species growing in association with a watercourse or wetland, the clearing is not likely to be at variance to this principle.

Methodology

- Biological Survey Field Assessment (2021)
- DCCEEW Protected Matters Search Tool Report (February 2024)
- Government GIS Shapefiles:
  - Geomorphic Wetlands (Accessed 24 February 2024)
- Main Roads Site Inspection (2024)

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

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

Assessment

The clearing area occurs within the Pinjarra 213Pj land subsystem, which consists of 'Poorly drained coastal plain with variable alluvial and aeolian soils. Variable vegetation includes Jarrah, marri, wandoo, paperbark sheoaks and rudis'. The sandy soils present within the clearing area can be prone to wind erosion. The clearing area is within unit M1 – 10 – 30% of the unit has a high to extreme wind erosion risk. However, given the minor nature of the proposed clearing in a completely degraded condition adjacent to an existing highway, the proposed clearing is not likely to cause appreciable land degradation in the form of wind erosion.

The DWER/ASRIS Acid Sulfate Soil (ASS) risk mapping indicates that the area is classified as a low probably of occurrence. Given a lack of drainage lines and the flat typography, flood risk is low and water erosion is highly unlikely to occur (located within the mapped L1 area). There is some minor salinity risk, mapped within the M2 unit – 30-50% of the unit has a moderate to high salinity risk or salinity is present. Nonetheless, species that are present within the clearing area are susceptible to salinity, therefore indicating it is not saline at present, nor was evidence present in the surrounding local area outside the clearing area. The removal of the vegetation is also highly unlikely to cause increased salinity given the surrounding remnant and planted vegetation keeping the groundwater table at depth.

Therefore, the proposed clearing is not likely to be at variance with this Principle.

Methodology

- Government GIS Shapefiles:
  - Acid Sulphate Soil Risk Map (Accessed 27 February 2024)
  - Soil landscape land quality – Water Erosion Risk (Accessed 5 March 2024)
  - Soil landscape land quality – Wind Erosion Risk (Accessed 5 March 2024)
  - Soil landscape land quality – Salinity Risk (Accessed 5 March 2024)
  - Soil landscape land quality – Waterlogging Risk (Accessed 5 March 2024)
  - Soil landscape land quality – Flood Risk (DPIRD-007) (Accessed 5 March 2024)
- Biological Assessment (2021)
- Main Roads Site Inspection (Februray 2024)

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Proposed clearing is not at variance to this Principle.

Assessment

A search of government databases indicates no nature reserves, conservation areas or Bush Forever Sites are located within 100 metres of the clearing area. The closest DBCA Managed Land is Hamel State Forest over 2.8 km to the north.

Therefore, the proposed clearing is not at variance to this Principle.

Methodology

- Government GIS Shapefiles:
  - DBCA Legislated Lands and Waters & Lands of Interest (Accessed 27 February 2024)
  - Geomorphic Wetlands (conservation category wetlands only) (Accessed 27 February 2024)
- Biological Assessment (2021)
- Main Roads Site Inspection (Februray 2024)

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Proposed clearing is not at variance to this Principle.

Assessment

According to available databases, there are no watercourses within the proposed clearing area or in close proximity. The clearing is not located within a Proclaimed Surface Water area but is located within the Murray Groundwater area proclaimed under Section 26B(1) of the RIWI act 1914.

The DWER/ASRIS ASS risk mapping indicates that the area is classified as a low probably of occurrence. The soils have a moderate to high salinity risk or is presently saline. Observations during the site inspection is that it is unlikely the clearing area is currently saline due to the species present.

Groundwater salinities in the Wagerup area range between approx. 500 mg/L and 5,000 mg/L. However, there is existing contamination from the Wagerup refinery that has led to an alkali plume and the adjacent contaminated site (DWER 20218). No groundwater abstraction is proposed for the clearing. Furthermore, given the linear nature of the proposed clearing, the completely degraded condition and the existing contamination, the proposed clearing is highly unlikely to increase groundwater salinity or cause deterioration in the quality of groundwater.

Based on the above, the proposed clearing is not at variance to this Principle.

Methodology

- Government GIS Shapefiles:
  - Soil landscape land quality - Salinity Risk (Accessed 5 March 2024)
  - Acid Sulphate Soil risk mapping (Accessed 27 February 2024)
- Biological Survey Field Assessment (2021)
- Main Roads Site Inspection (2024)

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

Proposed clearing is not at variance to this Principle.

Assessment

According to available databases, the local area has a moderate to high flood risk and a high water repellence risk. The area is located in the South west region and experiences a mean rainfall of 726 mm per annum (based on the Bunbury weather station), predominately in the winter months from cold fronts crossing the south coast.

As discussed in Principle f, the clearing area is located on the Swan Coastal Plain within a Palusplain that has been highly modified from historic agriculture and industrial developments. The limited clearing is unlikely to cause, exacerbate the incidence or intensity of flooding. The proposed clearing is intended to facilitate an upgrade to the road network, in addition to re-shaping the table drain adjacent to South Western Highway, therefore increasing the efficiency of the road drainage network.

The small extent of the proposed clearing is not anticipated to adversely impact surface water inflows into either the clearing area or its surrounds. In addition, due to the linear nature of the proposed clearing area in a completely degraded condition, the proposed clearing is not likely to cause or exacerbate the incidence or intensity of flooding.

Methodology

- BoM Website (Accessed 6 March 2024)
- Government GIS Shapefiles:
  - Soil landscape land quality - Waterlogging Risk (Accessed 5 March 2024)
  - Soil landscape land quality - Flood Risk (Accessed 5 March 2024)
- Biological Survey Field Assessment (2021)
- Main Roads Site Inspection (2024)

6 VEGETATION MANAGEMENT

Main Roads will avoid clearing native vegetation where possible. Where clearing cannot be avoided then this clearing is kept to a minimum. A Vegetation Management Plan (VMP) has been developed to manage and minimise vegetation clearing for the Proposal (refer to Appendix 2).

7 REHABILITATION, REVEGETATION & OFFSETS

7.1 Revegetation and Rehabilitation

No temporary clearing will be undertaken as part of the Proposal activities and therefore no revegetation and rehabilitation is proposed.

7.2 Offset Proposal

In accordance with condition 11a of CPS 818, DWER granted Main Roads an exemption from submitting an offset proposal.

8 STAKEHOLDER CONSULTATION

Condition 8 of CPS 818 requires Main Roads WA to invite submissions from a number of parties when the proposed clearing is considered likely to be seriously at variance, at variance or may be at variance with one or more clearing principles.

The CAR was published on the Main Roads Website for a period of 21 days from the 17 May 2024 until 7 June 2024. As part of this process, Main Roads invited submissions from Alcoa, DWER and the Shire of Waroona.

Main Roads received submissions from the following stakeholders:

- DWER
- Alcoa of Australia

Table 5 details the key issues raised and Main Roads response to these key issues.

Table 5. Summary of Main Roads Responses to Stakeholder Submissions

Name of Stakeholder	Date of Consultation	Key Issue/Comment	Main Roads Response/Comment	TRIM Ref of Consultation
Alcoa of Australia Limited	14 May 2024	Letter of support to clear native vegetation to facilitate an improved and safer intersection to enable access to the Alcoa Wagerup Alumina refinery.	Main Roads has included mitigation planting to mitigate the loss of black cockatoo foraging habitat.	D24#702680
DWER	14 June 2024; 10 July 2024	DWER requested further information on the proposed mitigation planting of marri (*Corymbia calophylla*) trees including the number, their protection and the location where they would be planted. DWER determined that the proposed clearing is at variance with principle (b), may be at variance with principle (a), not at variance with principles (h), (i) and (h) and not likely to be at variance with the remaining clearing principles.	Main Roads liaised with DWER to provide the required information and agreement on 12 trees to be planted on Alcoa land. This document (including the VMP) was updated to reflect the changes and the CAR/VMP was approved by DWER on 7/08/2024.	DWER request for further information (RFI) (RFI1) - D24#867582 Main Roads response to RFI1- D24#967920 DWER advice- D24#1141256 DWER approval - D24#711031

9 COMPLIANCE WITH CPS 818

Table 6 summarises what further pre-clearing impact assessment is required in accordance with CPS 818/17.

Table 6. Summary of Additional Management Actions Required by CPS 818

Impact of Clearing	Yes/No or NA	Further Action Required
1. The CAR indicates that the clearing is 'At Variance' or 'May be at Variance' with one or more of the Clearing Principles.	**Yes**	**1.** Clearing Report was published on website and submissions sought for 21 days. **2.** Submissions invited from relevant parties, including the LGA, the owner or occupier of the land and other stakeholders in accordance with Condition 8 of CPS 818. **3.** VMP has been completed, refer to Appendix 2. **4.** Offset exemption approved **5.** Summary of submissions and a statement addressing each of those submissions to be published on website.
2. Clearing is at variance or may be at variance with Clearing Principle (g) land degradation, (i) surface or underground water quality **or** (j) the incidence of flooding.	**No**	No further action required
3. Clearing is at variance with Clearing Principle (g) land degradation, (i) surface or underground water quality **and** (j) the incidence of flooding.	**No**	No further action required
4. The Proposal involves clearing for temporary works (as defined by CPS 818).	**No**	No further action required.
5a. Proposal is within a Region that: • has rainfall greater than 400mm; and, • is South of the 26th parallel; and, • works are necessary in 'Other than dry conditions'; and, • works have potential for **uninfested** areas to be impacted.	**Yes**	However only isolated vegetation is proposed to be cleared, therefore standard Vehicle and Plant management actions from Annexure 204B (TABLE 204B.9.1), Hygiene Checklists *(D17#859669)* and Vehicle, Plant and Machinery Hygiene Register Template *(D23#179551)* will be applied.
5b. Do the proposed works require clearing within or adjacent to DBCA managed lands in non-dry conditions?	**No**	No further action required.
6. Main Roads has been notified by DWER or an environmental specialist that the area to be cleared is susceptible to a pathogen other than dieback.	**No**	No further action required.

Impact of Clearing	Yes/No or NA	Further Action Required
7. Weeds are likely to spread to and result in environmental harm to adjacent areas of native vegetation that are in good or better condition.	**No**	No further action required.
8. Did an environmental specialist conduct the survey or field assessment?	**Yes**	The Botanists undertaking the biological assessments was highly experienced (Dr Libby Mattiske and Dave Angus – Mattiske).
9. Did an environmental specialist prepare the Assessment Report and any other associated documentation including the VMP, Dieback Management Plan or Offset Proposal?	**Yes**	The Environmental Scientist preparing the Assessment Report and any other associated documentation including the VMP, Dieback Management Plan or Offset Proposal was suitably qualified and has over 20 years' experience.

10 REFERENCES

Department of Agriculture, Water and the Environment (2022). *Referral guideline for 3 WA threatened black cockatoo species: Carnaby's Cockatoo, Baudin's Cockatoo and the Forest Red-tailed Black cockatoo*. Canberra, Australian Capital Territory.

Bureau of Meteorology Australia. (2024). Climate Averages for Australian Sites – Bunbury– Available online from http://www.bom.gov.au/climate/data/index.shtml
Accessed 12 March 2024

Department of Environment and Conservation (2014). *A guide to the assessment of applications to clear native vegetation under Part V Division 2 of the Environmental Protection Act 1986*. Department of Environment Regulation. Perth, Western Australia.

Department of Water and Environmental Regulation (2018) Works Approval W6104/2017/1. tp-3772.pdf (parliament.wa.gov.au) Accessed 6 March 2024.

Environmental Protection Authority (EPA) (2019). *EPA Advice: Carnaby's Cockatoo in Environmental Impact Assessment in the Perth and Peel Region*. In accordance with section 16(j) of the *Environmental Protection Act 1986*.

Environmental Protection Authority (2016). *Technical Guide – Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment* (eds. K Freeman, G Stack, S Thomas and N Woolfrey). Perth, Western Australia.

Government of Western Australia (2014a). *A guide to the assessment of applications to clear native vegetation Under Part V Division 2 of the Environmental Protection Act 1986*. Department of Environmental Regulation.

Main Roads Western Australia 2023, Environmental Factsheet: Technical Guidance Protecting Black Cockatoos – Baudin's Cockatoo, Carnaby's Cockatoo and Forest Red-tailed Black Cockatoo. Unpublished factsheet (D19#1011841).

Mattiske Consulting Pty Ltd 2021, 2021 Assessment of Remnant Native Vegetation on Southwest Highway Willowdale Intersection. Unpublished report prepared for Alcoa World Alumina Australia, December 2021.

Main Roads WA (2024). Site Inspection Report for South Western Highway Willowdale Road Intersection. February 2024.

11 APPENDICES

Appendix 1: CPS 818 condition 8 (e) (iii) Biological Surveys and Field Assessment Executive Summary and Report Conclusions - Flora and Vegetation Survey – Mattiske 2021 (Executive Summary only)

Appendix 2: Vegetation Management Plan

Appendix 1: CPS 818 condition 8 (e) (iii) Biological Surveys and Field Assessment Executive Summary and Report Conclusions

EXECUTIVE SUMMARY

Mattiske Consulting Pty Ltd were commissioned in the spring months of 2021 to the biological values on the intersection of the Southwest Highway and Willowdale Road to enable an upgrade of the intersection to address some traffic safety concerns.

According to the previous desktop assessment by Advisian (2020), the upgrade on the intersection is associated with the following:

- introduction of a separated southbound slip lane entrance to Willowdale Road from South Western Highway,
- modifying the intersection to include concrete islands,
- modifications to existing lighting,
- constructing and/or upgrading ancillary infrastructure including,:
  - drains,
  - culverts,
  - kerbs, and
- clearing existing road side vegetation (conservatively estimated to be 0.6 ha).

The assessment was undertaken on 7th October 2021 by two experienced botanists, Dr Libby Mattiske and David Angus from Mattiske Consulting Pty Ltd in accordance with methods outlined in *Technical Guidance – Flora and vegetation surveys for environmental impact assessment* (EPA 2016). Both botanists held valid collection licences to collect flora for scientific purposes, issued under the BC Act. The area was assessed by establishing five plots (10m x 10m) and also through targeted searching for any native species of conservation significance. The flora and vegetation values within the plots was assessed by recording the presence and percentage cover of all vascular plant species growing in or overhanging the quadrats.

A total of 33 vascular plant species from 29 genera and 14 families were recorded during the 2021 assessment. Of those, a total of 26 (78.8% of total recorded) were introduced species (weeds).

No Threatened flora species, pursuant to section 179 of the *EPBC Act 1999* and as listed by DAWE (2021a) or pursuant to Part 2, Division 1 and Subdivision 2 of the *BC Act 2016* and as listed by Department of Biodiversity, Conservation and Attractions (DBCA 2021) were recorded during the 2021 spring assessment. No Priority Flora species as listed by the DBCA were recorded during the 2021 spring assessment. The lack of threatened and priority flora species reflects predominantly the completely degraded nature of the vegetation.

No Threatened or Priority Ecological Communities were recorded within the assessment area in 2021. The latter again reflected the completely degraded nature of the assessment area.

As the few trees that remained had either been severely burnt in recent fires or had been planted there was no evidence of any hollows suitable for fauna species of conservation significance. The few Marri trees (*Corymbia calophylla*) south of the intersection had been damaged by fires or had been removed due to a previous road accident on the corner (apparent from a remembrance cross).

As the area has been highly modified for safety reasons associated with the nearby roads the other native vegetation clearing principles are not relevant.

In view of the degraded condition of the assessment area, there should be no impediment from an environmental perspective to upgrade the road intersection to address safety concerns. Although there are some native trees on the fringes of the road intersection these have been largely planted and introduced.

Appendix 2: Vegetation Management Plan

SOUTH WESTERN HIGHWAY (H009) WILLOWDALE ROAD INTERSECTION

Purpose and Scope

This Vegetation Management Plan (VMP) has been prepared by Main Roads for the purpose of managing native vegetation clearing impacts associated with the South Western Highway Willowdale Road Intersection Upgrade Proposal.

The proposal includes upgrading the intersection with the following activities:

- introduction of a separated southbound slip lane entrance to Willowdale Road from South Western Highway
- Modify and extend left turning lane to Willowdale Road, install Splitter island to increase sight distance, improve lighting, drainage and clear vegetation.
- modifications to existing lighting
- constructing and/or upgrading ancillary infrastructure including:
    - drains
    - culverts
    - kerbs

In specified circumstances, Main Roads VMP is required to be approved by Department of Water and Environmental Regulation (DWER) as a condition of the Main Roads Statewide Clearing Permit CPS 818.

Actions, and their relevant timeframes, from this VMP will be documented within the relevant Tender Documentation (Specifications), such as:

- Specification 204 Environmental Management
- Specification 301 Vegetation Clearing and Demolition
- Specification 303 Materials and Water
- Specification 304 Revegetation
- Specification 304 Rehabilitation of Disturbed Areas.

Once the Contract has been awarded, the Superintendent's Contract Management Team (or equivalent roles) are to ensure that the requirements are implemented by the Contractor.

Avoiding, Mitigating and Managing the Impacts of Clearing

A number of measures were undertaken to during the development and design of the proposal to reduce its impact the environment.

For further information on the alternatives that were considered during the proposal development, please go to Section 1.5 of the Clearing Assessment Report for the proposal.

For further information on the measures undertaken to avoid, minimise, reduce and manage the proposal's clearing impacts, please go to Section 1.6 of the Clearing Assessment Report for the proposal.

VMP Actions

General vegetation management actions to be undertaken is shown in Appendix 2.1: General Vegetation Management Actions for Clearing.

Appendix 2.1: General vegetation management actions for clearing

Management Action	Responsibility	Timing
The Contractor must ensure plant, machinery and equipment, is cleaned down prior to arrival to the site.	Superintendent	During construction
Vehicle hygiene inspection checklists will be utilised to manage potential weed/dieback spread on earth-moving machinery.	Superintendent	During construction
No known dieback infested soil, mulch, fill or other material will be permitted into the works area.	Superintendent	During construction
All Clearing must be undertaken in such a way to allow fauna to move out of the Clearing area.	Superintendent	During construction
The Limits of Vegetation Clearing will be demarcated on site prior to the commencement of clearing to prevent entry into areas of native vegetation.	Superintendent	During construction
All recently cleared, exposed and loose surface areas shall be protected from wind, water and soil erosion.	Superintendent	During construction
The Contractor must develop and detail a Site induction training program as part of the Contractor Environmental Management Plan that includes as a minimum, the significant environmental impacts, actual or potential, of work activities associated with the Contract	Superintendent	During construction

The above actions will be documented within Specifications 204 and 301.

Main Roads' preclearing **Hold Point** applies to all projects that require vegetation clearing, as documented within Specification 301 (301.12 PRE-CLEARING PROCESS). Accordingly, all Hold Point actions must be signed off prior to clearing commencing. This Hold Point comprises the following actions:

Prior to the commencement of any clearing operations, the Contractor must certify for the Superintendent's verification and approval that the following activities have been completed in accordance with the relevant specification:

a) The pegging of limits of vegetation clearing has been undertaken.

b) The pegged vegetation clearing area does not exceed the Limits of Vegetation Clearing.

c) Suitable and unsuitable topsoil zones have been identified.

d) Vegetation and topsoil stockpile locations have been identified.

e) All clearing machinery is compliant with controls.

Monitoring and Maintenance Program

The Superintendent's Contract Management Team shall monitor the implementation of management actions that are a **Hold Point**. **Hold Point** actions must be signed off by the Superintendent's Representative to confirm it has occurred and recorded within the Superintendent's Contract Management Plan.

Non-Compliance

Non-compliance with management actions will trigger corrective actions, preventative actions and/or an incident investigation. Non-compliances will be recorded with Main Roads incident management system and reviewed by the Main Roads Manager Environment.

The need for reporting non-compliances with VMP management actions to DWER will be determined as part of an incident investigation.