



mainroads
WESTERN AUSTRALIA

Clearing Desktop Report – CPS 818

*We're working for
Western Australia.*

Quellington Intersection Sightline Reinstatement
M031 Northam Cranbrook Road / Quellington Rd
Wheatbelt Region
3265

Contents

1	PROPOSAL	5
1.1	Purpose and Justification.....	5
1.1.1	Main Roads Approach to Road Safety and the Environment	5
1.2	Proposal Scope	6
1.3	Proposal Location	6
1.4	Clearing Details.....	6
1.5	Alternatives to Native Vegetation Clearing Considered During Proposal Development.....	8
1.6	Measures to Avoid, Minimise, Reduce and Manage Proposal Clearing Impacts	8
1.7	Approved Policies and Planning Instruments	10
2	SCOPE AND METHODOLOGY ASSESSMENT OF CLEARING.....	11
2.1	Report Terminology and Sources.....	11
2.2	Desktop Assessment	11
3	VEGETATION DETAILS	12
3.1	Vegetation Description.....	12
4	ASSESSMENT AGAINST THE TEN CLEARING PRINCIPLES.....	14
5	REHABILITATION, REVEGETATION & OFFSETS	26
5.1	Revegetation and Rehabilitation	26
5.2	Offset Proposal	26
6	STAKEHOLDER CONSULTATION	26
7	COMPLIANCE WITH CPS 818.....	27
8	REFERENCES	29
9	APPENDICES	32
	Appendix 1: Vegetation within Clearing Area.....	33
	Appendix 2: DBCA Threatened Flora and Fauna Database Searches	34
	Appendix 3 Principal Environmental Management Requirements (PEMR):.....	35
	Table 1: Clearing PEMR.....	36
	Table 2: Erosion and Sedimentation Control PEMR	37
	Table 3: Fauna Management PEMR.....	38
	Table 4: Machinery and Vehicle Management PEMR	39
	Table 5: Mulch and Topsoil Management PEMR.....	40
	Table 6: Pegging and Flagging PEMR.....	41
	Appendix 4:	42
	Vehicle Machinery Hygiene Checklist	42

List of Figures

Figure 1. Clearing Area 7

List of Tables

Table 1. Measures Undertaken to Avoid, Minimise, Reduce and Manage the Proposal Clearing Impacts 9

Table 3. Summary of Vegetation Types within Clearing Area12

Table 4. Pre-European Vegetation Representation12

Table 7. Summary of Additional Management Actions Required by CPS 818.....27

Document Control

Report Compilation & Review	Name and Position	Document Revision	Date
Author:	[REDACTED] A/Senior Environment Officer	A	21/11/23
Reviewer:	[REDACTED]	Final	22/11/2023

1 PROPOSAL

1.1 Purpose and Justification

Wheatbelt Region has received an increasing number of requests to improve sightlines at the intersection of Northam Cranbrook Road (M031) and Quellington Road, Shire of York.

The removal of two *Eucalyptus wandoo* will significantly improve safety sight lines at the road intersection and result in a clear line of vision of approaching traffic. The ability to identify approaching traffic travelling in the north-south direction along Northam-Cranbrook Road is entirely restricted by the presence of two large Wandoo trees and is a major safety concern for road users.

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

Works will include the removal of two Wandoo trees between Northam-Cranbrook (M031) SLK 23.6 to SLK 23.7. Trees are to be wood-chipped and retained by the region for the use in Black cockatoo artificial nest box maintenance activities.

1.3 Proposal Location

The Clearing Area is located on Northam-Cranbrook (M031) SLK 23.6 to SLK 23.7, Shire of York as shown in Figure 1. The central coordinate of the proposal is 116.8051°E, -31.8119°S

1.4 Clearing Details

Proposed Clearing to be undertaken using CPS 818:

Up to 0.03 hectares (ha)

Areas of Native Vegetation Clearing:

The areas of native vegetation to be cleared are shown in Figure 1.

Type of Native Vegetation:

Vegetation proposed to be cleared comprises of two (2) *Eucalyptus wandoo* trees within a corridor of roadside vegetation.



Figure 1. Clearing Area

1.5 Alternatives to Native Vegetation Clearing Considered During Proposal Development

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

- Preferentially locating the new alignment in cleared pasture areas over the existing road reserve; however, this was considered cost prohibitive e.g., due to cost of resumption of farmland and construction of completely new road rather than widening in existing alignment and premature redundancy of State road asset, lack of adequate funding, stakeholder engagement, resource requirements. Under this option, clearing would still be required for tie-ins to the existing road network.
- Upgrading other alternative routes that are less vegetated and environmentally constrained, however these are not suitable due to longer travel times, sensitive local receptors (such as residences) or other planning issues.
- Do not upgrade the road intersection, however this will potentially result in a poorer safety outcome and is likely to result in future fatalities or serious injuries and further degradation of the State road asset.
- Main Roads retains frangible vegetation where a clear zone is to be established for road projects. For this project, however, clearing will only be required to accommodate the road formation, with no clear zone being established. Accordingly, the retention of frangible vegetation does not apply to this proposal.
- Reducing the speed limit to minimise clearing requirements, while still balancing safety (driver fatigue) and freight efficiency. Speed Limits are an essential mechanism to ensure the safe and efficient operation of road networks. The application of appropriate speed limits and other traffic management measures is a key mechanism in managing vehicle speeds to achieve desired safety, mobility, traffic management, local amenity, and road user expectations. There are several factors involved in road safety, including road conditions, driver behaviour and overall road design. Except in special situations, reducing speed limits below national standards on state and national roads is not typically supported as it has the potential to contribute to driver frustration, impatience, tiredness and recklessness. The environmental values protected by reducing the speed limit, do not justify the impacts on freight efficiencies nor road user safety. Accordingly, the reduction of the speed limits to avoid clearing of native vegetation for this proposal is not proposed.

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	Intersections upgrade works are only to occur on the east side of the road formation, existing sightlines on the west side of the road formation are suitable. Clearing will ensure sightlines are re-instated for road users entering onto Northam-Cranbrook Road via Quellington Road.
Modification to intersection approach	Adjustment of intersection approach was considered however no reduction in clearing is possible as roadside vegetation corridor exists to the east of Northam-Cranbrook Road alignment.

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.

2 SCOPE AND METHODOLOGY ASSESSMENT OF CLEARING

Native vegetation will be cleared to accommodate this Proposal. 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 Desktop Report (CDR).

The CDR 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 Clearing Report

Native Vegetation Clearing Area– The maximum amount of native vegetation to be cleared for the Proposal that will accommodate the designed earthworks and, typically, a nominal buffer to allow for the safe movement of machinery during construction. The CDR has assessed all environmental values within the Clearing Area as though all of these values will be impacted, up to the amount specified within the Clearing Area.

- **Proposal Area** – The total footprint of the Proposal including both cleared and uncleared areas. This is based on proposed work requirements to allow for constructability and the movement of machinery during construction.
- **Study Area** – Area covered by the Desktop Assessment. The Study Area for the Proposal is confined to a local area of a 20 km radius.

2.2 Desktop Assessment

A desktop assessment of the Proposal Area was undertaken by viewing internal datasets and other government agency managed databases, and consulting with relevant stakeholders where necessary. Results from searches can be found in Appendix 3.

GIS layer viewing and mapping is done using ArcMap and/or Main Roads corporate mapping system known as iMaps. 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 8.

3 VEGETATION DETAILS

3.1 Vegetation Description

Vegetation to be cleared consists of two *Eucalyptus wandoo* trees that are located within the Medium woodland; York gum vegetation association (ID 352) at a regional scale.

Regional vegetation mapping obtained from Department of Primary Industries and Regional Development (DPIRD, 2023) has been used to summarise the vegetation associate at a regional scale. Table 2 and Table 3 provide details of the vegetation types and their condition within the Proposal Area and the remaining extents of these associations.

Table 2. Summary of Vegetation Types within Clearing Area

Vegetation Type	Extent within Clearing Area (ha)
<i>Eucalyptus wandoo</i> Tree species, within Vegetation Association 352 - Medium woodland; York gum (DPIRD-006, 2023)	0.03ha

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 No. 352 - Medium woodland; York gum	Statewide	724,268	142,012	19.6	9
	IBRA Bioregion Avon Wheatbelt	630,577	108,887	17	9
	IBRA Sub-region AVW02 - Katanning	337,872	36,295	10.7	2.13
	Local Government Authority Shire of York	89,947	8,583	9.5	0.64



Figure 2 – Streetview image of Clearing Area, Source Google Maps (2023)

4 ASSESSMENT AGAINST THE TEN CLEARING PRINCIPLES

In assessing whether the Proposal's proposed clearing is likely to have a significant impact on the environment, the Proposal 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 not likely at variance to Principle (b), and not at variance with remainder of the ten Clearing Principles.

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

Proposed clearing is not at variance to this Principle.

Assessment

Proposed works will include the removal of two (2) *Eucalyptus wandoo* trees, no additional impact to native vegetation will occur.

Vegetation to be cleared comprises a small, isolated patch of roadside vegetation in a Degraded to Completely Degraded state with no evidence of native understory flora species, as visible from Google Maps (2023) street view imagery (see Figure 2 above). Based on regional vegetation mapping the Proposal Area is within Vegetation Association 352 - Medium woodland; York gum.

A Priority Ecological Community (P3 - Eucalypt woodlands of the Western Australian Wheatbelt) occurs within 550 m of the Proposal Area. Vegetation proposed to be cleared is not representative of this PEC based on EPBC Act guidance (DoE, 2015) due to;

- lack of highly variable native vegetation understorey (see Section 3, Figure 2),
- trees do not contain important habitat features such as hollows,
- no native understorey is present to meet patch-size requirements (see Section 3, Figure 2),
- road side vegetation of a degraded to completely degraded condition (see Section 3, Figure 2).

Desktop assessment of the Study Area (20km) identified;

- Forty-three DBCA priority flora species, the closest known record (Priority 1 - *Androcalva fragifolia*) occurs over 4.5km east of the Proposal Area. No impact to DBCA priority species is likely.
- Twenty Fauna species including 13 listed under EPBC Act have been recorded or likely to occur, the closest record (Specially Protected - *Falco peregrinus*) is located over 2.5km south of the Proposal Area. No impact to protected fauna species is likely.
- Three Priority Ecological Communities (PEC), none occur within the Proposal Area. The closest PEC, as noted above is approximately 550m from the Proposal Area. Impacts to the PEC will not occur.

The proposed clearing area comprises 0.03ha of suitable foraging habitat (low to medium quality) for Carnaby's Cockatoo (*Zanda latirostris*). The two trees are of suitable diameter at breast height (DBH) to be potential habitat trees; however, no hollows occur in the trees to be cleared. The closest confirmed Black Cockatoo Roost site occurs over 8.5km south of the

Proposal Area, while the closest known Black Cockatoo Breeding tree is located over 30 km away (DBCA databases). Due to the lack of known Black Cockatoo activity in the locality, the value of the trees as foraging habitat is reduced, and they are less likely to be utilised as breeding trees should they form hollows at some unknown point in the future.

The native vegetation proposed to be cleared is not considered to comprise a high level of biological diversity due to its largely degraded condition and lack of significant fauna and flora species. In addition, the isolated pocket of vegetation occurs adjacent to the road and does not provide an ecological linkage between areas of high-quality fauna habitat that may be considered significant for the survival of a population/s of fauna species.

A desktop assessment did not identify any Threatened or Priority species within approximately 2.5km of the Proposal Area.

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

Methodology

- DCCEE Protected Matters Search Tool Report (2023)
- DoE 2015. *Approved Conservation Advice (including listing advice) for the Eucalypt Woodlands of the Western Australian Wheatbelt*. Canberra, Department of the Environment. Available from: <http://www.environment.gov.au/biodiversity/threatened/communities/pubs/128-conservation-advice.pdf>. In effect under the EPBC Act from 04-Dec-2015.
- Government GIS Shapefiles:
 - DBCA Threatened and Priority Ecological Community database search (Accessed 16/11/23)
 - DBCA Threatened and Priority Flora database search (Accessed 16/11/23)
 - DBCA WA Herbarium Flora database search (Accessed 16/11/23)
 - DBCA Restricted Threatened and Priority Fauna (Accessed 16/11/23)
 - Bush Forever (Region Scheme - Special Areas) (Accessed 17/11/23)
 - DPIRD Pre-European Vegetation vegetation mapping (Accessed 16/11/23)
 - DWER Environmentally Sensitive Areas database search (Accessed 17/11/23)
 - DBCA Black Cockatoo Roosting Sites (Accessed 16/11/23)
 - DBCA Black Cockatoo Breeding Sites (Accessed 16/11/23)
- [REDACTED] (2021). Wheatbelt Bridge Program 2020 - Package 2.
- Statewide Vegetation Statistics (Government of Western Australia 2019)

(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 not likely at variance to this Principle.

Assessment

As discussed in principle (a) assessment above, no threatened fauna species have been recorded to occur within the Proposal Area. Proposed clearing will occur within mapped distribution range for Threatened fauna species Carnaby's Cockatoo (*Zanda latirostris*), fauna habitat to be cleared is not considered significant and is not significant for the maintenance of fauna habitat for fauna native to Western Australia.

Clearing will result in the loss of up to 0.03 ha of foraging habitat considered low to medium quality (DCEEW, 2022) for Carnaby's Cockatoo (*Zanda latirostris*). comprising of two road-side DBH potential habitat trees with no hollows. The potential for the two trees to develop hollows is significantly reduced as they are located approximately one metre from the sealed road surface. This results in the safety requirement for pruning any overhanging branches flush with the trunk of the tree, significantly reducing the ability of these branches to form hollows in time. This precludes these two trees from being considered potential nesting trees or trees that support breeding habitat (DCEEW, 2022).

A desktop assessment was completed on known Carnaby's Cockatoo roosting and breeding sites (DBCA dataset) within the Study Area, the closest recorded roosting tree is located over 8 km south of the Proposal Area while the closest breeding tree occurs over 30 km away. As no roosting site or breeding site occurs within 6 km of the Proposal Area thus trees to be cleared are not considered significant Black Cockatoo foraging habitat (EPA, 2019 and (SEWPaC, 2012).

Based on previously completed biological surveys commissioned by Main Roads approximately 35 suitable DBH trees with hollows are known to occur within 6km of the Proposal Area, in addition over 350 suitable DBH occur within the Study Area. Of the reported suitable DBH trees within 6km of the Proposal Area, hollows have been assessed as not suitable or unconfirmed nesting trees. Based on available survey data and Black Cockatoo guidelines (DCEEW, 2022, SEWPaC, 2012 and EPA 2019), Black Cockatoo habitat of greater foraging and breeding value than habitat within the Proposal Area exist. Impact associated with the clearing of vegetation within the Proposal Area is not considered significant for maintaining fauna habitat.

Given the above, clearing of up to 0.03ha of vegetation is not considered significant for the maintenance of significant fauna habitat. Clearing is not likely at variance to this principle.

Methodology

- DCCEEW Protected Matters Search Tool Report (2023)
- Government GIS Shapefiles:
- DBCA Threatened and Priority Ecological Community database search (Accessed 16/11/23)
- DBCA Threatened and Priority Flora database search (Accessed 16/11/23)
- DBCA WA Herbarium Flora database search (Accessed 16/11/23)
- DBCA Restricted Threatened and Priority Fauna ((Accessed 16/11/23)
- Bush Forever (Region Scheme - Special Areas) (Accessed 17/11/23)
- DPIRD Pre-European Vegetation vegetation mapping (Accessed 16/11/23)
- DWER Environmental Sensitive Areas database search (Accessed 17/11/23)

- DBCA Black Cockatoo Roosting Sites (Accessed 16/11/23)
- DBCA Black Cockatoo Breeding Sites (Accessed 16/11/23)
- DCCEEW 2022 Referral guideline for 3 WAtthreatened black cockatoo species Carnaby's Cockatoo (*Zanda latirostris*), Baudin's Cockatoo (*Zanda baudinii*) and the Forest Red-tailed Black-cockatoo (*Calyptorhynchus banksii naso*).
- EPA, 2019 *EPA Technical Report: Carnaby's Cockatoo in environmental impacts assessment in the Perth and Peel Region*, advice of the Environmental Protection Authority under Section 16(j) of the Environmental Protection Act 1986.
- SEWPaC, 2012. EPBC Act referral guidelines for three threatened Black Cockatoo species: Carnaby's Cockatoo (endangered) *Calyptorhynchus latirostris*, Baudin's Cockatoo (vulnerable) *Calyptorhynchus baudinii*, Forest Red-tailed Black Cockatoo (vulnerable) *Calyptorhynchus banksii naso*.

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.**Proposal is not at variance to this Principle.****Assessment**

Proposed works will include the removal of two (2) *Eucalyptus wandoo* trees, no additional impact to native vegetation will occur. Trees to be cleared are accessible from existing cleared road reserve.

The two trees are located over a completely degraded understory, dominated by agricultural weeds and grasses to the exclusion of native vegetation. Due to the lack of understory, conditions are not conducive to support Threatened flora species.

As outlined in the assessment of principle (a) above, no threatened flora species have been recorded historically within approximately 4.5km of the Proposal Area. Impact for threatened flora species will not occur. Clearing is not at variance to this clearing principle.

Methodology

- DCCEE Protected Matters Search Tool Report (2023)
- Government GIS Shapefiles:
 - DBCA Threatened and Priority Flora database search (Accessed 16/11/23)
 - DBCA WA Herbarium Flora database search (Accessed 16/11/23)

(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 at variance to this Principle.****Assessment**

A desktop assessment identifies one Threatened Ecological Community (TEC) within the Study Area, as listed below;

- Eucalypt woodlands of the Western Australian Wheatbelt.

The closest TEC, Eucalypt woodlands of the Western Australian Wheatbelt, is located approximately 550 m from the Project Area, vegetation within the Proposal Area is not consistent with this TEC.

Vegetation proposed to be cleared is not representative of this TEC based on the criteria outlined in the Department of Environment (2015) approved conservation advice for the Eucalypt Woodlands of the Western Australian Wheatbelt due to:

- the native understory has lost considerable elements of its diversity and structure being solely comprised of sparse agricultural weed species (see Section 3, Figure 2),
- the width of the vegetation within the roadside remnant is less than 5m and comprised of a single row of trees only;
- the canopy cover is patchy and discontinuous within the narrow road reserve
- road side vegetation is in a Degraded to Completely Degraded condition (see Section 3, Figure 2).

Based on the above, the proposed native vegetation clearing is not at variance to this principle.

Methodology

- DCCEE Protected Matters Search Tool Report (2023)
- Department of the Environment (2015). *Approved Conservation Advice (including listing advice) for the Eucalypt Woodlands of the Western Australian Wheatbelt*. Canberra, Department of the Environment.
- Government GIS Shapefiles:
 - DBCA Threatened and Priority Ecological Community database search (Accessed 16/11/23)

(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 at variance to this Principle.

Assessment

Based on regional vegetation mapping (DPIRD, 2023) the Proposal Area occurs within Vegetation Association 352 (Medium woodland; York gum). This Vegetation Association has less than 20% of their pre-European extent remaining at the State, IBRA bioregion, IBRA subregion and Shire of York levels (Government of Western Australia, 2019).

Vegetation Association 352 is consequently classified as a significant remnant vegetation. The actual vegetation within the Proposal Area does not comprise medium woodland vegetation; however, instead the Proposal Area consists of isolated *Eucalyptus wandoo* trees in a Degraded to Completely Degraded condition and does not provide a continuous linkage across the landscape.

The vegetation assemblage of the Proposal Area is not considered to be a significant remnant consistent with regionally mapped Vegetation Association 352 (DPIRD,2023).

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

Methodology

- Government GIS database:
 - DPIRD Pre-European Vegetation vegetation mapping (Accessed 16/11/23)
 - Landgate WANow Landgate Imagery (LGATE-320) (20/11/2023)
- 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 at variance to this Principle.****Assessment**

The project area does not intersect any wetland or associated watercourse. The closest water body is the Avon River located over 600 m west of the Proposal Area. Vegetation proposed to be cleared are not associated to any watercourse or wetland.

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

Methodology

- Government GIS shapefiles:
 - DBCA Directory of Important Wetlands in Australia - Western Australia (Accessed 20/11/2023)
 - DWER Hydrography Linear (Accessed 20/11/2023)

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

Proposed clearing is not at variance to this Principle.

Assessment

Proposed works will not cause appreciable land degradation due to the minor nature of the works. Works involve the clearing of only two trees located in a highly disturbed area accessible from the existing road alignment.

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

Methodology

- Government GIS database:
 - Landgate WANow Landgate Imagery (LGATE-320) (20/11/2023)

(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

There are no reserves or conservation areas located within 10 km of the Proposal Area. The nearest conservation area is the Mt Hardey Nature Reserve located 10.6 km south of the Proposal Area. The proposed clearing is of isolated trees, and does not occur in any ecological linkages or corridors that connect areas of ecological significance locally or regionally.

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

Methodology

- Government GIS Shapefiles:
 - DBCA Legislated Lands and Waters (Accessed 20/11/2023)
 - Landgate WANow Landgate Imagery (Accessed 20/11/2023)

(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

The Proposal Area is not located within a Proclaimed Groundwater Area or Public Drinking Water Source Area protected under the RIWI Act. The Proposal Area is located within a proclaimed surface water area (Avon River Catchment Area) under the RIWI Act. No water is required to be drawn from surface or groundwater resources for this project.

The clearing of two trees within a Completely Degraded roadside verge surrounded by agricultural land will not have any noticeable impacts on surface or underground water.

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

Methodology

- Government GIS Shapefiles:
 - DWER Surface Water Areas and Irrigation Districts RIWI Act (Accessed 20/11/23)
 - DWER Groundwater Areas RIWI Act (Accessed 20/11/23)
 - DWER Public Drinking Water Source Areas (Accessed 20/11/23)

(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

The local (York) weather station calculates mean annual rainfall to be 414.6 mm, with greatest rainfall between May to August.

A desktop assessment of designated flood event floodplain data determined the Proposal Area to be located over 300 m from projected floodplains, based on a 1 in 100 year flood event of the Avon River. As assessed in Principle (f) above, the closest water body (Avon River) is located over 600 m from the Proposal Area. Proposed clearing does not occur within any natural or constructed drainage feature and consequently will not influence the incidence or intensity of flooding.

Based on the above, clearing is not at variance.

Methodology

- BoM Website (Accessed 20/11/23)
- Government GIS Shapefiles:
 - DWER FPM Floodplain Area (Accessed 20/11/23)
 - DWER FPM Flood Level Contours (m AHD) (Accessed 20/11/23)
 - DWER Hydrography Linear (Accessed 20/11/23)

5 REHABILITATION, REVEGETATION & OFFSETS

5.1 Revegetation and Rehabilitation

No temporary clearing will be undertaken as part of the Proposal activities.

5.2 Offset Proposal

The proposal is not at variance or not likely to be at variance to the 10 clearing principles.

No offset proposal is required as the proposed clearing will not result in significant residual impacts to native vegetation within the region.

6 STAKEHOLDER CONSULTATION

Stakeholder consultation is required when the clearing is 'at variance' or 'may be at variance' with the Clearing Principles. As clearing is not at variance or not likely at variance, no stakeholder consultation will be undertaken.

No stakeholder consultation in accordance with CPS 818 Condition 8 will be undertaken

7 COMPLIANCE WITH CPS 818

The clearing associated with the proposal is not at variance with the Clearing Principles. Additional management actions under CPS 818 are detailed in Table 4.

Table 4. Summary of Additional Management Actions Required by CPS 818

Impact of Clearing	Yes/No or NA	Further Action Required
1. The CDR indicates that the clearing is 'At Variance' or 'May be at Variance' with one or more of the Clearing Principles.	No	No further action required.
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.	No	Standard Vehicle and Plant management actions Hygiene Checklists

Impact of Clearing	Yes/No or NA	Further Action Required
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.
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	Regional Operations Vegetation Manager completed a site assessment and has more than three years' experience.
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 Specialist preparing the Assessment Report was suitably qualified and had more than three years' experience.

8 REFERENCES

Bureau of Meteorology Australia. (2023) Climate Averages for Australian Sites – YORK, 010311 – Available online www.bom.gov.au, Accessed 20/11/23

Department of Agriculture, Water and the Environment (DCCEEW 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.

Department of Biodiversity, Conservation and Attractions (2023), *Black Cockatoo Breeding Sites (DBCA-063)* database, Available online <https://catalogue.data.wa.gov.au/dataset/black-cockatoo-breeding-sites> database, Accessed 16/11/23

Department of Biodiversity, Conservation and Attractions (2023), *Black Cockatoo Roosting Sites (DBCA-064)* database, Available online <https://catalogue.data.wa.gov.au/dataset/black-cockatoo-roosting-sites>, Accessed 16/11/23

Department of Biodiversity, Conservation and Attractions (2023), *Threatened Ecological Communities (DBCA-038)* database, Available online <https://catalogue.data.wa.gov.au/dataset/threatened-ecological-communities/>, Accessed 16/11/23

Department of Biodiversity, Conservation and Attractions (2023), *Threatened and Priority Flora (DBCA-036)* database, Available online <https://catalogue.data.wa.gov.au/dataset/threatened-and-priority-flora>, Accessed 16/11/23

Department of Biodiversity, Conservation and Attractions (2023), *Threatened and Priority Fauna (DBCA-037)*, Available online <https://catalogue.data.wa.gov.au/dataset/threatened-and-priority-fauna>, Accessed 16/11/23

Department of Climate Change, Energy, the Environment and Water. (2023) Protected Matters Search Tool Report. Available online from: <http://www.environment.gov.au/epbc/pmst/index.html> Accessed 16/11/23.

Department of the Environment (2013). *Significant Impact Guidelines 1.1 – Matters of National Environmental Significance*, Environment Protection and Biodiversity Conservation Act 1999. Canberra, Australian Capital Territory.

Department of the Environment (2015). *Approved Conservation Advice (including listing advice) for the Eucalypt Woodlands of the Western Australian Wheatbelt*. Canberra, Department of the Environment. Available from: <http://www.environment.gov.au/biodiversity/threatened/communities/pubs/128-conservation-advice.pdf>. In effect under the EPBC Act from 04-Dec-2015.

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 Natural Resources and Environment (2002). *Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local.* Department of Natural Resources and Environment, Victoria.

Department of Planning, Lands and Heritage (2023) *Bush Forever Areas 2000 (DPLH-019)* database, online <https://catalogue.data.wa.gov.au/dataset/bush-forever-areas>, Accessed 17/11/23

Department of Primary Industry and Regional Development (2023), *Pre-European Vegetation – Western Australia*, Department of Primary Industry and Regional Development, Western Australia, Available online from: <https://catalogue.data.wa.gov.au/dataset/pre-european-dpird-006>, Accessed 16/11/23

Department of Sustainability, Environment, Water, Population and Communities (Cwlth). 2012. EPBC Act referral guidelines for three threatened Black Cockatoo species: Carnaby's Cockatoo (endangered) *Calyptorhynchus latirostris*, Baudin's Cockatoo (vulnerable) *Calyptorhynchus baudinii*, Forest Red-tailed Black Cockatoo (vulnerable) *Calyptorhynchus banksii naso*.

Department of Water and Environmental Regulation (2023), *Clearing Regulations - Environmentally Sensitive Areas (DWER-046)*, Online <https://catalogue.data.wa.gov.au/dataset/clearing-regulations-environmentally-sensitive-areas-dwer-046>, Accessed 17/11/23

Environmental Protection Authority (2020). *Technical Guidance – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment*. Perth, Western Australia.

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.

Environmental Protection Authority (WA). 2019. *EPA Technical Report: Carnaby's Cockatoo in environmental impacts assessment in the Perth and Peel Region*, advice of the Environmental Protection Authority under Section 16(j) of the Environmental Protection Act 1986.

Government of Western Australia. (2023). 2019 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of 2019. WA Department of Biodiversity, Conservation and Attractions, Perth. Available online from: <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>

Google Maps (2023) *Streetview -31.8119954,116.8050578*, Available online <https://www.google.com/maps/@-31.8119954,116.8050578,3a,90y,59.05h,109.49t/data>, Accessed 23/11/23

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.

Government of Western Australia (2014b). *WA Environmental Offset Guidelines*. Perth, Western Australia.

Government of Western Australia (2011). *WA Environmental Offset Policy*. Perth Western Australia.

Western Australian Herbarium. 2023– *FloraBase* - The Western Australian Flora. Department of Biodiversity, Conservation and Attractions. Available online from: <https://florabase.dpaw.wa.gov.au/>
Accessed 20/11/23

Webb, A., Kinloch, J., Keighery, G., & Pitt, G. (2016). *The Extension of Vegetation Complex Mapping to Landform Boundaries with the Swan Coastal Plain Landform and Forested Region of South-west Western Australia*. Perth: Department of Biodiversity, Conservation and Attractions.

9 APPENDICES

Appendix 1: Vegetation within Clearing Area

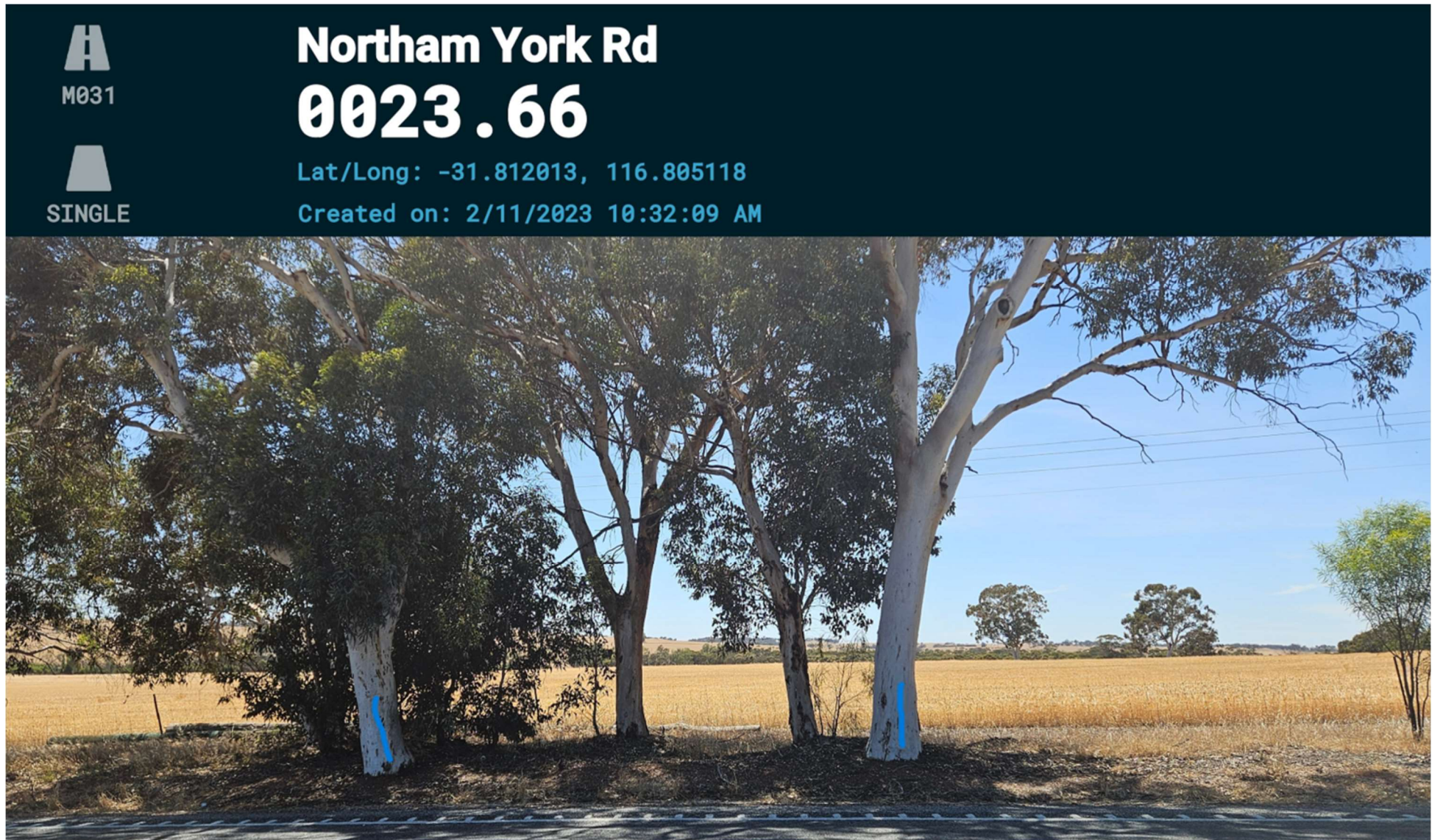


Figure 2 - *Eucalyptus Wandoo* trees to be cleared (x2).

Appendix 2: DBCA Threatened Flora and Fauna Database Searches

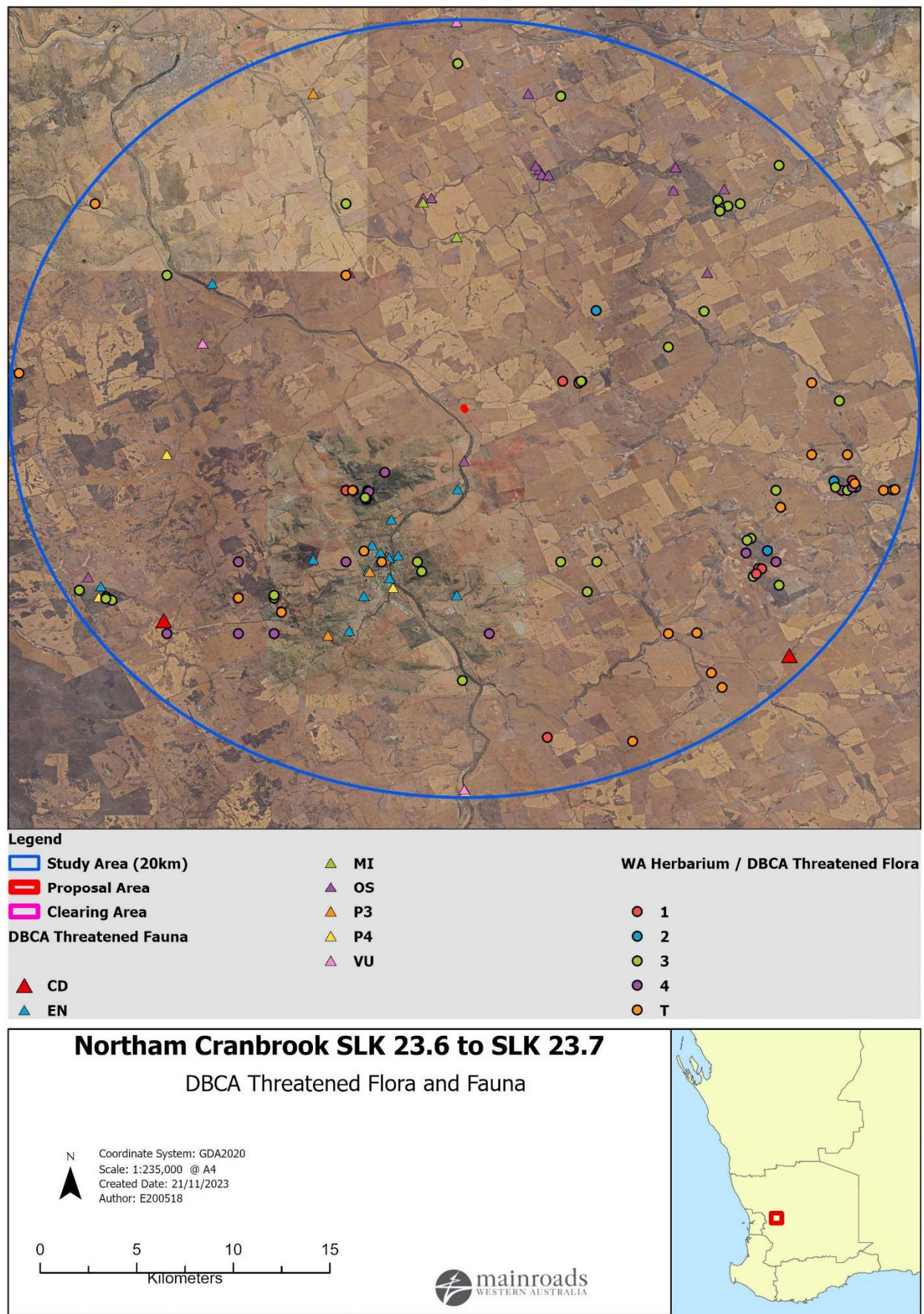


Figure 3 - DBCA Threatened Flora and Fauna

Appendix 3

Principal Environmental Management Requirements (PEMR):

Table 1: Clearing PEMR

STANDARD MANAGEMENT REQUIREMENTS
PRE WORKS 1. The Contractor must prepare, implement and maintain processes to ensure that the movement of all vehicles, plant and machinery does not occur outside of the Limits of Vegetation Clearing. This must include all turnaround areas. 2. The Contractor must minimise vegetation clearing and the area of disturbance on ground by utilising existing cleared area where possible.
DURING WORKS 1. The Contractor must report any damage to vegetation beyond the Limits of Vegetation Clearing as an Environment Incident. 2. The Contractor must ensure Movements are confined to the Limits of Vegetation Clearing during the works. 3. The Contractor must undertake the clearing in accordance with the Fauna PEMR.
POST WORKS 1. The Contractor must provide confirmation on the completion of clearing activities with clearing completion dates and photographs.

Table 2: Erosion and Sedimentation Control PEMR

PRE WORKS 1. The Contractor must develop, implement and maintain processes and procedures to ensure that: a. The Contractor is responsive to and addresses incidents of erosion and sedimentation within and adjacent to the work areas; b. Prevent water and wind soil erosion within and adjacent to the works areas; c. Prevent the sedimentation and siltation of watercourses located within and adjacent to the works area; d. Ensure that sedimentation and siltation of drainage lines due to the removal of riparian vegetation is avoided, minimised and mitigated; e. Ensure that loose surfaces and recently cleared areas are protected from wind and soil erosion; f. Minimise exposed soil working surfaces or protect them from stormwater erosion; g. Ensure material such as gravel, crushed rock and excavated material is stockpiled away from drainage paths and covered to prevent erosion; and, h. Ensure that water quality monitoring is undertaken when turbidity and sedimentation is an issue.
DURING WORKS 1. Implement, monitor and adhere to the sedimentation and erosion processes developed to address the requirements in the pre-works.
POST WORKS 1. If required, the Contractor must continue to monitor water quality until the turbidity/sedimentation dissipates. 2. The Contractor must ensure that disturbed areas are stabilised as soon as is practicable after construction activities are completed.

Table 3: Fauna Management PEMR

PRE WORKS 1. The Contractor must ensure that fauna management requirements are communicated to the crew undertaking the clearing works during the induction and pre-start meeting. 2. Where active nests, burrows or dens are identified, works must not proceed until the Contractor obtains the Superintendents approval of the management of active nests, burrows or dens adheres to the Superintendents advice.
DURING WORKS 2. The Contractor must undertake the clearing in the following manner to allow fauna to move out of the clearing area; a. Prior to the clearing activities commencing, use machinery to tap large trees with habitat hollows to encourage any animals evacuate; and, b. Undertake the clearing in one direction and towards areas of native vegetation to allow the animals to escape to adjacent habitat. 3. The Contractor must ensure that all onsite personnel undertake visual monitoring and are vigilant to the presence of fauna. Any sightings of fauna, including injury or fatality, must be reported as an Environmental Incident. 4. The Contractor must ensure that: a. No pets, traps or firearms are brought into the project area; b. Fauna are not fed; c. Fauna are not intentionally harmed or killed; and, d. Fauna that venture into the work area are encouraged to leave in a manner that does not harm the animal or operator (loud noise, slowly approaching in a vehicle etc.). 5. The Contractor must ensure that in the event that sick, injured or orphaned native wildlife are located on the project site, the WILDCARE Helpline ((08) 9474 9055) will be contacted for assistance. The Contractor must maintain records of any animal taken to a wildlife carer.
POST WORKS 1. The Contractor must provide any records of fauna impact to the Superintendent.

Table 4: Machinery and Vehicle Management PEMR

PRE WORKS 1. The Contractor must ensure that all areas associated with the storage, parking, servicing, wash down and refuelling of all vehicles, plant and machinery is located within the Limits of Clearing and approved by the Superintendent. 2. The Contractor must ensure that all vehicles, machinery and plant are clean on entry (i.e. free of all soil and vegetation material) and comply with the requirements of 204.B.32. 3. The Contractor must ensure that vehicle servicing and refuelling will be undertaken at designated areas approved by the Superintendent. 4. The Contractor must ensure that all staff suitably qualified and competent to undertake works, especially refuelling activities.
DURING WORKS 1. The Contractor must maintain records of checking all vehicles, machinery and plant are clean on entry.
POST WORKS 2. Machinery and Vehicle clean on entry / hygiene checklist forms are provided for equipment on mobilisation and demobilisation from site.

Table 5: Mulch and Topsoil Management PEMR

PRE WORKS 1. The Contractor must ensure that the movement of soil and vegetation is only undertaken in dry conditions unless otherwise approved and / or directed by the Superintendent. 2. The Contractor must ensure that poor quality topsoil and mulched vegetation is segregated and not contaminate the good quality topsoil and vegetation.
DURING WORKS 1. The Contractor must ensure that all machinery contaminated from weed-infested material must be cleaned down before and between operations to prevent the introduction and spread of weeds. 2. The Contractor must ensure the movement of large equipment over topsoil materials is avoided to minimise compaction. 3. The Contractor must ensure that weed infected topsoil and mulch vegetation must be handled separately to minimise the risk of spreading dieback and weed species across the site and stockpiles. 4. The Contractor must ensure that stockpiling operations must occur in a manner to ensure that the properties of the topsoil are not degraded and the topsoil made unsuitable for use in revegetation are not degraded and the topsoil made unsuitable for use in revegetation.
POST WORKS Nil

Table 6: Pegging and Flagging PEMR

PRE WORKS 1. Pegging must be done in accordance with the requirements detailed in Specification 301. 2. The Contractor must clearly communicate, either at the pre-start meeting or equivalent, to the crew undertaking the clearing works, through clear maps and other additional means, what the Pegging represents.
DURING WORKS 1. The Contractor must peg the Limits of Clearing by PINK flagging tape. 2. The Contractor must peg/demarcate vegetation proposed to be retained by WHITE flagging tape. 3. The Contractor must ensure that the vegetation demarcated with PINK and WHITE flagging tape is consistent with the approved clearing areas.
POST WORKS 1. The Contractor remove and dispose of appropriately any demarcation, pegging or flagging once proposal works are completed.

Appendix 4:

Vehicle Machinery Hygiene Checklist



JANUARY 2022

Hygiene Checklist

Vehicles, machinery, equipment and plant can transport invasive species like *Phytophthora cinnamomi*, pests and weeds into remnant vegetation. This checklist ensures that plant and vehicles do not arrive at Main Roads sites containing material from another site.

Table 1: Project Details

Project Name:	
Region Name:	
Project Number:	Task Code:
Contractor Name:	Contract Number:

Table 2: Vehicle / Machinery / Equipment / Plant Details

Date & Time:	
Location of Inspection:	
Owner / Operator:	
Type / Make/ Model:	
Registration Number:	
Odometer / Hour Meter Reading:	

Table 3: Hygiene Checklist

Check the following sections of the vehicle / plant, to ensure they are clean and free of vegetative and soil material.

Item	Type (front, rear, sides)	Not Applicable	Not Clean	Clean
Scrub bar		☐	☐	☐
Air filter		☐	☐	☐
Fenders		☐	☐	☐
Radiator area		☐	☐	☐
Belly plates /underside		☐	☐	☐
Bucket, blade and forks, backhoe attachment , scraper		☐	☐	☐
Rippers		☐	☐	☐
Suspension		☐	☐	☐
Spare wheels		☐	☐	☐
Wheels and tracks, skids		☐	☐	☐
Drill bits		☐	☐	☐
Mud flaps		☐	☐	☐
Flat sections	<i>Esp. horizontal</i>	☐	☐	☐
Cupped sections		☐	☐	☐
Chassis areas	<i>H or C sections</i>	☐	☐	☐
Hinged points	<i>Esp. articulated areas e.g. truck, crane, excavator arm</i>	☐	☐	☐

Item	Type (front, rear, sides)	Not Applicable	Not Clean	Clean
Leaks	Motor, transmission, hoses, hydraulics to be stuck down, reservoirs	☐	☐	☐
Spill kits		☐	☐	☐
Fire suppression gear		☐	☐	☐
Trailers		☐	☐	☐
Cargo space		☐	☐	☐
Inside Cabin		☐	☐	☐
Under the Bonnet / Engine Bay		☐	☐	☐
Lights, Bumpers and Accessories e.g. toolboxes, spare tyres.		☐	☐	☐
Hydraulics and any attachments e.g. arms/booms, tyres and rippers, support frames, hydraulic hoses etc.		☐	☐	☐
OTHER COMMENTS ON HYGIENE OF VEHICLE/PLANT				

INSPECTION SIGN OFF

I declare that the vehicles, plant and equipment listed above has been thoroughly inspected by myself, and is free of all vegetative and soil material.

Name:			
Company Name:	(If relevant)	Position:	
Signature:		Date:	

I concur that the plant / equipment meets the required hygiene standards and is therefore suitable for entry to this site.

Name:			
Company Name:	(If relevant)	Position:	
Signature:		Date:	

OR

This vehicle / plant does not meet the required hygiene standards, and is therefore not suitable for entry to this site until the following areas are further cleaned.

Name:			
Company Name:	If relevant	Position:	
Signature:		Date:	