Clearing Desktop Report – CPS 818

We're working for Western Australia.

H009 Hynes Martin Pelusey Intersection

09/2022

EOS 2316

D21#224538

Contents

Amendments

Report Compilation & Review	Name and Position	Document Revision	Date
Author:	Contractor Environment	Draft v1	02/03/2021
Reviewer:	Senior Environment Officer	Rev 0	30/03/2021
Author:	Contractor Environment	Rev 1	20/09/2022
Reviewer:	Senior Environment Officer	Rev 1	27/09/2021

1 PURPOSE

This Clearing Desktop Report (CDR) is a desktop assessment of native vegetation clearing that is proposed to be cleared using the Statewide Clearing Permit CPS 818 issued to Main Roads Western Australia (Main Roads).

2 SCOPE

2.1 Proposal Scope

Proposal Name: H009 South Western Hwy [146-00 to 146-60 SLK] Hynes to Martin Pelusey - Intersection Upgrade

Proposal Purpose / Components: Hynes Road and Martin Pelusey Road form a staggered T intersection on South Western Highway and there has been a high crash rate with fatalities at these intersections. Vehicles turning into the side roads mask the through vehicles and create poor sight distance for vehicles entering the highway. There is edge drop off on the southern side of South Western Highway between Hynes Road and Martin Pelusey Road and non-standard guardrail at the large culvert crossing directly to the east of Martin Pelusey Road.

This proposal seeks to upgrade the intersection geometry to current standards, providing flag lighting and other safety improvements to improve safety outcomes and a reduction in the crash rate at these intersections.

The proposed clearing under CPS 818 is: 0.03 ha comprising five trees (Jarrah x2, Marri, Flooded Gum, Swamp Paperbark) and several regrowth shrubs.

The proposed temporary clearing under CPS 818 is: 0 ha.

Project Location(s): The proposal area is located on H009 South Western Hwy, Waterloo, 146-00 to 146-60 Straight Line Kilometres (SLK), within the Shire of Dardanup as shown in Figure 1.

MGA reference: E382590 S6310435

The location of the proposed works is at Figure 1.

2.2 Desktop Assessment Scope

The assessment area is confined to a local area of a 5 km radius, as shown in Figure 2.

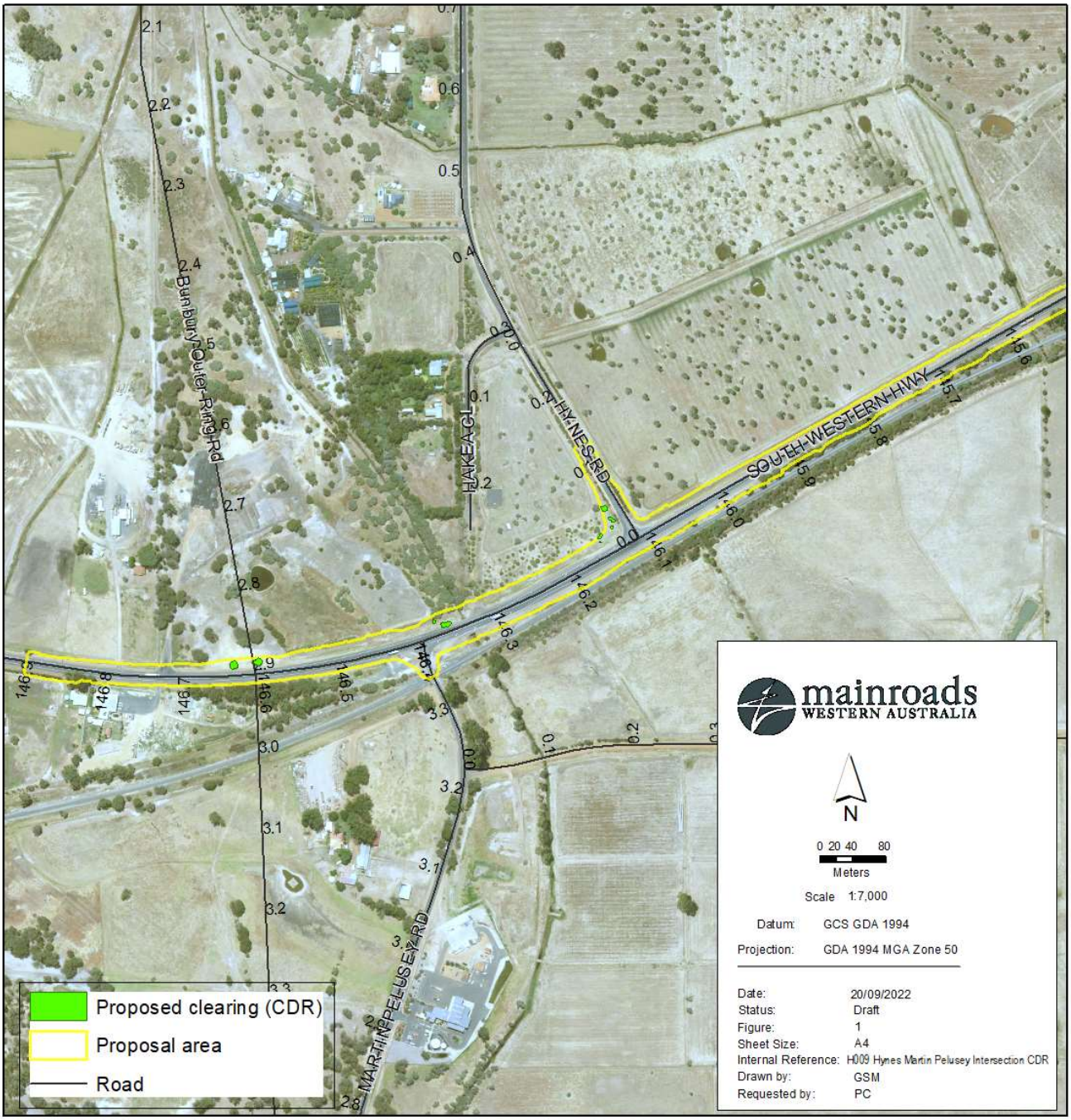

Figure 1. Proposal Area

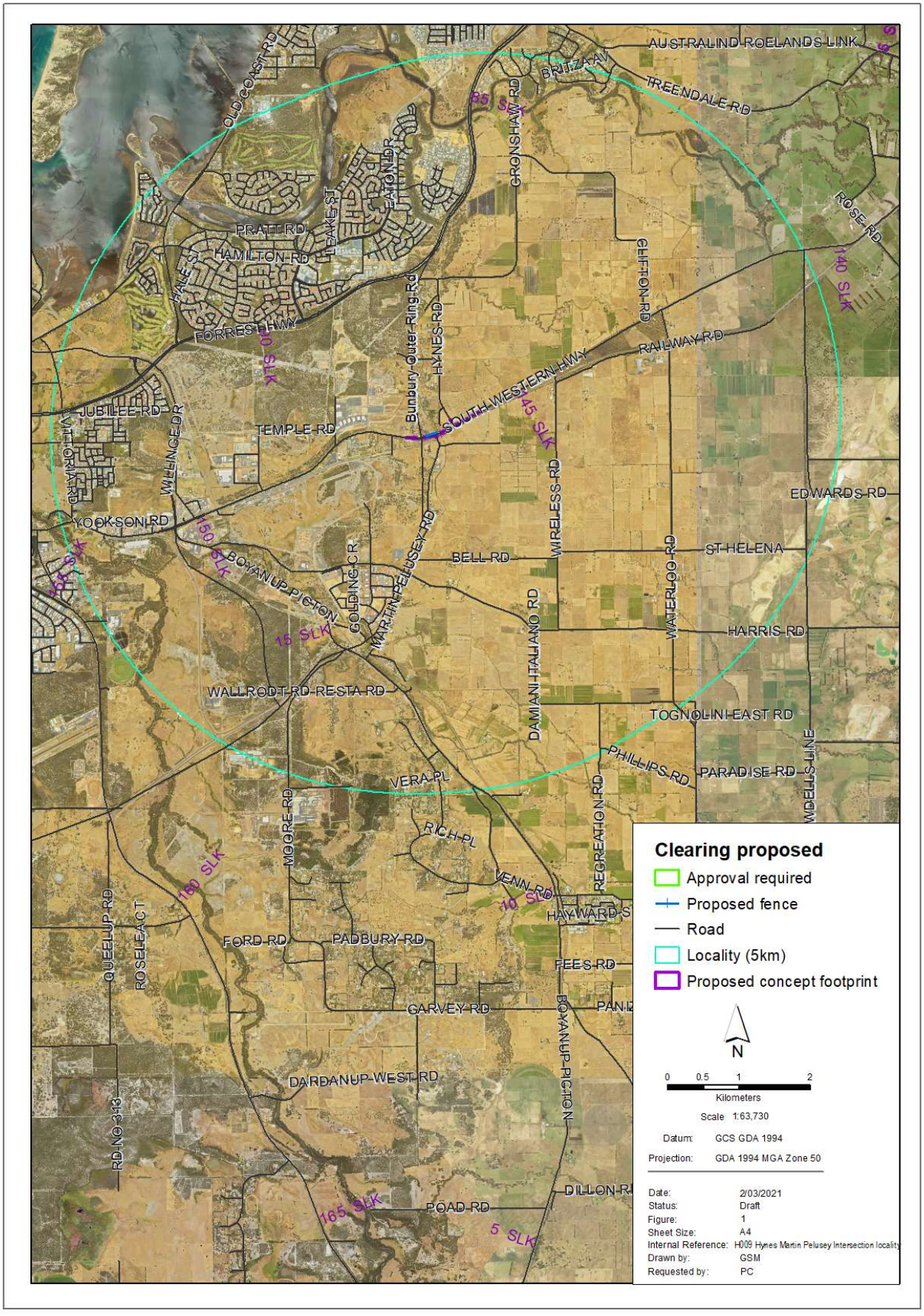

Figure 2. Proposal Location and Study Area

2.3 Alternatives to Clearing

No alternatives designs to avoid clearing would achieve the same design outcomes. The design has minimised the impacts to vegetation to possible.

2.4 Measures to Avoid, Minimise, Mitigate and Manage Project Clearing Impacts

Not applicable.

2.5 Approved Policies and Planning Instruments

The clearing of native vegetation in Western Australia is regulated under the *Environmental Protection Act 1986* (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 (see Section 1.3), Main Roads has also had regard to

EPPs

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

Relevant other policies and guidance documents:

- The Western Australian Environmental Offsets Policy (Government of Western Australia, 2011)
- A guide to the assessment of applications to clear native vegetation (Department of Water and Environment Regulation (DWER), December 2014)
- Procedure: Native vegetation clearing permits (DWER, October 2019)
- Environmental Offsets Guidelines (Government of Western Australia, August 2014)
- Technical guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (Environmental Protection Authority (EPA), 2016)
- Technical guidance – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment (EPA, 2020)
- Approved conservation advice under section 266B of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) for Threatened flora/fauna/vegetation communities
- Approved Recovery Plans for Threatened species
- EPBC Act Referral guidelines for the three Threatened black cockatoo species
- Strategic advice - EPA

Other Legislation of relevance 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)
- *Town Planning and Development Act 1928*

3 Methodology

3.1 Desktop Study

A desktop assessment of the proposal area and an assessment of native vegetation clearing were undertaken by reviewing a number of government agency managed databases, viewing GIS shapefiles and consulting with relevant stakeholders where necessary. Results from searches can be found in the relevant Appendix.

GIS layer viewing and mapping is done using ArcMap and / or Main Roads Integrated Mapping System (IMS). 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, these are referenced in Section 7.

4 VEGETATION DETAILS

4.1.1 Project Site Vegetation Description

The area under application is in a completely degraded condition predominantly comprising paddock grass. Five paddock trees will be cleared (Jarrah x2, Marri, Flooded Gum, Swamp Paperbark) all under 50cm diameter at breast height (DBH) and none with hollows. A number of Melaleuca shrubs approximately 10 years old will also be cleared. The vegetation is not mapped within the Department of Primary Industries and Regional Development (DPIRD) native vegetation remaining dataset (SLIP 2021). The vegetation to be cleared is no longer considered representative of the Pre-European Vegetation Association 968 due to the poor condition.

Tables 3 and 4 provide details of the Pre-European Vegetation Associations with the proposal area and the remaining extents of these associations.

Table 2. Summary of Project Area's Mapped Pre-European Vegetation Associations

Pre-European Vegetation Association(s)	Clearing Description	Vegetation Condition	Comments
Vegetation Association 968 described as a Jarrah, marri and wandoo *Eucalyptus marginata, Corymbia calophylla, E. wandoo.* (Government of Western Australia, 2019)	Clearing of up to 0.03 ha of paddock trees and regrowth shrubs for intersection treatments	Completely degraded (EPA 2016)	Vegetation description and condition determined from Main Roads site visit on 23/02/2021 and aerial imagery.

Table 3. Pre-European Vegetation Representation

Pre-European Vegetation Association	Scale	Pre–European (ha)	Current Extent (ha)	% Remaining	% Remaining in DBCA[1] reserves
Veg Assoc No. 968	**Statewide** WA	296,877.84	95,048.82	32.02	18.45
	IBRA Bioregion Swan Coastal Plain	136,188.20	9,017.32	6.62	1.43
	IBRA Sub-region	136,188.20	9,017.32	6.62	1.43

[1] Department of Biodiversity, Conservation and Attractions.

	SWA02				
	Local Government Authority Shire of Dardanup	9,655.06	641.32	6.64	0.78

4.1.2 Vegetation Complexes and Representation

Table 4. Vegetation Complexes (Heddle/Mattiske) within the Project Area

Heddle/Mattiske Veg Complex	Pre-European Extent (ha)	2013 Vegetation Extent	% Remaining
Guilford Complex	90,513.13	4,607.91	5.09

5 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 Department of Water and Environment Regulation's 'A Guide to the Assessment of Applications to Clear Native Vegetation'.

The proposed clearing is not likely to be at variance with 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**
Comments The area under application (0.03 ha in several patches) is in a completely degraded condition predominantly comprising paddock grass. Five paddock trees will be cleared (Jarrah x2, Marri, Flooded Gum, Swamp Paperbark) all under 50cm DBH and none with hollows. A number of Melaleuca shrubs approximately 10 years old will also be cleared. The proposal area does not • contain high levels of biodiversity, • provide habitat for Priority fauna, flora or ecological communities. Proposed clearing is not at variance to this Principle.
Methodology EPA (2016, 2020) Main Roads GIS Shapefiles Main Roads Site Inspection (23/02/2021)

(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 at **variance to this Principle**
Comments The area under application (0.03 ha in several patches) is in a completely degraded condition predominantly comprising paddock grass. Five paddock trees will be cleared (Jarrah x2, Marri, Flooded Gum, Swamp Paperbark) all under 50cm DBH and none with hollows. A number of Melaleuca shrubs approximately 10 years old will also be cleared. No black cockatoo foraging residue was observed at the site. No WRP scats were observed. The proposal area does not provide significant habitat for Threatened fauna. Proposed clearing is not at variance to this Principle.
Methodology EPA (2016, 2020) Main Roads GIS Shapefiles Main Roads Site Inspection (23/02/2021)

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

Proposal is not at **variance to this Principle**
Comments The proposal area does not impact on any known records of, nor is it likely to provide habitat for any Threatened flora as it is in a completely degraded condition with isolated trees over weeds. Proposed clearing is not at variance to this Principle.
Methodology EPA (2016, 2020) Main Roads GIS Shapefiles Main Roads Site Inspection (23/02/2021)

(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**
Comments The proposal area does not intersect any known occurrences of, nor is it likely to represent, any Threatened ecological communities. Proposed clearing is not at variance to this Principle.
Methodology EPA (2016, 2020) Main Roads GIS Shapefiles Main Roads Site Inspection (23/02/2021)

(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**

Comments

Tables 3 and 4 provide details of the Pre-European Vegetation Associations with the project area and the remaining extents of these associations. These are not relevant to the proposal however as:

- The area under application is in a completely degraded condition predominantly comprising paddock grass. Five paddock trees will be cleared (Jarrah x2, Marri, Flooded Gum, Swamp Paperbark) all under 50cm DBH along with a number of Melaleuca shrubs approximately 10 years old.
- The vegetation to be cleared is no longer considered representative of the Pre- European Vegetation Association 968 due the completely degraded condition within the clearing envelope.
- The vegetation is not mapped within the DPIRD native vegetation remaining dataset (SLIP 2021).

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

Table 3. Pre-European Vegetation Representation

Pre-European Vegetation Association	Scale	Pre–European (ha)	Current Extent (ha)	% Remaining	% Remaining in DBCA reserves
Veg Assoc No. 968	**Statewide** WA	296,877.84	95,048.82	32.02	18.45
	IBRA Bioregion Swan Coastal Plain	136,188.20	9,017.32	6.62	1.43
	IBRA Sub-region SWA02	136,188.20	9,017.32	6.62	1.43
	Local Government Authority Shire of Dardanup	9,655.06	641.32	6.64	0.78

Table 4. Vegetation Complexes (Heddle/Mattiske) within the proposal area

Heddle/Mattiske Veg Complex	Pre-European Extent (ha)	2013 Vegetation Extent	% Remaining
Guilford Complex	90,513.13	4,607.91	5.09

Methodology

EPA (2016)
Main Roads GIS Shapefiles
Main Roads Site Inspection (23/02/2021)
SLIP (2021)

(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**
Comments No clearing is proposed within any defined watercourses or drainage lines. Proposed clearing is not at variance to this Principle.
Methodology EPA (2016) Main Roads GIS Shapefiles Main Roads Site Inspection (23/02/2021) SLIP (2021)

(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**
Comments The area under application (0.03 ha in several patches) is in a completely degraded condition predominantly comprising paddock grass. Five paddock trees will be cleared and a number of Melaleuca shrubs approximately 10 years old. The project is located within Acid Sulphate Soils (ASS) areas mapped by Government of Western Australia (SLIP 2021) as moderate to low risk of ASS. There is some potential for ASS to occur at the culvert extension locations however associated risks are considered low and manageable because due to the highly localised nature of the works. No land degradation will occur. Proposed clearing is not at variance to this Principle.
Methodology DER (2015) EPA (2016) Main Roads GIS Shapefiles Main Roads Site Inspection (23/02/2021) SLIP (2021)

(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**
Comments

The nearest conservation lands includes a Class 1a Waterloo Reserve (DBCA) over one kilometre east of the proposal. It will not be impacted.

Proposed clearing is not at variance to this Principle.

Methodology
EPA (2016)
Main Roads GIS Shapefiles
Main Roads Site Inspection (23/02/2021)
SLIP (2021)

(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**

Comments
The area under application (0.03 ha in several patches) is in a completely degraded condition predominantly comprising paddock grass. Five paddock trees will be cleared and a number of Melaleuca shrubs.

General surface or underground water management measures will be incorporated into the CEMP. Given the small scale of clearing, and that there will be no change to drainage or hydrological conditions over current conditions, no impact to ground or surface water is expected to result from the proposed clearing.

Proposed clearing is not at variance to this Principle.

Methodology
EPA (2016)
Main Roads GIS Shapefiles
Main Roads Site Inspection (23/02/2021)
SLIP (2021)

(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**

Comments
The proposed clearing is isolated trees over weeds. Given the scale and nature of the proposed clearing, it will not exacerbate the incidence or intensity of flooding.

Proposed clearing is not at variance to this Principle.

Methodology
Main Roads GIS Shapefiles
Main Roads Site Inspection (23/02/2021)
SLIP (2021)

6 ADDITIONAL ACTIONS REQUIRED

The clearing associated with the proposal is unlikely or not at variance with the Clearing Principles. Additional management actions under CPS 818 are detailed in Table 6.

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

Impact of Clearing	Yes/No or NA	*Further Action Required*
1. The proposal involves clearing for temporary works (as defined by CPS 818).	**No**	No further action required.
2 a. Proposal is within Region that: - Has rainfall greater than 400mm and - Is South of the 26th parallel and - Works are in 'Other than dry conditions' and - Works have potential for **uninfested** areas to be impacted	**NA**	Proceed with standard Vehicle and Plant management actions from PEMRs and Vehicle and Plant Hygiene Checklists. The proposal is not located adjacent to any protectable vegetation.
3. 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.
4. The vegetation within the area to be cleared and/or the surrounding vegetation in a good or better condition and weeds 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.

7 VEGETATION MANAGEMENT

Main Roads will avoid clearing native vegetation where possible. Where clearing cannot be avoided then this clearing is kept to a minimum. Vegetation will be managed in accordance with the Principal Environmental Management Requirements (PEMRs).

8 REFERENCES

Australian Government. (2012). *EPBC Act referral guidelines for three threatened black cockatoo species* Department of Sustainability, Environment, Water, Population and Communities.

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. (2019). *2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions, Perth. Available online from: https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics

Government of Western Australia. (2019). *2018 South West Vegetation Complex Statistics. Current as of March 2019.* WA Department of Parks and Wildlife, Perth.

Government of Western Australia (2019). *Native Vegetation Clearing Permits. Application, assessment, and management requirements under Part V Division 2 of the Environmental Protection Act 1986*. Department of Water and Environmental Regulation.

Heddle, E. M., Loneragan, O. W., and Havel, J. J (1980) *Atlas of Natural Resources Darling System, Western Australia*. Department of Conservation and Environment.

9 APPENDICES

Appendix	Title
Appendix 1	Environmental Site Inspection Report - Clearing Desktop Report

Appendix 1: Environmental Site Inspection Report for a CDR

TRIM D21#224535