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Clearing Desktop Report – CPS 818

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Bridge 3381 Replacement

October 2022

2349

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Contents

1	PURPOSE			
2	SCOPE4			
2.1	Project Scope			
2.2	Desktop Assessment Scope			
2.3	Alternatives to Clearing			
2.4	Measures to Avoid, Minimise, Mitigate and Manage Project Clearing Impacts			
2.5	Approved Policies and Planning Instruments9			
3	METHODOLOGY			
4	VEGETATION DETAILS			
	4.1.1 Project Site Vegetation Description			
	4.1.2 Vegetation Complexes and Representation11			
5	ASSESSMENT AGAINST THE TEN CLEARING PRINCIPLES			
6	ADDITIONAL ACTIONS REQUIRED			
7	VEGETATION MANAGEMENT22			
8	REFERENCES			

Amendments

Report Compilation Name and Position & Review		Document Revision	Date
Author:	Environment Officer	Draft v1	12/10/2022
Reviewer:	Senior Environment Officer	Rev 0	13/10/2022

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 **Project Scope**

Project Name: Bridge 3381 Replacement

Project Purpose / Components:

The bridge replacement works must take place, as there is deterioration in structural members and uncertainty as to the structural capacity of the bridge due to difficulties associated with bridge inspection.

Proposed Project details:

- Demolition of existing bridge,
- Excavation for construction of abutment footings,
- Construction of crane pads for lifting precast elements in place,
- Minor roadworks to tie existing road into new structure.

No side track is required. The project will involve the clearing of up to 0.1 ha native vegetation including isolated trees over weeds only (no native understory). Clearing will be conducted under CPS 818.

The proposed clearing under CPS 818 is: up to 0.1 ha

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

Project Location(s): The project area is located on Kaloorup Road, SKL 6.91, City of Busselton as shown in Figure 1.

- MGA reference: GDA 1994
- Latitude: 115.2377316°E
- Longitude: 33.7361134°S

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. Project Area



Path: Y:\Ian Mullins\Bridge 3381 Replacement\Bridge 3381 Replacement v2\Bridge 3381 Replacement v2.aprx

Figure 2. Project Location and 5 km Study Area

2.3 Alternatives to Clearing

The bridge replacement works must take place, as there is deterioration in structural members and uncertainty as to the structural capacity of the bridge due to difficulties associated with bridge inspection. The project has been designed to minimise native vegetation clearing to trees directly abutting the road verge where road works are required to tie into the new slightly wider bridge on the approach and exit.

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

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

Design or Management Measure	Discussion and Justification
Steepen batter slopes	No cut and fill activities or installation of batters is required for this project adjacent to vegetation. Existing levels will suffice which do not include existing batters.
Installation of safety barriers	Traffic barriers shall be provided along the bridge and immediate approaches as a safety precaution for traffic. Longer barriers along the road adjacent to vegetation are not proposed, nor would they result in reduction in clearing that would justify their installation. Minor clearing (up to 0.1 ha) is required to tie into the new slightly wider bridge on the approach and exit.
Alignment to one side of existing road	This design consideration is not applicable to this project. The proposed Bridge 3381 will be located along the same alignment as the current structure it replaces. Retaining a similar alignment and footprint minimises the need for additional clearing.
Alternative alignment to follow existing road (or) to preferentially locate within pasture or a degraded area	This design consideration has been implemented - the Bridge 3381 will be located in essentially the same footprint as the temporary structure it replaces. Retaining a similar alignment and footprint minimises the need for clearing.
Simplification of design to reduce number of lanes and/or complexity of intersections	The project is a simple replacement of the existing bridge with the new more modern structure within existing cleared areas. Minor clearing (up to 0.1 ha) is required to tie into the new slightly wider bridge on the approach and exit. The project will not require any side tracks with the road either being closed completely, or bridge replacement undertaken in two halves to maintain traffic flow.
Preferential use of existing cleared areas for access tracks, construction storage and stockpiling	The project will utilise existing cleared areas for the majority of project works including for access, demolition and replacement of bridge and storage and stockpiling of equipment. Only minor clearing of up to 0.1 ha of native vegetation is required in order to tie into the new slightly wider bridge on the approach and exit.
Drainage modification	Runoff from the bridge will be directed via kerbing to existing roadside drainage flowing into the unnamed tributary to Dawson's Gully. The quantity of water entering the river will be discharged in a controlled manner via roadside drains, rather than the current uncontrolled manner.
Additional avoidance measures	The Project will involve the clearing of up to 0.1 ha native vegetation including isolated trees over weeds only (no native understory).

Table 1. Justification of Avoiding, Minimising, Mitigating and Managing Project Clearing Impacts

2.5 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 510 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 (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 (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
- 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

A desktop assessment of the project 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

Vegetation within the clearing footprint consists of both mature and younger Marri (*Corymbia calophylla*) trees and one Peppermint (*Agonis flexuosa*) sapling over a weed infested understory and no native understory species.

Within the larger patches of remnant vegetation adjacent to the clearing footprint the vegetation consisted of mostly Marri (*Corymbia calophylla*) with some Jarrah (*Eucalyptus marginata*) over a weed infested understory. Isolated native understory species including Xanthorrhoea sp. were noted however these were away from the roadside and not within the clearing footprint.

Tables 2 and 3 provide details of the Pre-European Vegetation Associations with the project area and the remaining extents of these associations.

For a full description of the existing vegetation, refer to the Site Inspection Report in Appendix 1.

Pre-European Vegetation Association(s)	Clearing Description	Vegetation Condition	Comments
Vegetation Association 1136: Medium woodland; marri with some jarrah, wandoo, river gum and casuarina (Government of Western Australia 2022)	Clearing of up to 0.1 ha for road works to tie into proposed new bridge structure	Degraded to Completely degraded (EPA 2016)	Vegetation description and condition determined from Main Roads site visit on 15/09/2022

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

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.	Statewide	48,124.57	3,345.51	6.95	0.85
1136	IBRA Bioregion Swan Coastal Plain	48,118.01	3,341.18	6.94	0.85
	IBRA Sub-region Perth	48,118	3,341.18	6.94	0.85
	Local Government Authority City of Busselton	38,946.49	2,640.77	6.78	0.51

4.1.2 Vegetation Complexes and Representation

Table 4 provides details of the Pre-European Vegetation Complex within the project area and the remaining extents of these associations.

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

Heddle/Mattiske Veg Complex	Pre-European Extent (ha)	2013 Vegetation Extent	% Remaining
Abba 30	50,892.78	3,326.20	6.54

5 Assessment Against the Ten Clearing Principles

In assessing whether the project's proposed clearing is likely to have a significant impact on the environment, the project was assessed against the ten Clearing Principles (*Environmental Protection Act 1986* (EP Act), Schedule 5).

Each principle has been assessed in accordance with DWER's 'A Guide to the Assessment of Applications to Clear Native Vegetation'.

The proposed clearing is not likely to be at variance with the 10 Clearing Principles.

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

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

Comments

Vegetation within the clearing footprint vegetation consists of both mature and younger Marri (*Corymbia calophylla*) trees and one Peppermint (*Agonis flexuosa*) sapling over a weed infested understory and no native understory species (MRWA, 2022). Within the larger patches of remnant vegetation adjacent to the clearing footprint the vegetation consisted of mostly Marri (*Corymbia calophylla*) with some Jarrah (*Eucalyptus marginata*) over a weed infested understory (MRWA, 2022). Isolated native understory species including Xanthorrhoea sp. were noted however these were away from the roadside and not within the clearing footprint (MRWA, 2022).

There are 23 Threatened and Priority flora species (according to ArcGIS shapefiles) with known records within the 5 km study area however there is no suitable habitat present in the Degraded to Completely degraded road reserve, for any of the small herbaceous species due to the weed dominant understory. Due to the distance of any known records of significant flora (more than 1 km) from the project area, lack of suitable habitat for the species identified, the Degraded condition of the vegetation within the project area and the historical disturbance from road construction and maintenance activities, it is unlikely Threatened or Priority flora would occur within the project area.

9 species of Threatened and Priority fauna species (according to ArcGIS shapefiles) are known to occur within the 5 km study area. Only 5 of these species have suitable habitat within the project area: the three Threatened black cockatoo species, Western Ringtail Possum and Water-rat.

Black Cockatoos

Three species of Threatened black cockatoo (Carnaby's Cockatoo; Baudin's Cockatoo and Forest Red-tailed Black Cockatoo) have known habitat within the project area. Desktop surveys identified that all three black cockatoo species have been recorded locally. The Black Cockatoo habitat assessment by SW Environmental (SW Environmental 2022) found a total of 18 DBH (>50 cm) trees within the project area, two of which had hollows which were deemed unsuitable for Black Cockatoos. The project will only require the clearing of:

- up to four diameter at breast height (DBH) trees, one of which has a hollow with a knot angle and aperture that was too small for Black Cockatoos (SW Environmental 2022).
- approximately 0.16 ha of quality foraging habitat occurs within the project area, of which up to 0.1 ha will be removed. This area of foraging habitat is of relatively low significance being well under the one hectare criteria identified in the Commonwealth EPBC Act referral guidelines (DAWE 2022).

The project is located within proximity of multiple large areas that provide equal or better Black Cockatoo habitat with the 50ha of Blackwood State Forest (DBCA reserve) located approximately 7.5 km south of the project and the 120ha of remnant vegetation associated with the nearest known roost site (located approximately 1.8 km to the north). Furthermore, there are no Important Bird Areas (IBA) nearby, the closest, Busselton Wetlands IBA, is nearly 15 km to the northeast and not associated with black cockatoos.

Western Ringtail Possum

The project is within the known distribution for Western Ringtail Possum, with the nearest known record on Main Roads ArcGIS shapefiles, approximately 2.5 km to the east. The project requires the removal of up to 0.1 ha of Marri over weeds. According to the Western Ringtail Possum Recovery Plan, key habitat requirements for the possum are high nutrient foliage availability for food, suitable structures for protection/nesting, and canopy continuity to avoid/escape predation, and other threats. The vegetation in the project is unlikely to support a population of Western Ringtail Possum, given its Degraded to Completely degraded condition. The vegetation proposed for removal is not intact enough, with limited suitable structures/protection for nesting and is not connected enough within the broader landscape to be important as a dispersal corridor. Vegetation within the project area is not considered to be significant habitat for the species. Given the project's location within the Swan Coastal Plain Management Zone, a suitably qualified ecologist will be present on site to supervise clearing and ensure that no possums are within the trees proposed for removal. The project is not likely to have a significant direct or indirect impact on this species or any individuals.

Water-rat

The Water-rat is thought to occur broadly across the south west of Western Australia. The species live in burrows on low banks of rivers, lakes, wetlands, estuaries and even along the coast. Intact riparian vegetation and associated bank stability is critical to their survival. Although there are known records of the species within the 5 km study area, the Degraded condition of the project area makes it unsuitable for the species to thrive. None of the vegetation proposed for removal is growing on the bed and banks of a watercourse and the clearing proposed does not involve the removal of riparian vegetation which would support habitat for the Water-rat. It is not anticipated the project will have a significant impact on this species.

The remaining species with known records within the 5 km study area are migratory and wetland bird species. These species are highly mobile in nature and the lack of core habitat within the project area, makes it unlikely that the species will be significantly impacted by the project.

The 0.1ha of native vegetation proposed to be cleared is not considered to comprise a high level of biological diversity as it entails the removal of isolated trees over weeds with little to no understory, is linear in nature and will not impact ecological functions and processes that protect significant habitat for fauna or necessary for the maintenance of fauna.

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

Methodology

DBCA shapefiles EPA (2016) Main Roads GIS Shapefiles Main Roads Site Inspection (Appendix 1) Black Cockatoo Habitat Assessment (SW Environmental 2022; Appendix 2)

(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 to be at variance to this Principle

Comments

Vegetation within the project area was in a Degraded to Completely degraded condition (EPA 2016). Within the clearing footprint vegetation consisted of both mature and younger Marri (*Corymbia calophylla*) trees and one Peppermint (*Agonis flexuosa*) sapling over a weed infested understory and no native understory species. Within the larger patches of remnant vegetation adjacent to the clearing footprint the vegetation consisted of mostly Marri (*Corymbia calophylla*) with some Jarrah (*Eucalyptus marginata*) over a weed infested understory. Isolated native understory species including Xanthorrhoea sp. were noted however these were away from the roadside and not within the clearing footprint. Of the 9 fauna species with known records in the 5 km study area (Main Roads GIS shapefiles), only the 3 Threatened black cockatoo species, Western Ringtail Possum, and the Water-rat, have suitable habitat within the project area.

The works are within a highly modified and cleared landscape with mostly small, degraded remnants within largely cleared farmland. Although highly degraded, vegetation within the road reserve would provide minimal local ecological linkages however the watercourse runs perpendicular to the roadside vegetation through farmland and therefore is limited for linkage value. The project will not break or degrade any ecological linkages beyond that already in place from adjacent farmland and Kaloorup Road.

As detailed in Principal A, the 0.1ha of native vegetation proposed to be cleared entails the removal of isolated trees over weeds with little to no understory, is linear in nature and will not impact vegetation necessary for the maintenance of, a significant habitat for fauna.

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

Methodology DBCA shapefiles EPA (2016) Main Roads GIS Shapefiles Main Roads Site Inspection (Appendix 1) Black Cockatoo Habitat Assessment (SW Environmental 2022; Appendix 2)

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

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

Comments

Vegetation within the proposal area was in a Degraded to Completely degraded condition (EPA 2016). Within the clearing footprint vegetation consisted of both mature and younger Marri (*Corymbia calophylla*) trees and one Peppermint (*Agonis flexuosa*) sapling over a weed infested understory and no native understory species. Within the larger patches of remnant vegetation adjacent to the clearing footprint the vegetation consisted of mostly Marri (*Corymbia calophylla*) with some Jarrah (*Eucalyptus marginata*) over a weed infested understory. Isolated native understory species including Xanthorrhoea sp. were noted however these were away from the roadside and not within the clearing footprint.

According to Main Roads shapefiles there are 5 known records of Threatened flora within the 5 km study area. There are no know records of Threatened flora within the proposal area. There was no suitable habitat present in the Degraded road reserve, for any of the small herbaceous species, which would be outcompeted by the weed dominant understory. Due to the distance of any known records of significant flora (more than 1 km) from the proposal area, lack of suitable habitat for the species identified as potentially occurring within the proposal area, Degraded condition of the vegetation and historical disturbance from road construction and maintenance activities, the vegetation to be cleared is not necessary for the continued existence of rare flora.

Based on the above, the clearing is not likely to be at variance within the Principle.

Methodology DBCA shapefiles EPA (2016) Main Roads Site Inspection (Appendix 1)

(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

Comments

The proposal area is not within any TECs according to Main Roads' ArcGIS Shapefiles. GIS shapefiles identified the following TECs that were known to occur within the 5 km study area:

- Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain ecological community Critically Endangered;
- Banksia Woodlands of the Swan Coastal Plain ecological community Endangered.

According to Main Roads GIS shapefiles, the nearest TEC is Banksia Woodlands of the Swan Coastal Plain, which occurs approximately 1.2 km to the north east of the proposal area.

The vegetation within the proposal area is not representative of any of the two TECs identified within the 5 km study area due to the Degraded condition of the vegetation, absence of key species and an understory predominantly consisting of weeds (MRWA 2022).

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

Methodology

DBCA shapefiles EPA (2016) Main Roads GIS Shapefiles Main Roads Site Inspection (Appendix 1)

(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, may be at variance to this Principle

Comments

In the South West region, the Swan Coastal Plain IBRA region retains approximately 34.23% of its pre-European native vegetation extent (Government of Western Australia 2022a). Vegetation association 1136 and the Abba 30 vegetation complex mapped within the Swan Coastal Plain IBRA retain 6.94% and 6.54% of pre-European extents, respectively (Government of Western Australia 2022a & 2022b). Noting vegetation association 1136 and the Abba 30 vegetation complex local area pre-European extents are below the 10% thresholds, the vegetation within the application area is considered to occur within an area that has been extensively cleared.

Vegetation association 1136 is characterised as a medium woodland containing marri with some jarrah, wandoo, river gum and casuarina while the Abba 30 complex is characterised as 'a mixture of open forest of Corymbia calophylla (Marri) - Eucalyptus marginata (Jarrah) - Banksia species and woodland of *C. calophylla* (Marri) with minor occurrences of *C. haematoxylon* (Mountain Marri). Woodland of *E. rudis* (Flooded Gum) - Melaleuca species along creeks and on flood plains. (Mattiske and Havel, 1998). The site inspection by Main Roads Officers and SW Environmental (2022) determined that the vegetation within the proposal area *of* mostly Marri (*Corymbia calophylla*) with some Jarrah (*Eucalyptus marginata*) over a weed infested understory with isolated native understory species including Xanthorrhoea sp. Within the clearing area vegetation consisted of both mature and younger Marri (*Corymbia calophylla*) trees and one Peppermint (*Agonis flexuosa*) sapling over a weed infested understory and no native understory species. Occurrences of Banksia species, Mountain Marri or Flooded Gum were not reported within the proposal area or proposed clearing area. Given the absence of species in the clearing area other than Marri that represent these vegetation units and the vegetation present within the proposal area in Degraded to Completely degraded condition, it is considered that this vegetation is not representative Vegetation association 1136 or the Abba 30 vegetation complex.

Given the above, the small extent of clearing proposed, degraded vegetation condition and the unlikely presence of conservation significant flora and ecological communities, as well as significant habitat for conservation fauna, the proposed clearing is not likely to comprise a significant remnant within an extensively cleared area. A similar assessment was made by DWER for CPS 8662-01 for the removal of vegetation under the 10% threshold.

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

Summary of Project Area's Mapped Pre-European Vegetation Associations					
Pre-European Vegetation Association(s)	Clearing Description	Vegetation Condition	Comments		
Vegetation Association 1136: Medium woodland; marri with some jarrah, wandoo, river gum and casuarina (Government of Western Australia 2022)	Clearing of up to 0.1 ha for road works to tie into proposed new bridge structure	Degraded to Completely degraded (EPA 2016)	Vegetation description and condition determined from Main Roads site visit on 15/09/2022		

Pre-European Vegetation Representation

Pre-European Vegetation Association	Scale	Pre– European (ha)	Current Extent (ha)	% Remaining	% Remaining in DBCA reserves
Veg Assoc No.	Statewide	48,124.57	3,345.51	6.95	0.85
1136	IBRA Bioregion Swan Coastal Plain	48,118.01	3,341.18	6.94	0.85
	IBRA Sub-region Perth	48,118	3,341.18	6.94	0.85
	Local Government Authority City of Busselton	38,946.49	2,640.77	6.78	0.51

Vegetation Complexes and Representation

Heddle/Mattiske Veg Complex	Pre-European Extent (ha)	2013 Vegetation Extent	% Remaining
Abba 30	50,892.78	3,326.20	6.54

Methodology

Aerial photography

Main Roads Site Inspection (Appendix 1)

EPA (2016)

Government of Western Australia (2022a & 2022b)

(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

Comments

The works require the removal of up to 0.1 ha of degraded roadside vegetation including both mature and younger Marri (*Corymbia calophylla*) trees and one Peppermint (*Agonis flexuosa*) sapling over a weed infested understory and no native understory species. These species are not considered to be riparian species. In addition, none of the vegetation proposed for removal is growing on the bed and banks of the watercourse. All vegetation growing on the bed and banks and in association with the watercourse are weed species.

Given the above, the proposed works are not likely to be at variance with this Principle.

Methodology

Main Roads Site Inspection (Appendix 1)

(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

Comments

Mapping (DPIRD-064) indicates that the proposal area occurs on the Abba System which is characterised by grey deep sandy duplex and wet soils. The site inspection (MRWA 2022) confirmed that no rocky outcrops, limestone, or steep topography is present within or adjacent to the proposal area. The ASRIS ASS risk mapping indicates that the area is classified as Low Probability of Occurrence.

The works require the removal of up to 0.1 ha of roadside vegetation in Degraded to Completely degraded condition. The clearing will occur in a previously disturbed environment to facilitate the replacement of the widened bridge structure and tie-in to the existing road. The proposed vegetation clearing will be scheduled to prioritise completion of works within dry conditions. Given the timing of the works, topography of the site and soil type, no water logging or water erosion issues are expected. Standard environmental management, including the requirements for silt curtains and other sediment control measures will be incorporated into the CEMP.

Given the above and considering the proposed clearing is very small scale and linear nature, the clearing is not likely to cause appreciable land degradation. Furthermore, the works include the improvement to roadside drainage infrastructure within an historically disturbed environment.

Based on the above, the proposed works are not likely to be at variance with this Principle.

Methodology

Main Roads Site Inspection (Appendix 1) Soil Landscape Mapping (DPIRD-064) shapefile (Accessed 12/10/2022)

(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 proposal area is approximately 6.7 km from the nearest parcel of Department of Biodiversity, Conservation and Attractions (DBCA) managed land, an unnamed Class A Reserve (LR003109000489).

Given the distance from the nearest conservation area, minor scale of clearing (up to 0.1 ha) and nature of the activities, clearing of native vegetation is not at variance with this Principle.

Methodology

DBCA shapefiles

Main Roads Site Inspection (Appendix 1)

(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 works require the removal of up to 0.1 ha of roadside vegetation in Degraded to Completely degraded condition. The clearing will occur in a previously disturbed environment to facilitate the replacement of the widened bridge structure and tie-in to the existing road. Surface and ground water quality and levels are unlikely to be negatively impacted by the removal of up to 0.1 ha of vegetation growing in the road verge. Vegetation within the watercourse is weed species only and their removal is unlikely to result in any sedimentation or water quality/quantity changes. Furthermore, the works are not likely to intercept groundwater levels as they will not exceed 0.5 m below current ground level. Environmental management actions will be incorporated into the CEMP to ensure no deterioration to water quality should the watercourse be flowing during any ground disturbing works.

The clearing of native vegetation is not at variance with this Principle

Methodology

DWER and DBCA shapefiles Main Roads Site Inspection (Appendix 1)

(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

One mapped watercourse (unnamed tributary to Dawson's Gully) crosses the proposal area. None of the vegetation proposed for removal is growing on the bed and banks of the watercourse. The proposal area is in a moderate rainfall area, with the Shire of Busselton receiving an annual average of 807 mm (Bureau of Meteorology Australia, 2022), primarily during winter months.

Mapping (DPIRD-064) indicates that the proposal area occurs on the Abba System which is characterised by grey deep sandy duplex and wet soils. This was also confirmed by observations during the site visit. Proposed works are scheduled to occur in spring and summer months when river flows and rainfall are at their least. The proposal area is located within low flat terrain apart from banks of the minor watercourse intersecting the proposal.

The flat terrain, small clearing footprint and spring/summer construction period will reduce the potential to cause, or exacerbate, the incidence or intensity of flooding. The clearing will occur in a previously disturbed environment to facilitate the replacement of the widened bridge structure and tie-in to the existing road. The removal of the 0.1 ha of vegetation is unlikely to alter the incidence or intensity of flooding.

Therefore, this proposal is not at variance to this Clearing Principle.

Methodology

Main Roads Site Inspection (Appendix 1) Soil Landscape Mapping (DPIRD-064) shapefile (Accessed 12/10/2022) Main Roads GIS Shapefiles

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
 The project involves clearing for temporary works (as defined by CPS 818). 	Νο	No further action required.
 2 a. Project 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 	Yes	The proposed vegetation clearing will be scheduled to prioritise completion of works within dry conditions. Due to the naturally low-lying nature of watercourses, dieback is often already present at bridge sites. In this case, it is assumed that dieback will be present at the site and as such, clean on entry and exit from site will be sufficient to manage Dieback. Clean on entry and exit from site will be incorporated into the CEMP.
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	Νο	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 (PEMR's).

8 **REFERENCES**

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