Clearing Desktop Report – Short Form

1. PROPOSAL DETAILS

Proposal Name:	Albany Hwy 300.3-308 SLK Gordon North – Additional Geotechnical Investigations		
Region/Directorate:	Great Southern		
Road/Bridge Name & No:	Albany Hwy (H001)		
Proposal Location (SLK):	SLK 300.3 – 308		
TRIM Link to Spatial Data:	D22#1287759 (Proposal area – 32 test pads)		
EOS No:	1914		
Expected Proposal Start Date:	January 2023		
Project No:	21115568	**Task Code:**	19303
LISC TRIM No:	D22#1286150	**HRA TRIM No:**	D22#1254169

2. PURPOSE OF CLEARING

The current seal (pavement) width of Albany Highway Gordon River North Section (SLK 300.3 – 308) is not adequate for the class and volume of traffic currently utilising this section of road. There are several sections where poor vertical and horizontal alignments fail to provide the required vehicle sight stopping distances. Due to the age, poor condition and increased traffic loads, the road requires widening, reconstruction and maintenance to ensure the safety of road users.

Reconstruction and realignment have been recommended as the preferred approach to provide a roadway that meets the current design standards including a pavement with an expected 40 years' life.

To support the road building activities, geotechnical investigations are required to understand the geology of the area along the proposed alignment. Accordingly, Great Southern Material Team excavated approximately 97 test pits in and adjacent to the maintenance zone (within the wider proposal footprint) along Albany Hwy to provide technical data for road construction.

Great Southern Materials Team propose to undertake additional geotechnical testing in an area of rock on Albany Highway and along Yonka Road (as the intersection is being realigned). This will require an additional 32 test pits in and adjacent to the maintenance zone (within the wider proposal footprint) along Albany Highway and along the new Yonka Road alignment to provide technical data for road construction.

Each geotechnical pad will nominally be a 6 metre (m) diameter circle (28.27m^2) and test pits will extend to a maximum depth of up to 2 m. Cleared or partially cleared areas have been selected for Test Pit locations where possible. Of the 32 test pit locations, R1-R26 are cleared, with R27-R32 having up to 50% native vegetation. This CDR focuses on the clearing requiring for R27-R32 (6 test pads) – (6 x 0.5 x 28.27= 84.8m^2).

Several biological studies have been undertaken of the wider proposal area by Great Southern Bio Logic (2019), Ecologia (2020) and Main Roads (2022) and will be used to support assessment of this Proposal.

The Proposal will involve the clearing of up to 0.0084 ha of native vegetation in a 0.1 ha Proposal area. The clearing of the native vegetation will be conducted using CPS 818.

Proposed clearing under CPS 818: 0.0084 ha.

Proposed temporary clearing under CPS 818: 0 ha.

3. ALTERNATIVES TO CLEARING

Geotechnical investigations are required to understand the geotechnical conditions of the soil where road infrastructure is proposed to be constructed so that the road can be designed to ensure appropriate service life. Understanding the location of underlying rock will also assist the Contractor if it is considering its removal as part of earthworks. No alternatives exist.

4. MEASURES TO AVOID, MINIMISE, MITIGATE AND MANAGE PROPOSAL CLEARING IMPACTS

The Proposal footprint has been designed so that required clearing is limited to six test pit locations which contain vegetation. The other 30 test pit locations are already cleared. These six test pit locations are also in areas where approximately half of these areas are existing cleared areas. Typically, geotechnical crews choose already cleared areas (where possible) to minimise the need to clear vegetation.

The additional geotechnical Proposal area is located within the larger Proposal area for the Gordon North Road Proposal.

Geotechnical test pits will be backfilled once test works have been completed.

5. APPROVED POLICES 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 the following documents.

Environmental Protection Policies:

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

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* (WA) (RIWI Act)
- *Aboriginal Heritage Act 1972* (WA) (AHA)
- *Town Planning and Development Act* (WA)*1928*

Relevant other policies and guidance documents:

- Environmental Offsets Policy (Government of Western Australia, 2011)
- A guide to the assessment of applications to clear native vegetation (DEC, 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

6. CLEARING AREA

Clearing Area (ha):	0.0084	**No. Trees Cleared:**	No overstorey
Species Name:	Various understorey with possibly some mid storey species		
Easting and Northing:	GDA2020 MGA Zone 50 117.433851 -34.201249		

7. EXISTING ENVIRONMENT AND SITE INFORMATION

Site Vegetation Description/Association:	GSBL (2019) mapped the vegetation for test pit locations R27-R32 as Mixed Shrubland.
Site Vegetation Condition:	Ecologia (2020) mapped the vegetation condition for test pit locations R27-R32 as a mix of cleared or Degraded-Good. Based on the photos of each test location (Appendix 1), the vegetation condition ranges from Degraded to Completely Degraded/Cleared.
Pre-European Extent Remaining (%):	One Beard's (1976) vegetation association (967) has been mapped over the Proposal area: • Medium woodland; wandoo & yate. The pre-European extent of this Vegetation Association was 216,684 ha at a Statewide level. 36,536 (16.86%) of the pre-European extent of Vegetation Association 967 remains at a Statewide level, with 202 ha (71.68%) remaining at a LGA level.

8. ASSESSMENT OF PROPOSAL AGAINST CLEARING PRINCIPLES

Is vegetation to be cleared at variance with:	Justification or Evidence:
Principle (a) – Native vegetation should not be cleared if it comprises a high level of biological diversity.	Vegetation condition within the clearing area(s) is Degraded to Completely degraded and comprises of understory and some midstorey vegetation located within and adjacent to the maintenance zone. The understorey is generally introduced weeds and pasture species but may feature native species. The midstorey species is considered to be native vegetation. The vegetation to be cleared is approximately 0.3 -2m high. It provides limited fauna habitat and overall displays limited biodiversity value based on the condition and composition. Analysis of GIS flora databases reveal that the closest record of Priority species was *Banksia acuminata (P4)* approximately 120m north of test pit R25. Ecologia (2020) undertook a Targeted Flora and Fauna Survey in October 2019. No conservation significant flora was recorded within the geotechnical investigation areas. The closest records were *Xanthorrhoea brevistyla (P4)*, XXm from test pit RXX, and XXm from test pit RXX. It is unlikely that this species (and any other State significant species) will be impacted by geotechnical investigations given works will not extend beyond the test pit footprint proposed. The closest Threatened species was B*anksia lepidorhiza,* XX km from test pit RXX. GIS mapping indicates that the majority of test pit locations are within a mapped TEC/PEC (Wheatbelt Woodlands). Ecologia (2020) undertook a TEC assessment along Albany Hwy and identified seven areas of TEC/PEC within its survey area from 297 to 308 SLK. None of the test pit locations are within Ecologia mapped TEC/PEC. The closest Ecologia mapped area of TEC/PEC is 140 metres south east of test pit R32. No impacts to TEC/PEC will occur given the works will not extend beyond the proposed footprint. Removal of 0.0084 ha of mixed weed and native vegetation understory and some midstorey native vegetation in Degraded to Completely degraded condition will not impact the biological diversity of the area. **Not at variance**
Principle (b) – Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the	Vegetation condition within the clearing area(s) is Degraded to Completely degraded and comprises of understory and some midstorey vegetation located within and adjacent to the maintenance zone. Based on condition and

maintenance of, a significant habitat for fauna indigenous to Western Australia.	composition, the vegetation provides very limited habitat for any fauna and no functional habitat linkage for native fauna. Ecologia (2020) recorded four fauna habitat types in the wider survey area, which may provide suitable habitat for seven conservation significant fauna species. Only one species had been previously recorded in the survey area (Carnaby's Cockatoo). Four mammal species and two birds were assessed as having a likelihood of occurrence rating of 'Possible'. The fauna habitat type recorded in the Proposal area was mapped as Open shrubland. Of the seven recorded or possible to occur species, Open shrubland was not considered to be their preferred habitat (although may overfly/transit through this habitat). Ecologia did not record any conservation significant species or secondary signs of conservation significant species during the survey. Due to the small footprint of geotechnical investigations (up to 28 m^2 each), only 6 of the 32 sites containing native vegetation, spread over 1.6 km of road network, avoiding all overstorey species and other vegetation where possible, the potential impact on Threatened fauna habitat and the fauna itself is not considered to be significant. The vegetation proposed for clearing does not comprise vegetation necessary for the maintenance of a significant habitat for fauna indigenous to Western Australia. **Not at variance**
Principle (c) – Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.	Ecologia (2020) undertook a Targeted Flora and Fauna Survey in October 2019. No rare flora individuals were recorded within the geotechnical investigation areas. The closest individual was B*anksia lepidorhiza,* XX km from test pit RXX which will not be impacted by the proposed works. **Not at variance**
Principle (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.	GIS mapping indicates that the majority of test pit locations are within a mapped TEC/PEC (Wheatbelt Woodlands). Ecologia (2020) undertook a TEC assessment along Albany Highway and identified seven areas of TEC/PEC within its survey area from 297 to 308 SLK. None of the test pit locations are within Ecologia mapped TEC/PEC. The closest Ecologia mapped area of TEC/PEC is 140 metres south east of test pit R32. As works will not extend beyond the proposed test pit locations, no impact to the TEC is expected. **Not at variance**
Principle (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.	The proposed clearing is located within the Vegetation Association 967. 16.86% of the pre-European extent of this Vegetation Association remains at a Statewide level, with 71.68% remaining at a LGA level. Although there is not a high proportion of the vegetation association remaining, the clearing of 0.0084ha spread over six test sites within a Degraded to Completely degraded area does not represent a significant remnant of native vegetation. **Not at variance**
Principle (f) – Native vegetation should not be cleared if it is growing in, or in association with,	The proposed vegetation to be cleared is not located in, or associated with, a watercourse or wetland. The closest mapped waterway is 380 m from the closest geotechnical test location (R1).

an environment associated with a watercourse or wetland.	The vegetation type recorded by Ecologia (20220) as growing in the test pit areas to be cleared is typically not associated with growing in a watercourse or wetland. As works are limited to within the proposed footprint, no impact to watercourses or wetlands is expected. **Not at variance**
Principle (g) – Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	Given the very small area (0.0084 ha total clearing) and isolated nature of the clearing at 6 sites spread across an area of 1.6km, it is not likely to lead to an appreciable increase in land degradation. Standard erosion and dust management control measures will be implemented during construction to reduce the incidence of wind erosion. **Not at variance**
Principle (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.	A search of ArcGIS shapefiles indicates no Nature Reserves, Conservation Areas, Environmentally Sensitive Areas or Bush Forever Sites are located within 100 metres of the clearing area(s). As works are restricted to within the proposed footprint, no impact to conservation areas is expected. **Not at variance**
Principle (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.	The proposed clearing is not located within a watercourse. Analysis of GIS databases shows that the Clearing Area is not located within a: • RIWI Act Groundwater or Irrigation district; • Public Drinking Water Source Area; • CAWS Act Clearing Control Catchment; or • Surface Water Area proclaimed under the RIWI Act. No dewatering or drainage modifications are required, hence no change to groundwater level or quality is anticipated. Standard operational controls will be implemented with regards to potential spill risks. Given no dewatering or drainage modifications are likely to be required and the scale of clearing is very minor, no deterioration of surface or underground water levels or quality is expected to result from clearing. **Not at variance**
Principle (j) – Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.	Online data from the Bureau of Meteorology was analysed for annual rainfall data at the closest weather station to the Proposal, Cranbrook located approximately 12km to the south of the Proposal area. Mean annual rainfall for Cranbrook is 496 mm (BOM 2022). DAFWA mapping indicates that most of the proposal area is mapped as Carrolup 2 Subsystem, described as *grey sandy duplex soils on slopes, hill crests and less commonly minor drainage lines, within the Carrolup system*. Sandy soils typically have a significant infiltration capacity, so it is unlikely that runoff or flooding will occur as a result of the proposed clearing. DAFWA risk mapping indicates the soils of the proposal area have a low to moderate water logging risk over the proposal area. Given the circular and minor nature of the clearing over the 1.6 km Proposal area, the sandy nature of the soil, the proposed clearing will not cause or exacerbate the incidence or intensity of flooding. **Not at variance**

Methodology Used and References:	Ecologia (2020). Gordon South Stage 1 and 2 and Narrikup to Mt Barker Targeted Flora and Fauna_Survey. Unpublished report prepared for Main Roads Western Australia.	D20#297712
	Ecologia (2020) Vegetation Condition Shapefile	D20#463692
	GSBL (2019) Albany Highway Gordon South Stage 2 297-308 SLK Biological Survey. Unpublished report prepared for Main Roads Western Australia.	D19#549009
	Gordon North Additional Geotechnical Locations CPS818 Clearing Shapefile	D22#1287759
	Bureau of Meteorology (BOM) 2022. Climatic Statistics for Australian Locations: Monthly climate statistics, [Online], Australian Government, Available from: http://www.bom.gov.au/climate/averages/tables/	
	Arc GIS spatial Data Layers	

Completed By:	
Job Title	Senior Environmental Officer
Date	18/01/2023

Once all sections are completed, send the form to CRSP for review and endorsement.

DECISION ON CLEARING ASSESSMENT		
Clearing Assessment	**ENDORSED ☒**	**REFUSED ☐**
Comments	The clearing of 0.0084 ha of native vegetation across six sites over a 1.6 km distance is proposed for the purpose of geotechnical investigations relating to the broader Gordon North Road Proposal. The vegetation is in Degraded to Completely degraded condition and clearing has been minimised through the selection of existing cleared areas over vegetated areas. Only understory vegetation and minimal midstory vegetation is proposed to be cleared. No trees or overstory vegetation will be cleared as part of these works. The vegetation proposed to be cleared does not support critical habitat for native fauna species. Given the nature and small scale of the works and clearing proposed, I concur with the determination that clearing is not at variance to the clearing principles, and therefore no referral or further assessment is necessary.	
Job Title	Senior Environment Officer	
Date	19/01/2023	

Appendix 1

Figure 1: Geotechnical Test Pit Locations (50% clearing)

Test Pit 27 (weed/possible groundcovers)

Test Pit 28 (cleared/groundcover?)

Test Pit 29 (cleared/midstorey)

Test Pit 30 (open country with groundcover and overstorey)

Test Pit 31(open country with possible groundcover and overstorey)

Test Pit 32 (open country with possible groundcover and overstorey)