Clearing Desktop Report – Short Form

1. PROPOSAL DETAILS

Proposal Name:	M038 – Narrogin Kondinin – SLK 76.6 – 80.10 - Widening – Tranche 5		
Region/Directorate:	Wheatbelt		
Local Government Authority:	Shire of Wickepin		
Road/Bridge Name and No:	M038 - Narrogin Kondinin Road		
Proposal Location (SLK):	SLK 76.6 – 80.10		
TRIM Link to Spatial Data:	D22#630079		
EOS No:	2641		
Expected Proposal Start Date:	January 2023		
Project No:	30000432	**Task Code:**	19135
LISC TRIM No:	D22#183501	**HRA TRIM No:**	D22#183495

2. PURPOSE OF CLEARING

As part of Main Roads Low-Cost Shoulder Sealing (LCSS) Initiative, M038 Narrogin Kondinin SLK 75.6 to 80.10 has been selected to receive Tranche 5 funding to undertake these works:

- The sealing of stabilised existing shoulders to 8.6 m, on the existing formation. Existing seal is 6.6m on 8.5-9m formation. Therefore, the formation width is not increased.
- Established native trees require removal to facilitate the works.

METHODOLOGY

- In-situ stabilisation of existing pavement with cut line at 1.9m from centre of road.
- Top up existing pavement with gravel if required.
- Clear the drain as part of the work. Re-shape where required.
- Stabilise (1.5% Hydrated Lime or 1% LH cement) to the depth of 150 mm. Compact and Trim.
- Seal –widening only S45R 14/7 double seal bitumen seal.

Culvert Extension

Extend one culvert at SLK 77.77. The environmental footprint is shown in this document below under the Heading Culvert Extension. Note that native vegetation will be impacted.

The LISC (D22#183501) confirmed that a CDR Short Form was an appropriate assessment approach under CPS818.

3. ALTERNATIVES TO CLEARING

The Proposal involves the clearing of seven trees along a 4.5 km stretch of Narrogin Kondinin road. The trees that have been selected for removal are considered to occur too close to the road and may pose a safety hazard to motorists. Accordingly, there is limited scope to alter the clearing.

All seven trees proposed to be cleared are in a Degraded to Completely degraded condition.

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

There are limited measures to avoid, mitigate clearing impacts, due to how close the trees are to the existing road.

The trees will be removed progressively using an Elevated Work Platform (or similar), which can be used to manoeuvre and minimise the impact of surrounding understorey vegetation or other felling techniques can be used. If possible, the trees will be mulched with chip being used as mulch on adjacent land if there is no understorey vegetation in the proposed mulching spread area. Otherwise, the tree/chipped mulch will be removed offsite.

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):	0.033 ha	**No. Trees Cleared:**	Seven

Species Name:	

Tree No.	SLK	Species
1	77.18	*Eucalyptus longicornis*
2	77.81	*Acacia saligna*
3	77.91	*E. loxophleba* subsp. *loxophelba*
4	79.51	*E. loxophleba* subsp. *loxophelba*
5	79.53	*E. loxophleba* subsp. *loxophelba*
6	79.54	*E. loxophleba* subsp. *loxophelba*
7	79.99	*E. wandoo*

Easting and Northing:

Tree No.	Easting	Northing
1	117. 5859558	32. 7815431
2	117. 5926416	32. 7815337
3	117. 5938350	32. 7815138
4	117. 6108973	32. 7813654
5	117. 6109347	32. 7813665
6	117. 6109610	32. 7813725
7	117. 6157553	32. 7815053

7. EXISTING ENVIRONMENT AND SITE INFORMATION

Site Vegetation Description/Association:

VA: 1023 - York gum, salmon gum etc. *Eucalyptus loxophleba*, *E. salmonophloia*. Goldfields; gimlet, redwood etc. *E. salubris*, *E. oleosa*. Riverine; rivergum *E. camaldulensis*. Tropical; messmate, woolybush

Site Vegetation Condition:

Completely degraded

Pre-European Extent Remaining (%):

The below table displays the current extents of the remaining Vegetation for VA: 1023 on a Statewide and LGA level.

	Hectares Remaining	% Remaining
Statewide	172,875 ha	10.79 %
LGA (Wickepin)	18,444 ha	10.5 %

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.

It is proposed to clear seven trees (one *Acacia saligna,* one *E. longicornis, one E. Wandoo* and four *E. loxophleba* subsp. *loxophelba*), located in the maintenance zone, with no understorey.

According to Main Roads GIS WA Herbarium layer, the closest records were:

Tree No.	SLK	Flora / Distance from tree
1	77.18	*Austroparmelina macrospora* (P3), NW
2	77.81	*Austroparmelina macrospora* (P3), NW
3	77.91	*Austroparmelina macrospora* (P3), NW
4	79.51	*Austroparmelina macrospora* (P3), NW
5	79.53	*Austroparmelina macrospora* (P3), NW
6	79.54	*Austroparmelina macrospora* (P3), NW
7	79.99	*Austroparmelina macrospora* (P3), NW

According to Main Roads GIS Rare Flora layer, the closest records were:

Tree No.	SLK	Flora / Distance from tree
1	77.18	*Eucalyptus loxophleba* x *wandoo* (P4), north
2	77.81	*Eucalyptus loxophleba* x *wandoo* (P4), north
3	77.91	*Eucalyptus loxophleba* x *wandoo* (P4), north
4	79.51	*Eucalyptus loxophleba* x *wandoo* (P4), north
5	79.53	*Eucalyptus loxophleba* x *wandoo* (P4), north
6	79.54	*Eucalyptus loxophleba* x *wandoo* (P4), north
7	79.99	*Eucalyptus loxophleba* x *wandoo* (P4), north

According to Main Roads GIS Threatened Fauna layer, the closest records were:

Tree No.	SLK	Flora / Distance from tree
1	77.18	Red-tailed Phascogale (*Phascogale calura*) (E), (in 2000)
2	77.81	Red-tailed Phascogale (*Phascogale calura*) (E), (in 2000)
3	77.91	Red-tailed Phascogale (*Phascogale calura*) (E (in 2000)
4	79.51	Red-tailed Phascogale (*Phascogale calura*) (E), (in 2000)
5	79.53	Red-tailed Phascogale (*Phascogale calura*) (E), (in 2000)
6	79.54	Red-tailed Phascogale (*Phascogale calura*) (E), (in 2000)
7	79.99	Red-tailed Phascogale (*Phascogale calura*) (E), (in 2000)

The Proposal area does not lie within any breeding or roosting habitat. The closest known breeding habitat is situated 20km east of the Proposal Area. The following reference advises Red morrell, York gum and Wandoo is used for roosting, feeding and nesting –

	https://www.dpaw.wa.gov.au/images/documents/plants-animals/threatened-species/carnabys/Plants_used_by_Carnabys_black_cockatoo_20110415.pdf An inspection of the seven trees on 15 June 2022 by Wheatbelt Environmental Officers did not identify any hollows suitable for Black Cockatoos. Given that the trees are in Degraded to Completely degraded condition and no evidence of use observed, it is unlikely that they provide an important habitat for black cockatoos. The removal of the seven trees is therefore considered unlikely to impact black cockatoos. According to the Main Roads TEC/PEC layer (Figure 4), Tree 4, 5, 6 and 7 are located within the mapped buffer area of the Eucalypt Woodlands of the Western Australian (WA) Wheatbelt; a Threatened Ecological Community (TEC) listed as Critically Endangered under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and a State Priority Ecological Community (PEC) (Priority 3). Based on the Main Roads Factsheet (D19#584174) none of the Proposal trees meet the requirements to be a TEC/PEC as the widths are less than 5m and they do not meet the criteria specified in Category D due to being in Completely degraded condition. Based on the above, the seven trees are considered to provide limited biodiversity value, and the proposed clearing is not at variance to this Principle.
Principle (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.	According to Main Roads GIS Threatened Fauna layer, the closest records were: **Tree No. / SLK / Flora / Distance from tree** 1 – 77.18 – Red-tailed Phascogale (*Phascogale calura*) (E), 3.12km (in 2000) 2 – 77.81 – Red-tailed Phascogale (*Phascogale calura*) (E), 3.65km (in 2000) 3 – 77.91 – Red-tailed Phascogale (*Phascogale calura*) (E), 3.84km (in 2000) 4 – 79.51 – Red-tailed Phascogale (*Phascogale calura*) (E), 5.44km (in 2000) 5 – 79.53 – Red-tailed Phascogale (*Phascogale calura*) (E), 5.46km (in 2000) 6 – 79.54 – Red-tailed Phascogale (*Phascogale calura*) (E), 5.46km (in 2000) 7 – 79.99 – Red-tailed Phascogale (*Phascogale calura*) (E), 5.93km (in 2000) The Proposal area does not lie within any breeding or roosting habitat. The closest known breeding habitat is situated 20km east of the Proposal Area. The following reference advises Red morrell, York gum and Wandoo is used for roosting, feeding and nesting – https://www.dpaw.wa.gov.au/images/documents/plants-animals/threatened-species/carnabys/Plants_used_by_Carnabys_black_cockatoo_20110415.pdf An inspection of the seven trees on 15 June 2022 by Wheatbelt Environmental Officers did not identify any hollows suitable for black cockatoos. Given that the trees are in Degraded to Completely degraded condition and no evidence of use observed, it is unlikely that they provide important habitat for black cockatoos. The removal of the seven trees is therefore considered unlikely to impact black cockatoos.

	As the Proposal area does not contain mature Rock Sheoak, it does not comprise of suitable habitat for Red-tailed Phascogale. As the road reserve is narrow where the trees are located, and there are minimal to no shrubs and dense understory vegetation, noting the condition was either Degraded to Completely degraded condition, the potential for ground dwelling fauna is unlikely. The trees are highly unlikely to constitute significant habitat for fauna indigenous to Western Australia. Based on the above, the proposed clearing is not at variance to this Principle.
Principle (c) – Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.	According to Main Roads GIS WA Herbarium layer, the closest records were: **Tree No. / SLK / Flora / Distance from tree** 1 / 77.18 / *Austroparmelina macrospora* (P3), NW 2 / 77.81 / *Austroparmelina macrospora* (P3), NW 3 / 77.91 / *Austroparmelina macrospora* (P3), NW 4 / 79.51 / *Austroparmelina macrospora* (P3), NW 5 / 79.53 / *Austroparmelina macrospora* (P3), NW 6 / 79.54 / *Austroparmelina macrospora* (P3), NW 7 / 79.99 / *Austroparmelina macrospora* (P3), NW The Wheatbelt Region Special Environmental Areas Register (D17#828731) did not indicate that any Priority flora occurs within the Proposal area maintenance zone along M038 SLK 75.6 to 80.10. Based on the above, the proposed clearing is not at variance to this Principle.
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.	According to the Main Roads TEC/PEC layer, Tree 4, 5, 6 and 7 are located within the mapped buffer area of the Eucalypt Woodlands of the Western Australian (WA) Wheatbelt; a Threatened Ecological Community (TEC) listed as Critically Endangered under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and a State Priority Ecological Community (PEC) (Priority 3). Based on the Main Roads Factsheet (D19#584174) none of the Proposal trees meet the requirements to be a TEC/PEC as the widths are less than 5m and they do not meet the criteria specified in Category D due to being in Completely degraded condition. Based on the above, the proposed clearing is not at variance to this Principle.
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.	One vegetation association of Beard (1976) has been mapped over the Survey area, namely: • Vegetation Association 1023 described as a Medium woodland; York gum, wandoo & salmon gum. The pre-European extent remaining of this Vegetation Association is 172,875 ha (10.79%) at a Statewide level with 18,444 ha (10.5%) at a LGA (Wickepin) level. The removal of seven large trees (approximately 0.03 ha) in a Degraded to Completely Degraded condition within the maintenance zone, equates to approximately 0.0001% of this vegetation association at a LGA level, and is not likely to represent vegetation that is significant as a remnant. Based on the above, the proposed clearing is not at variance to this Principle.

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

According to Main Roads GIS Watercourse layer, the closest records were:

Tree No.	SLK	Watercourse / distance
1	77.18	minor non-perennial 490m southeast
2	77.81	minor non-perennial 30m west
3	77.91	minor non-perennial 75m northwest
4	79.51	minor non-perennial 277m west
5	79.53	minor non-perennial 279m southeast
6	79.54	minor non-perennial 280m southeast
7	79.99	minor non-perennial 369m south

Tree 1 is a *Eucalyptus longicornis;* Tree 2 is an *Acacia saligna*, and Trees 3 to 6 are *E. loxophleba* subsp. *loxophelba* and Tree 7 is an *E. wandoo*. Of these seven tree species, none are classified as riparian vegetation.

The closest mapped wetland is an un-named perennial lake, 9.3km north of the nearest tree (Tree 3). Based on the distance to the nearest mapped wetland and the species of the trees present, the trees proposed to be cleared are not growing in an environment associated with a watercourse or wetland.

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

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

DPIRD mapping indicates that the areas where the trees are located have:

- 0% of very high to extreme water erosion hazard
- 5% of high to extreme wind erosion hazard (Trees 1-3 and 7)
- 100% of high to extreme wind erosion hazard (Trees 4-6)
- 0% of very poor to poor site drainage potential
- 0% of moderate salinity hazard

The Australian Soil Resource Information System (ASRIS) has been used to determine the likelihood of Acid Sulphate Soils (ASS) occurring within the Proposal Area. The ASRIS database (accessed 21-Jul-2022) indicates there is a low (beige) probability of ASS occurring within the proposal area. No dewatering or excavation below the water table is proposed.

The removal of the seven trees in a Degraded to Completely degraded condition is unlikely to cause appreciable land degradation, especially as the majority of the land where the vegetation is located will be covered with road infrastructure.

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

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 Main Roads GIS shapefiles layers indicates that the closest Nature Reserve, conservation areas or Bush Forever Sites is the Malyalling Nature Reserve (Class 'A') between SLK 22.0 and 22.80 on Kirk Rock Road, approximately 7.3km from the closest Trees (Tree 2 and 3).

Given the distance to the sensitive receptor, no impacts to Malyalling Nature Reserve, nor any other conservation reserve is anticipated.

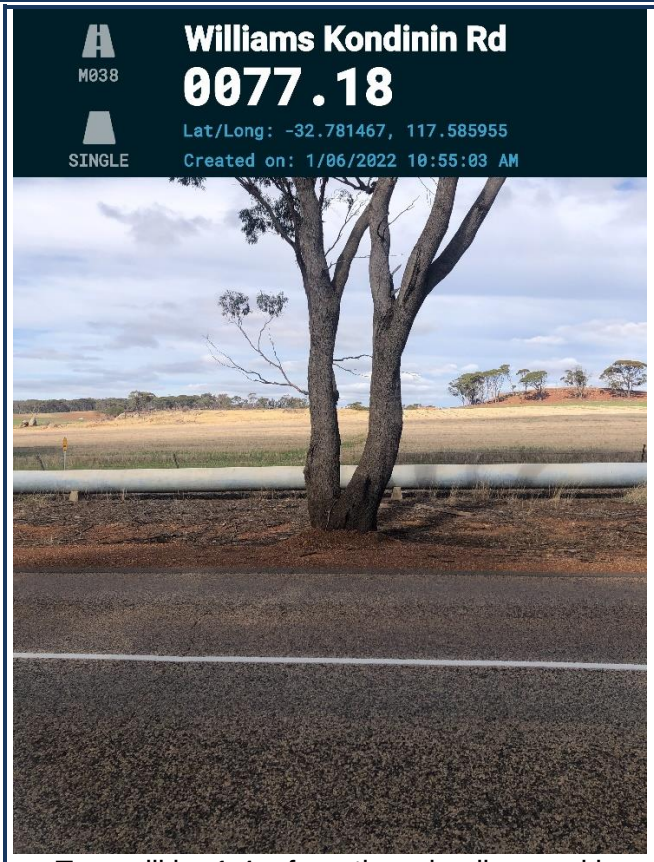
	Based on the above, the proposed clearing is not at variance to this Principle.
Principle (i) – Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.	The trees are not located within surface water or groundwater proclaimed areas under the Rights in Water and Irrigation Act 1914 (RIWI Act). In addition, the trees are not within the Public Drinking Water Source Area or catchment proclaimed under the Country Areas Water Supply Act 1947 (CAWS Act). According to the Main Roads GIS Water course layer, the closest records were: **Tree No. / SLK / Watercourse / distance** 1 / 77.18 / minor non-perennial 490m southeast 2 / 77.81 / minor non-perennial 30m west 3 / 77.91 / minor non-perennial 75m northwest 4 / 79.51 / minor non-perennial 277m west 5 / 79.53 / minor non-perennial 279m southeast 6 / 79.54 / minor non-perennial 280m southeast 7 / 79.99 / minor non-perennial 369m south Removing the seven trees may require minor excavation below the surface. However, it is highly unlikely to intersect groundwater and will not require dewatering. As a result, there is no change to surface or groundwater level or quality due to this minor clearing. Based on the above, the proposed clearing is not at variance to this Principle.
Principle (j) – Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.	Removing the seven trees in a Degraded to Completely degraded condition over a 4.5km stretch of highway in unlikely to cause, or exacerbate, the incidence or intensity of flooding. DPIRD mapping indicates that the area where the trees are located have: • <3% moderate to high flood hazard (Trees 1-6) • 3-10% moderate to high flood hazard (Tree 7) • <3% moderate to high waterlogging hazard (Trees 1-6) • 3-10% moderate to high waterlogging hazard (Tree 7) A review of ArcGIS shapefiles has confirmed that the proposed works will not disturb or interrupt any natural drainage and surface run-off patterns. Based on the above, the proposed clearing is not at variance to this Principle.
Methodology Used and References:	Australian Soil Resource Information System (ASRIS) Mapping (http://www.asris.csiro.au/mapping/viewer.htm) DPIRD mapping (https://maps.agric.wa.gov.au/nrm-info/) Main Roads GIS Shapefiles Shapefile of clearing area/trees: D22#771055 Site Observations (15-Jun-2022)
Completed By:	
Job Title	Environmental Officer

Date	03/08/2022

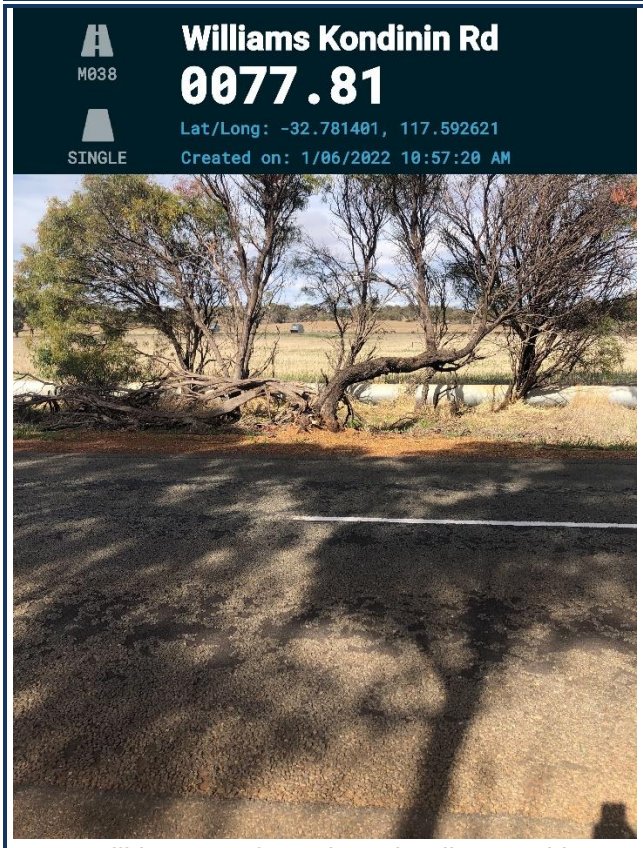
Once all sections are completed, send the form to CRSP for review and endorsement.

DECISION ON CLEARING ASSESSMENT		
Clearing Assessment	**ENDORSED ☒**	**REFUSED ☐**
Comments	Seven trees spread across a 4.5 km stretch of road and are in Degraded to Completed degraded condition. Justification has been provided to demonstrate the removal of these trees will result in a low impact and is not at variance with the clearing principles.	
Job Title	Senior Environment Officer	
Date	11/08/2022	

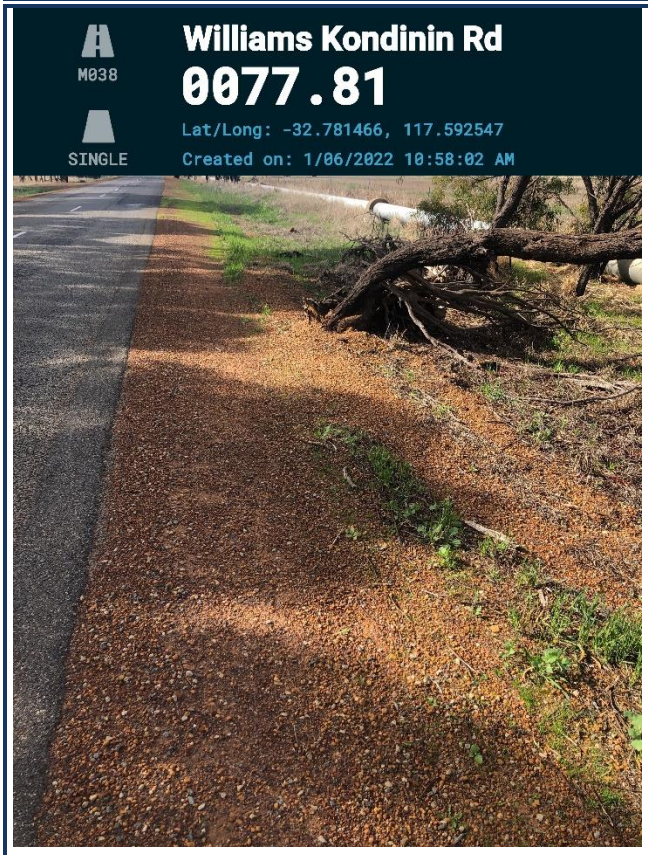
15-Jun-2022 Photos

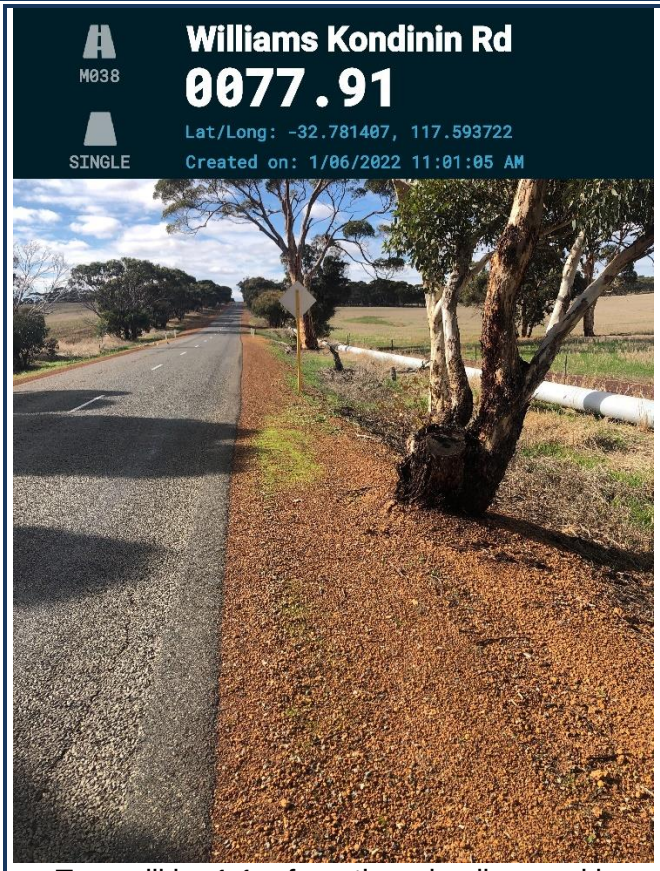


Tree will be 1.4m from the edge line marking
Tree is 4.9m from CL
Remove – Tree in clear zone RHS

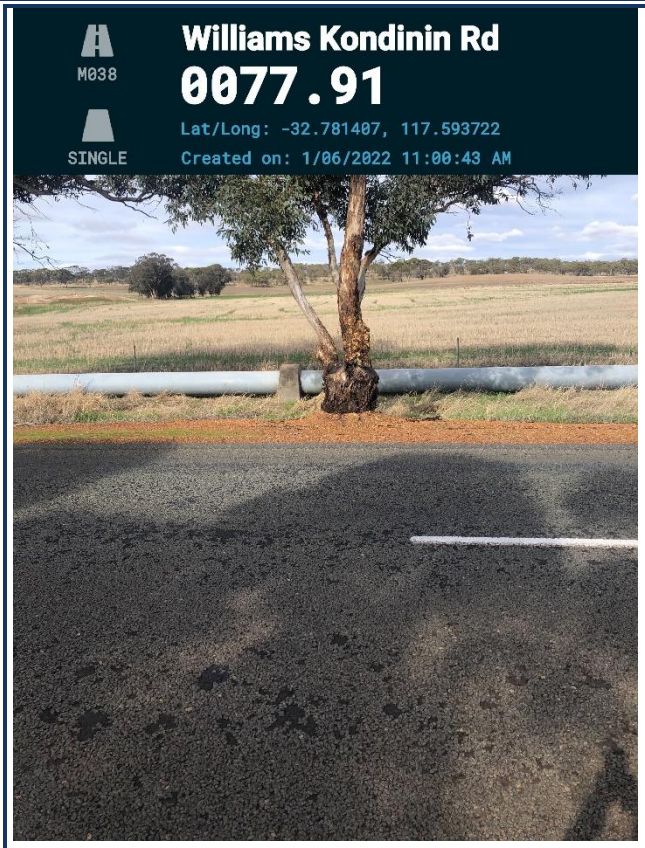


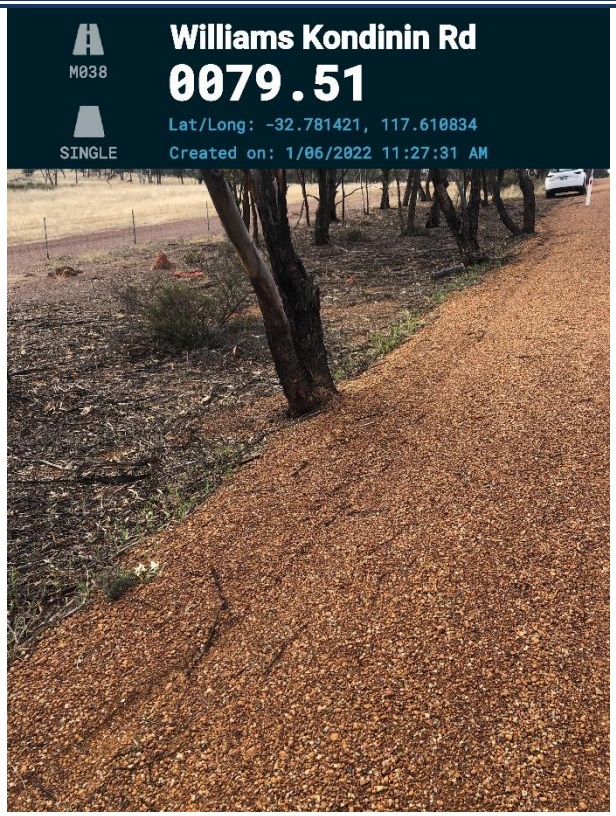
Tree will be 1.5m from the edge line marking Tree is 5.0m from CL
Remove – Tree in clear zone RHS



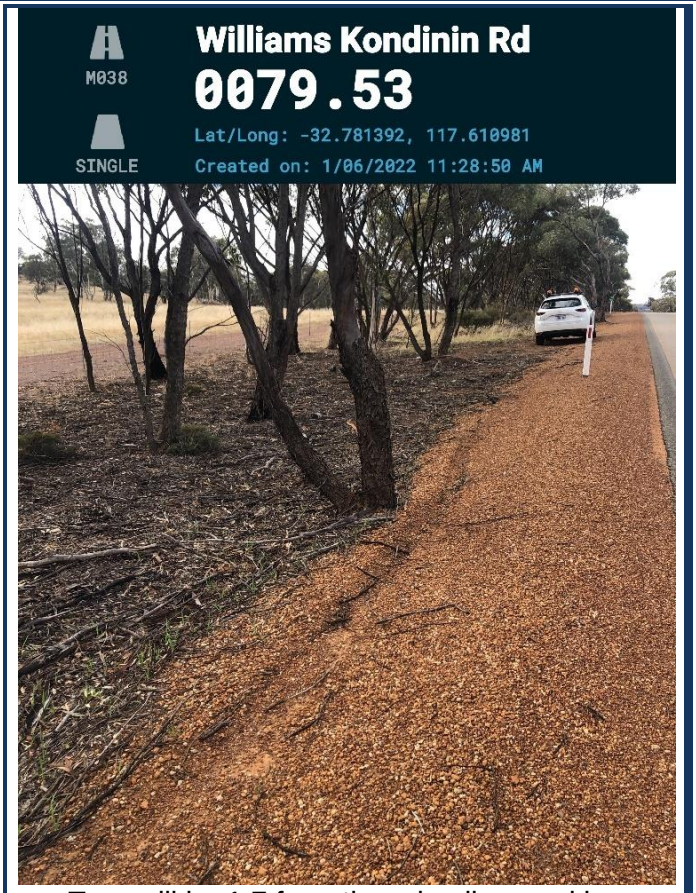


Tree will be 1.1m from the edge line marking
Tree is 4.6m from CL
Remove – Tree in clear zone RHS

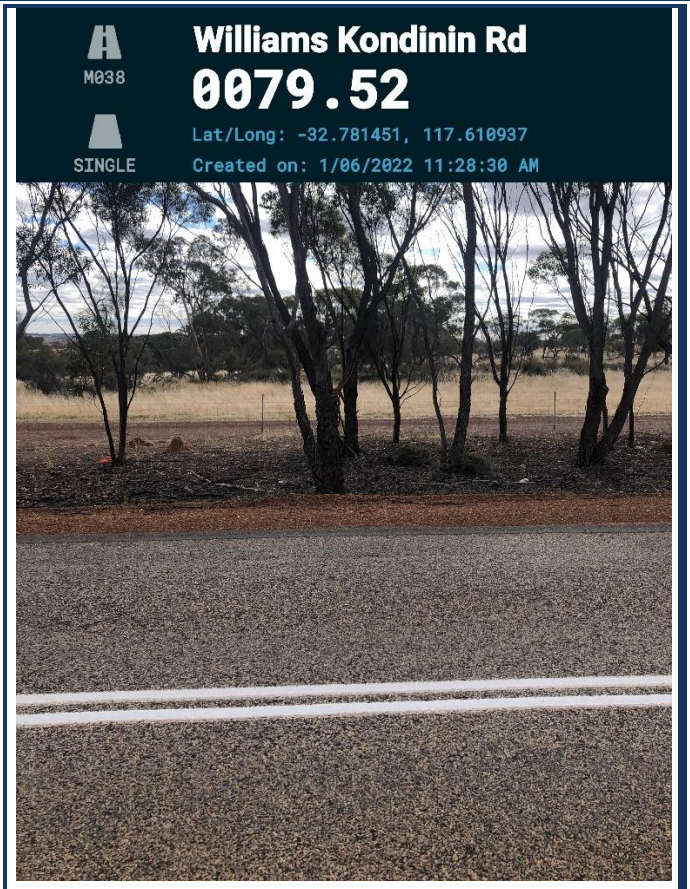




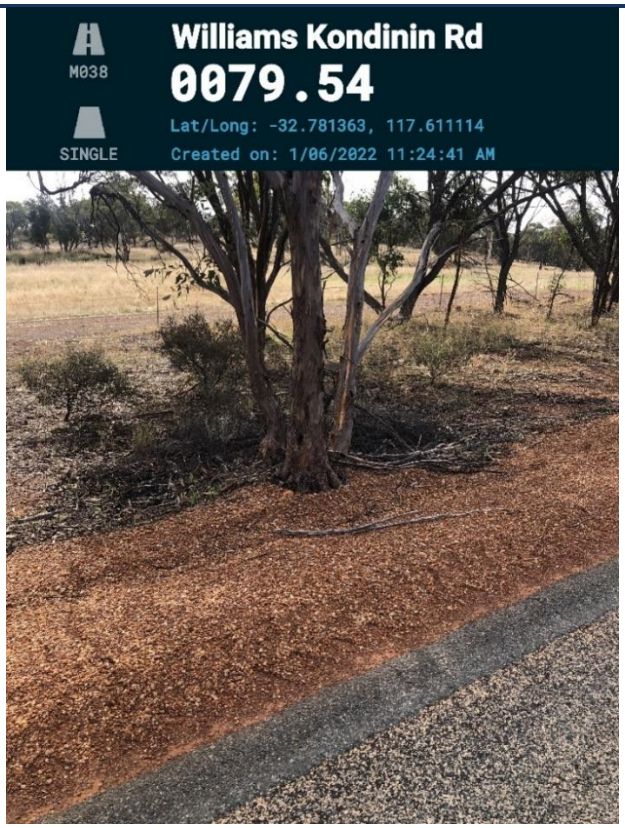
Tree will be 1.9 from the edge line marking
Tree is 5.4m from CL
Remove –Tree in clear zone LHS

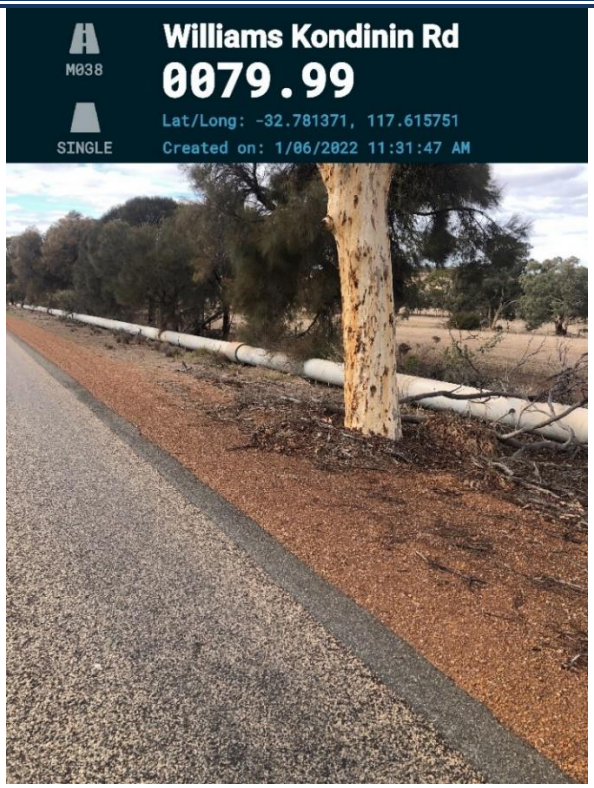


Tree will be 1.7 from the edge line marking
Tree is 5.2m from CL
Remove –Tree in clear zone LHS



Trees (with 3 trunks) will be 1.5m from the edge line marking - Tree is 5.0m from CL
Remove – Tree in clear zone LHS





Tree will be 2.0m from the edge line marking
Tree is 5.5m from CL
Remove – Tree in clear zone RHS

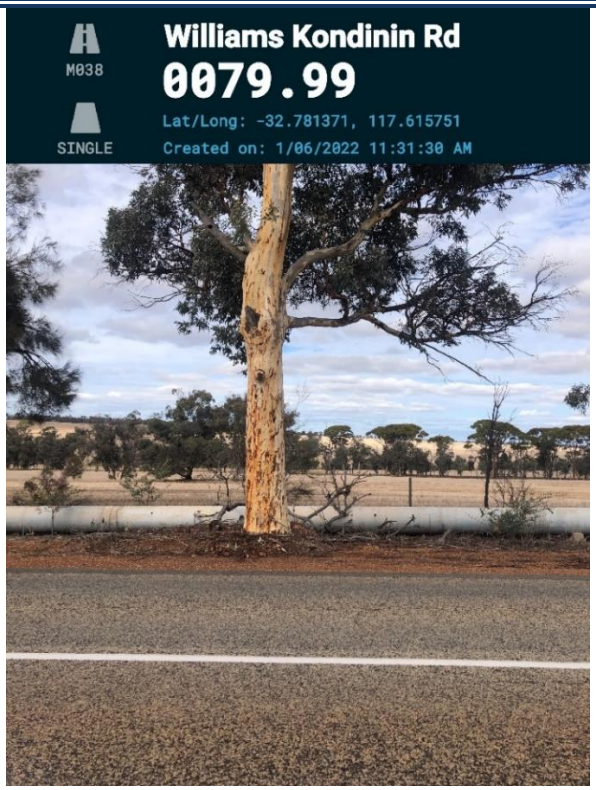


Figure 1a: Tree 1

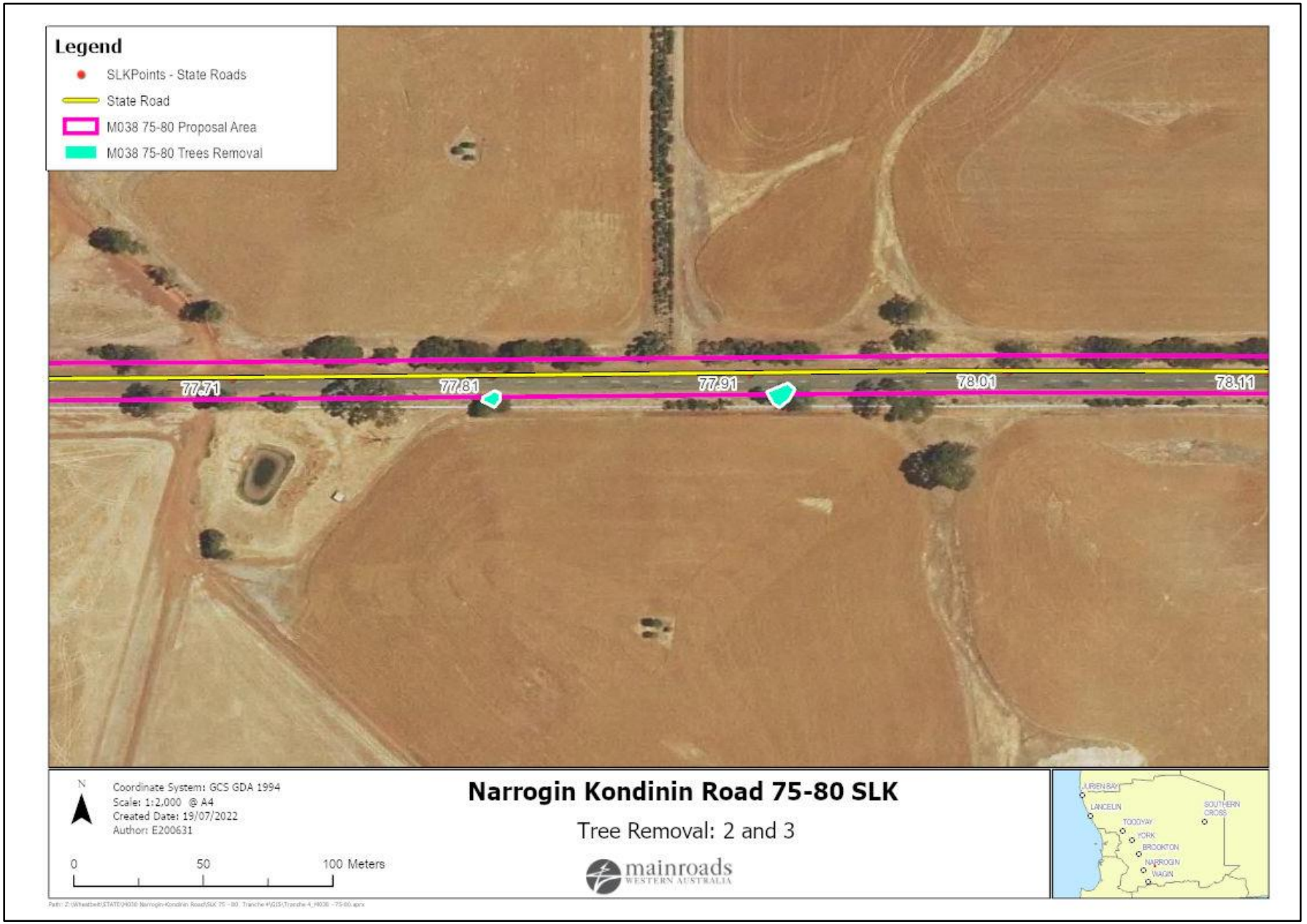


Figure 1b: Tree 2 and 3

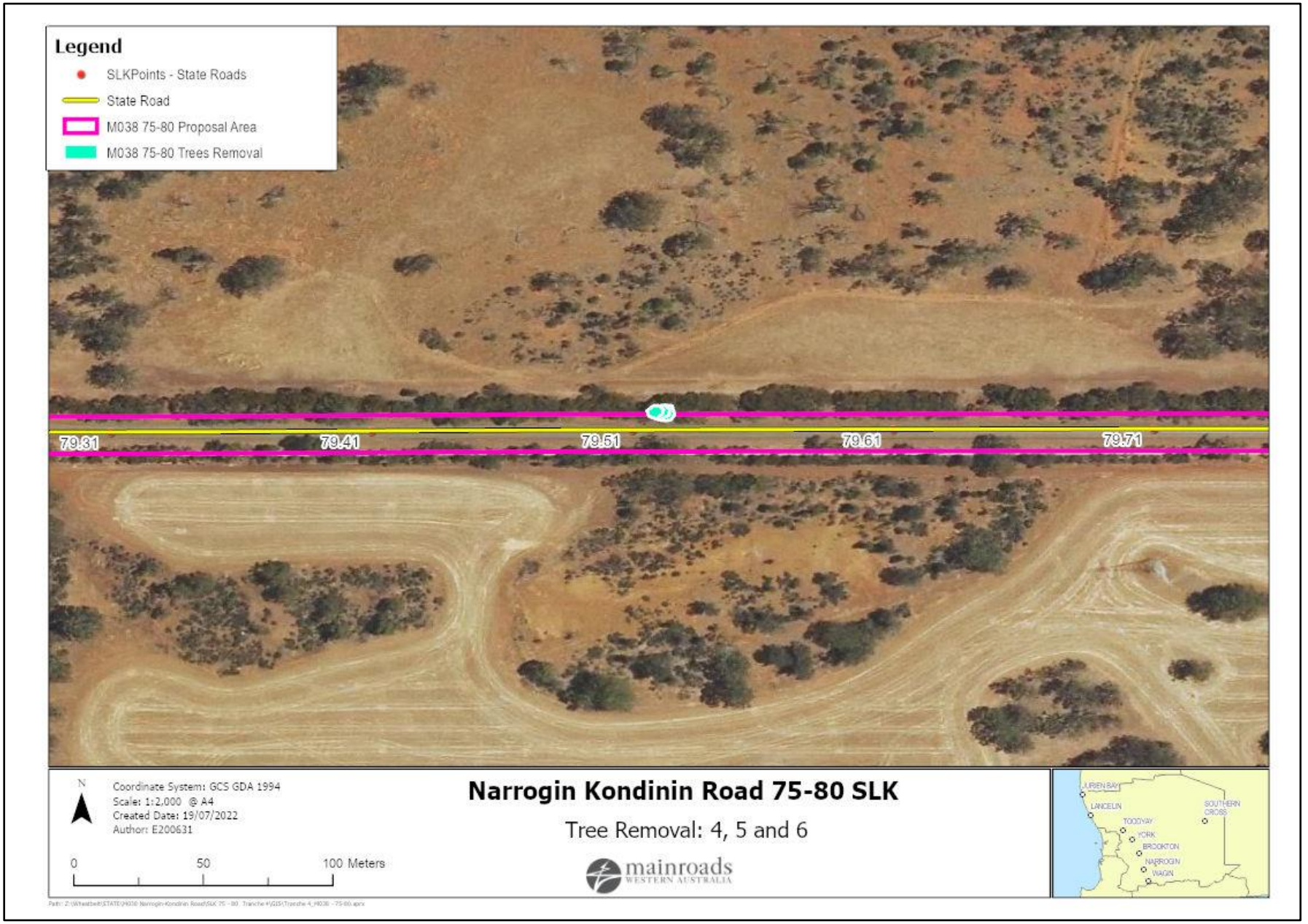


Figure 1c: Tree 4, 5 and 6

Figure 1d: Tree 7

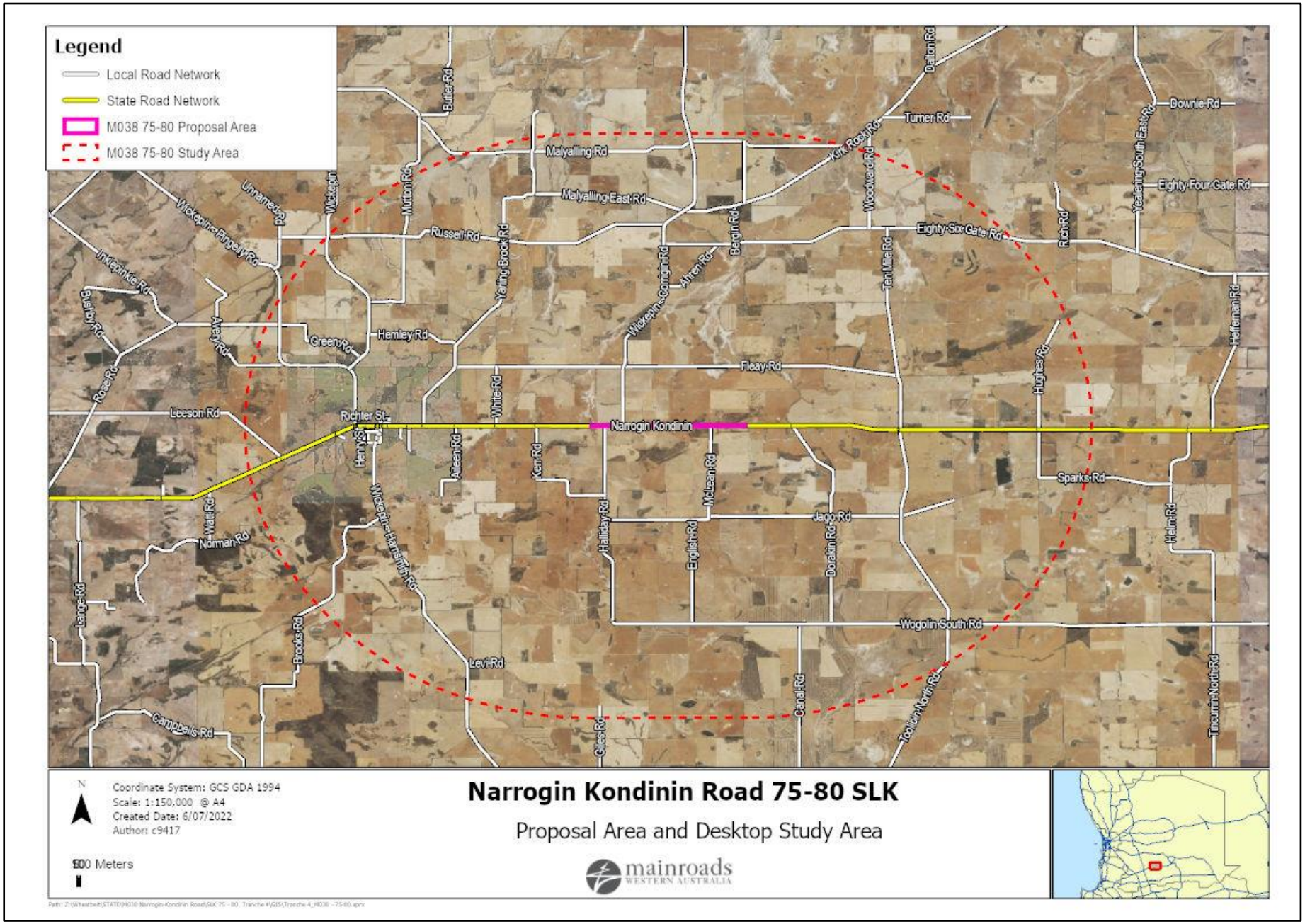


Figure 2: Proposal and Desktop study Area