

Clearing Desktop Report – Short Form

1. PROPOSAL DETAILS

Proposal Name:	M038 – Narrogin Kondinin – SLK 33.06 – 68.83 – Cold Mix seal on existing formation – Tranche 4		
Region/Directorate:	Wheatbelt		
Local Government Authority:	Narrogin and Wickepin		
Road/Bridge Name and No:	M038 Narrogin Kondinin Rd		
Proposal Location (SLK):	33.06 – 68.83		
TRIM Link to Spatial Data:	D22#604208		
EOS Number:	2656		
Expected Proposal Start Date:	July 2022		
Project No:	30000432	Task Code:	19135

2. PURPOSE OF CLEARING

As part of Main Roads Low Cost Shoulder Sealing (LCSS) Initiative, M038 Narrogin Kondinin SLK 33.06 to 68.83 has been selected to receive Tranche 4 funding to undertake these works.

Works will nominally involve:

- a Cold Mix widening treatment using Flocon maintenance truck. The existing seal is 7.6 m to 8.1 m, with a target seal width of 8.4 m.
- clearing of the existing drain as part of the work. Re-shaping of the drain where required, with no increase in the current constructed width.

No culverts to be extended as part of these works. Three trees are to be removed and one tree pruned (as part of the scope of works specified above).

Some of the existing trees will be within the existing batter slope or table drain back cut, but as the work is only cleaning the table drains and placing cold mix on the existing shoulder, they can be worked around without affecting the serviceability of the drainage or damaging the trees.

This treatment will not have any impact on the existing formation width, with the seal widening occurring on the existing shoulder only.

The lane width is not increased, and the Audible Edge lines remain (or will be reinstated) at their current location.

Methodology:

- Clear the existing drain as part of the work. Re-shape where required, no increase in width.
- Sweep Shoulder to remove loose material.
- Place and compact Cold Mix.

The LISC (D22#183498) confirmed that a CDR Short Form was an appropriate assessment approach under CPS818.

3. ALTERNATIVES TO CLEARING

The Proposal involves the clearing of three trees along a 35 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 three 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 EWP (or similar), minimising the impact of surrounding vegetation using other felling techniques. 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* (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):	0.02	No. Trees Cleared:	3
Species Names:	Tree 1: <i>E. wandoo</i> (37.09 SLK) Tree 2: <i>E. wandoo</i> (64.78 SLK) Tree 3: unknown species (dead stump) (65.87 SLK)		

Easting and Northing:	Tree 1: 117° 13.77' 32° 54.603' Tree 2: 117° 27.51' 32° 47.892' Tree 3: 117° 28.125' 32° 47.617'																								
7. EXISTING ENVIRONMENT AND SITE INFORMATION																									
Site Vegetation Description/Association:	Vegetation Association 1023 described as Medium woodland; York gum, wandoo & salmon gum.																								
Site Vegetation Condition:	Degraded – Completely degraded																								
Pre-European Extent Remaining (%):	172,875 ha (10.79%) remains at a Statewide level with 21,452 ha (15.98%) remaining at a LGA (Narrogin) level and 18,444 ha (10.5%) at a LGA (Wickepin) 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.	<p>It is proposed to clear three trees (one <i>E. wandoo</i> tree, one <i>E. wandoo</i> trunk and one dead stump), located in the maintenance zone, with no understorey. According to Main Roads GIS WA Herbarium layer, the closest records were:</p> <table border="1"> <thead> <tr> <th>Tree No.</th><th>Flora / distance from tree</th></tr> </thead> <tbody> <tr> <td>1</td><td><i>Xanthorrhoea brevistyla</i> (P4) km south west</td></tr> <tr> <td>2</td><td><i>Banksia rufa</i> subsp. <i>magna</i> (P1) and <i>Hibbertia priceana</i> (T) km east</td></tr> <tr> <td>3</td><td><i>Banksia rufa</i> subsp. <i>magna</i> (P1) and <i>Hibbertia priceana</i> (T) km east</td></tr> </tbody> </table> <p>According to Main Roads GIS Rare Flora layer, the closest records were:</p> <table border="1"> <thead> <tr> <th>Tree No.</th><th>Flora / distance from tree</th></tr> </thead> <tbody> <tr> <td>1</td><td><i>Acacia deflexa</i> (P3) km south</td></tr> <tr> <td>2</td><td><i>Acacia insolita</i> subsp. <i>recurva</i> (T) km north west</td></tr> <tr> <td>3</td><td><i>Acacia insolita</i> subsp. <i>recurva</i> (T) km north west</td></tr> </tbody> </table> <p>According to Main Roads GIS Threatened Fauna layer, the closest records were:</p> <table border="1"> <thead> <tr> <th>Tree No.</th><th>Fauna / distance from tree</th></tr> </thead> <tbody> <tr> <td>1</td><td><i>Calyptrorhynchus</i> sp. (white-tailed black cockatoo) (T) km south east (in 1977)</td></tr> <tr> <td>2</td><td><i>Myrmecobius fasciatus</i> (numbat) (EN) km west (in 1995)</td></tr> <tr> <td>3</td><td><i>Phascogale calura</i> (red tailed Phascogale) (CD) km south (in 1991)</td></tr> </tbody> </table> <p>The wider Proposal area is within the range of Carnaby's Black Cockatoo. The following reference advises 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</p> <p>An inspection of the four trees on 15 June 2022 by Wheatbelt Environmental Officers did not identify any hollows suitable for Black Cockatoos. Given 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</p>	Tree No.	Flora / distance from tree	1	<i>Xanthorrhoea brevistyla</i> (P4) km south west	2	<i>Banksia rufa</i> subsp. <i>magna</i> (P1) and <i>Hibbertia priceana</i> (T) km east	3	<i>Banksia rufa</i> subsp. <i>magna</i> (P1) and <i>Hibbertia priceana</i> (T) km east	Tree No.	Flora / distance from tree	1	<i>Acacia deflexa</i> (P3) km south	2	<i>Acacia insolita</i> subsp. <i>recurva</i> (T) km north west	3	<i>Acacia insolita</i> subsp. <i>recurva</i> (T) km north west	Tree No.	Fauna / distance from tree	1	<i>Calyptrorhynchus</i> sp. (white-tailed black cockatoo) (T) km south east (in 1977)	2	<i>Myrmecobius fasciatus</i> (numbat) (EN) km west (in 1995)	3	<i>Phascogale calura</i> (red tailed Phascogale) (CD) km south (in 1991)
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	<p>Cockatoos. The removal of the three trees is therefore considered unlikely to have an impact on Black Cockatoos.</p> <p>The closest DBCA managed lands or waters to the Proposal area is the North Yilliminning Nature Reserve between 52.5 and 53.6 SLK, approximately 2 km away from the nearest tree. Clearing the trees will not impact on this Nature Reserve.</p> <p>According to Main Roads TEC/PEC layer, only Tree 1 is 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) Tree 1 does not meet the requirements to be a TEC/PEC as the width is less than 5m and does not meet the criteria specified in Category D being in a Completely degraded condition.</p> <p>Based on the above, the three trees area have limited biodiversity value and the proposed clearing is not at variance to this Principle.</p>												
<p>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.</p>	<p>According to Main Roads GIS Threatened Fauna layer, the closest records were:</p> <table><tr><th>Tree No.</th><th>SLK</th><th>Fauna / distance from tree</th></tr><tr><td>1</td><td>37.09</td><td><i>Calyptrorhynchus</i> sp. (white-tailed black cockatoo) (T) km south east (in 1977)</td></tr><tr><td>2</td><td>64.78</td><td><i>Myrmecobius fasciatus</i> (numbat) (EN) km west (in 1995)</td></tr><tr><td>3</td><td>65.87</td><td><i>Phascogale calura</i> (red tailed Phascogale) (CD) km south (in 1991)</td></tr></table> <p>The Proposal area is within the range of Carnaby's Black Cockatoo. The following reference advises 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.</p> <p>An inspection of the three trees on 15 June 2022 by Wheatbelt Environmental Officers did not identify any hollows suitable for Black Cockatoos. Given 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. Approximately 11,400 ha of similar or better remnant vegetation is available within the 10km Study area (Figure 2), providing habitat for Black Cockatoos outside of the area proposed to be cleared. The removal of the three trees is therefore considered unlikely to have an impact on Black Cockatoos.</p> <p>As the Proposal area does not contain mature Rock Sheoak, it does not comprise of suitable habitat for Red-tailed Phascogale.</p> <p>As the road reserve is narrow where the trees are located, and the vegetation in a Degraded to Completely degraded condition, the potential for ground dwelling fauna is unlikely.</p> <p>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.</p>	Tree No.	SLK	Fauna / distance from tree	1	37.09	<i>Calyptrorhynchus</i> sp. (white-tailed black cockatoo) (T) km south east (in 1977)	2	64.78	<i>Myrmecobius fasciatus</i> (numbat) (EN) km west (in 1995)	3	65.87	<i>Phascogale calura</i> (red tailed Phascogale) (CD) km south (in 1991)
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<p>Principle (c) – Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.</p>	<p>According to Main Roads GIS Rare Flora layer, the closest records were:</p> <table><tr><th>Tree No.</th><th>Flora / distance from tree</th></tr><tr><td>1</td><td><i>Acacia deflexa</i> (P3) km south</td></tr></table>	Tree No.	Flora / distance from tree	1	<i>Acacia deflexa</i> (P3) km south								
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	<p>The Wheatbelt Region Special Environmental Areas Register (D17#828731) did not indicate that any Threatened or Priority flora occurs within the maintenance zone along M038 33-69 SLK.</p> <p>Based on the above, the proposed clearing is not at variance to this Principle.</p>													
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.	<p>According to Main Roads TEC/PEC layer, only Tree 1 is 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) Tree 1 does not meet the requirements to be considered as a TEC/PEC as the width is less than 5m and does not meet the criteria specified in Category D being in Completely Degraded condition.</p> <p>Based on the above, the proposed clearing is not at variance to this Principle.</p>													
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.	<p>One vegetation association of Beard (1976) has been mapped over the Survey area, namely:</p> <ul style="list-style-type: none"> Vegetation Association 1023 described as a Medium woodland; York gum, wandoo & salmon gum. <p>The pre-European extent remaining of this Vegetation Association is 172,875 ha (10.79%) at a Statewide level with 21,452 ha (15.98%) remaining at a LGA (Narrogin) level and 18,444 ha (10.5%) at a LGA (Wickepin) level.</p> <p>The removal of one large tree, one trunk and one dead trunk (approximately 0.02 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.</p> <p>Based on the above, the proposed clearing is not at variance to this Principle.</p>													
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.	<p>According to Main Roads GIS Watercourse layer, the closest records were:</p> <table border="1"> <thead> <tr> <th>Tree No.</th><th>SLK</th><th>Watercourse / distance from tree</th></tr> </thead> <tbody> <tr> <td>1</td><td>37.09</td><td>minor non-perennial 670m north</td></tr> <tr> <td>2</td><td>64.78</td><td>minor non-perennial 700m south</td></tr> <tr> <td>3</td><td>65.87</td><td>minor non-perennial 370m south</td></tr> </tbody> </table> <p>Trees 1 and 2 are <i>E. wandoo</i> and Tree 3 is a dead trunk. <i>E. wandoo</i> is not representative of riparian vegetation.</p> <p>The closest mapped wetland is over 18km south east of the nearest tree.</p> <p>Based on the distance to the nearest mapped watercourse or 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.</p> <p>Based on the above, the proposed clearing is not at variance to this Principle.</p>		Tree No.	SLK	Watercourse / distance from tree	1	37.09	minor non-perennial 670m north	2	64.78	minor non-perennial 700m south	3	65.87	minor non-perennial 370m south
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Principle (g) – Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	<p>DPIRD mapping indicates that the areas where the trees are located have:</p> <ul style="list-style-type: none"> 1-5% very high to extreme water erosion hazard; 16-36% high to extreme wind erosion hazard; 0% very poor to poor site drainage potential; 0-6% moderate salinity hazard. <p>The Australian Soil Resource Information System (ASRIS) has been used to determine the likelihood of Acid Sulphate Soils (ASS) occurring within the</p>													

	<p>Proposal area. The ASRIS database (accessed 24-Jun-2022) indicates there is a low (beige) or extremely low (green) probability of acid sulphate soils occurring within the Proposal area. No dewatering or excavation below the water table is proposed.</p> <p>The removal of three 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.</p> <p>Based on the above, the proposed clearing is not at variance to this Principle.</p>												
<p>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.</p>	<p>A search of Main Roads GIS shapefiles layers indicates that the closest Nature Reserve, conservation areas or Bush Forever Sites is the North Yilliminning Nature Reserve between 51.5 and 53.6 SLK, approximately 10km from the closest tree (Tree 2 - 64.78SLK).</p> <p>Given the distance to these sensitive receptors, no impacts to these areas are anticipated.</p> <p>Based on the above, the proposed clearing is not at variance to this Principle.</p>												
<p>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.</p>	<p>The trees are not located within a Public Drinking Water Source Area, or groundwater area proclaimed under the Rights in Water and Irrigation Act 1914 (RIWI Act) or catchment proclaimed under the Country Areas Water Supply Act 1947 (CAWS Act). Although all three trees are mapped to be within a surface water area proclaimed under the RIWI Act, no clearing will occur in or close to a mapped watercourse. According to Main Roads GIS Watercourse layer, the closest records were:</p> <table><tr><th>Tree No.</th><th>SLK</th><th>Watercourse / distance from tree</th></tr><tr><td>1</td><td>37.09</td><td>minor non-perennial 670m north</td></tr><tr><td>2</td><td>64.78</td><td>minor non-perennial 700m south</td></tr><tr><td>3</td><td>65.87</td><td>minor non-perennial 370m south</td></tr></table> <p>A review of the mapped contours indicates that that the topography is undulating, with land sloping away (dropping by 20m within 800m of the tree), suggesting that the groundwater depth is at least 10m deep. No impacts to surface or groundwater is expected.</p> <p>The removal of the trees may require some 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 expected as a result of this minor clearing.</p> <p>Based on the above, the proposed clearing is not at variance to this Principle.</p>	Tree No.	SLK	Watercourse / distance from tree	1	37.09	minor non-perennial 670m north	2	64.78	minor non-perennial 700m south	3	65.87	minor non-perennial 370m south
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<p>Principle (j) – Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.</p>	<p>The removal of three trees in a Degraded to Completely degraded condition over a 30km stretch of highway is unlikely to cause, or exacerbate, the incidence or intensity of flooding.</p> <p>DPIRD mapping indicates that the area where the trees are located have:</p> <ul style="list-style-type: none">• 0% moderate to high flood hazard;• 10% moderate to very high waterlogging and inundation risk. <p>A review of ArcGIS shapefiles has confirmed that the proposed works will not disturb or interrupt any natural drainage and surface run-off patterns.</p> <p>Based on the above, the proposed clearing is not at variance to this Principle.</p>												

Methodology Used and References:	Proposal Area (Figures 1a and 1b) Study Area (Figure 2) Contextual photographs of Proposal area (Appendix 1) 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 Site Observations (15-Jun-2022)
Completed By:	
Name	
Signature	
Job Title	Senior Environment Officer
Date	28-Jun-2022

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

DECISION ON CLEARING ASSESSMENT		
Clearing Assessment	ENDORSED <input checked="" type="checkbox"/>	REFUSED <input type="checkbox"/>
Comments	Low cost shoulder sealing works are proposed to improve the safety and efficacy of the road. The clearing of 3 trees is proposed and pruning of one additional tree for the purpose of undertaking the works. The trees proposed to be cleared are in Degraded to Completely degraded condition. Given the location, condition and distance to environmental sensitivities, I concur with the recommendation that clearing of these trees is determined to be not at variance to the Clearing Principles.	
Name		
Signature		
Job Title	Senior Environment Officer	
Date	04/07/2022	

Appendix 1: Figures and Photographs

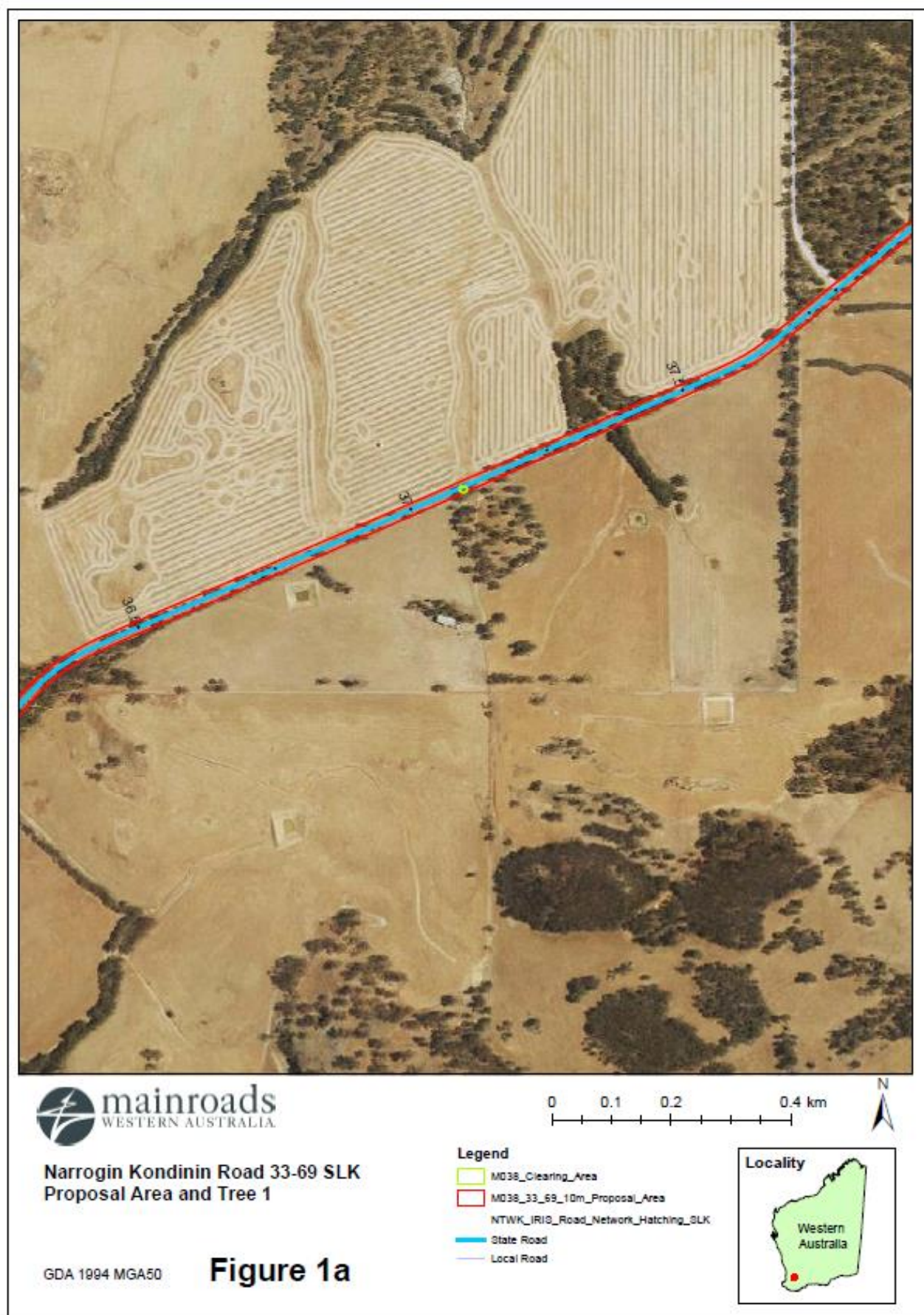


Figure 1a: Tree 1 location

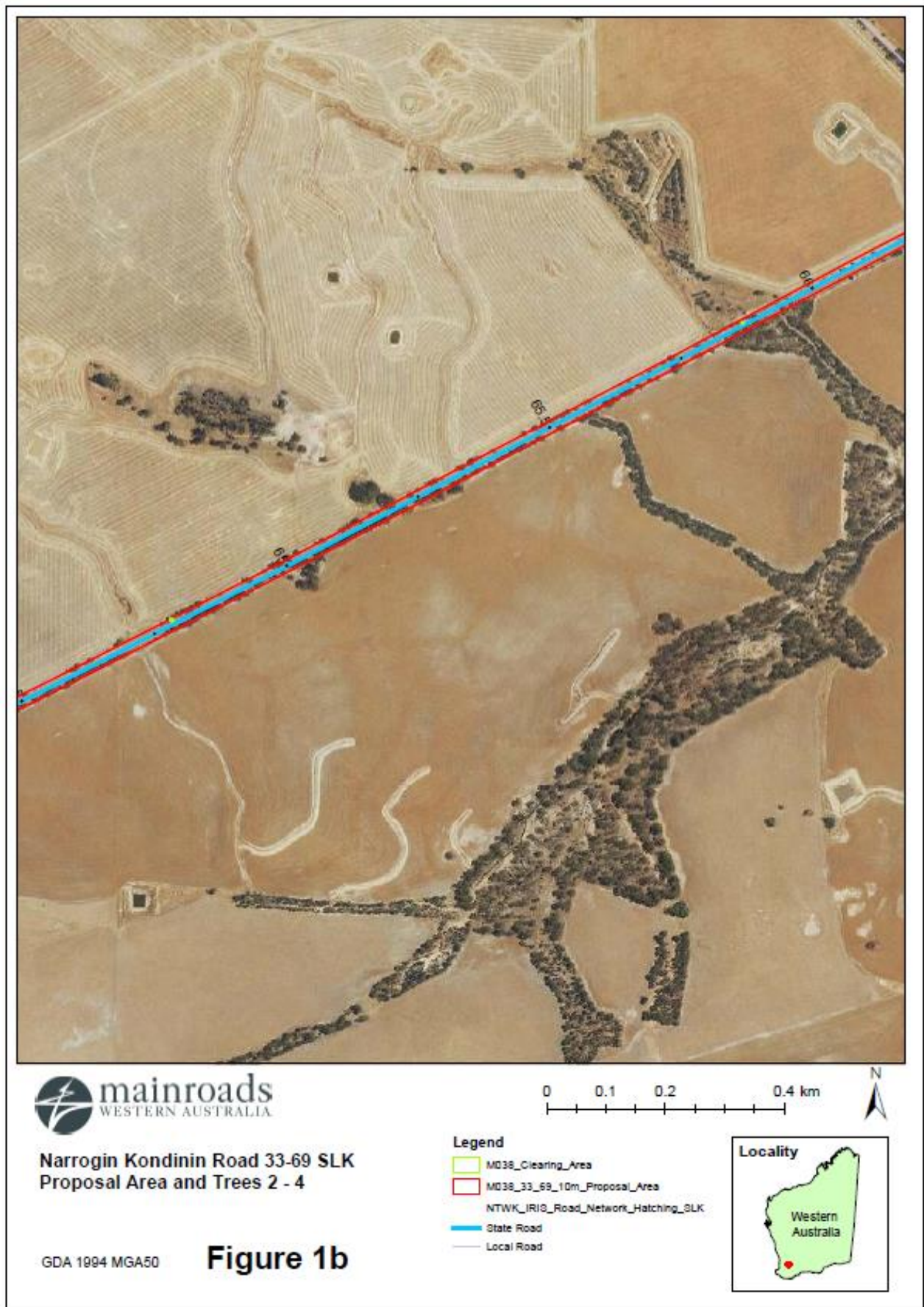


Figure 1b: Tree 2 and 3 location

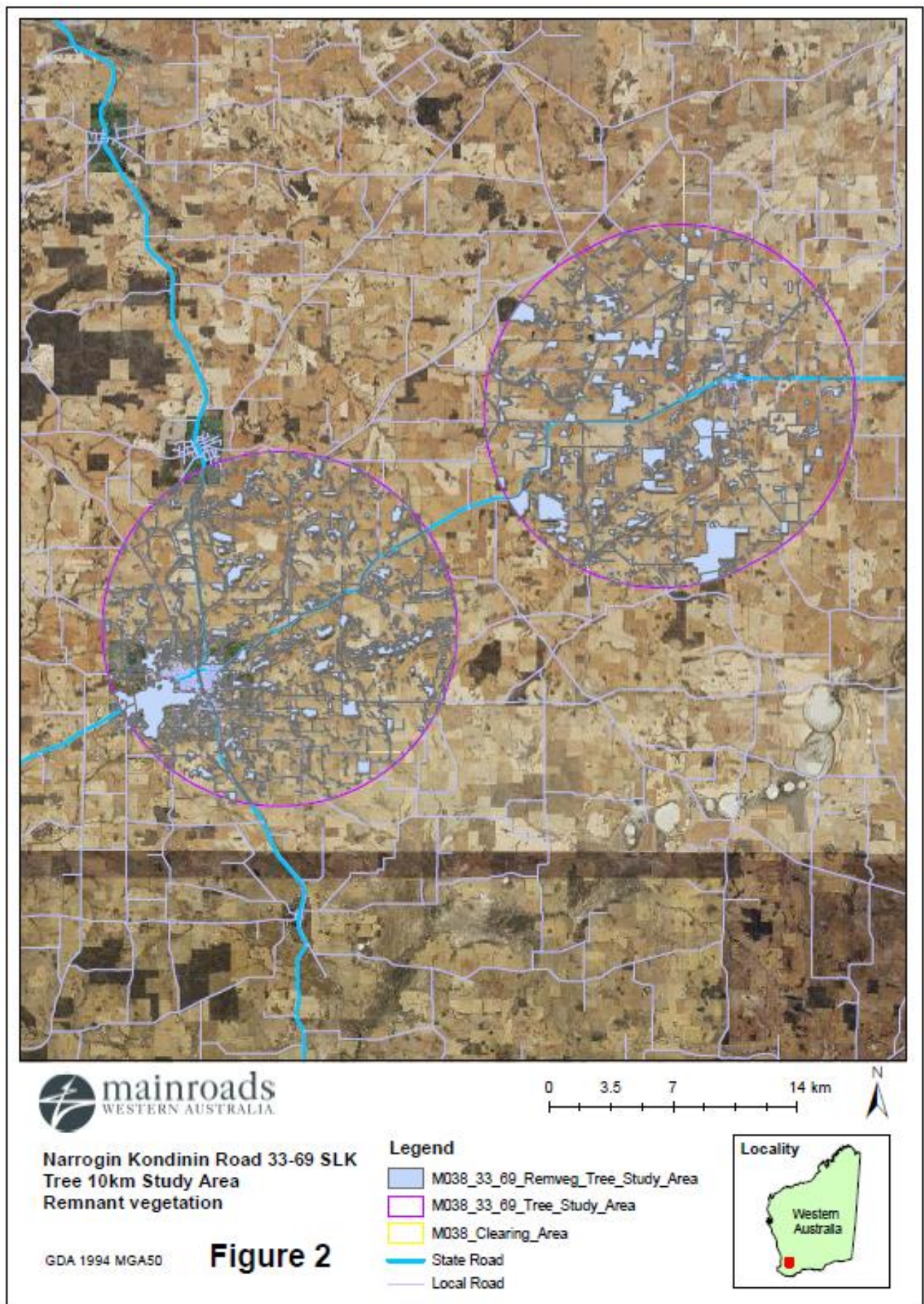


Figure 2: Tree 10km Study Area

15-Jun-2022 Photos



Tree 1



Tree1 from road



Tree 1 towards road



Tree 2 (remove right hand trunk)



Tree 2 from road (remove right hand trunk)



Tree 2 towards road (remove left hand trunk)



Tree 3 (from road)



Tree 3 (towards road)