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Clearing Desktop Report – CPS 818

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Great Eastern Hwy & Leeming Road Intersection Upgrade
Great Eastern Highway (H005)
Wheatbelt
EOS # 3304

D25#702711
October 2025

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Document Control

Report Compilation & Review	Name and Position	Document Revision	Date
Author:	Environment Officer	Draft v1	28/07/2025
Reviewer:	Senior Environment Officer	Draft v1	08/08/2025
Author:	Environment Officer	Draft V2	01/10/2025
Reviewer:	Senior Environment Officer	Rev 0 (Final)	01/10/2025

1 PROPOSAL

1.1 Purpose and Justification

Main Roads Western Australia (Main Roads) proposes to upgrade Great Eastern Highway (GEH) between the town sites of Grass Valley and Meenar (SLK 111.9 – 113.4). GEH forms part of National Highway 94, and is a strategic freight, tourist and inter-town route. The efficiency and reliability of GEH is vital to the mining and agricultural sectors of the Wheatbelt and Goldfields regions.

Due to the age of the pavement along sections of GEH, significant wear is severely affecting the safety and efficiency of the highway. This route has been identified as the third most risky road in regional Western Australia in two consecutive surveys, owing to the poor road condition.

The proposal will increase the safety and efficiency of freight movements by allowing overtaking of turning vehicles and widening works to accommodate 36.5 m heavy vehicles in all directions and associated acceleration lanes for vehicles on the highway.

1.1.1 Main Roads Approach to Road Safety and the Environment

Main Roads is committed to minimising the environmental impacts of all of its activities and manages the State Road network to achieve balanced economic, social, safety and environmental benefits for the community. Main Roads recognises that Western Australia's environment is significant from a global perspective and the unique conservation values that are contained within its road reserve. Main Roads' road network often adjoins natural areas, and, in some locations, the reserve itself hosts remnant vegetation with high environmental values. Although the reserves were not established for this purpose, Main Roads recognises that it has a responsibility to conserve the environmental values that occur within the State's road network and minimise the impact its proposals have on the environment. In addition to providing a safe and efficient road network for all people using the roads under its control, Main Roads is also committed to protecting the natural environment.

In accordance with National and State Government road safety policies, Main Roads is also committed to substantially reducing road trauma on the road network through Safe System principles. The Safe System approach acknowledges that more than two thirds of all serious crashes are due to human error rather than deliberate risk taking (e.g. speeding or drink driving) and seeks to improve behaviour through education and enforcement while managing the safety of vehicles, speeds and the road and road infrastructure. It is shown that improving sub-optimal road formation will substantially reduce the likelihood and severity of road crashes. For example, according to the Road Safety Management Guideline, increasing the sealed shoulder from 0.5 m to 2 m will reduce Killed and Seriously Injured numbers by more than 50%.

As the statutory authority responsible for providing and managing a safe and efficient main road network in Western Australia, Main Roads focuses on improving road safety by thoroughly considering all environmental, economic and community benefits and impacts. It operates on a hierarchy of avoiding, minimising, reducing and then, if required, offsetting our environmental impacts. This has been achieved through changes in proposal scope and design. Main Roads regularly reduces its clearing footprint by restricting earthworks limits for proposals, steepening batters, installing barriers, establishing borrow pits in cleared paddocks and avoiding temporary clearing for storage, stockpiles, and turn-around bays, to avoid and minimise its impacts.

Further details on measures to avoid, minimise and reduce are provided in Section 1.5.

1.2 Proposal Scope

Main Roads proposes to upgrade a 1.5 km section of GEH between the town sites of Grass Valley and Meenar. The upgrade will comprise the following components:

- Overlay and widening GEH to achieve an 11 metre seal on an 11 metre wide formation;
- Intersection improvements with local roads, including Leeming Road (4211128);
- Pavement overlay, rehabilitation or reconstruction;
- New road delineation, signage and line marking, including a one-metre-wide centre line; and
- Upgrade drainage infrastructure to improve road drainage capacity.

1.3 Proposal Location

The Clearing Area is located on Great Eastern Highway (H005), between Grass Valley and Meenar, from SLK 111.9 to 113.4, and is located within the Shire of Northam as shown in Figure 1. The central coordinate of the proposal is -31.6386868, 116.8506841.

1.4 Clearing Details

Proposed Clearing to be undertaken using CPS 818:

0.037 ha

Areas of Native Vegetation Clearing:

The areas of native vegetation to be cleared are shown in Figure 1.

Type of Native Vegetation:

The type of vegetation to be cleared under this Proposal consists of four *Eucalyptus wandoo* (Wandoo) trees and one *Eucalyptus loxophleba* subsp. *loxophleba* (York Gum) tree, as seen in Figure 1.



Figure 1. Clearing Area for the H005 Leeming Intersection upgrades.

1.5 Alternatives to Native Vegetation Clearing Considered During Proposal Development

The following alternatives to clearing were considered during the development of the proposal:

- Preferentially locating the new alignment in cleared pasture areas over the existing road reserve, however this was considered cost prohibitive e.g. due to cost of resumption of farmland and construction of completely new road rather than widening in existing alignment and premature redundancy of State Road asset, lack of adequate funding, stakeholder engagement, resource requirements. Under this option, clearing would still be required for tie-ins to the existing road network.
- Upgrading other alternative routes that are less vegetated and environmentally constrained, however these are not suitable due to longer travel times, sensitive local receptors (such as residences) or other planning issues. These upgrades would require development of entire road corridors which would quickly render the project financially unviable.
- Do not upgrade the road, however this will potentially result in a poorer safety outcome and may result in future fatalities or serious injuries and further degradation of the State road asset.
- Main Roads retains frangible vegetation where a clear zone is to be established for road projects. For this project, however, clearing will only be required to accommodate the road formation, with no clear zone being established. Accordingly, the retention of frangible vegetation does not apply to this proposal.
- Reducing the speed limit to minimise clearing requirements, while still balancing safety (driver fatigue) and freight efficiency. Speed Limits are an essential mechanism to ensure the safe and efficient operation of road networks. The application of appropriate speed limits and other traffic management measures is a key mechanism in managing vehicle speeds to achieve desired safety, mobility, traffic management, local amenity, and road user expectations. There are several factors involved in road safety, including road conditions, driver behaviour and overall road design. Except in special situations, reducing speed limits below national standards on state and national roads is not typically supported as it has the potential to contribute to driver frustration, impatience, tiredness and recklessness. The environmental values protected by reducing the speed limit, do not justify the impacts on freight efficiencies nor road user safety. Accordingly, the reduction of the speed limits to avoid clearing of native vegetation for this proposal is not proposed.

1.6 Measures to Avoid, Minimise, Reduce and Manage Proposal Clearing Impacts

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

Table 1. Measures Undertaken to Avoid, Minimise, Reduce and Manage the Proposal Clearing Impacts

Design or Management Measure	Discussion and Justification
Steepen batter slopes	Batter slopes have been steepened where practicable to avoid impacts to suitable Diameter at Breast Height (DBH) trees.
Installation of barriers	The installation of barriers was considered and not deemed a suitable measure to avoid impacts to vegetation for this project.
Use of existing cleared areas for access tracks, construction storage and stockpiling	Existing cleared areas will be utilised for laydowns, stockpiling, turnarounds and any other supporting infrastructure to minimise the extent of vegetation clearing required.
Drainage modification	Existing drainage infrastructure will be utilised and modified where practicable to accommodate the wider road intersection. Reusing existing drainage infrastructure and upgrading to meet the wider road design has minimised the extent of vegetation clearing required to deliver the project.

1.7 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 51O of the EP Act, Main Roads has also had regard to the below instruments where relevant.

Other Legislation potentially relevant 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 and D Act)
- *Soil and Land Conservation Act 1945* (WA)
- *Rights in Water and Irrigation Act 1914* (WA) (RIWI Act)
- *Aboriginal Heritage Act 1972* (WA).

Environmental Protection Policies:

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

Other relevant policies and guidance documents:

- Environmental Offsets Policy (Government of Western Australia, 2011)
- A guide to the assessment of applications to clear native vegetation (DER, 2014)
- Procedure: Native vegetation clearing permits (Government of WA, 2021)
- Environmental Offsets Guidelines (Government of Western Australia, 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 Conservation Advice (including listing advice) for the Eucalypt Woodlands of the Western Australian Wheatbelt (Department of the Environment and Energy, 2015)
- Carnaby's Cockatoo (*Calyptorhynchus latirostris*) Recovery Plan (Department of Parks and Wildlife, 2013)
- Referral guideline for 3 WA threatened black cockatoo species (DAWE, 2022)

2 SCOPE AND METHODOLOGY ASSESSMENT OF CLEARING

Native vegetation will be cleared to accommodate this Proposal. This clearing will be undertaken using the Main Roads Statewide Clearing Permit CPS 818.

To comply with CPS 818, Main Roads must prepare a Clearing Desktop Report (CDR).

The CDR outlines the key activities associated with the Proposal, the existing environment and an assessment of native vegetation clearing. This assessment provides an evaluation of the vegetation clearing impacts associated with the Proposal using the ten Clearing Principles listed under s51 of the *Environmental Protection Act 1986* (EP Act) and strategies used to manage vegetation clearing.

2.1 Report Terminology and Sources

The following terms are used in this Clearing Report:

- **Native Vegetation Clearing Area (Clearing Area)** – The maximum amount of native vegetation to be cleared for the Proposal that will accommodate the designed earthworks and, typically, a nominal buffer to allow for the safe movement of machinery during construction. The Clearing Area for this Proposal is 0.037 ha.
- **Study Area** – Area covered by the Desktop Assessment. The Study Area for the Proposal is confined to a local area of a 20 km radius.
- **Survey Area** – Area covered by the Biological Surveys (Ecologia, 2024; Main Roads, 2024).

2.2 Desktop Assessment

A desktop assessment of the Study Area was undertaken by viewing internal datasets and other government agency-managed databases, and consulting with relevant stakeholders where necessary.

GIS layer viewing and mapping is done using ArcMap and/or Main Roads corporate mapping system known as iMaps. 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, which are found under References in Section 9.

2.3 Surveys and Assessments

The following surveys/assessments were undertaken to inform this CDR:

- Great Eastern Highway and Leeming Road Intersection Upgrade Biological Survey (Ecologia, 2024).
- Environmental Site Inspection Report: Great Eastern Hwy & Leeming Road Intersection Upgrade (Main Roads, 2024).

Table 2 in addition to Section 3.1, and 3.2, provide a summary of the findings in these reports.

Table 2. Summary of Biological and Targeted Surveys Relevant to the Proposal

Consultant and Survey Name	Survey Details
Ecologia (2024) Great Eastern Highway and Leeming Road Intersection Upgrade Biological Survey	Survey Area: The Survey Area comprised approximately 13.96 ha adjacent to GEH between SLK 111.7 and SLK 113 ranging from 88 to 125 metres wide. Type: Detailed Flora and Vegetation Survey, Targeted Flora Search, Basic Fauna Survey and Black Cockatoo Habitat Assessment. Timing: 2 April 2024. Survey Results Shapefile TRIM Ref: D24#900434 Document TRIM Ref: D24#900442
Main Roads Western Australia (2024) Environmental Site Inspection Report: Great Eastern Hwy & Leeming Road Intersection Upgrade 3304	Survey Area: The Survey Area comprised approximately 1.7 ha adjacent to GEH between SLK 113 and SLK 113.45 ranging from 32 to 41 metres wide. Type: Patch assessment of TEC, Detailed vegetation survey, identify suitably sized (DBH) trees and hollows. Timing: 3 December 2024. Survey Results Shapefile TRIM Ref: D25#21023 Document TRIM Ref: D25#20924

3 SURVEY RESULTS

3.1 Summary Ecologia (2024) Biological Survey

Main Roads contracted *ecologia* Environment (Ecologia) to conduct a detailed flora and vegetation survey, targeted flora search, basic fauna survey and black cockatoo habitat assessment over native vegetation within the 13.96-hectare (ha) Survey Area. This survey was completed by two Ecologia Ecologists on 2 April 2024.

Flora and Vegetation

A total of 16 taxa were recorded from five families and 12 genera. Of these, three were weed species, none of which were declared pest plants or Weeds of National Significance. The lack of flora diversity, particularly for the understorey species, was partly attributed to the poor rainfall prior to the survey and the survey being conducted outside the primary survey window (September to November). In addition, the impacts of fragmentation and disturbance associated with agricultural activities contributed to the low floral diversity. There were two vegetation types, one was associated with drainage flats and the other was associated with the plain landscape. Vegetation condition was assessed as being Good to Degraded, a product of the lack of midstory and understorey and the extent of weed coverage in the two vegetation types.

Significant Flora and Ecological Communities

No Threatened or Priority flora species were recorded. Three conservation significant species (*Anigozanthos bicolor* subsp. *exstans* (P3), *Levenhookia pulcherrima* (P3) and *Thomasia glabripetala* (T)) were considered possible to occur in the Survey Area after the post survey likelihood of occurrence assessment, as they were either annuals or could have died back to the point of being undistinguishable due to the low rainfall and timing of the survey. Approximately 5.2 ha of vegetation, comprised of the ElAb vegetation type, was inferred as being part of the EPBC Act listed Threatened/DBCA Priority Ecological Community Eucalypt Woodlands of the Western Australian Wheatbelt.

Subsequent to the Ecologia (2024) survey, the five isolated, roadside trees that comprise the Clearing Area have no associated native understorey (refer to Plates 1 to 5 in Appendix 1) and are therefore not representative of the ElAb vegetation type or condition as mapped by Ecologia (2024). As such, they do not meet the condition thresholds to be considered part of the TEC, consistent with section 3.3 of the Approved conservation advice (Department of the Environment and Energy, 2015).

Fauna and Fauna Habitat Assessment

Two broad fauna habitat types were mapped within the Survey Area – eucalypt woodlands and sedgelands. Except for potential habitat value for Carnaby's Black Cockatoo, the Survey Area was not considered to provide habitat suitable for any significant fauna. Potential habitat value was impacted by lack of structural complexity in the understorey and absence of large trunks or logs and other landform features that provide niches, a reflection of the extent of disturbance in the Survey Area. Vegetation within the Survey Area may serve a function as part of local ecological linkages that facilitate fauna movement between larger tracts of remnant vegetation in the surrounding landscape.

Carnaby's Black Cockatoo Assessment

There are no confirmed or unconfirmed black cockatoo nesting or roosting sites within the Survey Area or Study Area. Fifty-three trees within the Survey Area had a Diameter at Breast Height (DBH) of greater than 300 millimetres (mm) for *Eucalyptus salmonophloia* and *E. wandoo* and over 500

millimetres for *E. loxophleba* subsp. *loxophleba* (Category 7 trees, suitable DBH tree without hollows). Only one tree had a hollow, but this was too small to be used by Black Cockatoos at this stage (Category 6 tree, suitable DBH tree with unsuitable hollows confirmed). The eucalypt woodland vegetation within the Survey Area was considered to be suitable foraging habitat for Carnaby's Cockatoo, with a score of 5, a reflection of the projected canopy cover of eucalypts. There was no primary or secondary evidence of Carnaby's Cockatoo activity at the site.

3.2 Summary MRWA (2024) Biological Survey

On 3 December 2024, a Main Roads zoologist and botanist surveyed an area east of Ecologia's (2024) Survey Area for Diameter at Breast Height (DBH) trees, vegetation type, and assessed the area for conservation significant fauna habitat, particularly, a Black Cockatoo habitat assessment, and a brief review of previous mapping. The Survey Area covered approximately 1.7 ha and abutted Ecologia's (2024) Survey Area at SLK 113 – 113.45. Vegetation identified was synonymous with vegetation types identified by Ecologia (2024) and sections of this Survey Area met TEC mapping criteria for the Eucalypt Woodlands of the West Australian Wheatbelt.

Vegetation

The Survey Area is comprised of roadside vegetation where two vegetation types were identified, one was associated with drainage flats (JaTi) and the other was associated with the plain landscape (ElAb). Vegetation condition was assessed as being Good to Degraded, a product of the lack of midstory and understorey and the extent of weed coverage in the two vegetation types.

Some isolated trees appear to be remnant rather than planted. On the south side of the road, most of the vegetation has been cleared and consists of regrowth native vegetation (shrubs) and a low-lying drainage area dominated by *Juncus acutus*. On the south border of the Survey Area, Eucalypt woodland is present. Weedy grasses were dominant in areas, and there was evidence of rubbish dumping.

Significant Flora and Ecological Communities

No Threatened or Priority flora species were recorded. Approximately 0.78 ha of vegetation within the Survey Area, comprised of the ElAb vegetation type, was inferred as being part of the EPBC listed Threatened/DBCA Priority Ecological Community Eucalypt Woodlands of the Western Australian Wheatbelt.

The five isolated roadside trees that comprise the Clearing Area have no associated native understorey (refer to Plates 1 – 5 in Appendix 1) and are therefore not representative of the ElAb vegetation type or condition as mapped by Main Roads (2024). As such, they do not meet the condition thresholds to be considered part of the TEC, consistent with section 3.3 of the Approved conservation advice (Department of the Environment and Energy, 2015).

Carnaby's Black Cockatoo Assessment

There are no confirmed or unconfirmed Black Cockatoo nesting or roosting sites within the Survey Area or Study Area. Thirteen trees within the Survey Area had a DBH of greater than 300 millimetres (mm) for *Eucalyptus salmonophloia* and *E. wandoo* (Category 7 trees, suitable DBH tree without hollows). One *E. wandoo* in the Survey Area tree was observed as a category 5 tree. The woodland may provide foraging habitat for Carnaby's Cockatoo and some habitat for other birds.

3.3 Black Cockatoos

Main Roads has commissioned Australia Black Cockatoo Specialists (ABCS) to provide a species list for plant species utilised by Black Cockatoos: *"Plants used by Black Cockatoos in the South-West of Western Australia"* (ABCS, 2025).

The resultant list has been compiled from a variety of sources, including 18 referenced publications (including Bamford and Groom) and the professional expertise of the author Rick Dawson. The comprehensive list of flora species utilised by Black Cockatoo identifies a High, Medium or Low value to each of three Black Cockatoo species for the factors of foraging, roosting and nesting.

Utilising this species list, Main Roads is able to conduct detailed analysis of the foraging value of species present within vegetation types which occur in the Clearing Area. This information is subsequently able to be used in the development of a site condition score to inform a foraging assessment model which also incorporates site context and stocking rate.

Vegetation within the Clearing Area was assigned Black Cockatoo habitat value based on the Bamford Scoring System (Bamford 2020). The Bamford system provides a method of calculating Black Cockatoo habitat value based on the type, density and condition of trees and shrubs in an area and can be influenced by the context such as the availability of foraging habitat nearby. As each of the Black Cockatoo species have different preferred forage species, the Bamford system assigns different values for each of the species. Analysis of the vegetation type within the Clearing Area has been provided based on the foraging value to relevant species of Black Cockatoo as presented in Table 3.

Table 3: An assessment of proposed CPS 818 clearing against Bamford Consulting Ecologists (2020) scoring system for the assessment of foraging value of vegetation for Black Cockatoos

Aspect	Description of proposed clearing
A. Site condition (out of 6)	
Description of Clearing The Clearing Area consists of four <i>E. wandoo</i> (wandoo) trees and one <i>E. loxophleba</i> subsp. <i>loxophleba</i> (York gum) with no native understorey.	Analysis The five trees proposed for clearing provide very limited foraging value for Black Cockatoo species. According to Australian Black Cockatoo Specialists (2025), <i>E. wandoo</i> provides low quality foraging habitat for Carnaby's Black Cockatoo and York gum provides no foraging value. The Clearing Area is outside the modelled distribution for both Forest Red-tailed Black Cockatoo and Baudin's Cockatoo, therefore no analysis of the foraging value for these two Black Cockatoo species is necessary.
	Score: 2
B. Site Context (out of 3)	
Description of Clearing Within the local area (15 km radius of the Clearing Area), there is 5,219.5 ha of remnant vegetation which may be available foraging habitat for Black Cockatoo species. Total proposed clearing of suitable black cockatoo habitat is 0.037 ha. The Clearing Area is over 25 km km from the nearest confirmed Black Cockatoo breeding site. Therefore, the Clearing Area is not within an area where breeding is known/likely.	Analysis Vegetation proposed to be cleared represents less than 0.00001% of the existing native vegetation within the local area (15 km radius of the Clearing Area).
	Score: 0
C. Species Stocking Rate (out of 1)	
Description of Clearing No Black Cockatoos were observed during the Ecologia (2024) or Main Roads (2024) field surveys nor were there any signs of foraging evidence in the Survey Areas.	Analysis The nearest recorded observation of a Black Cockatoo is over 15 km west of the Clearing Area from 2001. No Black Cockatoos were observed in the Ecologia (2024) or Main Roads (2024) Survey Areas and there are no known breeding or roosting sites within 20 km.
	Score: 0
Total Score (out of 10)	2

The foraging value of the 0.037 ha Clearing Area, as presented in Table 3 above, is more site-specific than the Ecologia (2024) and Main Roads (2024) Survey Areas, which collectively covered approximately 15.66 ha. As such, information presented in Table 3 is used in the assessment of the Clearing Principles as it relates to Black Cockatoos.

DESKTOP ASSESSMENT OF VEGETATION

3.4 Desktop Vegetation Description

Table 3 and Table 4 provide details of the vegetation types and their condition within the Clearing Area and the remaining extents of these associations.

Table 3. Summary of Mapped Vegetation Types within the Clearing Area.

Vegetation Type	Ecologia (2024) Mapped (ha)	Main Roads (2024) Mapped (ha)	Extent within Clearing Area (ha)
JaTi <i>Juncus acutus</i> tall closed rushland; <i>Tecticornia ?indica subsp. bidens</i> low sparse shrubland. Associated species: <i>Atriplex ?bunburyana</i> , <i>Avena ?barbata</i> and <i>Eucalyptus loxophleba subsp. Loxophleba</i> . Condition: Degraded	1.24 (8.89%)	0.71 (41.76%)	0.00 (0.00%)
EIAb <i>Eucalyptus loxophleba subsp. loxophleba</i> , <i>Eucalyptus wandoo</i> mid woodland; <i>Avena ?barbata</i> , <i>Maireana brevifolia</i> low open tussock grassland/low sparse shrubland. Associated Species: <i>Allocasuarina ?campestris</i> , <i>Atriplex semibaccata</i> , <i>Austrostipa elegantissima</i> , <i>Bromus diandrus</i> , <i>Callistemon phoeniceus</i> , <i>Eucalyptus salmonophloia</i> , <i>Melaleuca hamulosa</i> , <i>Melaleuca marginata</i> and <i>Rytidosperma acerosum</i> . Condition: Good to Degraded	10.10 (72.35%)	0.08 (4.71%)	0.03 (75.00%)
Cleared	2.62 (15.76%)	0.91 (53.53%)	0.01 (25%)
Total	13.96 ha	1.70 ha	0.04 ha

Table 4. Pre-European Vegetation Representation

Pre-European Vegetation Association	Scale	Pre-European Extent (ha)	Current Extent (ha)	% Remaining	% Current Extent in DBCA Managed Land (proportion of pre-European Extent)
Veg Assoc No. 352 Medium woodland; York gum	Statewide	724,268.73	142,012.22	19.61	1.75
	IBRA Bioregion Avon Wheatbelt	630,577.61	108,887.52	17.27	1.62
	IBRA Sub-region Katanning	337,871.73	36,295.58	10.74	0.23
	Local Government Authority Northam	66,825.54	7,623.24	11.41	0.45

4 ASSESSMENT AGAINST THE TEN CLEARING PRINCIPLES

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

Each principle has been assessed in accordance with the former Department of Environment Regulation (now Department of Water and Environmental Regulation (DWER) '[*A Guide to the Assessment of Applications to Clear Native Vegetation*](#)' (Department of Environment Regulation, 2014) and other relevant clearing permit application decision reports prepared by DWER.

The proposed clearing is not at variance, or not likely to be at variance, to any of the ten 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.**

The proposed clearing consists of four, isolated roadside *Eucalyptus wandoo* (wandoo) trees and one *Eucalyptus loxophleba* subsp. *loxophleba* (York gum) tree. Neither species is listed as Threatened or Priority flora and none of the trees are part of a Threatened Ecological Community (TEC) or Priority Ecological Community (PEC), owing to their isolated nature and lack of native understorey species. The lack of native understorey and dominance of agricultural weeds in the lower strata results in vegetation condition being Degraded to Completely Degraded.

As noted by Australian Black Cockatoo Specialists (2025), *E. wandoo* is a high-value tree species for Carnaby's Cockatoo for roosting and breeding, whilst *E. loxophleba* subsp. *loxophleba* is a species that is low value roosting and breeding habitat. Whilst the five trees are all suitable Diameter at Breast Height (DBH) to be classified as Black Cockatoo habitat trees, none of the trees contain hollows suitable to support Black Cockatoo breeding, and there are no known Black Cockatoo breeding or roosting sites within a 20 km radius of the Clearing Area (the Study Area).

The five trees (0.037 ha) provide negligible foraging habitat for Carnaby's Cockatoo in the context of the 9,190 ha of remnant native vegetation within the 20 km Study Area and the 5,219.5 ha within a 15 km local area, as per the Bamford Consulting Ecologists' Black Cockatoo Foraging Habitat Scoring Tool. As noted by Australian Black Cockatoo Specialists (2025), *E. wandoo* is a low value foraging species for Carnaby's Cockatoo, whilst *E. loxophleba* subsp. *loxophleba* provides no foraging value.

The five roadside trees proposed for clearing do not form part of a significant ecological linkage, nor are they part of a conservation significant watercourse, wetland, conservation area or Environmentally Sensitive Area (ESA) (GIS Databases).

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

Methodology

- Australian Black Cockatoo Specialists (2025)
- Ecologia (2024)
- Government GIS Shapefiles:
 - DBCA Threatened and Priority Ecological Community database search (Accessed July 2025)
 - DBCA Threatened and Priority flora database search (Accessed July 2025)
 - DBCA TEC PEC Boundary (Accessed July 2025)
 - Bush Forever (Region Scheme - Special Areas) (Accessed July 2025)
 - Ecological Linkages (Accessed July 2025)
- Main Roads (2024)

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.

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

The proposed clearing consists of four, isolated roadside *Eucalyptus wandoo* (wandoo) trees and one *Eucalyptus loxophleba* subsp. *loxophleba* (York gum) tree (refer to Plates 1 – 5 in Appendix 1).

As noted by Australian Black Cockatoo Specialists (2025), *E. wandoo* is a high-value tree species for Carnaby's Cockatoo for roosting and breeding, whilst *E. loxophleba* subsp. *loxophleba* is a species that is low value roosting and breeding habitat. Whilst the five trees are all suitable Diameter at Breast Height (DBH) to be classified as Black Cockatoo habitat trees, none of the trees contain hollows suitable to support Black Cockatoo breeding, and there are no known Black Cockatoo breeding or roosting sites within a 20 km radius of the Clearing Area (the Study Area).

The five trees (0.037 ha) provide negligible foraging habitat for Carnaby's Cockatoo in the context of the 9,190 ha of remnant native vegetation within the 20 km Study Area and the 5,219.5 ha within a 15 km local area, as per the Bamford Consulting Ecologists' Black Cockatoo Foraging Habitat Scoring Tool. As noted by Australian Black Cockatoo Specialists (2025), *E. wandoo* is a low-value foraging species for Carnaby's Cockatoo, whilst *E. loxophleba* subsp. *loxophleba* provides no foraging value.

Fauna records indicate a paucity of recent Carnaby's Cockatoo observations around the Clearing Area and east of Northam, with the nearest record being from 2013 and 16.7 km west of the Clearing Area. No primary or secondary evidence of Carnaby's Cockatoo was recorded in either the Ecologia (2024) or Main Roads (2024) Survey Areas, which collectively covered approximately 15.66 ha and encompassed the Clearing Area. Given the absence of confirmed roosting or breeding sites within 20 km of the Clearing Area, the five trees proposed to be cleared do not constitute significant habitat for Carnaby's Cockatoo.

Apart from providing some potential, non-significant Carnaby's Cockatoo habitat (with no evidence of recent usage), the Clearing Area offers negligible habitat for other fauna species, given the lack of native understorey to provide shelter and dispersal habitat for ground-dwelling fauna.

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

Methodology

- ABCS (2025)
- DAWE (2022)
- Ecologia (2024)
- Government GIS Shapefiles:
 - DBCA Threatened and Priority fauna database search (Accessed July 2025)
- Main Roads (2024)

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

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

The Clearing Area consists of four *Eucalyptus wandoo* and one *Eucalyptus loxophleba* subsp. *loxophleba* trees. These species are not listed as Threatened flora (Western Australian Herbarium, 1998-). Ecologia (2024) and Main Roads (2024) did not identify any Threatened flora species during their April and December 2024 field surveys.

The nearest Threatened flora record to the proposed Clearing Area is an occurrence of *Thomasia glabripetala* from 1991, approximately 4.1 km east, on what is now pastoral land. The following nearest record is of the same species from 1986 and is over 24 km south of the Clearing Area. Given the significant age of these records, lack of nearby observations, surrounding pastoral land use and extensive historical clearing, it's unlikely the species would occur within the Clearing Area.

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

Methodology

- Ecologia (2024)
- Government GIS shapefiles:
 - DBCA Threatened flora database search (Accessed July 2025)
- Main Roads (2024)
- Western Australian Herbarium (1998-)

d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

Proposed clearing is not at variance to this Principle.

The Clearing Area consists of five isolated, roadside trees with no native understorey (refer to Plates 1 – 5 in Appendix 1). Based on the lack of native understorey, the Clearing Area does not meet the diagnostic criteria or condition thresholds to be considered representative of the Eucalypt Woodlands of the Western Australian Wheatbelt Threatened Ecological Community (Department of the Environment and Energy, 2015).

The Clearing Area is not representative of any other TEC (Ecologia, 2024; Main Roads, 2024).

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

Methodology

- Department of the Environment and Energy (2015)
- Ecologia (2024)
- Government GIS shapefiles:
 - DBCA Threatened Ecological Community database search (Accessed July 2025)
- Main Roads (2024)

e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

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

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30% of that present pre-1750 (i.e., pre-European settlement), below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

The proposed Clearing Area occurs within the Avon Wheatbelt IBRA Bioregion which retains approximately 18.51% of the pre-European vegetation extent (Government of Western Australia, 2019).

The vegetation proposed to be cleared is broadly mapped as Vegetation Association 352 – Medium woodland; York gum. The remaining extent of this Vegetation Association is below the 30% retention target (19.61% remaining Statewide, 17.27% in the Avon Wheatbelt IBRA Bioregion, 10.74% in the Katanning IBRA Subregion and 11.41% in the Shire of Northam). However, the proposed clearing of five trees (0.037 ha) represents 0.0004% of the current extent of this vegetation association within the Shire of Northam.

Over 9,190 ha of remnant vegetation (DPIRD-005) is mapped within 20 km of the Clearing Area, of which the largest continuous patch covers approximately 1,124 ha, which at its closest extent is approximately 5 km south. The proposed clearing of up to 0.037 ha will result in the removal of up to 0.00001% of remnant native vegetation mapped within 20 km of the Clearing Area.

The Clearing Area consists of five remnant, roadside trees (0.037 ha) with no native understorey remaining (refer to Plates 1 – 5 in Appendix 1). The five trees provide negligible landscape connectivity value and do not form a valuable ecological corridor. The lack of native understorey and dominance of agricultural weeds in the lower strata results in vegetation condition being Degraded to Completely Degraded and no longer being representative of a Medium woodland.

As such, the Clearing Area is not considered a significant remnant of native vegetation in an area that has been extensively cleared.

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

Methodology

- Commonwealth of Australia (2001)
- Ecologia (2024)
- Main Roads (2024)
- Government GIS shapefiles:
 - Pre-European vegetation (Accessed July 2025)
 - DPIRD Remnant Vegetation (DPIRD-005) (Accessed July 2025)
- Government of Western Australia (2019)

f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.**Proposed clearing is not at variance to this Principle.**

Analysis of GIS databases and field surveys by Ecologia (2024) and Main Roads (2024) confirms the proposed Clearing Area does not include any watercourses or wetlands. The nearest mapped surface water feature is a minor, non-perennial watercourse, located approximately 170 metres north.

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

Methodology

- Ecologia (2024)
- Government GIS shapefiles:
 - Geomorphic Wetlands (Accessed July 2025)
 - Ramsar Wetlands (Accessed July 2025)
 - Important Wetlands (Accessed July 2025)
 - Watercourses (Accessed July 2025)
 - RIWI Act Rivers (Accessed July 2025)
- Main Roads (2024)

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

Proposed clearing is not at variance to this Principle.

Natural Resource Management Soil Systems and CSIRO risk mapping indicates the soils of the Clearing Area have a:

- low risk of land instability (<3% of map unit has a moderate to high hazard);
- moderate to high risk of wind erosion (30-50% of map unit has a high to extreme wind erosion risk);
- low risk of water erosion (<3% of map unit has a high to extreme water erosion risk);
- low risk of salinity (3-10% of map unit has a moderate to high salinity risk or is presently saline);
- low risk of flood hazard (3-10% of map unit has a moderate to high flood risk);
- moderate risk of waterlogging and inundation (10-30% of map unit has a moderate to very high waterlogging risk); and
- low risk of surface acidity (3-10% of map unit has a moderate to high salinity risk or is presently saline).

Given the very minor nature of clearing, consisting of five trees / 0.037 ha, the proposed clearing is not likely to cause appreciable land degradation.

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

Methodology

- Ecologia (2024)
- Government GIS Shapefiles:
 - Acid Sulfate Soil Risk Map (Accessed July 2025)
 - Soil landscape land quality – Water Erosion Risk (Accessed July 2025)
 - Soil landscape land quality – Wind Erosion Risk (Accessed July 2025)
 - Soil landscape land quality – Salinity Risk (Accessed July 2025)
 - Soil landscape land quality – Surface Acidity (Accessed July 2025)
 - Soil landscape land quality – Waterlogging Risk (Accessed July 2025)
 - Soil landscape land quality – Flood Risk (DPIRD-007) (Accessed July 2025)
- Main Roads (2024)

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.

A search of ArcGIS shapefiles indicates the Clearing Area is not within, adjacent to or nearby a conservation area. The nearest conservation area is the Throssell Nature Reserve, located over 1.3 km north. Given the distance to the nearest conservation area, the small amount of clearing proposed (0.037 ha) is not likely to have an impact on the environmental values of any conservation area.

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

Methodology

- Government GIS Shapefiles:
 - DBCA Legislated Lands and Waters & Lands of Interest (Accessed July 2025)
 - DBCA Lands of Interest (Accessed July 2025)
 - Geomorphic Wetlands (conservation category wetlands only) (Accessed July 2025)
 - Ramsar Wetlands (Accessed July 2025)
 - Important Wetlands (Accessed July 2025)

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 likely to be at variance to this Principle.

The Clearing Area is:

- not located in a Proclaimed Groundwater Area and the nearest is the Bolgart East Groundwater Area, located over 48 km northwest;
- not located in Public Drinking Water Source Area and the nearest is the Mundaring Weir Catchment Area, located over 36 km southwest;
- located within the Proclaimed Avon River Catchment Surface Water Area ; and
- located 170 m south of a minor, non-perennial watercourse.

The proposed clearing of five trees (0.037 ha) is unlikely to cause deterioration in the quality of surface or underground water.

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

Methodology

- Government GIS Shapefiles:
 - RIWI Act, Surface Water Areas and Irrigation Districts (Accessed July 2025)
 - CAWSA Part 2A Clearing Control Catchments (Accessed July 2025)
 - RIWI Act, Groundwater Areas (Accessed July 2025)
 - Acid Sulfate Soil Risk Map (Accessed July 2025)
 - Soil landscape land quality – Water Erosion Risk (Accessed July 2025)
 - Soil landscape land quality – Wind Erosion Risk (Accessed July 2025)
 - Soil landscape land quality – Salinity Risk (Accessed July 2025)
 - Soil landscape land quality – Surface Acidity (Accessed July 2025)

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.

The nearest mapped watercourse passes through pastoral land approximately 170 metres north of the Clearing Area and does not interact with the five trees proposed to be cleared.

Desktop GIS mapping indicates the Clearing Area has a low risk of flooding and a Main Roads site inspection has confirmed the area has relatively flat terrain. The proposed clearing of five trees (0.037 ha) is unlikely cause, or exacerbate, the incidence or intensity of flooding.

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

Methodology

- Government GIS Shapefiles:
 - Soil Mapping (Accessed July 2025)
 - Contours (Accessed July 2025)
 - Soil landscape land quality - Waterlogging Risk (Accessed July 2025)
 - Soil landscape land quality - Flood Risk (Accessed July 2025)

5 VEGETATION MANAGEMENT

Main Roads will avoid clearing native vegetation where possible. Where clearing cannot be avoided then this clearing is kept to a minimum.

6 REHABILITATION, REVEGETATION AND OFFSETS

6.1 Revegetation and Rehabilitation

No temporary clearing will be undertaken as part of the Proposal activities and therefore, no revegetation or rehabilitation will be conducted under CPS 818.

6.2 Offset Proposal

No offset proposal is required as the proposed clearing will not result in significant residual impacts to native vegetation within the region.

7 STAKEHOLDER CONSULTATION

Main Roads will undertake stakeholder consultation in accordance with CPS 818 Condition 8.

8 COMPLIANCE WITH CPS 818

Table 5 summarises what further pre-clearing impact assessment is required in accordance with CPS 818.

Table 5. Summary of Additional Management Actions Required by CPS 818.

Impact of Clearing	Yes/No or NA	Further Action Required
1. The CDR indicates that the clearing is 'At Variance' or 'May be at Variance' with one or more of the Clearing Principles.	No	No further action required
2. Clearing is at variance or may be at variance with Clearing Principle (g) land degradation, (i) surface or underground water quality or (j) the incidence of flooding.	No	No further action required.
3. Clearing is at variance with Clearing Principle (g) land degradation, (i) surface or underground water quality and (j) the incidence of flooding.	No	No further action required
4. The Proposal involves clearing for temporary works (as defined by CPS 818).	No	No further action required.
5a. Proposal is within a Region that: • has rainfall greater than 400mm; and, • is South of the 26th parallel; and, • works are necessary in 'Other than dry conditions'; and, • works have potential for uninfested areas to be impacted.	No	Standard Vehicle and Plant management actions from Annexure 204B (TABLE 204B.9.1), Hygiene Checklists (D17#859669) and Vehicle, Plant and Machinery Hygiene Register Template (D23#179551) will be applied.
5b. Do the proposed works require clearing within or adjacent to DBCA managed lands in non-dry conditions?	No	No further action required.

Impact of Clearing	Yes/No or NA	Further Action Required
6. 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.
7. Weeds are likely to spread to and result in environmental harm to adjacent areas of native vegetation that are in good or better condition.	No	No further action required.
8. Did an environmental specialist conduct the survey or field assessment?	Yes	The Environmental Specialist undertaking the biological assessments was suitably qualified and had more than three years' experience.
9. Did an environmental specialist prepare the Assessment Report and any other associated documentation including the VMP, Dieback Management Plan or Offset Proposal?	Yes	No further action required.

9 REFERENCES

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Government of Western Australia (2011). *WA Environmental Offset Policy*. Perth Western Australia.

Government of Western Australia (2014). *WA Environmental Offset Guidelines*. Perth, Western Australia.

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(Accessed July 2025).

10 APPENDICES

10.1 Appendix 1: Imagery of Trees within the Clearing Area

Five Trees are proposed to be cleared within the Clearing Area for the proposed upgrades to Great Eastern Highway and Leeming Road intersection. Below are images of each tree within the Clearing Area.

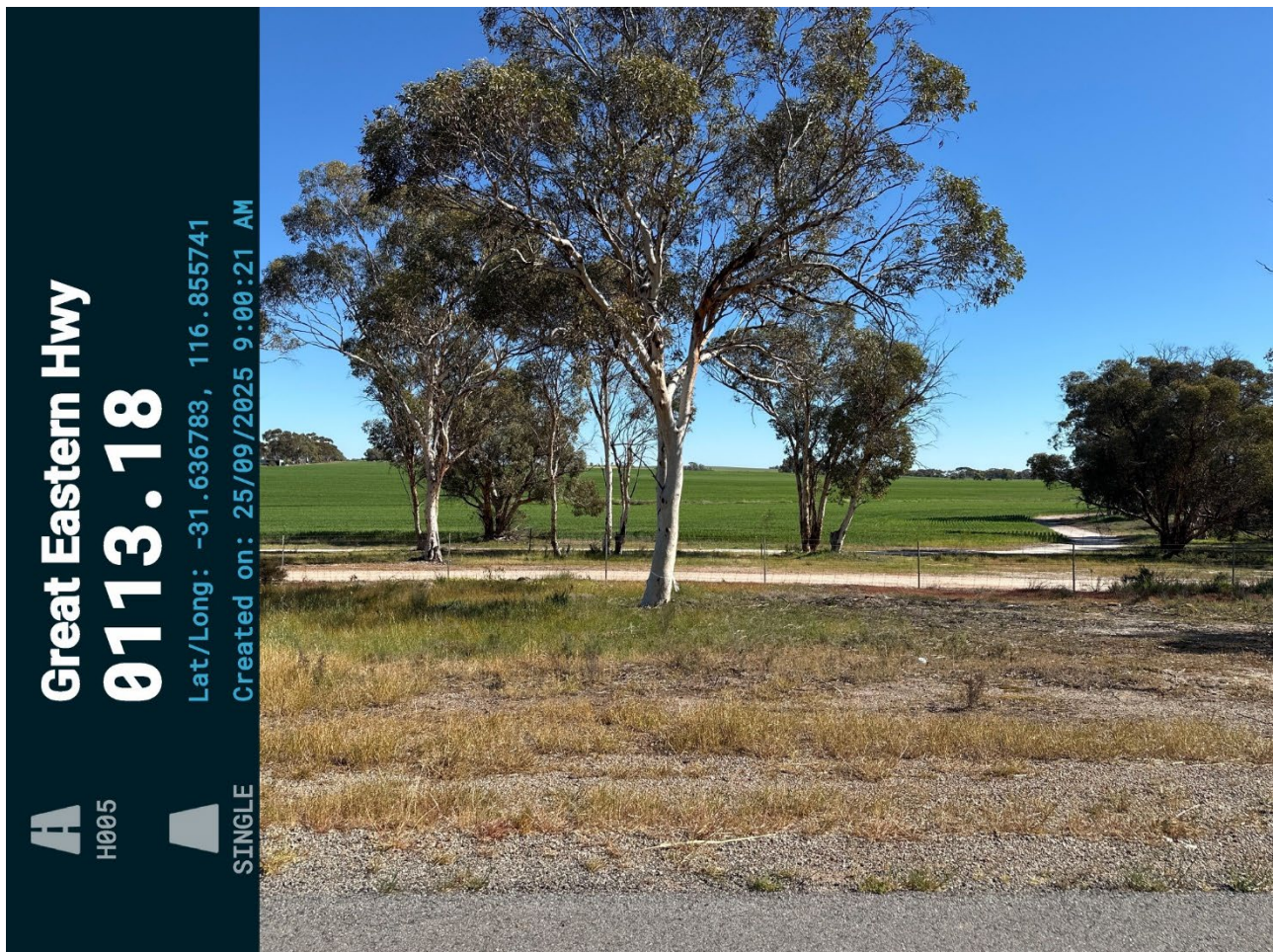


Plate 1. Tree 9: *E. wandoo* – No Hollows



Plate 2. Tree A: *E. loxophleba* subsp. *loxophleba* (York Gum) – No suitable hollows.

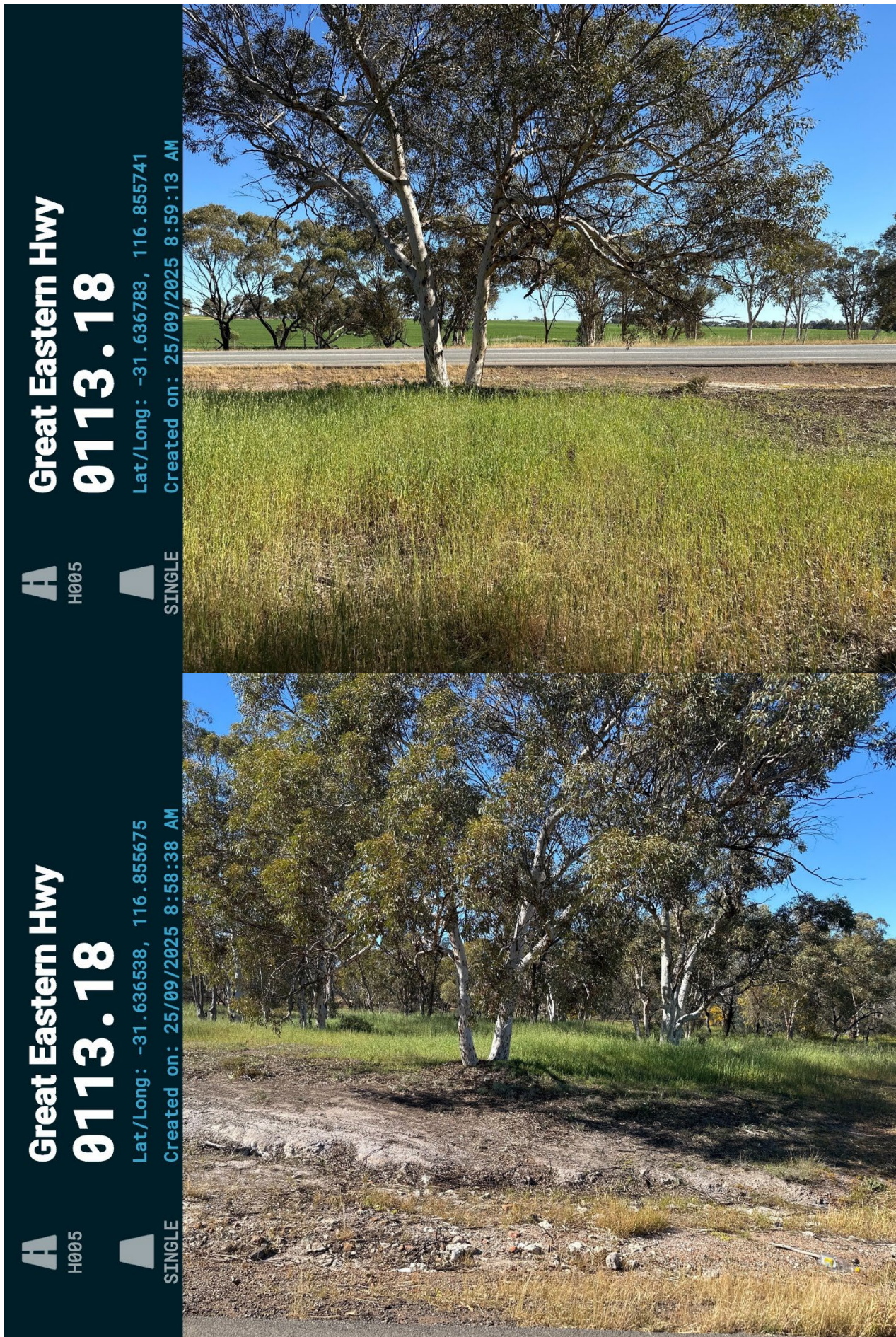


Plate 3. Tree 20: *E. wandoo* – No Hollows



Plate 4. Tree 11: *E. wandoo* – No suitable Hollows



Plate 5. Tree 12: *E. wandoo* – No Hollows