



## CLEARING PERMIT

*Granted under section 51E of the Environmental Protection Act 1986*

### PERMIT DETAILS

Area Permit Number: 8955/1

File Number: DWERVT5985

Duration of Permit: From 30 September 2020 to 30 September 2022

### PERMIT HOLDER

Shire of Mingenew

### LAND ON WHICH CLEARING IS TO BE DONE

Milo Road reserve (PIN 11747581), Moorriary

Milo Road reserve (PIN 11882100), Moorriary

Mingenew-Mullewa Road reserve (PIN 11697446), Yarragadee

### AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 0.08399 hectares of native vegetation within the area cross-hatched yellow on attached Plan 8995/1(a), Plan 8995/1(b) and Plan 8995/1(c).

### CONDITIONS

#### 1. Avoid, minimise and reduce the impacts and extent of clearing

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

- (a) avoid the clearing of native vegetation;
- (b) minimise the amount of native vegetation to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

#### 2. Dieback and weed control

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds* and *dieback*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no known *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

#### 3. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit, in relation to the clearing of native vegetation authorised under this Permit:

- (a) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
- (b) the date that the area was cleared;
- (c) the size of the area cleared (in hectares);
- (d) actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 1 of this Permit; and
- (e) actions taken to minimise the risk of the introduction and spread of *dieback* and *weeds* in accordance with condition 2 of this Permit.

#### 4. Reporting

The Permit Holder must provide to the *CEO* the records required under condition 3 of this Permit, when requested by the *CEO*.

#### DEFINITIONS

The following meanings are given to terms used in this Permit:

**CEO:** means the Chief Executive Officer of the Department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*;

**dieback** means the effect of *Phytophthora* species on native vegetation;

**fill** means material used to increase the ground level, or fill a hollow;

**mulch** means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

**weed/s** means any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*;  
or
- (b) published in a Department of Biodiversity, Conservation and Attractions Regional Weed Rankings Summary, regardless of ranking; or
- (c) not indigenous to the area concerned.



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Meenu Vitarana  
A/MANAGER  
NATIVE VEGETATION REGULATION

*Officer delegated under Section 20  
of the Environmental Protection Act 1986*

4 September 2020

# Plan 8955/1(a)

115°15'54.000"E

115°15'57.600"E

115°16'1.200"E

115°16'4.800"E

29°13'22.800"S

29°13'26.400"S

115°16'29.800"E

29°13'26.400"S



115°15'54.000"E

115°15'57.600"E

115°16'1.200"E



CPS areas approved to clear



Road Centrelines

Cadastre - LGATE 218



0 10 20 30 40 50 m



1:1518

MGA Zone 50  
Geocentric Datum of Australia 1994

Meenu Vitarana  
2020.09.04 09:01:46 +08'00'

Officer delegated under section 20 of the  
Environmental Protection Act 1986



GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8955/1(b)

115°15'25.200"E

115°15'28.800"E

115°15'32.400"E

29°14'16.800"S

29°14'20.400"S

29°14'24.000"S

29°14'16.800"S

29°14'20.400"S

29°14'24.000"S

LOT 431 ON PLAN 2984

Milo Rd

Road

115°15'25.200"E

115°15'28.800"E

115°15'32.400"E



CPS areas approved to clear

— Road Centrelines

Cadastre - LGATE 218



Meenu Vitarana

2020.09.04

09:02:19 +08'00'

0 10 20 30 40 50 m



1:1518

MGA Zone 50  
Geocentric Datum of Australia 1994

Officer delegated under section 20 of the  
Environmental Protection Act 1986



GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8955/1(c)

115°26'27.600"E

115°26'31.200"E

115°26'34.800"E

29°8'45.600"S

29°8'45.600"S

29°8'49.200"S

29°8'49.200"S

29°8'52.800"S

29°8'52.800"S

LOT 4 ON PLAN 18433

Mirgenew-Mullewa Rd  
Road

LOT 299 ON PLAN 2727

115°26'27.600"E

115°26'31.200"E

115°26'34.800"E



CPS areas approved to clear



Road Centrelines

Cadastre - LGATE 218



0 10 20 30 40 50 m



1:1518

MGA Zone 50  
Geocentric Datum of Australia 1994

Meenu Vitarana

2020.09.04

09:02:52

+08'00'

Officer delegated under section 20 of the  
Environmental Protection Act 1986



GOVERNMENT OF  
WESTERN AUSTRALIA



# Clearing Permit Decision Report

## 1. Application details and outcome

### 1.1. Permit application details

<b>Permit number:</b>	CPS 8955/1
<b>Permit type:</b>	Area permit
<b>Applicant name:</b>	Shire of Mingenew
<b>Application received:</b>	26 June 2020
<b>Application area:</b>	0.08399 hectares (ha) of native vegetation
<b>Purpose of clearing:</b>	Road widening and upgrades
<b>Method of clearing:</b>	Mechanical
<b>Property:</b>	Milo Road reserves (PIN 11747581, PIN 11882100) Mingenew-Mullewa Road reserve (PIN 11697446)
<b>Location (LGA area/s):</b>	Shire of Mingenew
<b>Localities (suburb/s):</b>	Mooriary, Yarragadee

### 1.2. Description of clearing activities

The vegetation applied to be cleared is distributed across two separate areas on Milo Road and one area on Mingenew-Mullewa Road requiring removal of native vegetation to facilitate road widening (see Figure 1, Section 1.5). The two areas on Milo Road consist of individual trees very close to the existing road. The area on Mingenew-Mullewa road is an approximately 4.3 metres wide, 135 metres long area (0.058 hectares) located on an embankment that needs to be removed in order to allow for the widening of the road consistent with the current and forecasted future traffic volumes to a 7.2 metre wide sealed carriageway.

### 1.3. Decision on application and key considerations

<b>Decision:</b>	Granted
<b>Decision date:</b>	4 September 2020
<b>Decision area:</b>	0.08 hectares (ha) of native vegetation as depicted in Section 1.5 below

### 1.4. Reasons for decision

This clearing permit application was made in accordance with section 51E of the *Environmental Protection Act 1986* (EP Act) and was received by the Department of Water and Environmental Regulation (DWER) on 26 June 2020. DWER advertised the application for public comment and no submissions were received.

In undertaking their assessment, and in accordance with section 51O of the EP Act, the Delegated Officer has given consideration to the Clearing Principles in Schedule 5 of the EP Act (see Appendix D), relevant planning instruments, and any other pertinent matters they deemed relevant to the assessment (see Section 3).

In particular, the Delegated Officer has determined that:

- whilst located within an extensively cleared area, vegetation within the proposed clearing area is not considered to comprise a significant remnant of vegetation;
- given the extent of the proposed clearing area, the clearing is not likely to have significant impacts on conservation significant flora or fauna species;

- the implementation of a suitable weed management condition is appropriate to mitigate the impact of spreading weeds into adjacent vegetation;
- the applicant has suitably demonstrated avoidance and minimisation measures (see Section 3.1)

The Delegated Officer also took into consideration the purpose of the upgrading the roads is to improve community safety.

In determining to grant a clearing permit subject to conditions, the Delegated Officer found that the proposed clearing is not likely to lead to an unacceptable risk to the environment.

### 1.5. Site maps

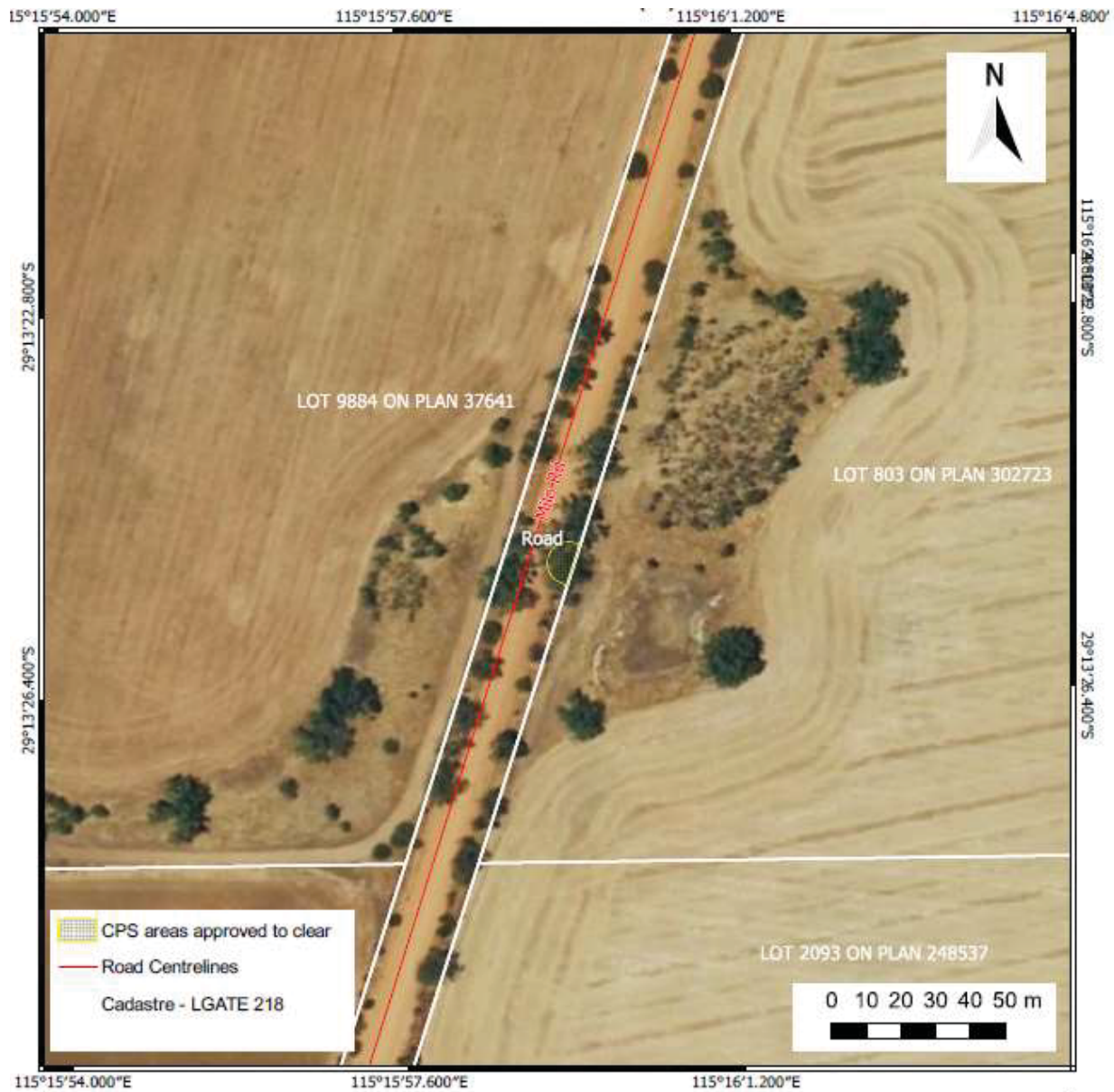


Figure 1. Map of the northern proposed clearing area on Milo Road (SLK 0.58)



Figure 2. Map of the southern proposed clearing area on Milo Road (SLK 2.47)



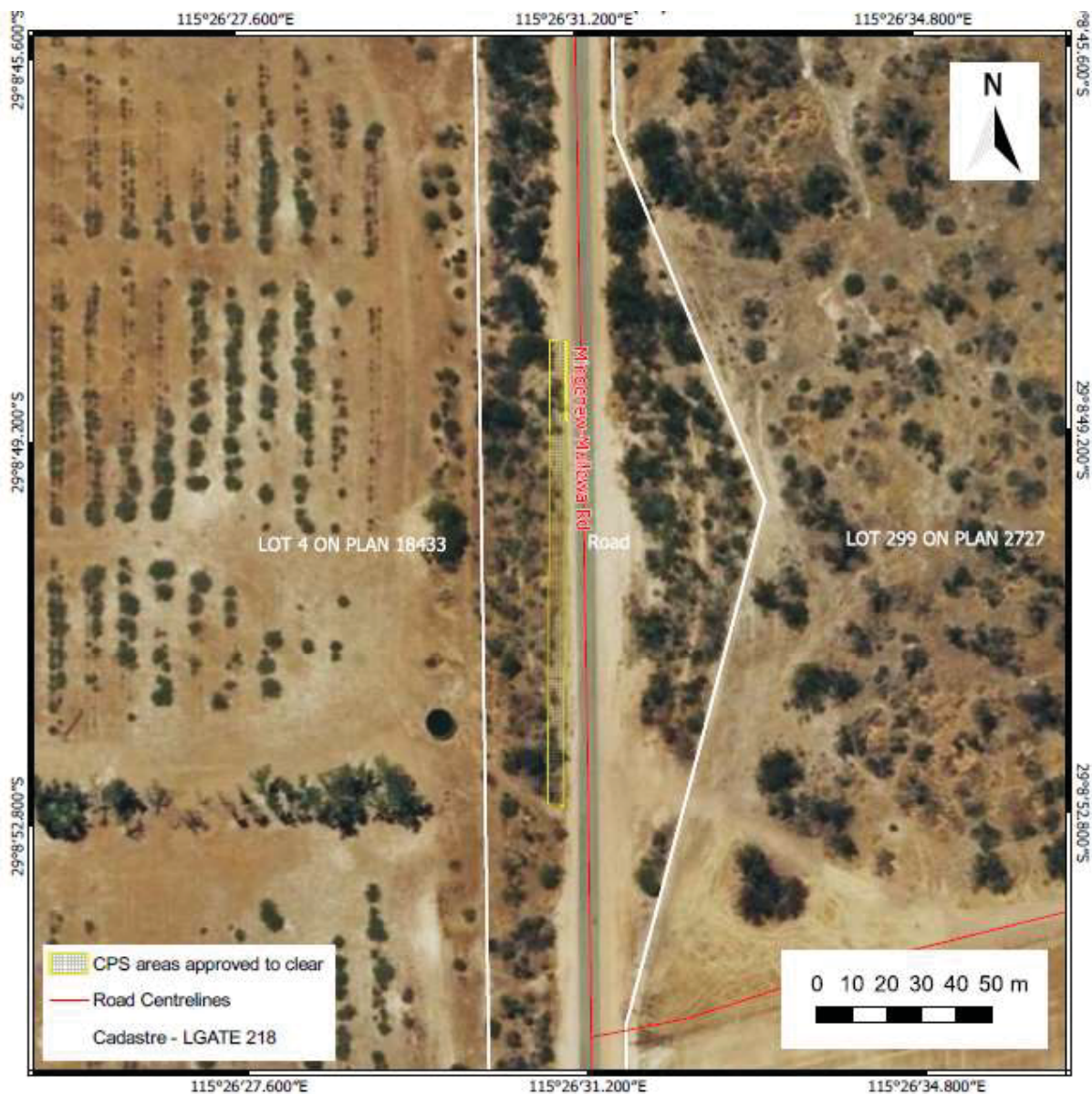


Figure 3. Map of the proposed clearing area on Mingenew-Mullewa Road

The area/s cross-hatched yellow indicate/s the area/s authorised to be cleared under the granted clearing permit.

## 2. Legislative context

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 (see Section 1.3), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

1. the precautionary principle;
2. the principle of intergenerational equity; and
3. the principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (December 2013)

- *Procedure: Native vegetation clearing permits* (DWER, October 2019)

### **3. Detailed assessment of application**

#### **3.1. Avoidance and mitigation measures**

The applicant advised the following to demonstrate that they had considered avoidance measures for the proposed clearing:

- The vegetation on Mingenew-Mullewa road is located on an embankment that needs to be removed in order to allow for the widening of the road consistent with the current and forecasted future traffic volumes to a 7.2 metre wide sealed carriageway.
- The trees on Milo Road are very close to the existing road and there were no alternatives to the removal of the two encroaching trees for the proposed road widening. However, care was taken to minimise the number of trees proposed to be removed to the lowest possible number.

This adequately demonstrated that all reasonable efforts had been taken to avoid and minimise potential impacts of the clearing on environmental values.

#### **3.2. Assessment of environmental impacts**

In assessing the application in accordance with section 51O of the EP Act, the Delegated Officer has examined the application and site characteristics (Appendix B) and considered whether the clearing poses a risk to environmental values. The assessment against the Clearing Principles is contained in Appendix C.

This assessment identified that the clearing may pose a risk to the environmental value of significant remnant vegetation, and that this required further consideration. The detailed consideration and assessment of the clearing impacts against the specific environmental values is provided below. Where the assessment found that the clearing presents an unacceptable risk to environmental values, conditions aimed at controlling and/or ameliorating the impacts have been imposed under sections 51H and 51I of the EP Act. These are also identified below.

##### **3.2.1. Environmental value: significant remnant vegetation – Clearing Principle (e)**

Assessment: The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001). It is noted that the vegetation proposed to be cleared along Mingenew Mullewa Road is consistent with the mapped vegetation type (Mingenew, 354), of which only 11.4 per cent remains within the IBRA bioregion (Avon Wheatbelt), and that only approximately 12 per cent of pre-European vegetation remains within the local area. However, given that the vegetation proposed to be cleared along Mingenew-Mullewa Road comprises a narrow strip of mainly Degraded (Keighery, 1994) vegetation on the edge of a band of remnant native vegetation, the proposed clearing area is not considered to be a significant remnant of vegetation. Given that a band of vegetation will remain adjacent to the Mingenew-Mullewa Road's proposed clearing area, the proposed clearing will not significantly compromise the function of this roadside vegetation as an ecological corridor. The two individual trees on Milo Road proposed to be cleared are also not considered as significant remnant vegetation due to the presence of other adjacent trees that are not proposed to be cleared.

Outcome: Based on the above assessment, the Delegated Officer has determined that the proposed clearing is considered acceptable in relation to this environmental value.

Conditions: No management conditions required.

#### **3.3. Relevant planning instruments and other matters**

No relevant authorisations are required for the proposed land use.

The proposed clearing areas on Milo Road are located within the Arrowsmith Groundwater Area and the proposed clearing on Mingenew-Mullewa Road is within the Gascoyne Groundwater Area.

The northernmost tree proposed to be cleared on Milo Road is within a site registered under the *Aboriginal Heritage Act 1972 (WA)* (Irwin River: Place ID 18907). It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972 (WA)* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

## Appendix A – Additional information provided by applicant

Summary of information	Consideration of information
<p>Following a request from DWER, photographs of the proposed clearing areas were provided. Photographs of the two areas on Milo Road included photographs showing the trees and their canopies from all angles. Photographs of the proposed clearing area on Mingenew Mullewa Road showed condition of vegetation, vegetation structure and common species present.</p>	<p>Trees are unlikely to provide breeding habitat for Carnaby's cockatoos. Vegetation on Mingenew Mullewa Road appears to consistent with mapped vegetation type, and is mostly open shrub and mallee vegetation in Degraded condition with a small area of denser shrub vegetation in Good condition. No priority or threatened species or ecological communities were identified in the photographs.</p>

## Appendix B – Characteristics of site and surrounding area

The information provided below describes the key characteristics of the area proposed to be cleared and is based on the best information available to DWER at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix C.

### 1. Site characteristics

Site characteristic	Details
Local context	<p>The northern and southern trees proposed to be cleared on Milo Road (at SLK 0.58 and SLK 2.47 respectively) are part of approximately 5 metre wide corridors of vegetation along the eastern and western sides respectively of the road. The northern tree along Milo road is also part of a wider corridor of roadside vegetation.</p> <p>The proposed clearing area on Mingenew-Mullewa Road forms part of an approximately 25 m wide corridor of vegetation along the western side of the road.</p> <p>These corridors of vegetation all exist within a highly cleared landscape, surrounded by land cleared for agriculture. Spatial data indicates the local area (20 km radius of the proposed clearing areas) retains approximately 12 per cent of the original native vegetation cover.</p>
Vegetation description	<p>Photographs supplied by the applicant indicate the vegetation within the two proposed clearing areas on Milo Road consists of individual <i>Eucalyptus wandoo</i> (wandoo) trees. Representative photos are available in Appendix E.</p> <p>This is not representative of the Beard mapped vegetation type:</p> <ul style="list-style-type: none"> <li>Tathra_379, which is described as Mixed heath with scattered tall shrubs <i>Acacia</i> spp., Proteaceae and Myrtaceae (Shepherd et al, 2001).</li> </ul> <p>Photographs supplied by the applicant indicate the vegetation within the proposed clearing area on Mingenew-Mullewa Road consists of mallee Eucalypts and mixed scrub, including <i>Acacia</i> and Proteaceae species. Representative photos are available in Appendix E.</p> <p>This is consistent with the Beard mapped vegetation type:</p> <ul style="list-style-type: none"> <li>Mingenew_354, which is described as Wattle with York gum, casuarina, mulga <i>Acacia</i> spp. with <i>Eucalyptus loxophleba</i>, <i>Allocasuarina</i> spp. <i>Acacia aneura</i> (Shepherd et al, 2001).</li> </ul>
Vegetation condition	<p>Photographs supplied by the applicant indicate the vegetation within the two proposed clearing areas on Milo Road the proposed clearing area is likely to be in Degraded (Keighery, 1994) condition, described as:</p> <ul style="list-style-type: none"> <li>Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management (Figures 4 and 5, Appendix E).</li> </ul>

Site characteristic	Details
	<p>Photographs supplied by the applicant indicate the vegetation within the proposed clearing area on Mingenew-Mullewa Road area is likely to be in Degraded to Good (Keighery, 1994) condition, described as:</p> <ul style="list-style-type: none"> <li>• Degraded (majority of area): Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management (Figures 6 and 7, Appendix E).</li> <li>• Good (small area in the southern portion of the area): Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it (Figure 8, Appendix F). For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.</li> </ul> <p>The full Keighery condition rating scale is provided in Appendix D, below.</p>
Soil description	<p>Soil within the proposed clearing areas is mapped as:</p> <ul style="list-style-type: none"> <li>• Northern tree on Milo Road: <ul style="list-style-type: none"> <li>○ Irwin 2 Subsystem - Level alluvial flats with sandy and loamy duplex soils (Map unit224lr)</li> </ul> </li> <li>• Southern tree on Milo Road and area on Mingenew-Mullewa Road: <ul style="list-style-type: none"> <li>○ Mount Horner System - Long gentle slopes broken by low gravel ridges and broad open depressions. Some lateritic breakaways with spillway sands (Map unit224Mh).</li> </ul> </li> </ul>
Land degradation risk	<ul style="list-style-type: none"> <li>• Irwin 2 Subsystem - (Map unit224lr): <ul style="list-style-type: none"> <li>○ 10-30% of the map unit has a moderate to high flood risk;</li> <li>○ &lt;3% of the map unit has a moderate to high salinity risk or is presently saline;</li> <li>○ 10-30% of map unit has a high to extreme phosphorus export risk;</li> <li>○ &gt;70% of the map unit has a high to extreme subsurface acidification risk;</li> <li>○ &gt;70% of map unit has a high to extreme water erosion risk;</li> <li>○ 10-30% of map unit has a moderate to very high waterlogging risk; and</li> <li>○ &lt;3% of map unit has a high to extreme wind erosion risk;</li> </ul> </li> <li>• Mount Horner System (Map unit224Mh): <ul style="list-style-type: none"> <li>○ &lt;3% of the map unit has a moderate to high flood risk;</li> <li>○ &lt;3% of the map unit has a moderate to high salinity risk or is presently saline;</li> <li>○ 3-10% of map unit has a high to extreme phosphorus export risk;</li> <li>○ &gt;70% of the map unit has a high to extreme subsurface acidification risk;</li> <li>○ &lt;3% of the map unit has a moderate to high ware erosion risk ;</li> <li>○ &lt;3% of map unit has a moderate to very high waterlogging risk; and</li> <li>○ &gt;70% of map unit has a high to extreme wind erosion risk.</li> </ul> </li> </ul>
Waterbodies	<p>The desktop assessment and aerial imagery indicated that a minor non-perennial watercourse (a tributary of the Irwin River) is mapped 40 m south-east of the northern tree proposed to be cleared on Milo Road and a minor non-perennial watercourse (a tributary of the Lockier River) is mapped 150 m north of the proposed clearing area of Mingenew-Mullewa Road. No wetlands are mapped within the local area (within 10 km of the proposed clearing areas).</p>
Conservation areas	<p>The closest conservation area to the proposed clearing areas is Mingenew Nature Reserve, located approximately 3.5 km south-west of the proposed clearing area on Mingenew-Mullewa Road.</p>

Site characteristic	Details
Climate and landform	<ul style="list-style-type: none"> <li>• Southern tree on Milo Road <ul style="list-style-type: none"> <li>○ Topography: 200 m AHD</li> <li>○ Rainfall: 500 mm</li> <li>○ Evapotranspiration: 500 mm</li> </ul> </li> <li>• Northern tree on Milo Road <ul style="list-style-type: none"> <li>○ Topography: 100 m AHD</li> <li>○ Rainfall: 500 mm</li> <li>○ Evapotranspiration: 500 mm</li> </ul> </li> <li>• Mingenew Mullewa Road <ul style="list-style-type: none"> <li>○ Topography: 110 m AHD</li> <li>○ Rainfall: 500 mm</li> <li>○ Evapotranspiration: 400 mm</li> </ul> </li> </ul>

## 2. Flora, fauna and ecosystem analysis

Seven priority, threatened or other specially listed fauna species, 68 priority or threatened significant flora species and one priority ecological community are mapped within the local area (i.e. within a 20 kilometre radius of the clearing area). Of these species and communities, with consideration for the site characteristics set out above, relevant datasets (see Appendix F) and photos provided of the clearing areas, the following conservation significant flora and fauna species may be impacted by the clearing.

Species / Ecological Community	Listing	Distance of closest record to application area (kilometres)	No. records	Most recent record	Suitable soil type? (flora, ecological community)	Suitable vegetation type? (flora, ecological community)	Suitable habitat features (fauna)	Are surveys adequate to identify? (Y, N, N/A)
<b>Flora</b>								
<i>Acacia isoneura</i> subsp. <i>isoneura</i>	P3	5.0	9	NA	Yes	Yes	NA	N
<i>Baeckea</i> sp. <i>Walkaway</i> (A.S. George 11249)	P3	5.4	10	NA	Yes	Yes	NA	N
<i>Conostylis micrantha</i>	T	5.8	12	NA	Yes	Yes	NA	N
<i>Daviesia speciosa</i>	T	5.8	7	NA	Yes	Yes	NA	N
<i>Eremaea acutifolia</i>	P3	6.6	5	NA	Yes	Yes	NA	N
<i>Eucalyptus leprophloia</i>	T	5.0	5	NA	Yes	Yes	NA	N
<i>Gastrolobium rotundifolium</i>	P3	5.1	3	NA	Yes	Yes	NA	N
<i>Grevillea phanerophlebia</i>	T	4.6	12	NA	Yes	Yes	NA	N
<i>Lepidium fasciculatum</i>	P3	5.0	1	NA	Yes	Yes	NA	N
<i>Lepidium sagittulatum</i>	P1	5.0	1	NA	Yes	Yes	NA	N

Species / Ecological Community	Listing	Distance of closest record to application area (kilometres)	No. records	Most recent record	Suitable soil type? (flora, ecological community)	Suitable vegetation type? (flora, ecological community)	Suitable habitat features (fauna)	Are surveys adequate to identify? (Y, N, N/A)
<i>Malleostemon decipiens</i>	P1	3.9	8	NA	Yes	Yes	NA	N
<i>Melaleuca sclerophylla</i>	P3	7.5	1	NA	Yes	Yes	NA	N
<i>Pityrodia viscida</i>	P4	5.1	2	NA	Yes	Yes	NA	N
<i>Rhodanthe collina</i>	P3	4.2	1	NA	Yes	Yes	NA	N
<i>Thryptomene nitida</i>	P3	3.9	20	NA	Yes	Yes	NA	N
<i>Wurmbea tubulosa</i>	T	4.3	33	NA	Yes	Yes	NA	N
Species / Ecological Community	Listing	Distance of closest record to application area (kilometres)	No. records	Most recent record	Other		Suitable habitat features (fauna)	Are surveys adequate to identify? (Y, N, N/A)

#### Fauna

<i>Calyptorhynchus latirostris</i> (Carnaby's cockatoo)	EN	4.0	9	2018	<ul style="list-style-type: none"> <li>Closest confirmed roost 14.7 km</li> <li>In range but not breeding range</li> <li>Wandoo and Proteaceae species suitable for foraging, wandoo suitable for roosting</li> </ul>		Y	N
<i>Idiosoma arenaceum</i> (Geraldton Sandplain shield-backed trapdoor spider)	P3	14.9	2	1954	<ul style="list-style-type: none"> <li>Habitat poorly studied for this species</li> <li>Trapdoor spiders use leaf litter to build burrows</li> </ul>		Y	N
<i>Leipoa ocellata</i> (Malleefowl)	VU	5.8	1	1988	<ul style="list-style-type: none"> <li>Semi-arid to arid shrublands and low woodlands, especially those dominated by mallee and/or acacias (Benshemesh, 2007)</li> </ul>		Y	N
<i>Phasmodes jeeba</i> (Springtime corroboree stick katydid (Eneabba))	P3	17.4	1	1984	<ul style="list-style-type: none"> <li>occurs in coastal sandplain heaths</li> <li>feeds on flowers and pollen (Rentz 2010).</li> </ul>		Y	N

### 3. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	% remaining	Current extent in all DBCA managed land (ha)	% current extent in all DBCA managed land (proportion of pre-European extent)
IBRA bioregion					
Avon Wheatbelt	9,517,109.95	1,761,187.42	18.51	174,980.68	1.84

	Pre-European extent (ha)	Current extent (ha)	% remaining	Current extent in all DBCA managed land (ha)	% current extent in all DBCA managed land (proportion of pre-European extent)
Vegetation complex					
Tathra_379	1,229.69	241.00	19.60	15.37	1.25
Mingenew_354	91,254.36	10,407.42	11.40	894.77	0.98

## Appendix C – Assessment against the Clearing Principles

Assessment against the Clearing Principles	Variance level	Is further consideration required?
<b>Environmental value: biological values</b>		
<p><u>Principle (a):</u> “Native vegetation should not be cleared if it comprises a high level of biodiversity.”</p> <p><u>Assessment:</u> Given its small extent and the condition and types of vegetation present within it, the proposed clearing area it is not likely to contain locally or regionally significant flora, fauna, habitats, assemblages of plants.</p>	Not likely to be at variance	No
<p><u>Principle (b):</u> “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.”</p> <p><u>Assessment:</u> The proposed clearing areas may contain foraging and roosting habitat for Carnaby’s cockatoo, and the Mingeneu-Mullewa Road area may provide habitat for Malleefowl and two priority fauna species. However, due to the extent of the proposed clearing, and that a strip of vegetation will remain adjacent to the proposed clearing area on Mingeneu-Mullewa Road, the proposed clearing area is not considered to comprise a significant habitat for these fauna species. Noting the closest record for Malleefowl is 30 years old (Appendix B, section 2), the application area is not likely to provide habitat for Malleefowl.</p>	Not likely to be at variance	No
<p><u>Principle (c):</u> “Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</p> <p><u>Assessment:</u> The proposed clearing area may provide suitable habitat for five threatened flora species listed under the BC Act, however noting the condition of the vegetation within the application area and the linear nature of the proposed clearing, the likelihood of these species occurring within the application area is low.</p>	Not likely to be at variance	No
<p><u>Principle (d):</u> “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> <p><u>Assessment:</u> The proposed clearing area does not contain species that are representative of a threatened ecological community listed under the BC Act.</p>	Not likely to be at variance	No
<b>Environmental values: significant remnant vegetation and conservation areas</b>		

Assessment against the Clearing Principles	Variance level	Is further consideration required?
<p>Principle (e): <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u></p> <p>The extents of both the mapped vegetation type and of native vegetation in the local area are inconsistent with the national objectives and targets for biodiversity conservation in Australia.</p>	May be at variance	Yes: Refer to Section 3.2.1 above.
<p>Principle (h): <i>“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.”</i></p> <p><u>Assessment:</u> Given the distance to the nearest conservation area (3.5 kms), the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.</p>	Not likely to be at variance	No
<b>Environmental values: land and water resources</b>		
<p>Principle (f): <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u> No water courses or wetlands are recorded within the proposed clearing area and the vegetation within the application areas do not constitute riparian vegetation.</p>	Not likely to be at variance	No
<p>Principle (g): <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u> The mapped soils are susceptible to subsurface acidification, wind erosion and water erosion, however, given the small and linear nature of the application area, the proposed clearing is not likely to have an appreciable impact on land degradation.</p>	Not likely to be at variance	No
<p>Principle (i): <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.”</i></p> <p><u>Assessment:</u> Given the small extent of the proposed clearing area, the clearing is unlikely to result in any water quality impacts to groundwater or nearby minor perennial watercourses.</p>	Not likely to be at variance	No
<p>Principle (j): <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</i></p> <p><u>Assessment:</u> The mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding.</p> <p>Given no water courses are recorded within the proposed clearing area, the clearing is unlikely to contribute to waterlogging.</p>	Not likely to be at variance	No



## Appendix D – Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

### Measuring Vegetation Condition for the South West and Interzone Botanical Province (Keighery, 1994)

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very Good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.
Completely Degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.



Figure 4: Northern tree proposed to be cleared on Milo Road (SLK 0.58)



Figure 5: Southern tree proposed to be cleared on Milo Road (SLK 2.47)



Figure 6: Vegetation in Degraded condition proposed to be cleared along Mingenew Mullewa Road



Figure 7: Vegetation in Degraded condition proposed to be cleared along Mingenew Mullewa Road



Figure 8: Vegetation in Good condition proposed to be cleared along Mingenew Mullewa Road

## Appendix F – References and databases

### 1. GIS datasets

Publicly available GIS Databases used (sourced from [www.data.wa.gov.au](http://www.data.wa.gov.au)):

- Aboriginal Heritage Places (DPLH-001)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- IBRA Vegetation Statistics
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Regional Parks (DBCA-026)
- Soil and Landscape Mapping – Best Available

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) – Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

## 2. References

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