



## CLEARING PERMIT

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

### PERMIT DETAILS

Area Permit Number: 6218/1

File Number: 2011/006923-1

Duration of Permit: From 17 January 2015 to 17 January 2022

### PERMIT HOLDER

Town of Narrogin

### LAND ON WHICH CLEARING IS TO BE DONE

Lot 1545 on Deposited Plan 91261 (Reserve 35591) (Narrogin 6312)

Keally Street road reserve (PIN: 11118406) (Narrogin 6312)

Cresswell Street road reserve (PIN: 11118405) (Narrogin 6312)

### AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 1.51 hectares of native vegetation within the area hatched yellow on attached Plan 6218/1a.

### CONDITIONS

#### 1. Period in which clearing is authorised

The Permit Holder shall not clear any native vegetation after 17 January 2017

#### 2. 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*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no *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. Retain vegetative material and topsoil, revegetation and rehabilitation

The Permit Holder shall:

- (a) retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil in an area that has already been cleared.
- (b) at an *optimal time* following the completion of works authorised under this Permit, *revegetate* and *rehabilitate* the area cross-hatched red on attached Plan 6218/1b by:
  - (i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land; and
  - (ii) ripping the ground on the contour to remove soil compaction; and
  - (iii) laying the vegetative material and topsoil retained under condition 3(a) on the cleared area(s) cross-hatched red on attached Plan 6218/1b; and
  - (iv) deliberately *planting* and/or *direct seeding* native vegetation that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area; and
  - (v) ensuring only *local provenance* seeds and propagating material are used to *revegetate* and *rehabilitate* the area.

- (c) within 24 months of undertaking *revegetation* and *rehabilitation* in accordance with condition 3(b) of this Permit:
  - (i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
  - (ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 3(c)(i) of this Permit will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, the Permit Holder must undertake additional *planting* or *direct seeding* of native vegetation in accordance with the requirements of condition 3(b)(iv) and (v) of this Permit.
- (d) Where additional *planting* or *direct seeding* of native vegetation is undertaken in accordance with condition 3(c)(ii) of this permit, the Permit Holder shall repeat condition 3(c)(i) and 3(c)(ii) within 24 months of undertaking the additional *planting* or *direct seeding* of native vegetation.
- (e) Where a determination by an *environmental specialist* that the composition, structure and density within areas *revegetated* and *rehabilitated* will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, as determined in condition 3(c)(i) and (ii) of this permit, that determination shall be submitted for the CEO's consideration. If the CEO does not agree with the determination made under condition 3(c)(ii), the CEO may require the Permit Holder to undertake additional *planting* and *direct seeding* in accordance with the requirements under condition 3(c)(ii).

#### 4. Records to be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit:

- (a) In relation to the clearing of native vegetation authorised under this Permit:
  - (i) the species composition, structure and density of the cleared area;
  - (ii) 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;
  - (iii) the date that the area was cleared; and
  - (iv) the size of the area cleared (in hectares).
- (b) In relation to the *revegetation* and *rehabilitation* of areas pursuant to condition 3 of this Permit:
  - (i) the location of any areas *revegetated* and *rehabilitated*, 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;
  - (ii) a description of the *revegetation* and *rehabilitation* activities undertaken;
  - (iii) the size of the area *revegetated* and *rehabilitated* (in hectares);
  - (iv) the species composition, structure and density of *revegetation* and *rehabilitation*, and
  - (v) a copy of the environmental specialist's report.

#### 5. Reporting

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
  - (i) of records required under condition 4 of this Permit; and
  - (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding calendar year.
- (b) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar, a written report confirming that no clearing under this permit has been carried out, must be provided to the CEO on or before 30 June of each year.
- (c) Prior to 17 October 2021, the Permit Holder must provide to the CEO a written report of records required under condition 4 of this Permit where these records have not already been provided under condition 5(a) of this Permit.

## DEFINITIONS

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

**direct seeding** means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

**environmental specialist:** means a person who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit, or who is approved by the CEO as a suitable environmental specialist.

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

**local provenance** means native vegetation seeds and propagating material from natural sources within 50 kilometres and the same Interim Biogeographic Regionalisation for Australia (IBRA) subregion of the area cleared.

**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;

**optimal time** means the period from April to June for undertaking *direct seeding*, and the period from May to June for undertaking *planting*;

**planting** means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;

**regenerate/ed/ion** means re-establishment of vegetation from in situ seed banks and propagating material (such as lignotubers, bulbs, rhizomes) contained either within the topsoil or seed-bearing *mulch*;

**rehabilitate/ed/ion** means actively managing an area containing native vegetation in order to improve the ecological function of that area;

**revegetate/ed/ion** means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as natural *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.

**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 Parks and Wildlife Regional Weed Rankings Summary, regardless of ranking; or
- (c) not indigenous to the area concerned.

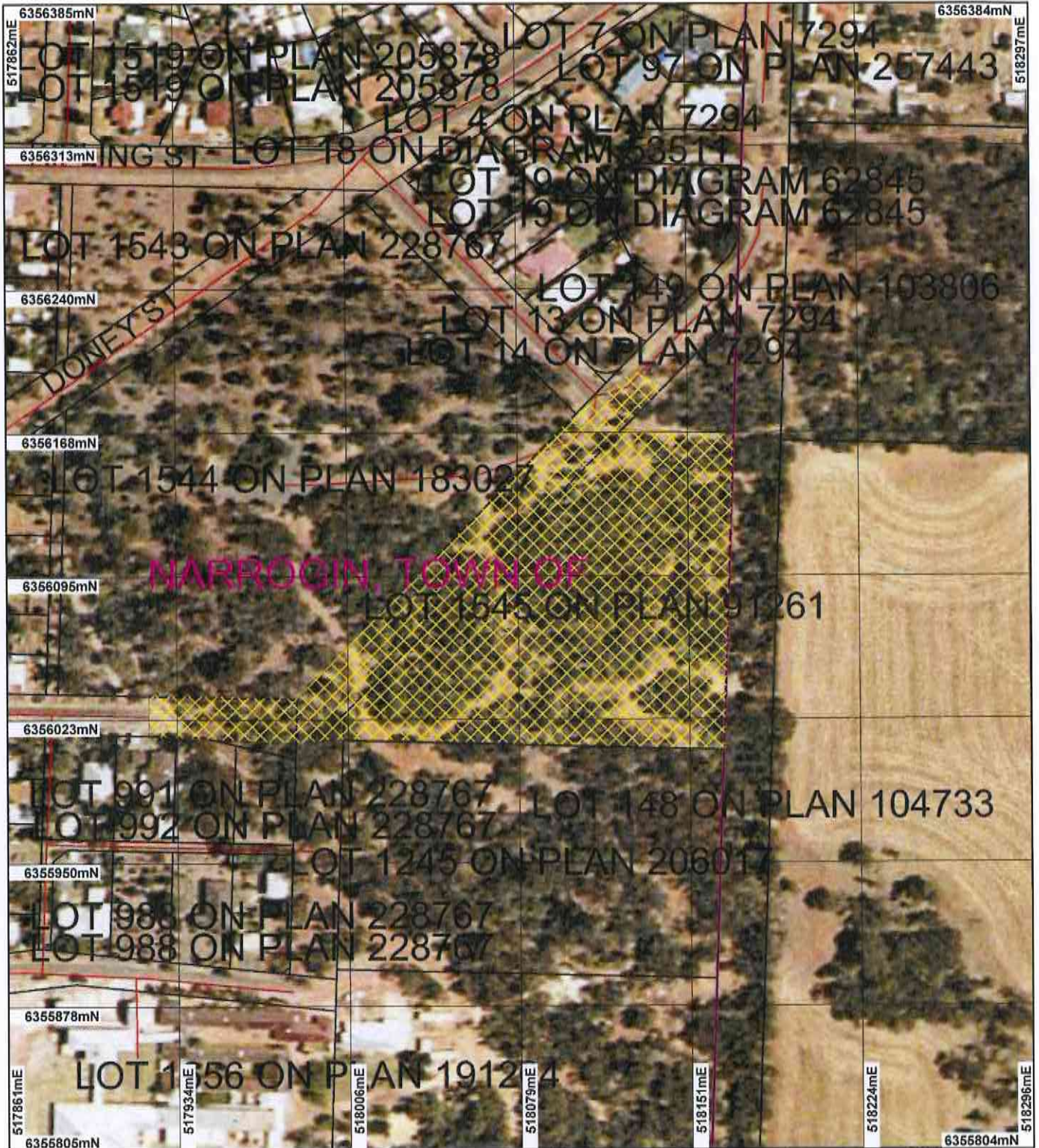


M Warnock  
SENIOR MANAGER  
CLEARING REGULATION

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

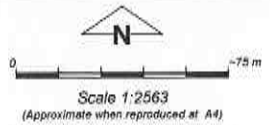
18 December 2014

# Plan 6218/1a



## LEGEND

- |                              |   |
|------------------------------|---|
| Local Government Authorities | Clearing Instruments                      |
| Road Centrelines             | Areas Approved to Clear                   |
| Cadastre                     | Narrogin 80cm Orthomosaic - Landgate 2005 |

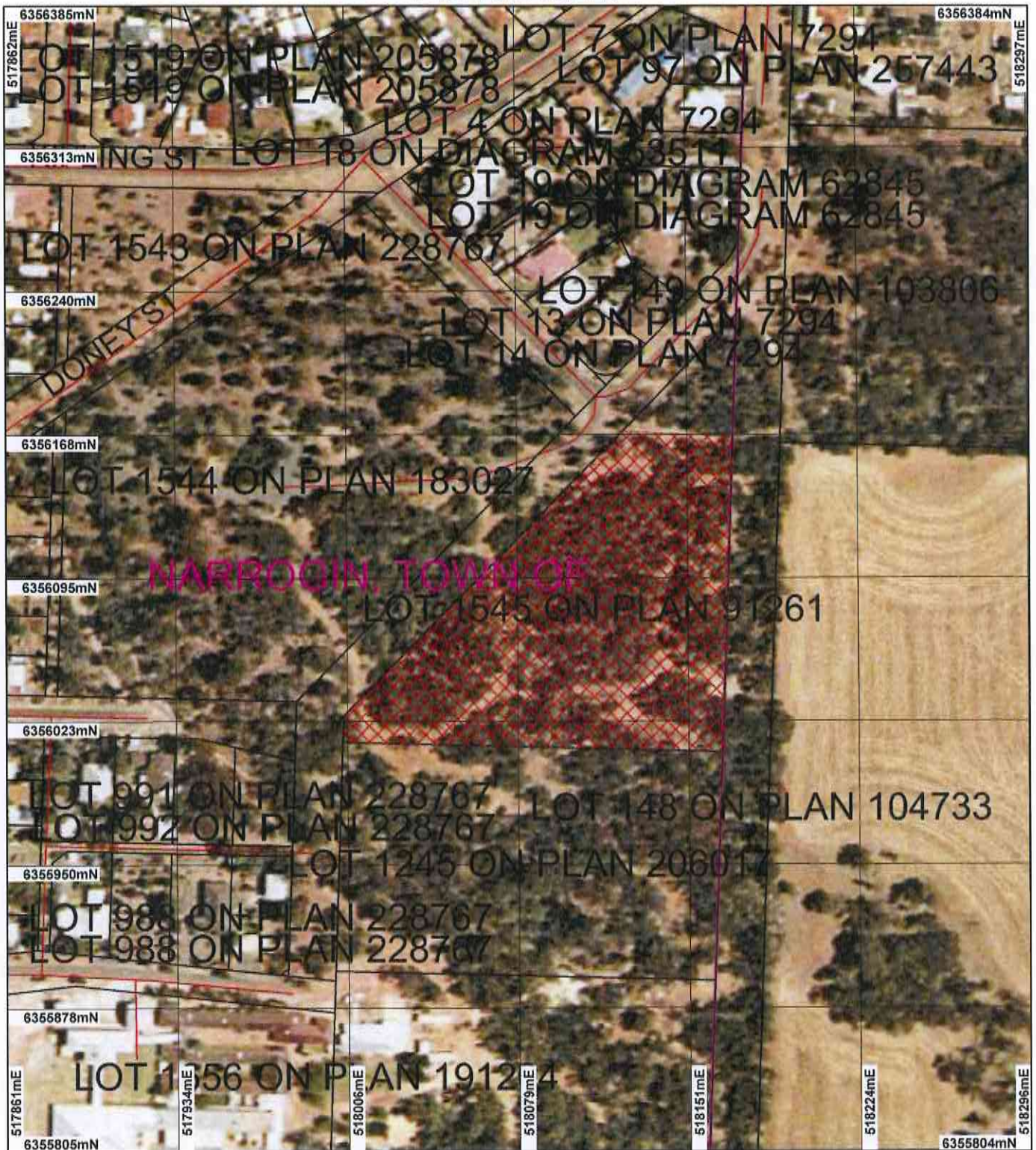


Geocentric Datum Australia 1994  
 Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

*M Warnock* Date 13/12/14  
 M Warnock

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986  
 Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.

# Plan 6218/1b



## LEGEND

- Local Government Authorities
- Road Centrelines
- Cadastre

- Clearing Instruments
- Areas Subject to Conditions
  - Narrogin 80cm Orthomosaic - Landgate 2005



Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

*M Warnock* Date 18/12/14

M Warnock

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



Government of Western Australia  
Department of Environment Regulation

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# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 6218/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Town of Narrogin

### 1.3. Property details

Property: LOT 1545 ON PLAN 91261 (House No. 2 KEALLY NARROGIN 6312)  
ROAD RESERVE ( NARROGIN 6312)  
ROAD RESERVE ( NARROGIN 6312)  
Local Government Area: Town of Narrogin  
Colloquial name: Keally Street road reserve and Cresswell Street road

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.51		Mechanical Removal	Road construction or maintenance

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 18 December 2014

## 2. Site Information

### 2.1. Existing environment and information

#### 2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Mapped Beard vegetation association 1023 is described as: Medium woodland; York gum, wandoo & salmon gum (Eucalyptus salmonophloia) (Sheperd et al 2001).	The proposed clearing of 1.51 hectares of native vegetation within Lot 1545 on Deposited Plan 91261 - Reserve 35591, Narrogin for the purpose asbestos removal and within Keally Street road reserve and Cresswell Street road reserve, Narrogin for the purpose of constructing a road, power lines, communication, sewerage, water infrastructure.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)  To  Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The vegetation description and condition had been determined by a flora, vegetation and fauna survey undertaken by PGV Environmental (2014a).  Three vegetation types have been recorded within the application area including:  AhEwBsis described as Allocasuarina huegeliana/Eucalyptus wandoo Low Open Woodland to Low Open Forest over Banksia sessilis Tall Open Shrubland.  AhEtEw is described as Allocasuarina huegeliana/Eucalyptus transcontinentalla/E. wandoo Low Open Forest over Leptospermum erubescens/Adenanthos cygnorum Shrubland; and  Ah*Cp is described as Allocasuarina huegeliana Low Woodland over Chamaecytisus palmensis Tall Shrubland over Oxalis pes-caprae Herbland.  (PGV Environmental 2014a).

## 3. Assessment of application against clearing principles

### (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

#### Comments

#### Proposal may be at variance to this Principle

The application is to clear up to 1.51 hectares of native vegetation within Lot 1545 on Deposited Plan 91261 - Reserve 35591, Keally Street road reserve and Cresswell Street road reserve, Narrogin for the purpose of constructing a road, power lines, communication, sewerage, water infrastructure within the two road reserves and asbestos removal within Reserve 35591.

The vegetation under application is in a degraded to good (Keighery 1994) condition. The area under application consists mostly of a 'Woodland to Open Forest of Allocasuarina huegeliana, Eucalyptus wandoo and occasionally Eucalyptus salubris and Eucalyptus transcontinentalis over an open understorey with few dominant species on shallow sand and lateritic soil. Banksia sessilis and Leptospermum erubescens were common shrubs in areas containing gravel soils' (PGV Environmental 2014a).

Numerous priority and rare flora species have been recorded within the local area (10 kilometre radius), the closest being a Priority 4 flora species located approximately 600 metres east of the area under application. A flora, vegetation and fauna survey was undertaken within the area under application and no priority or rare flora were identified (PGV Environmental 2014a).

Eight fauna species listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 have been recorded within the local area (10 kilometre radius) being: Forest Red-tailed Black-Cockatoo (*Calyptorhynchus banksii* subsp. *naso*), Baudin's cockatoo (*Calyptorhynchus baudinii*), Carnaby's cockatoo (*Calyptorhynchus latirostris*), Malleefowl (*Leipoa ocellata*) Bilby (*Macrotis lagotis*) Numbat (*Myrmecobius fasciatus*) Red-tailed Phascogale (*Phascogale calura*) and Heath Mouse (*Pseudomys shortridgei*) (DEC 2007-). The vegetation under application contains suitable foraging habitat for the black cockatoo species and may provide suitable habitat for ground dwelling fauna. The local area (10 kilometre radius) is extensively cleared retaining approximately 15 per cent vegetation cover, therefore the vegetation proposed to be cleared may contain significant habitat for fauna species.

The vegetation under application may contain significant habitat for fauna and therefore may comprise a high biological diversity.

Therefore the clearing as proposed may be at variance to this principle.

The area within Reserve 35591 (0.75 hectares) is proposed to be cleared for the purpose of asbestos removal. Given the purpose of clearing is for a temporary purpose the area cleared within Reserve 35591 will be required to be revegetated.

The requirement to revegetate within Reserve 35591 will help mitigate impacts to fauna habitat within the application area.

#### Methodology

##### References:

- DEC (2007-)
- Keighery (1994)
- PGV Environmental (2014a)

##### GIS Databases:

- Sac Biodata sets - accessed September 2014

### **(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.**

#### Comments

##### **Proposal may be at variance to this Principle**

Eight fauna species listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 have been recorded within the local area (10 kilometre radius) being: Forest Red-tailed Black-Cockatoo (*Calyptorhynchus banksii* subsp. *naso*), Baudin's cockatoo (*Calyptorhynchus baudinii*), Carnaby's cockatoo (*Calyptorhynchus latirostris*), Malleefowl (*Leipoa ocellata*) Bilby (*Macrotis lagotis*) Numbat (*Myrmecobius fasciatus*), Red-tailed Phascogale (*Phascogale calura*) and Heath Mouse (*Pseudomys shortridgei*) (DEC 2007-).

The area under application consists mostly of a 'Woodland to Open Forest of Allocasuarina huegeliana, Eucalyptus wandoo and occasionally Eucalyptus salubris and Eucalyptus transcontinentalis over an open understorey with few dominant species on shallow sand and lateritic soil. Banksia sessilis and Leptospermum erubescens were common shrubs in areas containing gravel soils' (PGV Environmental 2014a).

Malleefowl are largely confined to arid and semi-arid woodland that is dominated by mallee eucalypts on sandy soils, with less than 430 millimetres of rainfall annually. The breeding habitat of the Malleefowl, within its home range, is characterised by light soil and an abundant leaf litter, which is used in the construction of nesting mounds (Department of the Environment 2014a). A flora, vegetation and fauna survey undertaken within the area under application did not identify any malleefowl mounds, therefore the application area is not likely to contain significant habitat for this species (PGV Environmental 2014a).

The Red-tailed Phascogale's preferred habitats are Allocasuarina woodlands with hollow-containing eucalypts (e.g. Eucalyptus wandoo) and *Gastrolobium* spp. The Red-tailed Phascogale prefers vegetation that is unburnt for a long time, which provides continuous canopy cover to assist their arboreal habits. Trees need to be of a sufficient age to provide hollows for nesting in limbs or logs, and grass trees need to have ample skirts to provide cover (Department of the Environment 2014b). This area under application does not contain trees with suitable nesting hollows for this species (PGV Environmental 2014b) and therefore is not likely to contain significant habitat for this species.

Carnaby's cockatoo, Forest Red-tailed black cockatoo, Baudin's cockatoo are listed as vulnerable and endangered under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). Carnaby's cockatoo mainly occurs in uncleared or remnant native eucalypt woodlands, especially those that contain Salmon Gum (*Eucalyptus salmonophloia*) and Wandoo (*E. wandoo*), and in shrubland or kwongan heathland dominated by *Hakea*, *Dryandra*, *Banksia* and *Grevillea* species. Carnaby's cockatoo species nest most commonly in smooth-barked Wandoo and Salmon Gum (Department of the Environment 2014c). A flora, vegetation and fauna survey of the area under application did not identify any hollows suitable for the black cockatoo species. Therefore the clearing as proposed is not likely to contain breeding habitat for these species (PGV Environmental 2014b).

The application area contains an abundance of Parrot Bush (*Banksia sessilis*) and other Proteaceous species which are suitable foraging habitat for the black cockatoo species.

The vegetation under application contains suitable foraging and potential breeding habitat for the black cockatoo species and is likely to provide suitable habitat for ground dwelling fauna. The local area (10 kilometre radius) is extensively cleared (approximately 15 per cent vegetation cover) and therefore the clearing as proposed may impact upon significant fauna habitat.

Therefore the clearing as proposed may be at variance to this principle.

The area within Reserve 35591 (0.75 hectares) is proposed to be cleared for the purpose of asbestos removal. Given the purpose of clearing is for a temporary purpose the area cleared within Reserve 35591 will be required to be revegetated.

The requirement to revegetate within Reserve 35591 will help mitigate impacts to fauna habitat within the application area.

#### Methodology

##### References:

- DEC (2007-)
- Department of the Environment (2014a)
- Department of the Environment (2014b)
- Department of the Environment (2014c)
- Department of Sustainability, Environment, Water, Population and Communities (2012)
- Keighery (1994)
- PGV Environmental (2014a)
- PGV Environmental (2014b)

##### GIS Databases:

- Sac Biodata sets - accessed September 2014

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

#### Comments

##### **Proposal is not likely to be at variance to this Principle**

Three rare flora species have been recorded within the local area (10 kilometre radius). Two of these rare flora species have been recorded approximately 1.5 kilometres west of the area under application.

One rare flora species is found in lateritic gravel and brown loam, amongst laterite on breakaways in open low wandoo woodland over heath (Brown et al 1998). The second rare flora species grows on white sand over laterite in open woodlands of wandoo, marri and parrot bush (Brown et al 1998). The third rare flora species inhabits sandy loam over gravel in heath on degraded road verges (Brown et al 1998).

The vegetation under application may provide suitable habitat for the above flora species, however a flora, vegetation and fauna survey undertaken by PGV Environmental (2014a) in October 2013 within the area under application did not identify any rare flora species.

Therefore the clearing as proposed is not likely to include or be necessary for the continued existence of rare flora.

The clearing as proposed is not likely to be at variance to this principle.

#### Methodology

##### References:

- Brown et al (1998)
- PGV Environmental (2014a)

##### GIS Databases:

- Sac Biodata sets - accessed September 2014



**(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.**

**Comments**      **Proposal is not likely to be at variance to this Principle**  
 No Threatened Ecological Communities (TEC) have been recorded within the local area (10 kilometre radius). A flora, vegetation and fauna survey undertaken within the area under application did not identify any TEC's (PGV Environmental 2014a).

Given the above the clearing as proposed is not likely to comprise or be necessary for the maintenance of a TEC.

Therefore the clearing as proposed is not likely to be at variance to this principle.

**Methodology**      **References:**  
 - PGV Environmental (2014a)

**GIS Databases:**  
 - Sac Biodata sets - accessed September 2014

**(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.**

**Comments**      **Proposal may be at variance to this Principle**  
 The area under application is located within the Avon Wheatbelt Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion has approximately 19 per cent of its Pre European vegetation extent remaining (Government of Western Australia 2013).

The vegetation under application is mapped as Beard Vegetation Associations 1023 which has approximately 11 per cent of its Pre European extent remaining in the Jarrah Forrest bioregion respectively (Government of Western Australia 2013).

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).

The local area (10 kilometre radius) surrounding the area under application retains approximately 15 per cent vegetation cover.

Given the vegetation representations outlined above the area under application is considered to be located within an extensively cleared area.

The vegetation under application may contain habitat for fauna and may comprise a high biological diversity. Therefore the vegetation under application may be considered to be a significant remnant.

Given the above the clearing as proposed may be at variance to this principle.

The area within Reserve 35591 (0.75 hectares) is proposed to be cleared for the purpose of asbestos removal. Given the purpose of clearing is for a temporary purpose the area cleared within Reserve 35591 will be required to be revegetated.

The requirement to revegetate within Reserve 35591 will help mitigate impacts to fauna habitat and significant remnant vegetation within the application area.

Pre-European	Current Extent (ha)	Remaining Extent (ha)	Extent in Parks and Wildlife Managed Lands (%)	Remaining Extent in Parks and Wildlife Managed Lands (%)
IBRA Bioregion*				
Avon Wheatbelt	9,517,110	1,778,407	19	10
Shire*				
Town of Narrogin	1,314	514	39	3
Beard Vegetation Association in Bioregion*				
1023	1,522,676	166,817	11	10

\* Government of Western Australia (2013)

**Methodology** References:  
- Commonwealth of Australia (2001)  
- Keighery (1994)  
- Government of Western Australia (2013)

GIS Databases:  
- NLWRA, Current Extent of Native Vegetation

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

**Comments** **Proposal is not likely to be at variance to this Principle**

A minor watercourse is located approximately 600 metres north of the area under application. A major watercourse 'Narrogin Brook' is located approximately one kilometre south of the area under application.

Given the distance to the closest watercourse the vegetation under application is not considered to be growing in association with a watercourse.

Therefore the clearing as proposed is not likely to be at variance to this principle.

**Methodology** GIS Databases:  
- Hydrography, linear

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

**Comments** **Proposal is not likely to be at variance to this Principle**

The mapped soil type Qb30 is described as 'rolling to hilly with some steep slopes; gneissic rock outcrops common; some lateritic mesas and buttes on drainage divides: chief soils are hard neutral red soils and acidic red soils' (Northcote et al 1960 - 1968).

The proposed clearing of 1.51 hectares of native vegetation on this soil type is not likely to cause appreciable land degradation.

Therefore the clearing as proposed is not likely to be at variance to this principle.

**Methodology** References:  
- Northcote et al (1960-1968)

GIS Databases:  
- Soils, statewide

**(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.**

**Comments** **Proposal may be at variance to this Principle**

Reserve 35591 (Lot 1545) is zoned as recreation/conservation under the local town planning scheme. The clearing of 1.51 hectares of native vegetation may impact on the environmental values of this reserve.

A number of conservation areas have been recorded within the local area (10 kilometre radius). The closest being an un-named Conservation Commission reserve located approximately 2.5 kilometres west of the application area.

The clearing proposed may indirectly impact the vegetation within Reserve 35591 through the spread of weeds. Weed management practices will help mitigate this risk.

Given the above the clearing as proposed may be at variance to this principle.

The area within Reserve 35591 (0.75 hectares) is proposed to be cleared for the purpose of asbestos removal. Given the purpose of clearing is for a temporary purpose the area cleared within Reserve 35591 will be required to be revegetated.

The requirement to revegetate within Reserve 35591 will help mitigate impacts to environmental values of Reserve 35591.

**Methodology** GIS Databases:  
- Parks and Wildlife, Tenure

**(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.**

**Comments Proposal is not likely to be at variance to this Principle**

A minor watercourse is located approximately 600 metres north of the area under application. A major watercourse 'Narrogin Brook' is located approximately one kilometre south of the area under application. Given the distance to the closest watercourse the clearing as proposed is not likely to cause deterioration in the quality of surface water.

Groundwater salinity ranges between 14000-35000 milligrams per litre of Total Dissolved Solids (TDS) which is considered to be highly saline. However, the proposed clearing of 1.51 hectares of native vegetation in a degraded to good (Keighery 1994) condition is not likely to cause deterioration in the quality of underground water.

Given the above the clearing as proposed is not likely to be at variance to this principle.

**Methodology** References:  
- Keighery (1994)

GIS Databases:  
- Groundwater Salinity  
- Hydrography, linear

**(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.**

**Comments Proposal is not likely to be at variance to this Principle**

The mean annual rainfall within the vicinity of the application area is low being approximately 500 millimetres per year. Therefore proposed clearing of 1.51 hectares of native vegetation is not likely to cause or exacerbate the incidence or intensity of flooding.

Therefore the clearing as proposed is not likely to be at variance to this principle.

**Methodology** GIS Databases:  
- Mean Annual Rainfall

**Planning instrument, Native Title, Previous EPA decision or other matter.**

**Comments**

On 4 August 2014 the Town of Narrogin submitted an application to clear 1.9 hectares of native vegetation within Reserve 35591, Keally Street road reserve and Coney Street road reserve for the purpose of site preparation for the construction of an educational facility.

On 22 August 2014 the Town of Narrogin amended the application to clear 0.76 hectares of native vegetation within Reserve 35591, Keally Street road reserve and Cresswell Street road reserve for the purpose constructing a road, power lines, communication, sewerage and water infrastructure.

On 17 October the Town of Narrogin amended the application to clear 1.51 hectares of native vegetation within Reserve 35591, Keally Street road reserve and Cresswell Street road reserve for the purpose of constructing a road, power lines, communication, sewerage, water infrastructure and asbestos removal.

On 23 October 2014 the Department of Environment Regulation (DER) wrote to the Town of Narrogin and advised a number of significant environmental impacts had been identified including impacts to significant habitat to fauna and significant remnant vegetation. In addition DER advised Reserve 35591 is managed for the purpose of a park and is zoned as Recreation/Conservation and that the purpose of clearing appears inconsistent with the current management order and zoning.

On 5 December 2014 the Town of Narrogin amended the application to clear 0.75 hectares of native vegetation within Reserve 35591 for the purpose of asbestos removal and 0.76 hectares of native vegetation within Keally Street road reserve and Cresswell Street road reserve for the purpose of constructing a road, power lines, communication, sewerage, water infrastructure.

Given the purpose of clearing is for a temporary purpose the area cleared within Reserve 35591 will be required to be revegetated. The required revegetation will help mitigate impacts from the proposed clearing identified in the above assessment.

No Aboriginal Sites of Significance have been recorded within the application area.

No submissions have been received in relation to this application.

**Methodology** GIS Databases:  
- Aboriginal Sites of Significance

#### 4. References

- Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
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