



GOVERNMENT OF  
WESTERN AUSTRALIA

## CLEARING PERMIT

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

<b>Purpose Permit number:</b>	CPS 4357/1
<b>Permit Holder:</b>	Troy Cameron Bedford
<b>Duration of Permit:</b>	22 August 2011 – 22 August 2016

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

### PART I – CLEARING AUTHORISED

**1. Purpose for which clearing may be done**

Clearing for the purpose of selectively harvesting *Callitris preissii*.

**2. Land on which clearing is to be done**

Lot 1504 on Plan 183332 (Elachbutting 6479)

Lot 1205 on Plan 204426 (Ennuin 6484)

Lot 1210 on Plan 204426 (Elachbutting 6479)

Lot 1971 on Plan 202063 (Wilgoyne 6479)

Lot 1972 on Plan 202063 (Wilgoyne 6479)

**3. Area of Clearing**

The Permit Holder must not clear more than 8 hectares of native vegetation within the combined areas shaded yellow on attached Plan 4357/1a, Plan 4357/1b and Plan 4357/1c.

**4. Application**

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

**5. Compliance with Assessment Sequence and Management Procedures**

Prior to clearing any native vegetation under conditions 1, 2 and 3 of this Permit, the Permit Holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

### PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

**6. Avoid, minimise etc 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:

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

## 7. Fauna management

- (a) Prior to undertaking any clearing authorised under this Permit, the area(s) shall be inspected by a *fauna specialist* for the presence of *Idiosoma nigrum* (Shield-backed Trapdoor Spider) and *Aganippe castellum* (Tree-stem Trapdoor Spider) burrows.
- (b) Where *Idiosoma nigrum* (Shield-backed Trapdoor Spider) and *Aganippe castellum* (Tree-stem Trapdoor Spider) burrows are identified in relation to condition 7(a) of this Permit, the Permit Holder shall ensure that no clearing occurs within 10 meters of the identified burrows.

## 8. 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.

## PART III - RECORD KEEPING AND REPORTING

### 9. Records must be kept

The Permit Holder must maintain the following record in relation to fauna management pursuant to condition 7 of this Permit, the location of each *Idiosoma nigrum* (Shield-backed Trapdoor Spider) and *Aganippe castellum* (Tree-stem Trapdoor Spider) burrow 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:

### 10. 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 9 of this Permit; and
  - (ii) concerning activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.
- (b) Prior to 22 May 2016, the Permit Holder must provide to the CEO a written report of records required under condition 9 of this Permit where these records have not already been provided under condition 10(a) of this Permit.

## DEFINITIONS

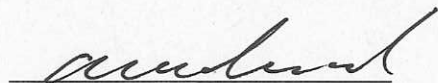
The following meanings are given to terms used in this Permit:

*fauna specialist* means a person with training and specific work experience in fauna identification or faunal assemblage surveys of Western Australian fauna;

*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 a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*.

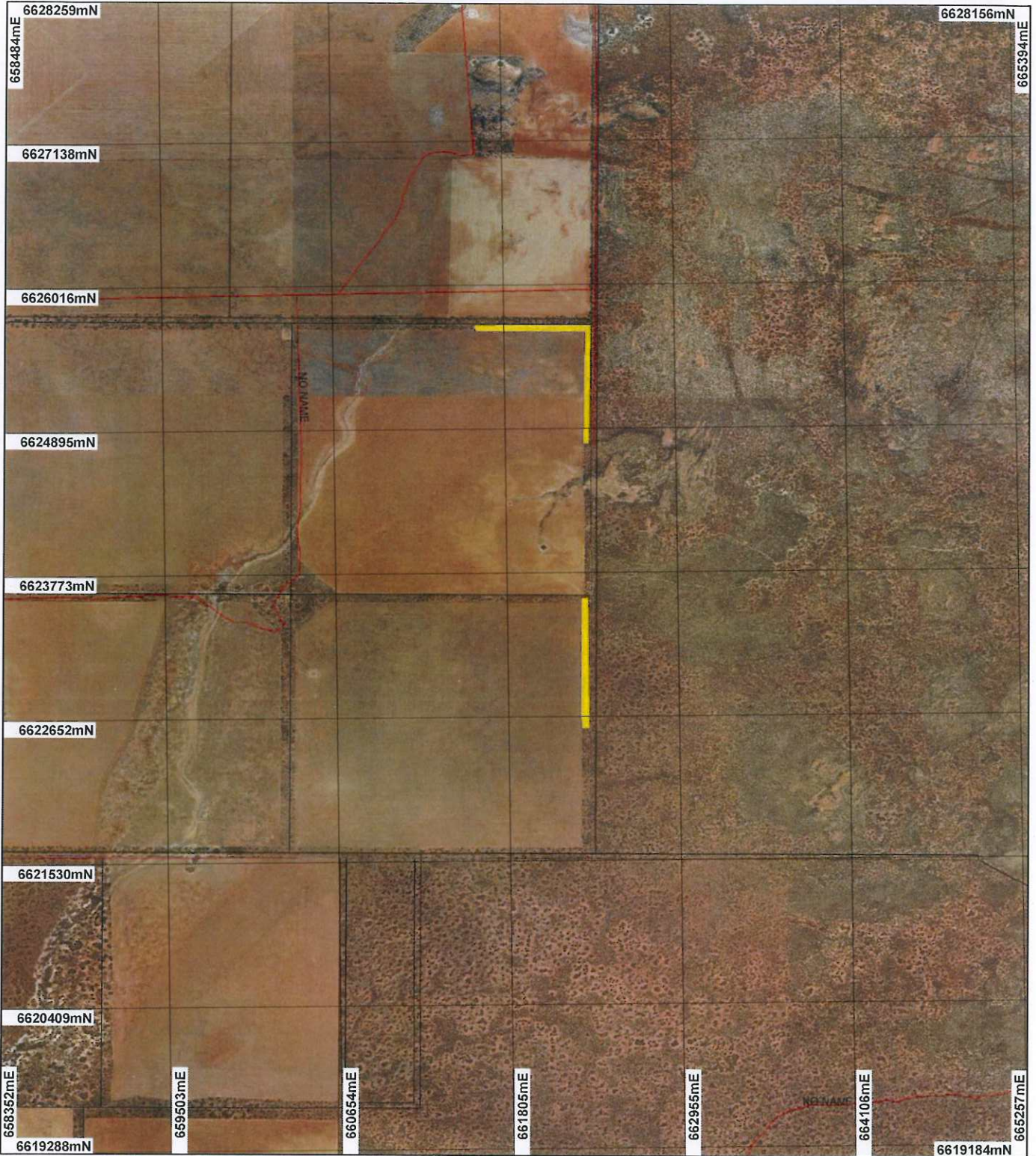


M Warnock  
A/ MANAGER  
NATIVE VEGETATION CONSERVATION BRANCH

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

28 July 2011


# Plan 4357/1a



**LEGEND**

Clearing Instruments  
 Woongaring 50cm  
 Orthomosaic - Landgate  
 2007

- Areas Approved to Clear
- Road Centrelines
- Cadastre



Scale 1:40025  
 (Approximate when reproduced at A4)


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 28/7/11

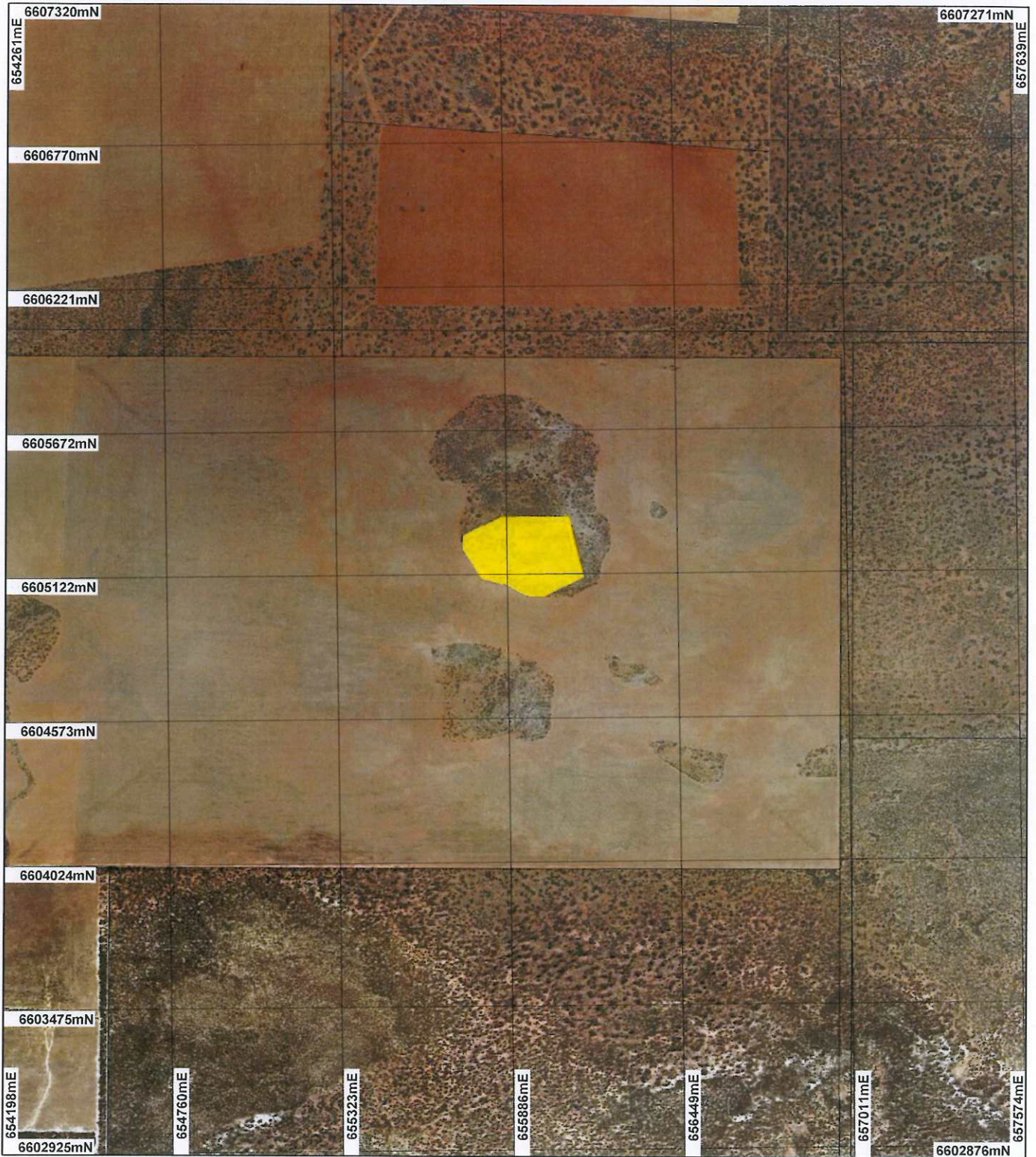
M. Warnock  
 Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

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




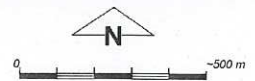
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# Plan 4357/1b



## LEGEND

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li> Areas Approved to Clear</li> <li> Road Centrelines</li> <li> Cadastre</li> </ul> | <p>Woongaring 50cm<br/>Orthomosaic - Landgate<br/>2007</p> |
|---|--|



Scale 1:19592

(Approximate when reproduced at A4)

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 *28/7/11*

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

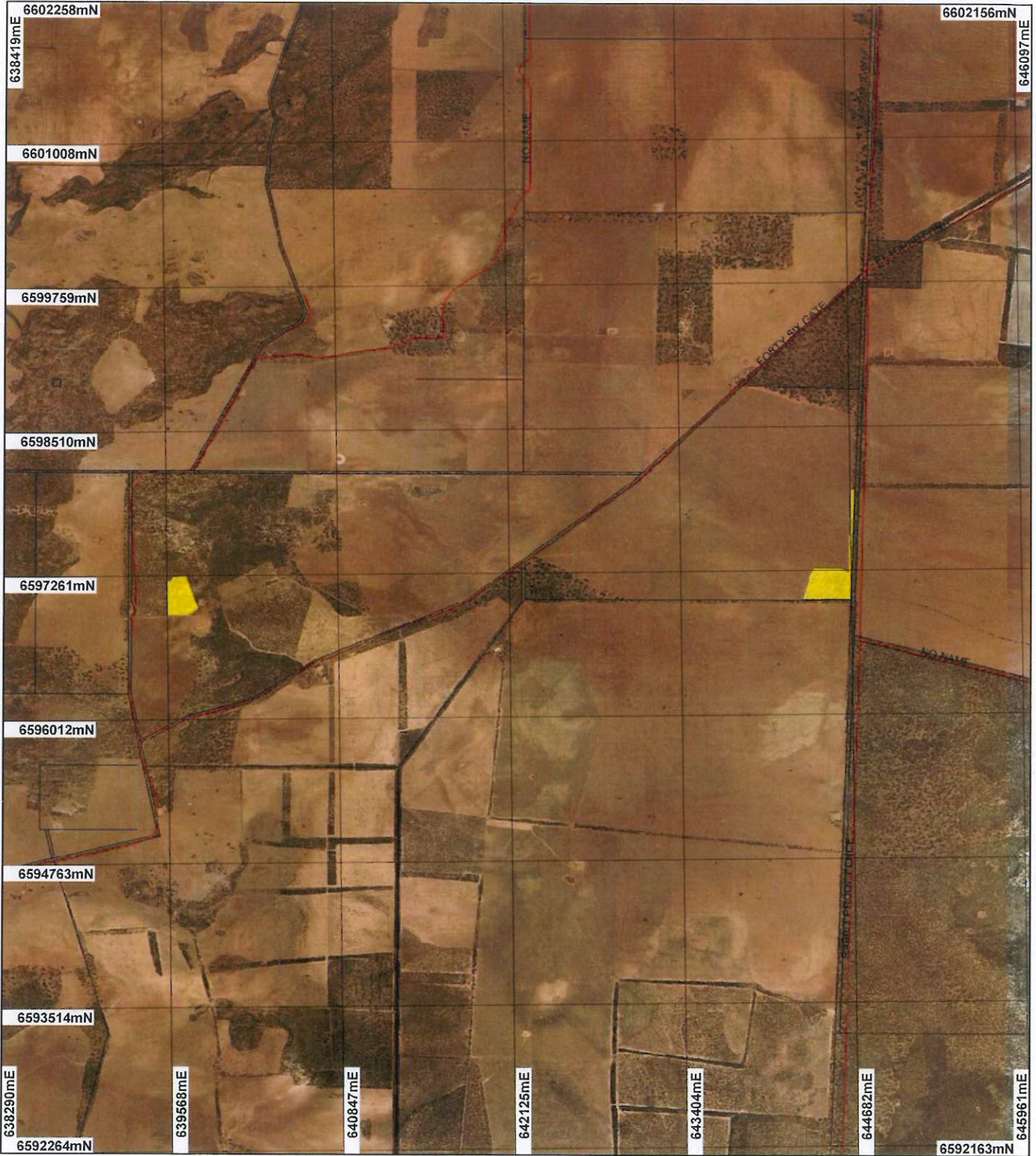
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**Environment and Conservation**

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# Plan 4357/1c



## LEGEND

### Clearing Instruments

- Areas Approved to Clear
- Road Centrelines
- Cadastre
- Barbalin 1.4m Orthomosaic - Landgate 2003



0 ————— 1.25 km

Scale 1:44544

(Approximate when reproduced at A4)

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 28/7/11

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.



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## 1. Application details

### 1.1. Permit application details

Permit application No.: 4357/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Troy Cameron Bedford

### 1.3. Property details

Property: LOT 1504 ON PLAN 183332 ( ELACHBUTTING 6479)  
LOT 1205 ON PLAN 204426 ( ENNUIN 6484)  
LOT 1210 ON PLAN 204426 ( ELACHBUTTING 6479)  
LOT 1971 ON PLAN 202063 ( WILGOYNE 6479)  
LOT 1972 ON PLAN 202063 ( WILGOYNE 6479)

Local Government Area: Shires of Mukinbudin, Westonia and Yilgarn

Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
8		Mechanical Removal	Timber Harvesting

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 28 July 2011

## 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
The areas under application consist of four different Beard vegetation associations:	The proposal is to clear up to 8 hectares of Native Pine / White Cypress ( <i>Callitris preissii</i> ) from within a larger footprint area of approximately 38 hectares.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The condition of the vegetation under application was determined via digital imagery (Walyahmoning 1.4m Orthomosaic ? Landgate 2001 and Barbalin 1.4m Orthomosaic ? Landgate 2003).
511: Medium woodland; salmon gum & morrel			
551: Shrublands; <i>Allocasuarina campestris</i> thicket	The clearing is proposed to take place over three Shires (Shire of Mukinbudin, Shire of Westonia and Shire of Yilgarn) and over two IBRA Bioregions (Coolgardie and Avon Wheatbelt).		
128: Bare areas; rock outcrops			
538: Shrublands; <i>Acacia brachystachya</i> scrub			

(Shepherd, 2009)

## 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 proposal is to selectively clear up to 8 hectares of Native Pine / White Cypress (*Callitris preissii*) for the purpose of commercial sale. The clearing is proposed to take place in remnants on freehold properties throughout the Shires of Westonia (Lot 1971 on Plan 202063 and Lot 1504 on Plan 183332), Yilgarn (Lots 1205 and 1210 on Plan 204426) and Mukinbudin (Lot 1972 on Plan 202063).

The applicant has advised that the clearing will be restricted to *Callitris preissii* and that additional clearing for access tracks will not be necessary as the areas under application are very open therefore the cleared vegetation will be able to be carried out.

An occurrence of the Priority 3 flora species, *Grevillea eribotrya* has been identified approximately 1.2km east of proposed clearing site on Lot 1972. *Grevillea eribotrya* has been recorded on the same vegetation and soil types as Lot 1972 and Lot 1971.

Three known records of *Eucalyptus brevipes* (DRF) are located approximately 3.5km, 5.5km and 7km respectively to the east of Lot 1971. Another record of this rare species was identified approximately 1km west of Lot 1972 on the same soil and vegetation type.

A record of the Tree-stem Trapdoor Spider has been identified approximately 900 meters east of the area proposed to be cleared on Lot 1972. Due to the location, geological features, soil and vegetation types present in Lot 1971, Lot 1972, Lot 1205 and Lot 1210 it is highly likely that these sites will support populations of both the Shield-backed Trapdoor Spider and the Tree-stem Trapdoor Spider.

No priority ecological communities have been recorded within a 10km radius of any of the areas proposed to be cleared.

Inspection of digital imagery indicates that the local areas (10km radius) surrounding Lots 1504, 1205 and 1210 are relatively well vegetated retaining approximately 75 percent and 60 percent of native vegetation respectively. The local area surrounding Lots 1971 and 1972 only contains approximately 25 percent of its pre European (pre clearing) extent.

The vegetation within Lot 1971 may provide an ecological link between an un named Nature Reserve located 300 meters north of Lot 1971 and a large intact remnant located approximately 700 meters south.

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

**Methodology** GIS Database:  
- Pre European Vegetation  
- SAC Biodatasets - accessed June 2011  
- Walyahmoning 1.4m Orthomosaic - Landgate 2001

**(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**

A search of NatureMap (2007) has revealed that the following conservation significant fauna have been identified within a 20km radius of the clearing sites;

**Rare or Likely to become extinct (Wildlife Conservation Act 1950)**

*Dasyurus geoffroii* (Western Quoll, Chuditch)  
*Falco peregrinus* (Peregrine Falcon)  
*Idiosoma nigrum* (Shield-backed Trapdoor Spider)  
*Leipoa ocellata* (Malleefowl)  
*Macrotis lagotis* (Bilby, Dalgyte)

**Priority 1(Wildlife Conservation Act 1950)**

*Daphnia jollyi*

**Priority 4 (Wildlife Conservation Act 1950)**

*Ardeotis australis* (Australian Bustard)  
*Oreoica gutturalis* subsp. *gutturalis* (Crested Bellbird (southern))  
*Pomatostomus superciliosus* subsp. *ashbyi* (White-browed Babbler (western wheatbelt))  
*Aganippe castellum* (Tree-stem Trapdoor Spider)

The closest recorded fauna occurrence was the Tree-stem Trapdoor Spider which was identified approximately 900 meters east of the area proposed to be cleared on Lot 1972. At this site at least 30 burrows were identified.

Shield-backed Trapdoor Spiders and Tree-stem Trapdoor Spider s are both known to occur within the local area. These Trapdoor Spiders are only known from a short endemic range and much of their habitat has been modified or destroyed through land clearing. These spiders are quite vulnerable to disturbance, as they are sedentary creatures, with poor dispersal ability (Wheatbelt NRM, 2011).

Due to the location, geological features, soil and vegetation types present in Lot 1971, Lot 1972, Lot 1205 and Lot 1210 it is likely that these sites will support populations of both the Shield-backed Trapdoor Spider and the Tree-stem Trapdoor Spider. The proposed clearing site on Lot 1504 is less likely to contain significant habitat for Trapdoor spiders due to its isolation. Isolated ?islands? of vegetation such as this one are likely to be degraded to such a point that natural processes within them are forfeit.

The movement of vehicles in spider habitat, as well as cutting, debris and dragging of target pines is likely to



destroy spider burrows. A targeted fauna survey will assist in ensuring that Trapdoor Spiders are not affected by the proposed clearing.

The areas under application may also provide habitat for the other fauna species listed above however these species are more mobile than the spiders and will be able to disperse more easily into adjacent remnants. Therefore, it is unlikely that the areas under application will be significant habitat for these species.

Lot 1971, Lot 1972, Lot 1205 and Lot 1210 may provide significant habitat for Trapdoor Spiders therefore the proposed clearing may be at variance to this principle.

**Methodology** References:  
NatureMap (2007)  
Wheatbelt NRM (2011)

GIS Database:  
- Pre European Vegetation  
- SAC Biodatasets - accessed June 2011  
- Walyahmoning 1.4m Orthomosaic - Landgate 2001

**(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**

No declared rare flora (DRF) was recorded within any of the proposed clearing areas.

Three known records of *Eucalyptus brevipes* (DRF) are located approximately 3.5km, 5.5km and 7km respectively to the east of Lot 1971. Another record of this rare species was identified approximately 1km west of Lot 1972 on the same soil and vegetation type.

*Myriophyllum lapidicola* and *Stylidium merrallii* were also recorded within the local area (10km radius).

*Myriophyllum lapidicola* is an aquatic herb which is found in waterholes on granite outcrops (WA Herbarium, 2011). The clearing as proposed is not likely to negatively impact this rare species.

*Stylidium merrallii* is a rosetted perennial herb which occurs on granite outcrops (WA Herbarium, 2011). The closest recorded occurrence of this rare species was identified approximately 5km north east of Lot 1971. This occurrence was recorded within the same vegetation type but different soil type.

This proposal is to selectively clear up to eight hectares of native pine from within a larger footprint area of approximately 38 hectares. The applicant has advised that he intends to remove the native pine with a chain saw and carry it to his vehicle. Although the Lot 1971 and 1972 may contain rare flora the proposed method of clearing will reduce the likelihood of rare flora being negatively impacted.

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

**Methodology** GIS Databases:  
- Pre-European vegetation  
- SAC Biodatasets - accessed June 2011

**(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 have been mapped within a 10km radius of any of the clearing sites.

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

**Methodology** GIS Database:  
- Pre European Vegetation  
- SAC Biodatasets - accessed June 2011

**(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 areas under application fall within two IBRA Bioregions, being Avon Wheatbelt (Lot 1971 and Lot 1972) and Coolgardie (Lot 1205, Lot 1210 and Lot 1504).

The proposed clearing is located over three Shires being, Shire of Mukinbudin, Shire of Westonia and Shire of

Yilgarn which have 30 percent, 35 percent and 81 percent remnant vegetation remaining respectively.

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).

In the Coolgardie Bioregion Beard vegetation associations 551, 511, 128 and 538 are represented well above the national target for biodiversity conservation.

The vegetation within in Lot 1971 has been identified as Beard vegetation association 511 and falls within the Avon Wheatbelt bioregion. Beard vegetation association 511 is poorly represented within Avon Wheatbelt with only 12 percent of its pre Europeans extent remaining. Lot 1971 may contain flora and fauna of conservation significance and therefore may be a significant remnant. Considering this, the vegetation within Lot 1971 may be a significant remnant in an area that has been extensively cleared. Therefore, the proposed clearing may be at variance to this principle.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
<b>IBRA Bioregion*</b>				
Coolgardie	12 912 204	12 707 872	98	16
Avon Wheatbelt	9 517 110	1 736 215	18	10
<b>Shire*</b>				
Shire of Mukinbudin	343 018	103 346	30	17
Shire of Westonia	331 941	117 219	35	22
Shire of Yilgarn	3 042 765	2 476 599	81	27
<b>Beard Vegetation Association</b>				
551 (Lot 1972)	302 424	75 661	25	26
511 (Lots 1971, 1504 and 1210)	700 410	499 600	71	19
128 (Lot 1205)	329 953	285 178	86	21
538 (Lot 1205)	147 822	144 196	98	32
<b>Beard Vegetation Association in Bioregion*</b>				
551 in Coolgardie	31 709	26 861	85	60
511 in Coolgardie	464 424	435 794	94	19
511 in Avon Wheatbelt	96 357	11 772	12	25
128 in Coolgardie	186 494	185 796	100	16
538 in Coolgardie	127 882	124 916	98	26

\*Shepherd (2009)

**Methodology**

References:  
Commonwealth of Australia (2001)  
Shepherd (2009)

GIS Database:  
- Barbalin 1.4m Orthomosaic - Landgate 2003  
- Local Government Authorities  
- Pre European Vegetation  
- SAC Biodatasets - accessed June 2011  
- Walyahmoning 1.4m Orthomosaic - Landgate 2001

**(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**

An earth dam is located within Lot 1971.

No other watercourses or wetlands are located within any of the areas proposed to be cleared.

The closest watercourse is Muka River which is located approximately 500 meters west of Lots 1205 and 1210.

The proposal is to selectively clear native pine. This species is not likely to be growing in association with a

watercourse or wetland therefore the proposal is not likely to be at variance to this principle.

**Methodology** GIS Database:  
- Hydrography linear  
- Hydrography linear (hierarchy)

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

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

Lot 1210, Lot 1205 and Lot 1504 are mapped as soil type AC10 which Northcote (1960-1968) describes as ridge and slope terrain on granites, gneisses, and allied rocks: chief soils on the ridges seem to be yellow earthy sands in association with soils and some sandy yellow earths.

Lots 1971 and 1972 are mapped as soil type Oc35 which is described as gently undulating to rolling terrain with some ridges and uneven slopes and with the variable presence of lateritic mesas and buttes; some granitic rock outcrops: chief soils are hard alkaline red soils (Northcote 1960-1968).

The topography of the local region is low (gently undulating), as is rainfall (300-400mm per annum) therefore the likelihood of soil being eroded through surface water runoff is low.

The ground water surrounding Lot 1972, Lot 1205 and Lot 1210 is mapped as being highly saline (Brine), being more than 35000mg/L. The groundwater surrounding the remaining properties is also very saline, measuring 14000-35000mg/L. Additional clearing within these areas will increase the risk of land degradation through salinisation.

It is noted that the applicant's intention is to selectively clear native pine using a chainsaw, therefore leaving the route stock in place. This method of clearing is likely to reduce the risk of appreciable land degradation however, additional clearing within salt risk areas is undesirable.

The proposed clearing may be at variance to this principle.

**Methodology** GIS Database:  
- Average Annual Rainfall Isohyets  
- Groundwater Salinity Statewide  
- Hydrography linear  
- Topographic contours 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**

Walyahmoning Nature Reserve is located approximately 800 meters south of the Lots 1205 and 1210 and an un named Nature Reserve is located approximately 3.3km west.

An un named Nature Reserve is located approximately 1.3km north of Lot 1504.

Lot 1971 is situated approximately 700 meters south of an un named Nature Reserve.

The vegetation within Lot 1971 may provide an ecological link between the un named Nature Reserve located 700 meters north of Lot 1971 and a large intact remnant located approximately 300 meters south.

The disturbance caused by the proposed clearing will increase the risk of weeds and dieback spreading into nearby conservation reserves. Weed and dieback conditions will help mitigate this risk.

The clearing as proposed may be at variance to this principle.

**Methodology** GIS Database:  
DEC Tenure  
Walyahmoning 1.4m Orthomosaic - Landgate 2001

**(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 may be at variance to this Principle**

The topography of the local region surrounding all proposed clearing sites is low (gently undulating), as is rainfall (300-400mm per annum) therefore surface water runoff is likely to be minimal. No appreciable deterioration is surface water is predicted.

The ground water surrounding Lot 1972, Lot 1205 and Lot 1210 is mapped as being highly saline, being more than 35000mg/L. The groundwater surrounding the remaining properties is also very saline, measuring 14000-35000mg/L.

Additional clearing within these areas of 'salt risk' is undesirable however the applicant's proposal to selectively clear native pine using a chainsaw will reduce the potential risk of further degrading groundwater through salinity.

The proposed clearing may be at variance to this principle.

**Methodology** GIS Database:  
- Average Annual Rainfall Isohyets  
- Groundwater Salinity Statewide  
- Topographic Contours, Statewide

**(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 proposal to selectively clear up to 8 hectares over a larger footprint area of 38ha throughout three shires is not likely to increase the incidence or intensity of flooding.

**Methodology** GIS Database:  
- Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05  
- Topographic Contours, Statewide

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

**Comments**

Lot 1971 and Lot 1972 fall within the Avon River System which is a surface water area proclaimed under the Rights in Water and Irrigation Act 1914.

Lot 1205, Lot 1210 and Lot 1504 fall within the Westonia Groundwater Area which is an area proclaimed under the Rights in Water and Irrigation Act 1914.

It is the applicant intention to sell the harvested wood for commercial use. The applicant is aware of his obligation to obtain a commercial producers licence.

The Shire of Westonia (2011) has advised that they have no objection to the proposed clearing.

No public submissions have been received in relation to this proposal.

**Methodology** References:  
Shire of Westonia (2011)

GIS Database:  
- RIWI Act, Groundwater Areas  
- RIWI Act, Surfacewater Areas

**4. References**

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- Shepherd, D.P. (2009) Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.
- Shire of Westonia (2011) Advice for Clearing Permit Application CPS 4357/1 (DEC Ref: A406503).
- Wheatbelt NRM (2011) Threatened Trapdoor Spiders of the Avon. Wheatbelt Natural Resource Management. Western Australia. <http://www.wheatbeltnrm.org.au/resources/trap-door-spider-kit-090130MW.pdf> Accessed June 2011.

**5. Glossary**

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now BCS)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation

DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)