



GOVERNMENT OF  
WESTERN AUSTRALIA

## CLEARING PERMIT

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

### PERMIT DETAILS

Area Permit Number: 3286 / 1

File Number: DEC12733

Duration of Permit: From 19 December 2009 to 19 December 2011

### PERMIT HOLDER

Shire of Yilgarn

### LAND ON WHICH CLEARING IS TO BE DONE

LOT 994 ON PLAN 91454 (SOUTHERN CROSS 6426)

### AUTHORISED ACTIVITY

Clearing of up to 13.12 hectares of native vegetation within the area cross hatched yellow on attached Plan 3286/1.

### CONDITIONS

#### 1. 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*:

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

#### 2. Offsets

As the clearing to be done is or may be at variance with one or more of the clearing principles, then the Permit Holder must implement an *offset* in accordance with conditions 2(a) and 2(b) of this Permit with respect to that clearing.

##### (a) Determination of *offsets*:

- (i) in determining the *offset* to be implemented with respect to a particular area of native vegetation proposed to be cleared under this Permit, the Permit Holder must have regard to the *offset* principles contained in condition 2(b) of this Permit;
- (ii) once the Permit Holder has developed an *offset proposal*, the Permit Holder must provide that *offset proposal* to the CEO for the CEO's approval prior to undertaking any clearing to which the *offset* relates, and prior to implementing the *offset*;
- (iii) clearing shall not commence until and unless the CEO has approved the *offset proposal* to which the clearing relates;
- (iv) the Permit Holder shall implement the *offset proposal* approved under condition 2(a)(iii); and
- (v) each *offset proposal* shall include a *direct offset*, timing for implementation of the *offset proposal* and may additionally include *contributing offsets*.

##### (b) For the purpose of this condition, the *offset* principles are as follows:

- (i) *direct offsets* should directly counterbalance the loss of the native vegetation;
- (ii) *contributing offsets* should complement and enhance the *direct offset*;
- (iii) *offsets* are implemented only once all avenues to avoid, minimise, rectify or reduce environmental impacts have been exhausted;
- (iv) the environmental values, habitat, species, *ecological community*, physical area, ecosystem, landscape, and hydrology of the *offset* should be the same as, or better than, that of the area of native vegetation being *offset*;

- (v) a ratio greater than 1:1 should be applied to the size of the area of native vegetation that is offset to compensate for the risk that the *offset* may fail;
- (vi) *offsets* must entail a robust and consistent assessment process;
- (vii) in determining an appropriate *offset*, consideration should be given to ecosystem function, rarity and type of *ecological community*, vegetation *condition*, habitat quality and area of native vegetation cleared;
- (viii) the *offset* should either result in no net loss of native vegetation, or lead to a net gain in native vegetation and improve the *condition* of the natural environment;
- (ix) *offsets* must satisfy all statutory requirements;
- (x) *offsets* must be clearly defined, documented and audited;
- (xi) *offsets* must ensure a long-term (10-30 year) benefit; and
- (xii) an *environmental specialist* must be involved in the design, assessment and monitoring of *offsets*.

### Definitions

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

*condition* means the rating given to native vegetation using the *Keighery scale* and refers to the degree of change in the structure, density and species present in the particular vegetation in comparison to undisturbed vegetation of the same type;

*contributing offset/s* has the same meaning as is given to that term in the Environmental Protection Authority's *Position Statement No.9: Environmental Offsets*, January 2006;

*direct offset/s* has the same meaning as is given to that term in the Environmental Protection Authority's *Position Statement No.9: Environmental Offsets*, January 2006;

*ecological community/ies* means a naturally occurring biological assemblage that occurs in a particular type of habitat (English and Blythe, 1997; 1999);

*environmental specialist* means a person who is engaged by the Permit Holder for the purpose of providing environmental advice, 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;

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

*Keighery scale* means the vegetation condition scale described in *Bushland Plant Survey: A Guide to Plant Community Survey for the Community (1994)* as developed by B.J. Keighery and published by the Wildflower Society of WA (Inc). Nedlands, Western Australia;

*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;

*offset/s* means an offset required to be implemented under condition [2] of this Permit;

*offset proposal* means an *offset* determined by the Permit Holder in accordance with condition [2] of this Permit;

*term* means the duration of this Permit, including as amended or renewed;

*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*.



Keith Claymore  
A/ ASSISTANT DIRECTOR  
NATURE CONSERVATION DIVISION

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

19 November 2009

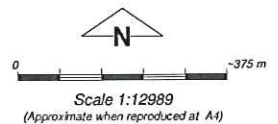


# Plan 3286/1



## LEGEND

- |  |   |
|--|---|
| <b>Clearing Instruments</b>                          | <b>Towns</b>  |
| <input type="checkbox"/> Areas Approved to Clear     | <input checked="" type="checkbox"/> Southern Cross Holleton     |
| <input checked="" type="checkbox"/> Road Centrelines | <input checked="" type="checkbox"/> 1.4m Orthomosaic - Landgate |
| <input type="checkbox"/> Cadastre                    | <input type="checkbox"/> 1999                                   |



Geocentric Datum Australia 1994

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

*Karl Claymore 19/10/07*  
K Claymore

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.







## 1. Application details

### 1.1. Permit application details

Permit application No.: 3286/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Shire of Yilgarn

### 1.3. Property details

Property: LOT 994 ON PLAN 91454 (SOUTHERN CROSS 6426)  
Local Government Area:  
Colloquial name:

### 1.4. Application

| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
|--------------------|-----------|--------------------|---------------------|
| 13.12              |           | Mechanical Removal | Miscellaneous       |

## 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  |
|--|---|--|--|
| Beard vegetation association 1068: Medium woodland; salmon gum, morrel, gimlet & Eucalyptus sheathiana | The vegetation under application is bordered to the north, west and east by Crown Reserve 37892. The south eastern corner of the vegetation under application is adjacent to gravel pits managed by the Shire of Yilgarn  | Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994) | The information described in the clearing description was taken from a Western Botanical Flora survey conducted in December 2005. (Western Botanical 2005) |
|  | The vegetation under application is associated with three different vegetation communities. These are Open Salmon Gum Scattered Mallee Woodlands, Gimlet Woodlands and York Gum and Other Mallee Woodlands. The Northern and Eastern boundaries of the site are adjacent to a dense mosaic of Allocasuarina campestris and or Allocasuarina acutivalvis spp acutivalvis. (Western Botanical, 2005). |  |  |
|  | No weed species were found during a December 2005 survey which identified 67 plant species within the proposed area (Western Botanical 2005).   |  |  |

## 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 clear 13.12 hectares of vegetation in excellent condition (Keighery, 1994) located within Crown Reserve 37892.

There are three records of threatened fauna (Chuditch, White Browed Babbler and Tree stem trapdoor spider)

within the local area (10km radius). A desktop fauna survey conducted by Western Wildlife in February 2006 identifies 13 fauna species which could potentially utilise the area as habitat. (Western Wildlife, 2006).

The vegetation under application is associated with three different vegetation communities. These are Open Salmon Gum Scattered Mallee Woodlands, Gimlet Woodlands and York Gum and Other Mallee Woodlands. The Northern and Eastern boundaries of the site are adjacent to a dense mosaic of *Allocasuarina campestris* and or *Allocasuarina acutivalvis* spp *acutivalvis*. A flora survey conducted during December 2005 identified 67 plant species within the proposed area (Western Botanical, 2005).

Given that the shire of Yilgarn retains only 23.6% of its pre european native vegetation the area proposed to be cleared may be representative of an area of high biodiversity when viewed in a local context. Therefore the clearing as proposed may be at variance to this principle.

In order to minimise and mitigate any loss of biodiversity an offset condition has been placed on the permit.

**Methodology** Keighery (1994)  
Western Botanical (2005)  
Western Wildlife (2006)  
GIS database:  
- Southern Cross Holleton 1.4m Orthomosaic - DLI99

**(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**

The proposal is to clear 13.12 hectares of vegetation in excellent condition (Keighery, 1994) located within Crown Reserve 37892.

There are three records of threatened fauna (Chuditch, White Browed Babbler and Tree stem trapdoor spider) within the local area (10km radius). A desktop fauna survey conducted by Western Wildlife in February 2006 identifies 13 fauna species which could potentially utilise the area as habitat. (Western Wildlife, 2006).

Given that the vegetation under application is in excellent condition (Keighery, 1994) it is likely that the vegetation is utilised by native fauna as habitat and that it may form part of a significant habitat for fauna. Therefore the proposed clearing may be at variance to this principle.

In order to minimise and mitigate any loss of significant fauna habitat an offset condition has been placed on the permit.

**Methodology** Keighery (1994)  
Western Wildlife (2006)  
GIS database:  
- Southern Cross Holleton 1.4m Orthomosaic - DLI99  
- SAC Bio datasets - accessed 08/09/2009

**(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**

The proposal is to clear 13.12 hectares of vegetation in excellent condition (Keighery, 1994) located within Crown Reserve 37892.

Two known occurrences of rare flora *Daviesia microcarpa* occur within 5 km of the vegetation proposed to be cleared. *Daviesia microcarpa* is a sprawling tangled shrub with orange flowers which occurs on weathered gravel. Given that reserve 37892 is held for the purpose of gravel extraction it is possible that this species may occur within the area proposed to be cleared.

A flora survey conducted in December 2005 by Western Botanical found no rare or priority species within the area proposed to be cleared (Western Botanical, 2005) and therefore the clearing as proposed is not likely to be at variance to this principle.

**Methodology** Keighery (1994)  
Western Botanical (2005)  
GIS database:  
- Sac Bio Datasets - accessed 08/09/2009



**(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**

The proposal is to clear 13.12 hectares of vegetation in excellent condition (Keighery, 1994) located within Crown Reserve 37892.

There are no known occurrences of Threatened Ecological Communities (TECs) in the local area (10km radius). A flora survey conducted in December 2005 by Western Botanical which targeted TECs and species of conservation significance found no TECs within the area applied to be cleared (Western Botanical, 2005).

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

**Methodology** Keighery (1994)  
Western Botanical, 2005  
GIS database:  
- Sac Bio Datasets - accessed 08/09/2009

**(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**

|  | Pre-European area (ha) | Current extent (ha) | Remaining % |
|--|------------------------|---------------------|-------------|
| IBRA Bioregion **<br>Coolgardie Subregion<br>Southerncross | 6010834                | 5808064             | 96          |
| LGA<br>Shire of Yilgarn^                                   | 719498                 | 154130              | 21.4        |
| Beard vegetation associations**<br>1068                    | 268900                 | 135868              | 50.53       |
| Beard Vegetation Association with Bioregion*<br>1068       | 193988                 | 102262              | 52.72       |

\*\* (Shepherd, 2007)

^ Area within Intensive Land Use Zone

The Environmental Protection Authority (EPA) supports the retention of remnant native vegetation to a 30% threshold level as recommended in the National Objectives Targets for Biodiversity Conservation below which, species loss appears to accelerate exponentially at an ecosystem level (EPA, 2000).

Whilst the vegetation types under application retain more than the 30% threshold level, the Shire of Yilgarn retains only 21.4 % of its remnant vegetation within the intensive landuse zone and the proposed clearing may be at variance to this Principle.

In order to minimise and mitigate the loss of further native vegetation within a highly cleared landscape an offset condition has been placed on the permit.

**Methodology** Shepherd (2007)  
GIS Databases:  
- Southern Cross Holleton 1.4m Orthomosaic - DLI99  
- Sac Bio Datasets - accessed 08/09/2009

**(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 at variance to this Principle**

An indefinite watercourse is mapped approximately 260m east and a minor perennial watercourse 1.7km south west of the vegetation proposed to be cleared.

A flora survey conducted in December 2005 by Western Botanical did not find any of the vegetation under application to be growing in association with an environment associated with a watercourse or wetland and therefore the clearing as proposed is not at variance to this Principle.

**Methodology** Western Botanical, 2005  
GIS databases:  
- ANCA wetlands - Environment Australia 26/3/99  
- CALM Managed Lands and Waters - CALM 01/06/05  
- EPP Lakes Policy Area - DEP 14/05/97  
- EPP, Wetlands 2004 (DRAFT) - EPA 21/7/04  
- Clearing Regulations, Environmentally Sensitive Areas 30 May 2005  
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain , DEC 11/04/07  
- Hydrography linear - DOW 13/7/06  
- Hydrography linear (hierarchy) - DoW 13/7/06  
- Ramsar wetlands - DEC 03

**(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 vegetation under application is associated with soil unit DD15 which is described as comprising undulating plains with some low dunes, seasonal lakes, and clay pans: chief soils are brown and grey-brown calcareous earths. (Northcote et al, 1968)

Crown Reserve 37892 contains 238ha of remnant native vegetation and is bordered on its northern, eastern and southern sides by Crown Reserve 8849 which contains 1127 hectares of remnant native vegetation. The area proposed for clearing lies in a relatively elevated position in the landscape and has a designated low salinity risk. (DEC 2009)

Given the location of the proposed clearing within a heavily vegetated reserve the proposed clearing is not likely to lead to appreciable land degradation.

**Methodology** Northcote et al, 1968  
DEC 2009  
GIS Databases:  
- SAC Biodatasets - accessed 08/09/2009  
- Salinity Risk LM 25m - DOLA 00  
- Soils, Statewide DA 11/99  
- Hydrogeology, Statewide 05 Feb 2002

**(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 is not at variance to this Principle**  
There are no conservation areas located within the local area (10km radius) and given the high vegetation retention in nearby areas the vegetation under application is not likely to be significant as an ecological linkage or stepping stone. Given the above the clearing as proposed is not at variance to this principle

**Methodology** GIS Databases:  
- Southern Cross Holleton 1.4m Orthomosaic - DLI99  
- CALM Managed Lands and Waters - CALM 01/06/05  
- Register of National Estate - Environment Australia, Australian and world heritage division 12 Mar 02  
- System 1 to 5 and 7 to 12 areas - DEC 11/7/06

**(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**  
The area under application does not include any wetlands or watercourses and does not include vegetation growing in association with these areas.

Given that the vegetation under application is not associated with surface water expression the clearing as proposed is not likely to cause deterioration in the quality of surface water in the local area.

In addition Crown Reserve 37892 contains 238ha of remnant native vegetation and therefore the removal of 13.12ha of native vegetation is not likely to significantly alter groundwater quantity or quality in the local area.

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

**Methodology** GIS Databases:  
- Salinity Risk LM 25m - DOLA 00  
- Hydrography, linear - DOW 13/7/06



**(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 at variance to this Principle**

The area proposed to be cleared lies within Crown Reserve 37892 which contains 238ha of remnant native vegetation and is bordered on its northern, eastern and southern sides by Crown Reserve 8849 which contains 1127 hectares of remnant native vegetation.

Given the proposed area is located within heavily vegetated reserves the clearing as proposed is not likely to cause, or exacerbate, the incidence or intensity of flooding and is not at variance to this principle.

**Methodology GIS database:**

- Southern Cross Holleton 1.4m Orthomosaic - DLI99
- Evaporation Isoleths - WRC 29/09/98
- Hydrographic catchments, catchments - DoW 01/06/07
- Hydrography, linear - DoW 13/7/06
- Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
- Topographic Contours, Statewide - DOLA 12/09/02

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

**Comments**

The reserve within which the vegetation under application is located is zoned for Gravel and Sanitary Landfill. The area under application is within a Rights in Water Irrigation (RIWI) groundwater area. The proponent is not proposing to take any groundwater or interfere within any watercourse, therefore no RIWI licences are required.

**Methodology GIS database:**

- Native Title Claims - LA 2/5/07
- Aboriginal Sites of Significance 26 April 2007
- Country Area Water Supply Act (Part IIA) Clearing Control Catchments 29/06/2006
- RIWI Act, Groundwater Areas - DoW 13/07/06
- RIWI Act, Irrigation Districts - DoW 13/07/06

#### 4. Assessor's comments

**Comment**

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, and the proposed clearing may be at variance to Principles (a), (b) and (e); is not at variance to Principle (d), (f), (h) and (j) and is not likely to be at variance with the remaining clearing principles.

#### 5. References

- DEC (2009) REGION Regional Advice. Department of Environment and Conservation Trim Ref DOC98293
- 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. (2007). 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. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.
- Western Botanical (December, 2005) Flora Survey of Proposed Landfill Site, Shire of Yilgarn Southern Cross Mirambeena Flora and Fauna Assessment Albany
- Western Wildlife (2006) A Fauna Assessment, Proposed Landfill Site, Shire of Yilgarn, Southern Cross

#### 6. 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)            |