



GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 5508/1

File Number: 2011/006825-1

Duration of Permit: From 7 September 2013 to 7 September 2015

PERMIT HOLDER

Shire of Collie

LAND ON WHICH CLEARING IS TO BE DONE

Lot 143 on Deposited Plan 190669, Allanson

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 0.45 hectares of native vegetation within the area hatched yellow on attached Plan 5508/1.

CONDITIONS

Nil.

A handwritten signature in cursive script, appearing to read 'M Warnock', written over a horizontal line.

M Warnock
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH





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

8 August 2013

Plan 5508/1



LEGEND

-  Road Centrelines
-  Collie 50cm Orthomosaic - Landgate 2006
-  Local Government Authorities_1
-  Clearing Instruments
-  Areas Approved to Clear



Scale 1:1644
(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 2/8/13

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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1. Application details

1.1. Permit application details

Permit application No.: 5508/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Shire of Collie

1.3. Property details

Property: LOT 143 ON PLAN 190669 (House No. 35 BEDLINGTON ALLANSON 6225)
Local Government Area: Shire of Collie
Colloquial name:

1.4. Application

| | | | |
|--------------------|-----------|--------------------|-----------------------|
| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
| 0.45 | | Mechanical Removal | Building or Structure |

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 8 August 2013

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 area under application has been mapped as: | The application is to clear 0.45 hectares of native vegetation within Lot 143 on Plan 190669, Allanson, for the purpose of establishing a volunteer bush fire brigade site. | Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994) | The clearing description and vegetation condition were ascertained through a site inspection undertaken by Department of Environment and Conservation staff in March 2013 (DEC, 2013). |
| Beard vegetation association 3: Medium forest jarrah-marri (Shepherd et. al. 2001). | | To | The vegetation under application has been described as (DEC, 2013) <i>Corymbia calophylla</i> , <i>Eucalyptus marginata</i> and <i>E. patens</i> with an understorey of <i>Acacia pulchella</i> , <i>Xanthorrhoea preissii</i> , <i>Pteridium esculentum</i> , <i>Jacksonia</i> sp. and <i>Conostylis</i> sp. |
| Mattiske vegetation association Mj: | | Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994) | |
| Open woodland of <i>Melaleuca preissiana</i> - <i>Banksia littoralis</i> - <i>Banksia ilicifolia</i> with some <i>Eucalyptus patens</i> on moister sites, s24 <i>Banksia</i> spp. on drier sites of valley floors in the subhumid zone (Mattiske et. al. 1998) | | | |

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 is not likely to be at variance to this Principle

The application is to clear 0.45 hectares of native vegetation in a good to degraded (Keighery, 1994) condition for the purpose of establishing a volunteer bush fire brigade site.

The application area is surrounded by conservation reserves and approximately 85 percent of the pre-European vegetation remains in the local area. Therefore the proposed clearing is not considered significant habitat for indigenous fauna.

The only mapped occurrence of rare flora occurs nine kilometres from the application area. Given the distance to this species and the position of the application area within a semi urbanised area subject to disturbance, the

application area is not likely to contain rare flora.

Five priority flora species have also been recorded from the local area (10 kilometre radius), given the mapped soil and vegetation type the application area may be suitable for one of these (Western Australian Herbarium, 1998-). As nine populations of this species have been recorded within the local area, which contains large amounts of vegetation in a better condition (Keighery, 1994) than the application area. It is not considered significant habitat for this species and is not likely to contain a high level of flora diversity.

No priority ecological communities have been recorded within 20 kilometres of the application area.

Given the above, the application is not likely to be at variance to this clearing Principle.

Methodology **References:**
- Keighery (1994)
- Western Australian Herbarium (1998-)

GIS Databases:
- Pre-European vegetation
- SAC Biodata sets Accessed April 2013

(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 is not likely to be at variance to this Principle**
Eighteen fauna species of conservation significance have been mapped within the local area (10 kilometre radius) (DEC, 2007-). Three of these are listed as 'rare or likely to become extinct' on the Wildlife Conservation Act 1950 (WC Act), vulnerable or Endangered on the Environmental Protection and Biodiversity Conservation Act, 1999 (EPBC Act) and have the potential to occur within the application area; *Calyptorhynchus banksii* subsp. *naso* (forest red-tailed black-cockatoo), *Calyptorhynchus latirostris* (Carnaby's cockatoo) and *Calyptorhynchus baudinii* (Baudin's cockatoo).

The area under application has been mapped as Beard vegetation association 3 which is described as medium forest jarrah-marri (Shepherd et. al. 2001). A site inspection of the application area (DEC, 2013) described the vegetation as *Corymbia calophylla*, *Eucalyptus marginata* and *E. patens* with an understorey of *Acacia pulchella*, *Xanthorrhoea preissii*, *Pteridium esculentum*, *Jacksonia* sp. and *Conostylis* sp. in a degraded to good (Keighery, 1994) condition. Small hollows were observed within *Corymbia calophylla* trees however it was noted that impacts to black cockatoo species would be minimal.

The forest red-tailed black-cockatoo, Baudin's cockatoo and Carnaby's cockatoo nest in large hollows of eucalyptus trees and forage on the seeds, nuts and flowers of a large variety of plants (Shah, 2006). The application area has been mapped as potential feeding habitat for *Calyptorhynchus latirostris*, is within 14 kilometres of a confirmed roosting site and 25 kilometres from a known potential breeding site. Given this as well as the mapped and observed vegetation type, the vegetation under application is potential habitat for these species.

The local area (10 kilometre radius) has roughly 85 percent of its pre-European vegetation remaining with much of this contained within conservation reserves surrounding the application area. Given this, and that a site inspection noted previous land uses that have degraded the application area (DEC, 2013) and its location adjoining a sporting oval in a semi urbanised area, it is not likely to be significant habitat for indigenous fauna.

Given the above the application is not likely to be at variance to this clearing Principle.

Methodology **References:**
- Keighery (1994)
- DEC (2007-)
- DEC (2013)
- Shah (2006)

GIS Data-sets:
- Pre-European vegetation
- SAC Biodata sets Accessed April 2013

(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

One rare flora species has been recorded from the local area (10 kilometre radius) approximately nine kilometres from the application area within the same vegetation type and different soil type.

The local area has approximately 85 percent of its pre-European vegetation remaining with much of this contained within conservation reserves surrounding the application area. Given the distance to the recorded location and the differing soil type, the area under application is not likely to be at variance to this clearing Principle.

Methodology GIS Data-sets:
- SAC Biodata sets Accessed April 2013

(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 closest threatened ecological community occurs 30 kilometres from the application area and is a Swan Coastal Plain Community. Given this the application is not likely to be at variance to this clearing Principle.

Methodology GIS Data-sets:
- SAC Biodata sets Accessed April 2013

(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 is not likely to be at variance to this Principle

The area under application is located within the Jarrah Forest Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion has approximately 55 percent of its Pre European vegetation extent remaining (Government of Western Australia 2011).

The vegetation under application is mapped as Beard Vegetation Association 3, which has approximately 69 percent of its Pre European extent remaining in the Jarrah Forest bioregion (Government of Western Australia 2011). Digital imagery (Collie 50cm Orthomosaic - Landgate 2006) indicates that the local area (10km radius) surrounding the area under application retains approximately 85 percent native vegetation cover.

Given the above the area under application does not fall within an extensively cleared area and is not likely to be at variance to this clearing Principle.

| | Pre-European (ha) | Current Extent (ha) | Remaining (%) | Extent in DEC Managed Lands (%) |
|--|----------------------|------------------------|------------------|------------------------------------|
| IBRA Bioregion* | | | | |
| Jarrah Forest | 4,506,656.97 | 2,473,559.80 | 54.89 | 67.9 |
| Shire* | | | | |
| Shire of Collie | 158,906.03 | 131,859.50 | 82.98 | 89 |
| Beard Vegetation Association in Bioregion* | | | | |
| 3 | 2,390,591.58 | 1,641,271.67 | 68.66 | 79.7 |
| Hedde Vegetation Complex** | | | | |
| Muju | 10,200.51 | 6,227.67 | 61.05 | 43 |
| Mattiske Vegetation Complex *** | | | | |
| Mj | 10,522.09 | 6,441.48 | 61.22 | 42.6 |

Methodology Reference:
- *Government of Western Australia (2011)
- ***Mattiske et. al. (1998)
- **Hedde et.al. (1990)

GIS Databases:
- IBRA
- Collie 50cm Orthomosaic - Landgate 2006
- Pre European Vegetation
- SAC Biodata sets - accessed April 2013

(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 at variance to this Principle

A minor non-perennial watercourse runs through the application area. Given this the vegetation under application is growing in association with a watercourse and is at variance to this clearing 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 area under application has been mapped as soil type Cb38 which Northcote et al (1960 - 1968) describes as; generally flat to strongly undulating land with many sandy flats and swamps: chief soils seem to be leached sands in the lower and more swampy sites and often containing ironstone gravels, on flat to gently sloping areas.

Given the limited size of the application area and that it is surrounded by native vegetation, the application is not likely to cause appreciable land degradation and is not likely to be at variance to this clearing Principle.

Methodology References:
- Keighery (1994)
- Northcote et al (1960 - 1968)

(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 likely to be at variance to this Principle

The application area falls within a semi urbanised area surrounded by conservation reserves, the closest falling 700 metres from the application area. The area under application is limited in size, not significant for fauna movement through the landscape and clearing is not likely to increase the spread of weeds and dieback into these reserves. The proposed clearing is not likely to be at variance to this clearing Principle.

Methodology GIS Databases:
- DEC 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 non-perennial watercourse is mapped within the application area. As the area under application is limited in size it is unlikely that the clearing as proposed will cause a deterioration in the quality of surface water.

The groundwater salinity within the application area is less than 500-1000 milligrams per litre of total dissolved solids. This level of salinity is considered to be marginal. As the vegetation under application is limited in size and surrounded by a large amount of native vegetation, it is not likely to have a significant impact on the quality of groundwater in the local area.

Therefore, the proposed clearing is not likely to be at variance to this clearing Principle.

Methodology References:
-Keighery (1994)

GIS Database:
- Groundwater Salinity Statewide
- 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

As the only watercourse mapped within the application area is non-perennial and the application is limited in size it is not likely to be at variance to this clearing Principle.

Methodology GIS Databases:
- Hydrography linear

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

Comments

The Shire of Collie was sent a letter on the 19 April 2013 advising that the proposed clearing purpose was inconsistent with the management order for the reserve. The management order for the reserve has now been changed to 'recreation and emergency services'.

The application falls within a 'not assigned' Public Drinking Water Supply Area, and zone D under the Country Area Water Supply Act 1947. It is also within the Collie River Irrigation District Surface Water Area and Collie Groundwater Areas as proclaimed under the Rights in Water and Irrigation Act 1914. Advice from the Department of Water states that if the proposed road access is over a waterway, a permit to interfere with the bed and banks would be required from the Department of Water in this proclaimed area (DOW, 2013).

No aboriginal sites of significance have been mapped within the application area.

No submissions from the public have been received.

Methodology References
- DOW (2013)

4. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed 14/3/2013
- DEC (2013) Site Inspection Report for Clearing Permit Application CPS 5508/1, Reserve 16403, Collie. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC A614893).
- DOW (2013) Advice for Clearing Permit Application CPS 5508/1, Reserve 16403, Collie. Department of Water, Western Australia (TRIM Ref. DOC A614893).
- Government of Western Australia (2011); 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, Perth.
- Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment 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.
- Shah, B. (2006) Conservation of Carnaby's Black-Cockatoo on the Swan Coastal Plain, Western Australia. December 2006. Carnaby's Black-Cockatoo Recovery Project. Birds Australia, Western Australia.
- 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.
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed 15/4/2013).

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 |