



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 3564/1
File Number: DEC 14301
Duration of Permit: From 4 April 2010 to 4 April 2015

PERMIT HOLDER

Shire of Wyalkatchem

LAND ON WHICH CLEARING IS TO BE DONE

Lot 27096 on Plan 161703 (Wyalkatchem 6485)

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 1.4 hectares of native vegetation of native vegetation within the area hatched yellow on attached Plan 3564/1.

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*:

- (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.

2. Offsets

If part or all of 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 (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 may 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*.

PART III - RECORD KEEPING AND REPORTING

3. Records must 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;
 - (iii) the date that the area was cleared; and
 - (iv) the size of the area cleared (in hectares).
- (b) In relation to the offset of areas pursuant to condition 2:
- (i) the location of any area of *offsets* recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
 - (ii) a description of the *offset* activities undertaken; and
 - (iii) the size of the *offset* area (in hectares).

4. Reporting

- (a) The Permit Holder must provide to the CEO, on or before 30 June of each year, a written report of records required under condition 3 of this Permit and activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.
- (b) Prior to 4 January 2015, the permit holder must provide to the CEO a written report of records required under condition 3 of this Permit where these records have not already been provided under condition 4(a) of this Permit.

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; and

weed 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*

4 March 2010


Plan 3564/1



LEGEND

Clearing Instruments: Dowerin 50cm Orthomosaic - Landgate 2004

- Areas Subject to Conditions
- Areas Approved to Clear
- Road Centrelines
- Cadastre



0 ————— 200 m

Scale 1:7502
(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.

Keith Claymore Date 4/3/10

Keith 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.



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1. Application details

1.1. Permit application details

Permit application No.: 3564/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Shire of Wyalkatchem

1.3. Property details

Property: LOT 27096 ON PLAN 161703 (WYALKATCHEM 6485)
Local Government Area:
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.4		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 type: 1049: Medium woodland; wandoo, York gum, salmon gum, morrel & gimlet (Shepherd, 2007; SAC Bio Datasets 17/2/2010)	The area under application (1.4 ha) is within Lot 27096 (also known as Crown Reserve 22949). The purpose of the clearing is to construct a taxiway and an obstacle free zone at the Wyalkatchem airport.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The condition of the native vegetation under application was determined from the information provided by the applicant (Wyalkatchem, 2010) and DEC site visit (2010e).
	The vegetation consists of a disturbed open woodland of Eucalyptus salmonophloia and E. salubris with mostly cleared understorey with the occasional Maireana sp and Acacia erinacea in predominantly good (Keighery, 1994) condition (Shire of Wyalkatchem, 2010).		
	This vegetation is within a 4.4 ha area of bushland, which is surrounded by agricultural land on three sides and the airport runway on the northern side.		

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 area under application is located within a 4.4 ha bushland area, this bushland is surrounded by agricultural land and the airport runway. The vegetation consists of a disturbed open woodland of Eucalyptus salmonophloia and E. salubris with mostly cleared understorey with the occasional Maireana sp and Acacia erinacea in predominantly good (Keighery, 1994) condition (Shire of Wyalkatchem, 2010).

The vegetation under application is associated with Beard vegetation association 1049, of which there is 3.6% of pre-1750 vegetation remaining within the Bioregion (Shepherd, 2007). This vegetation type is under-represented in the bioregion and has the highest rating of protection for the Wheatbelt NRM boundary (Richardson, 2007). In addition, there is only ~5.2% vegetation remaining within the local area (15 km radius).

Priority one flora species, *Melaleuca grieviana* has been recorded 2.2 km from the area under application and occurs within the same vegetation type and on the same soils as the area under application. A site visit confirmed that the vegetation under application is unlikely to provide suitable habitat for this priority species (DEC, 2010c).

The vulnerable Shield-back Trapdoor spider has been recorded 200 m north of the area under application and the endangered the Tree-stem Trapdoor spider has been recorded 7.5 km east and 14 km north-east of the area under application (DEC, 2010). A site visit confirmed that it is considered unlikely that trapdoor spiders occur within the area under application due to the disturbance on site (DEC, 2010d).

Given the low representation of the Beard vegetation type (3.6%) and therefore, the importance of the vegetation on a local and regional context, the vegetation under application may have high biodiversity values in the local area and the bioregion. The proposed clearing may be at variance to this Principle. Weed conditions will be placed on the permit to protect the biodiversity of the remaining remnant.

Methodology References:
- DEC (2010)
- DEC (2010c)
- DEC (2010d)
- Keighery (1994)
- Richardson (2007)
- Shepherd (2007)
- Shire of Wyalkatchem (2010)
GIS Database:
- NLWRA, Current Extent of Native Vegetation

(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 vulnerable Shield-back Trapdoor spider has been recorded 200 m north of the area under application and the endangered the Tree-stem Trapdoor spider has been recorded 7.5 km east and 14 km north-east of the area under application (DEC, 2010). A site visit confirmed that it is considered unlikely that trapdoor spiders occur within the area under application due to the disturbance on site (DEC, 2010d).

The area under application is located within a 4.4 ha bushland area, this bushland is surrounded by agricultural land and the airport runway. Photos of the area under application (Shire of Wyalkatchem, 2010) shows that the vegetation, Salmon gum woodland, is predominantly in good (Keighery, 1994) condition. The clearing of the 1.4 ha will reduce the bushland to 3 ha, reducing the habitat values as a stepping stone in an extensively cleared landscape; 4.8% native vegetation remaining within the Shire of Wyalkatchem (Shepherd, 2007).

Given the highly cleared landscape reflected by the low representation of native vegetation in the Shire any fauna persisting in the local area are likely to be utilising this vegetation. Therefore the vegetation may be necessary for the maintenance of significant habitat for native fauna. The proposed clearing may be at variance to this Principle.

Methodology References:
- DEC (2010)
- DEC (2010d)
- Keighery (1994)
- Shepherd (2007)
- Shire of Wyalkatchem (2010)

(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

There are no rare flora species recorded within the local area (15 km radius). The nearest recorded rare flora species is *Conostylis wonganensis*, located ~18 km west and *Pityrodia scabra*, located ~21 km north of the area under application.

C. wonganensis prefers lateritic soils and *P. scabra* prefers deep sandy soils. The area under application is likely to have heavy loamy soils typical of Salmon gum woodlands and therefore not likely to support these species (DEC, 2010e).

The vegetation under application is not likely to provide suitable habitat for rare flora.

Methodology Reference:
- DEC (2010e)
GIS Database:
- SAC Bio Datasets 19/2/2010

(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**
There are no known Threatened Ecological Communities (TEC) recorded within the local area (15 km radius). The nearest recorded TEC is Perched wetlands of the Wheatbelt Region (Critically Endangered), located ~33 km west of the area under application.

Given the distance to the nearest TEC and that the vegetation under application has been identified as Salmon gum woodland, it is considered that the vegetation under application is not likely to comprise a TEC.

Methodology GIS Database:
- SAC Bio Datasets 19/2/2010

(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 at variance to this Principle**
The vegetation within the areas under application is identified as a component of Beard vegetation type 1049, of which there is 3.6% of Pre-European extent remaining within the Bioregion (Shepherd, 2007). In addition, the vegetation under application is located in an extensively cleared agricultural area identified in EPA Position Statement No. 2 (EPA, 2000).

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, EPA 2000). Beard vegetation type 1049 (3.6%) and the Shire of Wyalkatchem (4.8%) retain less vegetation than this 30% threshold level. The proposed clearing of 1.4 ha of the remnant is considered to be part of a significant remnant in an extensively cleared area.

To mitigate any impacts from the proposed clearing an offset condition will be imposed on the clearing permit.

Pre-European	Current extent (ha)	Remaining (ha)	In secure tenure (%)	(%)
IBRA Bioregion*				
Avon Wheatbelt (AW)	9,517,109	1,443,690	15.1	
Shire of Wyalkatchem*	159,502	7,736	4.8	
Local area (15 km radius)	70,714	~3,467	~5.2	
Beard vegetation type*				
1049 (within AW Bioregion)	833,384	30,023	3.6	9.0
1049 (within W.A.)	833,384	30,023	3.6	9.0

* (Shepherd, 2007)

Methodology References:
- Commonwealth of Australia (2001)
- EPA (2000)
- Shepherd (2007)
GIS Databases:
- Interim Biogeographic Regionalisation of Australia
- NLWRA, Current Extent of Native Vegetation
- SAC Bio Datasets 19/2/2010

(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**
The nearest minor watercourse is located approximately ~1.1 km west of the area under application. The area under application is located relatively high in the landscape with the vegetation not considered to be associated

with a watercourse or wetland.

Methodology GIS Databases:
- Hydrography, linear
- Topographic Contours, Statewide

(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 landscape of the area under application and surrounds can be described as Ms8: Gently sloping to gently undulating plateau areas or uplands with the chief soils being sandy yellow earths and yellow earthy sands containing some ironstone gravels; and Va66: Gently undulating to rolling terrain with some ridges and uneven slopes with chief soils being hard alkaline yellow mottled soils and hard alkaline red soils (Northcote et al. (1960-68).

Given the ironstone gravels and the gentle slopes there is a low risk of wind erosion and water erosion. In addition, given the relatively small area under application, the proposed clearing is not likely to cause appreciable land degradation.

Methodology References:
- Northcote et al (1960-68)
GIS Databases:
- Soils, Statewide
- 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**

The nearest conservation area is DEC managed land Wyalkatchem Nature Reserve, located ~3.5 km north-east of the area under application. The area under application is located within a 4.4 ha bushland area, this bushland is surrounded by agricultural land and the airport runway. Photos of the area under application (Shire of Wyalkatchem, 2010) shows that the vegetation, Salmon gum woodland, is predominantly in good (Keighery, 1994) condition.

This vegetation has some importance as a stepping stone in an area that has been extensively cleared with only 5.2% native vegetation remaining in the local area and only 4.8% (Shepherd, 2007) remaining within the Shire of Wyalkatchem. Therefore, it is considered the clearing of the vegetation may have an indirect impact on the nearby conservation area.

Methodology References:
- Keighery (1994)
- Shepherd (2007)
- Shire of Wyalkatchem (2010)
GIS Database:
- NLWRA, Current Extent of Native Vegetation

(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 nearest minor watercourse is located approximately ~1.1 km west of the area under application. The area under application is located relatively high in the landscape with the vegetation not considered to be associated with a watercourse or wetland. Given the distance to the nearest watercourse and the relatively small area under application the proposed clearing is not likely to cause deterioration in the surface or ground water quality.

Methodology GIS Databases:
- Hydrography, linear
- 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 nearest minor watercourse is located approximately ~1.1 km west of the area under application. The area under application is located relatively high in the landscape with the vegetation not considered to be associated with a watercourse or wetland. Given the distance to the nearest watercourse and the area location relatively high in the landscape, the proposed clearing is not likely to cause or increase the intensity of flooding.

Methodology GIS Databases:
- Hydrography, linear
- Topographic Contours, Statewide

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

Comments

Shire of Wyalkatchem has received funding to undertake airport upgrades. The Shire advised that the proposed clearing was required to ensure the clearance on the runway was within CASA (Civil Aviation Safety Authority) standards.

Lot 27096 or Crown Reserve 22949 is vested with the Shire of Wyalkatchem for the land use of aerodrome.

Methodology GIS database:
- Cadastre

4. Assessor's comments

Comment

The clearing 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 assessment recommendation is that the clearing as proposed is at variance to Principle (e), may be at variance to Principles (a), (b) and (h), and not likely to be at variance to the remaining clearing principles.

5. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DEC (2010) DEC Regional advice for Clearing Permit Application CPS 3564/1, Lot 27096 Wyalkatchem. Department of Environment and Conservation (Email). TRIM Ref DOC 119759
- DEC (2010c) Additional Flora Advice For Clearing Application CPS 3564/1, Lot 27096 Wyalkatchem. Department of Environment and Conservation (Email). TRIM Ref DOC 120135
- DEC (2010d) Additional Idiosoma nigrum Advice For Clearing Application CPS 3564/1, Lot 27096 Wyalkatchem. Department of Environment and Conservation (Email). TRIM Ref DOC 120135
- DEC (2010e) Regional Flora Advice For Clearing Application CPS 3564/1, Lot 27096 Wyalkatchem. Department of Environment and Conservation (Email). TRIM Ref DOC 120135
- EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority, 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.
- 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.
- Richardson, J. (2007). Ecosystem prioritization Workshop. Avon Natural Diversity Alliance. Department of Environment & Conservation, Perth.
- 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.
- Shire of Wyalkatchem (2010) Application for Clearing Permit (Area Permit) CPS 3564/1 and supporting information. TRIM Ref DOC 117164

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 (now DEC)
DMP	Department of Mines and Petroleum (ex DoIR)
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)

TEC
WRC

Threatened Ecological Community
Water and Rivers Commission (now DEC)