



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 4300/1
File Number: 2011/002873
Duration of Permit: From 1 August 2011 to 1 August 2013

PERMIT HOLDER

Gwenda Stone

LAND ON WHICH CLEARING IS TO BE DONE

LOT 270 ON DEPOSITED PLAN 227130 (FRANKLAND RIVER 6396)
LOT 287 ON DEPOSITED PLAN 227128 (FRANKLAND RIVER 6396)

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 28.8 hectares of native vegetation and 13 native trees within the area cross hatched yellow on attached Plan 4300/1.

CONDITIONS

1. Revegetation and rehabilitation

The Permit Holder shall establish and maintain native vegetation within the area cross hatched red on attached Plan 4300/1 in accordance with the following conditions:

- (i) the vegetation shall be established and maintained to an average planting density of 40 plants per hectare; and
- (ii) the *planting* is to commence within twelve months of clearing any area authorised under this Permit.

2. Fauna management

The Permit Holder shall retain *habitat trees* found within the area crosshatched yellow on attached Plan 4300/1.

3. Records must be kept

In relation to fauna management pursuant to condition 2 of this Permit the location of each *habitat tree* identified 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.

4. 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 3 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 1 May 2013 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:

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;

DEFINITIONS

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

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;

habitat tree(s) means trees that have a diameter, at average adult human chest height, of greater than 50cm, healthy but with dead limbs and broken crowns that are likely to contain hollows and roosts suitable for native fauna, or where these are not present then healthy but with the potential to contain hollows and roost.

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

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

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



Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

7 July 2011

Plan 4300/1



LEGEND

- Road Centrelines
- Local Government Authorities
- Clearing Instruments (cont)
- Areas Subject to Conditions
- Areas Approved to Clear
- Frankland 50cm Orthomosaic - Landgate 2006
- Cadastre_1



Scale 1:16154
(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.

Date 2/7/11

K Fulkner
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.



Department of Environment and Conservation

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* Project Data is denoted by asterisk. This data has not been quality assured. Please contact map author for details.



1. Application details

1.1. Permit application details

Permit application No.: 4300/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Gwenda Stone

1.3. Property details

Property: LOT 287 ON PLAN 227128 (FRANKLAND RIVER 6396)
LOT 270 ON PLAN 227130 (FRANKLAND RIVER 6396)
Local Government Area: Shire of Cranbrook
Colloquial name: Lot 287 and Lot 270 Hay location

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
28.8	13	Mechanical Removal	Grazing & Pasture

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 7 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
Beard Vegetation Association: Jingalup 3- Medium forest; jarrah-marri	The vegetation proposed to be cleared consists primarily of individual and small groups of paddock trees. Trees are jarrah (<i>Eucalyptus marginata</i>), marri (<i>Corymbia calophylla</i>) and flooded gums (<i>Eucalyptus rudis</i>).	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	The condition of vegetation was determined from aerial photography (GIS Viewer Frankland 50cm Orthomosaic Landgate 2006).
And			
Beard Vegetation Association: Tambellup 697- Shrublands; scrub-heath on lateritic sandplain in the southern Geraldton Sandplain Region	Surrounding paddocks to the south and east of the proposal areas have been cleared and the condition of these paddocks is 'completely degraded' (Keighery, 1994) Lots directly to the north and west of the proposal areas are largely intact with little to no clearing.		

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 vegetation proposed to be cleared consists of a northern amended area of approximately 13 trees in Lot 270 and the original southern applied area of 28.8ha in Lot 287. The species proposed to be cleared appear to be mainly flooded gums (*Eucalyptus rudis*), jarrah (*Eucalyptus marginata*) and marri (*Corymbia calophylla*).

The southern area of 28.8 ha within Lot 287 is parkland cleared and consists of sparsely scattered isolated paddock trees with no understorey. The paddock in which they stand appears to have been heavily grazed, resulting in a 'completely degraded' (Keighery, 1994) vegetation condition.

There are three areas under application within Lot 270, the northern property. The two areas on the southern border of Lot 270 consists of three mature trees (*Eucalypt sp.*), one which has fallen over and the other two with fallen branches. The third amended area consists of approximately 10 trees adjacent to a dam. These 13 trees are in a partially cleared area, lacking basic vegetation structure and considered to be in a degraded (Keighery, 1994) condition.

Two priority flora species are found within the local area in the same vegetation type as the proposed clearing, however in different soil types. *Adenanthos linearis* (priority 2) is found in the shrublands among low scrub

growing in leached sands. *Omduffia submersa*, an aquatic herb, (priority 4) is found in medium jarrah and flooded gum woodland growing in hard and sandy neutral, yellow, mottled soils (Northcote 1960-68). However, they are unlikely to be found within the application area given it has been heavily grazed and consists of limited understorey.

The local area demonstrates an extensively cleared landscape with small to large scattered patches of remnant vegetation.

The applicant provided supporting information to DEC on 10 June 2011. This information included:

- amending the northern area under application 11.2ha to 13 individual trees to mitigate identified land degradation issues associated with salinity.
- advice on the rehabilitation that has occurred within an area in the north eastern corner of Lot 270; approximately 200 *Eucalyptus rudis* and *Eucalyptus comuta* (Yate tree) seedlings have already been planted and native grasses and sedges will also be planted.
- advice of intent to fence off salt damaged areas on the two properties (Lot 270 and Lot 287).

Given the completely degraded conditions of the vegetation under application and historical disturbance, the proposal is unlikely to be at variance to this principle.

Methodology Keighery (1994)
Shepherd (2009)
Northcote (1960- 68)
Stone (2011)

GIS Databases:

- Interim Biogeographic Regionalisation of Australia
- Pre-European Vegetation
- SAC Bio Datasets (Accessed 20/04/11)
- Frankland 50cm Orthomosaic- Landgate 2006

(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

Two threatened native bird species *Calyptorhynchus banksii subsp. naso* (Forest Red-tailed Black Cockatoo) and *Calyptorhynchus baudinii* (Baudin's Cockatoo/ Long-billed Black Cockatoo) have been recorded in the local area (10km radius). These species protected under both State and Commonwealth legislation. They are both listed as 'fauna that are rare or likely to become extinct' under the Wildlife Conservation Act 1950 and 'vulnerable' under the Environment Protection and Biodiversity Conservation Act 1999.

The Forest Red-tailed Black Cockatoo is restricted to the forests of the lower south-west from Gingin to Albany (Chapman et al, 2005). It requires tree hollows to nest and breed and is dependent on jarrah-marri forest (DEC, 2007). The Baudin's Cockatoo is endemic to the south west of Western Australia (Johnstone and Kirkby, 2008) and also requires tree hollows to nest (primarily in marri) (DEC, 2007). The applicant has advised that mature marri and flooded gum trees are present in and around the proposed clearing areas but do not currently contain hollows. However, these trees have the potential to provide suitable nesting habitat for black cockatoo species in the future, and may also support other native avian fauna in the local area.

The level of understorey disturbance within the three application areas does not detract from the habitat value of the overstorey to black cockatoo species however the application areas are bordered by much larger areas of dense remnant medium jarrah-marri forest in a good to very good (Keighery, 1994) condition that would provide more suitable foraging habitat for these species.

Therefore the vegetation under application may consist of significant habitat for these species of conservation significance. The retention of habitat trees within the 28.8ha area in Lot 287 and the amended area of 13 trees in Lot 270 would assist in addressing the values identified and assist in mitigating these impacts.

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

Methodology DEC (2007-)
DEC (2007)
DEC (2011)
Keighery (1994)
Johnstone and Kirkby (2008)
Chapman et al (2005)

GIS Databases:

- Frankland 50cm Orthomosaic
- SAC Bio Datasets (Accessed 20/04/11)

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

Comments Proposal is not at variance to this Principle

Within the local area (10km radius) there are no recorded species of Declared Rare Flora.

Therefore the proposed clearing is not at variance with this Principle.

Methodology SAC Bio Databases (Accessed 14/4/11)

(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 at variance to this Principle

There are no known threatened ecological communities within a 10km radius of the proposed clearing.

Therefore the proposed clearing is not at variance with this Principle.

Methodology SAC Bio Datasets (Accessed 14/4/11)

(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 areas under application fall within the Jarrah Forest bioregion and within Beard Vegetation Associations Tambellup 697 (scrub-heath on lateritic sandplain) and Jingalup 3 (medium forest; jarrah-marri) (Shepherd, 2009). There is approximately 55.8% of this bioregion remaining (EPA, 2000) with 26% remaining that contains the Beard Vegetation type 697 and 46% remaining that contains the Beard Vegetation type Jingalup 3. There remains approximately a total of 20% of native vegetation on the two properties proposed to be cleared.

This amount of Beard Vegetation type 697 (26%) is below the threshold level of 30%, below which species loss appears to accelerate exponentially and loss below this level should not be permitted (Commonwealth of Australia, 2001). The vegetation under application occurs within a highly fragmented landscape with a long history of grazing and within the local area (10km radius) approximately 20% of native vegetation remains.

However, the amended area of 13 trees in Lot 270 does not form part of a significant remnant of native vegetation nor does the original southern 28.8ha area in Lot 287. Given the degraded and completely degraded condition of the vegetation, it is not considered to be representative of the extensively cleared Beard Vegetation Association 697.

Given the extensively cleared landscape and the degraded and completely degraded conditions of the vegetation, the proposed clearing is not likely to act as a significant remnant and therefore not likely to be at variance to this clearing principle.

Methodology Commonwealth of Australia (2001)
Shepherd (2009)

GIS Databases:

- Interim Biogeographic Regionalisation of Australia
- Pre-European Vegetation
- NWLRA, Current Extent of Native Vegetation
- Frankland 50cm Orthomosaic- Landgate 2006

(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 may be at variance to this Principle

The river gums (*Eucalyptus rudis*) occurring near the floodplain of the southern lot (Lot 287) are likely to form part of the riparian vegetation and the proposed clearing is within the 30m buffer zone of the floodplain.

As these trees are dependant on watercourses for survival, this proposal may be at variance to this principle.

Methodology GIS Databases:
- Frankland 50cm Orthomosaic
- Hydrography, linear

(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

The annual rainfall in the area is high (600mm), the salinity risk is medium-high and groundwater salinity is high.

The original application area of 10.7 hectares in the northern section of Lot 270 was assessed as having a high risk of increased salination of an existing saline area due to rising groundwater if clearing occurred. Therefore it was considered to be seriously at variance to this principle (Commissioner of Soil and Land Conservation, 2011).

The original application area also included three trees in the southern section of Lot 270 and the 28.8ha in Lot 287. These areas were assessed as not likely to increase salinity and therefore considered to be not likely at variance to this principle. (Commissioner of Soil and Land Conservation, 2011).

The applicant provided supporting information to DEC on 10 June 2011. This information included:

- amending the northern area under application within Lot 270 from 11.2ha to 13 individual trees to reduce the above-mentioned identified land degradation issues associated with salinity.
- advice on the rehabilitation that has occurred within an area in the north eastern corner of Lot 270; approximately 200 *Eucalyptus rudis* and *Eucalyptus comuta* (Yate tree) seedlings have already been planted and native grasses and sedges will also be planted.
- advice of intent to fence off salt damaged areas on the two properties (Lot 270 and Lot 287).

Additional advice received on 23 June 2011 from the Commissioner of Soil and Land Conservation (the Commissioner) notes the vulnerability of the dam and drainage line below it to future salt encroachment should the groundwater beneath the paddock continue to rise and highlights a rising groundwater trend in the monitoring bores in the district. The Commissioner advised there is a slight increased risk of secondary salinity occurring at the proposed three clearance sites in Lot 270 (Commissioner of Soil and Land Conservation, 2011) should the amended proposal of 13 trees be removed from Lot 270 and therefore considered the modified area on Lot 270 may be at variance to this clearing principle. However this risk will be mitigated by offset planting.

Therefore the amended proposal to clear 13 trees in Lot 270 may be at variance to this principle. However the 28.8ha area in Lot 287 also under application is not likely to be at variance to this clearing principle.

Methodology Commissioner of Soil and Land Conservation (2011)
Stone (2011)

GIS Databases:

- Groundwater Salinity, Statewide
- Salinity Risk
- Soils, Statewide
- Rainfall, Annual

(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

An unnamed nature reserve vesting with the Conservation Commission lies approx 8km to the west of the proposed clearing. There are no other known conservation areas within the local area (10 km).

Given the distance between the proposed clearing area and the nature reserve it is unlikely that the notified area provides any buffering functions. Aerial photography suggests limited connectivity between the two properties; however the value of this would be related towards the areas of higher quality vegetation within the notified property rather than the isolated paddock trees.

It is unlikely that the proposed clearing would be at variance to this principle.

Methodology GIS Databases-
DEC Tenure
Frankland 50cm Orthomosaic- Landgate 2006

(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

A minor, non-perennial watercourse runs adjacent to the southern border of the southern 28.8ha area under application (Lot 287). This watercourse feeds into a creek to the east and runs into the Gordon River, a mainstream river, occurring approximately 3 kilometres north from the areas under application. An existing dam also occurs on both of the properties and is adjacent to the applied area of the northern lot (Lot 270) and within the applied area of the southern lot (Lot 287) along the same minor watercourse that runs

adjacent to this area. This clearing may have potential impacts on surface and groundwater quality.

Groundwater salinity mapping identifies the area as being highly saline, between 7000-14000 mg/L. The Commissioner indicates this saline area will be under increased pressure from rising groundwater tables and will increase in size if the 10.7ha area of remnant vegetation is cleared in the northern section of Lot 270 (Commissioner of Soil and Land Conservation, 2011).

The applicant provided supporting information to DEC on 10 June 2011. This information included:

- amending the northern area under application 11.2ha to 13 individual trees to mitigate identified land degradation issues associated with salinity.
- advice on the rehabilitation that has occurred within an area in the north eastern corner of Lot 270; approximately 200 *Eucalyptus rudis* and *Eucalyptus cornuta* (Yate tree) seedlings have already been planted and native grasses and sedges will also be planted.
- advice of intent to fence off salt damaged areas on the two properties (Lot 270 and Lot 287).

Additional advice from the Commissioner of Soil and Land Conservation notes the vulnerability of the dam and drainage line below it to future salt encroachment should the groundwater beneath the paddock continue to rise and highlights a rising trend in the monitoring bores in the district. The Commissioner advised there is a slight increased risk of secondary salinity occurring at the proposed three clearance sites in Lot 270 (Commissioner of Soil and Land Conservation, 2011) should the amended proposal of 13 trees be removed from Lot 270 and therefore considered the modified area on Lot 270 may be at variance to this clearing principle.

Therefore the amended proposal to clear 13 trees in Lot 270 may be at variance to this principle. The 28.8ha area in Lot 287 under application is not likely to be at variance to this clearing principle.

Methodology Commissioner of Soil and Land Conservation (2011)
Stone (2011)

GIS Databases:

- Hydrography, linear
- Groundwater Salinity
- Salinity Risk
- NWLRA, Current Extent of Native Vegetation

(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**

Given the 'completely degraded' (Keighery 1994) condition of the area under application the proposed clearing is unlikely to cause or exacerbate the incidence or intensity of flooding and is therefore not likely to be at variance to this clearing principle.

Methodology Keighery 1994

Planning instruments, Native Title, Previous EPA decision or other matters.

Comments

The Shire of Cranbrook has no comment on the proposal (Submission, 2011).

The area under application falls within the agricultural area defined in EPA Position Statement No. 2 (EPA 2000). EPA Position Statement No. 2 states that significant clearing of native vegetation has already occurred on agricultural land, leading to a reduction in biodiversity and increase in land salinisation, and therefore any further reduction in native vegetation through clearing for agriculture cannot be supported. The EPA (2000) recommends that all existing native vegetation be protected from passive clearing through, for example, grazing by stock or clearing by other means.

In exceptional circumstances the EPA would consider supporting clearing for agriculture within this region if:

- (a) There are alternative mechanisms for protecting biodiversity.
- (b) The area to be cleared is relatively small, depending on the scale at which biodiversity changes over the area, including extent of vegetation in the surrounding area and recognising that values will vary for different ecosystems.
- (c) The proponent demonstrates that the elements set out in Section 4.3 of this Position Statement are being met. This will require extensive local and regional biodiversity work.
- (d) Land degradation, including aquatic environments and threatening processes, such as dieback, salinisation or disruption of catchment processes, on-site and off-site would not be exacerbated.

With regard to these exceptions DEC has determined (b) and (d) have been met and are explained under the clearing principles above.

Methodology EPA (2000)
Stone (2011)
Submission (2011)

4. References

- Chapman, T., Johnstone, R. and Massam, M. (2005) Fauna Note No. 06/2005 Red-tailed Black Cockatoo, Department of Conservation and Land Management, Western Australia.
- Commissioner of Soil and Land Conservation (2011); Land Degradation Advice and Assessment Report for clearing permit application CPS 4300/1 received 10/05/2011; Department of Agriculture and Food Western Australia (TRIM Ref. DOC A394353).
- Commissioner of Soil and Land Conservation (2011); Land Degradation Advice and Assessment Report for clearing permit application CPS 4300/1 received 23/06/2011; Department of Agriculture and Food Western Australia (DEC Ref. A406997).
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DEC (2007) DEC Fauna Habitat Notes.xls. February 2007. Department of Environment and Conservation, Western Australia.
- DEC (2007-) Nature Map: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. (Accessed 14/04/2011)
- DEC (2011) Regional Site Report for Clearing Permit Application CPS 4300/1, Lots 270 and 287 Hay Location, Frankland River Site inspection undertaken 09/05/2011. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC A394438).
- 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.
- Johnstone, R.E. and Kirkby, T. (2008) Distribution, status, social organisation, movements and conservation of Baudin's Cockatoo (*Calyptorhynchus baudinii*) in South-west Western Australia. Western Australian Museum, Perth.
- 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.
- Stone, G (2011) Advice from applicant (DEC REF A403095), Albany, Western Australia.
- Submission (2011) Direct Interest Submission for clearing permit application CPS 4300/1. Received 6 May 2011. Shire of Cranbrook, Cranbrook, Western Australia (DEC REF A393605).
- Watson, A (2011) CPS 4300/1 Land degradation assessment report, Department of Agriculture and Food, South Perth.
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed 14/04/2011).

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)