



1. Application details

1.1. Permit application details

Permit application No.: 3408/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Grigorios Korovesi

1.3. Property details

Property: LOT 830 ON PLAN 60519 (PORONGURUP 6324)
LOT 830 ON PLAN 60519 (PORONGURUP 6324)

Local Government Area:

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1		Burning	Hazard reduction or fire control

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 3: Medium forest; jarrah-marri (Shepherd 2007)	The application area is currently under investigation for alleged unlawful clearing that has occurred on the property. Approximately 1 ha of native vegetation has been cleared within the application area. While the assessment relates to the entire property, any permit can only authorise the clearing of the five piles of native vegetation remaining on the property.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The vegetation condition and description was determined from aerial imagery (Albany Mount Barker 1.4m Orthomosaic - Landgate 2002).

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 application area is currently under investigation as it has recently been cleared and heaped. The surrounding native vegetation is in very good condition. Given this the vegetation prior to clearing is likely to have been in very good condition.

The assessment is based on the values that the vegetation is likely to have contained prior to clearing.

The vegetation under application is mapped as Beard Vegetation Association 3: Medium forest; jarrah-marri (Shepherd 2007). It is likely that Karri trees are present within the creekline. Karri trees found in this area represent the most easterly occurrence of Karri on the South Coast (DEC, 2009a). The vegetation is considered to be in very good (Keighery 1994) condition. Aerial imagery suggests the local area (10km radius) retains approximately 30% native vegetation.

The area under application is within Zone A (highest priority) of the South Coast Macro Corridor Network (DEC 2009a).

Three priority fauna species have been recorded within the local area, being *Falcunculus frontatus leucogaster* (Crested Shrike-tit, P4), *Bothriembryon brazieri* (mollusc, P2) and *Hemisaga lucifer* (insect, P2). Limited habitat information is available for *B. brazieri* or *H. lucifer*.

The Crested Shrike-Tit inhabits eucalypt forests and woodlands (Recher 2006), and given that the application area is mapped as a Jarrah-Marri medium forest the vegetation may include habitat suitable for this species. The closest record of this species is within 1.5km of the application area. One of the greatest threatening processes of this species is land clearing as they fail to survive in fragmented habitats (Recher 2006) and as such the clearing may incrementally contribute to the decline of this species.

One priority ecological community is known to occur within the local area, being Wet Ironstone Heath Community (Albany District) (Priority 1). The habitat for the community is winter-wet ironstone in valley floors, and the community is dominated by *Kunzea recurva*, *K. preissiana*, *K. micrantha*, *Hakea lasiocarpa*, *H. tuberculata*, *H. oldfieldii*, *H. cucullata*, *H. sulcata*, *Petrophile squamata*, *Dryandra tenuifolia* ssp. *tenuifolia*, *Adenanthos apiculatus*, *Melaleuca suberosa*, *M. violacea*, and *Gastrolobium spinosum*. The closest recorded occurrence of this PEC is 5km north west of the application area. Given that the mapped vegetation type of medium forest of Jarrah-Marri, it is unlikely for the application area to contain this PEC.

Forty five priority flora species have been recorded within the local area:

Acacia drummondii subsp. *elegans* Porongurup variant (R.J. Cumming 938) (P4)

Acacia heteroclita subsp. *valida* (P2)

Acrotriche parviflora (P4)

Asplenium aethiopicum (P4)

Banksia calophylla (P3)

Banksia densa var. *parva* (P2)

Banksia seneciifolia (P3)

Billardiera drummondii (P4)

Caladenia plicata (P4)

Calothamnus affinis (P4)

Calothamnus microcarpus (P2)

Chorizema carinatum (P3)

Chorizema reticulatum (P3)

Darwinia macrostegia (P4)

Degelia flabellata (P2)

Eucalyptus goniantha subsp. *goniantha* (P4)

Eucalyptus x *kalganensis* (P4)

Gastrolobium subcordatum (P4)

Gonocarpus trichostachyus (P3)

Goodenia filiformis (P3)

Goodenia quadrilocularis (P2)

Goodenia sp. South Coast (A.R. Annels ARA1846) (P3)

Hakea lasiocarpa (P3)

Hakea oldfieldii (P3)

Hakea tuberculata (P3)

Hibbertia porongurupensis (P4)

Juncus meianthus (P2)

Lepidium pseudotasmanicum (P4)

Leucopogon blepharolepis (P3)

Leucopogon cymbiformis (P2)

Leucopogon tamariscinus (P4)

Lysinema lasianthum (P4)

Marianthus granulatus (P4)

Pleurophascum occidentale (P4)

Rorippa cygnorum (P2)

Schoenus sp. Mt Barker (G.J. Keighery 9679) (P1)

Spyridium spadiceum (P2)

Stylidium corymbosum var. *proliferum* (P2)

Stylidium diplectroglossum (P1)

Stylidium gloeophyllum (P3)

Stylidium tylosum (P1)

Tecticornia uniflora (P4)

Thysanotus brevifolius (P2)

Verticordia huegelii var. *tridens* (P3)

Villarsia marchantii (P4)

Many of the species listed above are associated with the granitic soils of the nearby Porongurup National Park, and as such are not likely to be present within the application area (DEC 2009).

Given the potential for the vegetation within the application area to contain habitat for priority fauna and flora species, the clearing may be at variance to this principle.

Methodology DEC (2009)
DEC (2009a)
Recher (2006)
GIS database:
- DEC Tenure - CALM 01/06/05
- SAC Biodatasets - accessed 18 Nov 09
- Pre European Vegetation - DA 01/01
- Clearing Regulations, Environmentally Sensitive Areas 30 May 2005
- NLWRA, Current Extent of Native Vegetation 20 Jan 2001

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

Comments Proposal may be at variance to this Principle

Three records of threatened fauna have been mapped within the local area (10km radius), being *Calyptorhynchus baudinii* (Baudin's Black Cockatoo), *Falco peregrinus* (Peregrine Falcon) and *Pseudocheirus occidentalis* (Western Ringtail Possum).

Western Ringtail Possum is not likely to utilise the area under application due to the absence of *Eucalyptus gomphocephala* (tuart) and *Agonis flexuosa* (peppermint).

Baudin's Black Cockatoo utilises sites that are heavily forested and dominated by *Corymbia calophylla* (Marri) and *Eucalyptus* species, especially *E. diversicolor* (Karri) and *E. marginata* (Jarrah) (DEWHA 2009). Vegetation suitable for Baudin's Black Cockatoo in this area is also considered to be potential habitat for *Calyptorhynchus latirostris* (Canaby's Black Cockatoo) and *C. banksii naso* (Forest Red-tailed Black Cockatoo) (DEC 2009a), both of which are threatened species.

Falco peregrinus is not confined to a specific habitat, and threatening processes associated with habitat loss are particularly associated with loss of woodland trees where Peregrine Falcon nests in areas where there are no cliffs (DEWHA 2009).

The local area retains approximately 30% native vegetation, and is part of a regionally significant ecological linkage (Zone A of the South Coast Macro Corridor Network) and the clearing may incrementally result in further fragmentation of the local landscape and habitat decline for these species.

Given the above the clearing may be at variance to this principle.

Methodology DEWHA (2009)
DEC (2009a)

GIS database:
- DEC Tenure - CALM 01/06/05
- SAC Biodatasets - accessed 18 Nov 09
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06

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

Comments Proposal may be at variance to this Principle

Twelve rare flora species have been recorded within the local area (10km radius):

Apium prostratum subsp. *phillipii*
Banksia anatona
Banksia brownii
Banksia goodii
Banksia ionthocarpa subsp. *ionthocarpa*
Banksia montana
Conostylis misera
Drakaea confluens
Sphenotoma drummondii
Thelymitra psammophila
Verticordia helichrysantha
Villarsia calthifolia

Of these, *Banksia goodii*, *Conostylis misera* and *Drakaea confluens* may be present within the area under application, which is mapped as consisting primarily sandy soils (Northeccote et al 1968, DEC 2009). The remaining species listed above are likely to be associated with the granitic soils of the nearby Porongurup National Park.

Given the above the clearing may be at variance to this principle.

Methodology Northcote et al. (1968)

GIS database:

- Pre European Vegetation - DA 01/01
- SAC Biodatasets - accessed 18 Nov 09
- Soils, Statewide DA 11/99

(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 records of threatened ecological communities occurring within a 10km radius of the application area. The vegetation under application is therefore not likely to be necessary for the maintenance of a threatened ecological community, and the proposed clearing is not likely to be at variance to this principle.

Methodology GIS Database:

- SAC Biodatasets - accessed 18 Nov 09
- Pre European Vegetation - DA 01/01
- Soils, Statewide DA 11/99

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

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

The vegetation under application is mapped as Beard vegetation association 3, of which approximately 69.32% of the pre-European extent remains within the Jarrah Forest bioregion (Shepherd 2007). This is above the 30% threshold level supported by the EPA and recommended in the National Objectives Targets for Biodiversity Conservation; below which species loss appears to accelerate exponentially at an ecosystem level (EPA, 2000).

The local area (10km radius) retains approximately 30% native vegetation, of which the vegetation under application is part of a significant remnant. The application is within Zone A (highest priority) of the South Coast Macro Corridor Network, and the proposal is likely to impact ecological linkages between large remnants and the nearby Porongurup National Park, reducing it to a stepping stone type linkage.

Given the above the clearing as proposed may therefore be at variance to this principle.

Methodology EPA (2000)
Shepherd (2007)

GIS Databases:

- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Local Government Authorities - DLI 8/07/04
- Pre European Vegetation - DA 01/01
- SAC Biodatasets - accessed 18 Nov 09
- NLWRA, Current Extent of Native Vegetation 20 Jan 2001

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

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

The area under application intersects a minor non-perennial watercourse, and therefore may contain riparian vegetation.

Given the above the clearing as proposed may therefore be at variance to this principle.

Methodology GIS Databases:

- DEC Tenure - 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
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06

(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 is mapped as soil type Cb42 which is described as gently undulating to undulating plains and outwash fans from the granite hills with shallow well-defined drainage depressions are common. The dominant soils are deep bleached sands (Northcote et al. 1968).

Sandy soils have an increased risk of wind erosion, and the area is mapped as low to high salinity risk; however the clearing of approximately 1ha, surrounded on 3 sides by native vegetation, is not likely to significantly increase impacts of land degradation.

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

Methodology Northcote et al. (1968)

GIS database:

- Average Annual Rainfall Isohyets - WRC 29/09/98
- Annual Evaporation Contours (Isopleths) - WRC 29/09/98
- Hydrogeology, statewide DOW 13/07/06
- Hydrographic catchments, catchments - DoW 01/06/07
- Hydrographic catchments, subcatchments - DoW 01/06/07
- Hydrography, linear - DOW 13/7/06
- Salinity Risk LM 25m - DOLA 00
- Soils, Statewide DA 11/99
- Topographic contours statewide - DOLA and ARMY 12/09/02

(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 closest conservation area is Porongurup National Park, 1.2km north of the application area. The local area (10km radius) retains approximately 30% native vegetation, of which the vegetation under application is part of a significant remnant, and the clearing is likely to sever an ecological linkage. However, the clearing of 1ha is not likely to have a significant impact on nearby conservation areas and the clearing is not likely to be at variance to this principle.

Methodology GIS Databases:

- DEC Tenure - DEC Sept 08
- Hydrography, linear - DOW 13/7/06
- Register of National Estate - Environment Australia, Australian and world heritage division 12 Mar 02

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Comments Proposal may be at variance to this Principle

The application area lies within the Oyster Harbour Kalgan King Catchment, and the Albany Coast Basin. The clearing intersects a minor non-perennial watercourse, and clearing of riparian vegetation is likely to increase sedimentation. The clearing as proposed may therefore be at variance to this principle.

Part of the area under application is mapped as low to high salinity risk and removal of deep rooted perennial vegetation is likely to increase recharge to subsurface and groundwater, increasing risks of salinisation. However, as the clearing area is small (1ha) and buffered by surrounding vegetation, the clearing is unlikely to have measurable impact on salinity in the catchment.

Methodology GIS database:

- Evapotranspiration Isopleths - WRC 29/09/98
- Groundwater Salinity Statewide DoW 13/07/06
- Hydrographic catchments, catchments - DoW 01/06/07
- Hydrographic catchments, subcatchments - DoW 01/06/07
- Hydrography, linear - DOW 13/7/06
- Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
- Salinity Risk LM 25m - DOLA 00
- Topographic Contours, Statewide - DOLA 12/09/02

(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 area under application is mapped as soil type Cb42, which is dominated by deep bleached sands (Northcote et al. 1968). Additionally, the area under application is 1ha, and surrounded on 3 sides by native vegetation, and is therefore not likely to have a significant impact on surface water runoff or groundwater recharge.

Given the above the clearing is therefore not likely to cause or exacerbate the incidence or intensity of flooding.

Methodology Northcote et al (1968)

GIS database:

- Environmental Impact Assessments - EPA 22/2/07
- Evaporation Isopleths - WRC 29/09/98
- Hydrographic catchments, catchments - DoW 01/06/07
- Hydrographic catchments, subcatchments - 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 application area is currently under investigation (ICMS 15989) as clearing has occurred on the property.

An application was submitted by the applicant to burn already felled native vegetation within Lot 830 on Plan 60519, Porongurup. The area applied for is 5 piles of felled native vegetation, the result of clearing approximately 1 ha of native vegetation.

The area under application is currently zoned rural in the Town Planning Scheme. An application has been received by the Shire of Plantagenet to rezone the area as rural residential under amendment no. 51 of the Town Planning Scheme No. 3. The area under application has been removed from the amendment due to the amount of vegetation remaining on the proposed lot (TRIM ref DOC109152).

The purpose of the clearing is for fire hazard reduction within a future building envelope. The property has an existing house outside the area under application, and the Shire of Plantagenet has not received an application for additional houses within the property (TRIM ref DOC109152).

The Shire of Plantagenet has provided a submission opposing the granting of a clearing application due to the alleged unlawful clearing and the removal of the lot from the proposed amendment no. 51.

Methodology TRIM ref DOC109152

GIS database:

- Cadastre - Landgate Dec 07
- Town Planning Scheme Zones - MFP 31/08/98

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), (c), (e), (f), and (i) and is not likely to be at variance to the remaining clearing Principles.

5. References

- DEC (2009) FloraBase: Flora Species Profiles. Department of Environment and Conservation. URL: <http://florabase.dec.wa.gov.au/>
- DEC (2009a) South Coast Regional Advice. Department of Environment and Conservation Trim Ref DOC112783.
- DEWHA (2009). Threatened species and ecological communities publications. Accessed at: <http://www.environment.gov.au/biodiversity/threatened/publications/index.html> Accessed on: 9/12/2009. Department of the Environment, Water, Heritage and the Arts, Australia.
- 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.

Recher, H.F. (2006). A hypothesis to explain why the south-western subspecies of the Crested Shrike-tit (*Falcunculus frontatus leucogaster*) is rare and declining. EMU 106, 181-186.

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.

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	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)

