



1. Application details

1.1. Permit application details

Permit application No.: 5014/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Matthew Ernest and Therese Mary King

1.3. Property details

Property: LOT 13895 ON PLAN 205461 (House No. 1117 SPRINGHURST NORTH KUKERIN 6352)
Local Government Area: Shire of Dumbleyung
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
10		Mechanical Removal	Dam construction or maintenance

1.5. Decision on application

Decision on Permit Application: Refused
Decision Date: 7 December 2012

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
Mapped Beard vegetation association 1023 is described as Medium woodland; York gum, wandoo & salmon gum (<i>E. salmonophloia</i>) (Shepherd et al 2001).	The proposed clearing of 10 hectares is for the purpose of a dam and catchment.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The condition of the vegetation was established through a site visit conducted by Department of Environment and Conservation (DEC) officers on 5 June 2012.
Mapped Beard vegetation association 1075 is described as Shrublands; mallee scrub, Eucalyptus eremophila & black marlock (<i>E.redunca</i>) (Shepherd, 2009).	The area under application has been burnt approximately 8 years ago and is regenerating in an excellent (Keighery, 1994) condition. The area under application consists of Mallee vegetation with <i>Allocasuarina humilis</i> and <i>Leptospermum erubescens</i> heath and Mallee shrubland areas consisting of <i>Eucalyptus xanthonema</i> and <i>Eucalyptus eremophila</i> over <i>Melaleuca</i> species with <i>Acacia</i> sp. and <i>Leptospermum erubescens</i> over native sedges.		

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 at variance to this Principle

The area under application was burnt approximately 8 years ago and consists of regenerating Mallee vegetation with *Allocasuarina humilis* and *Leptospermum erubescens* heath and Mallee shrubland areas consisting of *Eucalyptus xanthonema* and *Eucalyptus eremophila* over *Melaleuca* species with *Acacia* sp. and *Leptospermum erubescens* over native sedges in excellent (Keighery 1994) condition (DEC 2012).

The area under assessment is considered important in terms of landscape scale biodiversity conservation and is included as a significant remnant in the Tarin Rock Target Landscape Area project (Woodman Environmental Consulting Pty Ltd, 2002). The application area has also been identified as part of a remnant of vegetation that has conservation significance due to potentially high species and vegetation association richness in an area which has largely been cleared for cropping and grazing (Woodman Environmental Consulting Pty Ltd, 2002).

The local area (10 kilometre radius) and the Shire of Dumbleyung have been extensively cleared for agriculture, with approximately 10 per cent native vegetation cover remaining. The vegetation proposed to be cleared contains under-represented mapped vegetation types (Beard Vegetation Association 1023 and 1075) which

retain approximately 11 per cent (174,626 hectares) and 15 per cent (79,843 hectares) respectively, of their pre-European extent within the Mallee IBRA bioregion (Government of Western Australia 2011).

The application is within the centre of a 50.9 hectare remnant of vegetation. The proposed clearing will fragment this remnant which may impact upon the ecological function of the vegetation as habitat for local fauna and flora. Disturbance whilst undertaking clearing activities poses a high risk of introducing or spreading weeds to the surrounding environment and could degrade the adjacent remnant vegetation.

Seventeen priority flora species have been identified within the local area occurring on similar soil and vegetation types as the application area. The closest one being a priority 3 *Gastrolobium* sp. which has been recorded approximately 2.1 kilometres west of the application area. Given the excellent (Keighery 1994) condition of the vegetation, the application area may provide habitat for priority species.

The vegetation under application is considered to comprise a high biodiversity value in the highly cleared landscape and the proposed clearing is therefore at variance to this Principle.

Methodology **References**
-Government of Western Australia (2011)
-Woodman Environmental Consulting (2002)
-Keighery (1994)
-DEC (2012)
GIS Databases
-SAC Bio datasets (10 May 2012)
-NWLRA, Current Extent of Native Vegetation
-Pre-European Vegetation
-NatureMap

(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 at variance to this Principle

The vegetation under application is considered to be in an excellent (Keighery 1994) condition (DEC 2012).

The local area (10 kilometre radius) and the Shire of Dumbleyung have been extensively cleared for agriculture, with approximately 10 per cent native vegetation cover remaining (Government of Western Australia 2011).

Fourteen threatened fauna species have been recorded within a 10 kilometre radius of the application area including the *Dasyurus geoffroyi* (Chuditch), *Leipoa ocellata* (Malleefowl), *Myrmecobius fasciatus* (Numbat) *Phascogale calura* (Red-tailed Phascogale), *Ardeotis australis* (Australian Bustard), *Burhinus grallarius* (Bush Stone-curlew), *Calyptorhynchus latirostris* (Carnaby's Cockatoo), *Macropus eugenii* subsp. *derbianus* (Tamar Wallaby (WA subsp)), *Morelia spilota* subsp. *imbricata* (Carpet Python), *Oreoica gutturalis* subsp. *gutturalis* (Created Bellbird), *Platycercus icterotis* subsp. *xanthogenys* (Western Rosella), *Pomatostomus superciliosus* subsp. *ashbyi* (White-browed Babbler), *Pseudomys occidentalis* (Western Mouse) and *Psophodes nigrogularis* subsp. *Oberon* (Western Whipbird).

Several of the listed species are now sub regionally extinct whilst others such as the Red-tailed Phascogale, Malleefowl and Western Mouse are still extant, however restricted to remnants and generally in decline (CALM 2005). The application area is in the vicinity of a significant remnant of vegetation that is approximately 315 hectares in size and is likely to contain habitat suitable for threatened species. The application area occurs within the centre of a 50.9 hectare remnant that is connected to the larger remnant of vegetation. Given the excellent (Keighery 1994) condition of the vegetation under application the application area is likely to provide supporting habitat for threatened and local fauna species that utilize the nearby larger remnant.

The proposed clearing will also fragment the 50.9 hectare remnant that it occurs within which may impact upon the ecological function of the vegetation as habitat for local fauna. Disturbance whilst undertaking clearing activities poses a high risk of introducing or spreading weeds to the surrounding environment and could degrade the adjacent remnant vegetation further impacting on significant fauna habitat in a highly cleared landscape.

Given the highly cleared landscape and the excellent (Keighery, 1994) condition of the vegetation, the application area represents significant fauna habitat and the proposed clearing is at variance to this Principle.

Methodology **References**
-Government of Western Australia (2011)
-CALM (2005)
-Keighery (1994)
-DEC (2012)
GIS Databases
-NWLRA, Current Extent of Native Vegetation

(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

Three rare flora species have been recorded within the local area (10 kilometre radius) the closest located approximately 8.6 kilometres from the application area and is found within similar soil and vegetation types.

Lechenaultia sp. occurs on white sand over laterite adjacent to winter wet seepage areas in open woodland of flooded gum and wandoo (Brown et al. 1998).

Acacia sp. is restricted to lateritic hills in the Duggan area west of Lake Grace (Brown et al. 1998).

Conostylis sp. occurs on grey white sand in mallee scrub or in seasonally wet sandy loam (Brown et al. 1998).

The application area consists of regenerating mallee vegetation with Allocasuarina humilis and Leptospermum erubescens heath and mallee shrubland areas consisting of Eucalyptus xanthonema and Eucalyptus eremophila over Melaleuca species with Acacia sp. and Leptospermum erubescens over native sedges on yellow loamy clay soils (DEC 2012). As the area under application does not contain lateritic hills, winter wet areas or grey white sand, it is not considered likely for the application area to contain suitable habitat for rare flora species.

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

Methodology

- References
- DEC (2012)
- Brown et al (1998)
- GIS Databases
- SAC Bio datasets (10 May 2012)

(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

No TEC's have been recorded in the local area (10km radius).

Given this, it is not considered likely for the proposed clearing to be at variance to this Principle.

Methodology

- GIS Databases
- SAC Bio datasets (10 May 2012)

(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 applicant owns 3404.76 hectares and currently, 2762.56 (80.12%) has been cleared. The local area (10 kilometre radius) and the Shire of Dumbleyung have been extensively cleared for agriculture, with approximately 10 per cent native vegetation cover remaining. The vegetation proposed to be cleared contains under-represented mapped vegetation types (Beard Vegetation Association 1023 and 1075) which retain approximately 11 per cent (174,626 hectares) and 15 per cent (79,843 hectares) respectively, of their pre-European extent within the Mallee IBRA bioregion (Government of Western Australia 2011).

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).

The application area is within the centre of a 50.9 hectare remnant of vegetation. The proposed clearing will fragment this remnant which may impact upon the ecological function of the vegetation as habitat for local fauna. The application area is within the area covered by the EPA Position Statement No.2, which concludes that further clearing for agricultural purposes should not be considered unless the proposed land use addresses alternative mechanisms for protecting biodiversity including rehabilitation of disturbed areas, the area proposed to be cleared is relatively small and on and offsite land degradation is not exacerbated (EPA, 2000).

Considering the above, the vegetation under application is significant as a remnant of native vegetation in an area that has been extensively cleared and the proposed clearing is at variance to this Principle.

Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
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IBRA Bioregion*					
Mallee	7,395,896	4,114,884	55.6	31	
Shire*					
Shire of Dumbleyung	254,060	33,200	13	23	
Beard Vegetation Association in Bioregion*					
1023	1,601,602	174,626	11	11	
1075	527,045	79,843	15	36	

* Government of Western Australia (2011)

Methodology References
 -EPA (2000)
 -Government of Western Australia (2011)
 -Commonwealth of Australia (2001)
 GIS Databases
 -NWLRA, Current Extent of Native Vegetation
 -Pre-European Vegetation

(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

No wetlands occur within the vicinity of the proposed clearing. A minor non perennial watercourse occurs 250 metres north-east of the application area and a major tributary of the Kukerin Gully occurs 2.7 kilometres to the north of the application area.

Given the distance to the nearest watercourse it is not considered likely for the proposed clearing to be at variance to this 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 soils within the area under application consist of yellow loamy clay soils (DEC 2012). The application area occurs within the Kukerin 2 (259Kk_2) Subsystem which consists of generally smoothly undulating upper, mid and lower slopes below breakaways, largely devoid of rock outcrop on deeply weathered granite, gneiss and granodiorite intruded by dolerite dykes with alkaline grey shallow sandy and loamy duplex soils, grey deep and shallow sandy duplex and duplex sandy gravels (Commissioner of Soil and Land Conservation 2012).

It is unlikely that wind erosion will result given the soil types present within the application area (Commissioner of Soil and Land Conservation 2012).

The application area has a slope of 2.4 per cent rising 12 metres over 500 metres from the north to the south of application area. Water erosion may occur within the application area given this slope however the Commissioner of Soil and Land Conservation (2012) has advised that the risk of appreciable water erosion is low.

There is no evidence of salinity occurring in the area proposed to be cleared however salinity does occur offsite in waterways to the north, west and south of the application area (Soil and Land Conservation Commissioner 2012). The proposed clearing of 10 hectares of native vegetation may result in increased recharge to the groundwater systems and increase the risk of further salinity offsite, however the likelihood is low (Commissioner of Soil and Land Conservation 2012).

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

Methodology References
 - Commissioner of Soil and Land Conservation (2012)
 -DEC (2012)
 GIS Databases
 -Soils, 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

Approximately 5 per cent of the local area is within DEC tenure. The closest conservation reserve is an unnamed nature reserve located 6.8 kilometres to the north of the application area and Tarin Rock Nature Reserve occurs 11.5 kilometres east of the application area.

The application area is part of a remnant of vegetation that is considered important in terms of landscape scale biodiversity conservation and is included as a significant remnant in the Tarin Rock Target Landscape Area project (Woodman Environmental Consulting Pty Ltd, 2002). The proposed clearing of 10 hectares of vegetation from this remnant may cause degradation of a remnant that facilitates the movement of fauna between conservation reserves and other limited remnant vegetation in the local area.

The proposed clearing may impact the environmental values of nearby conservation areas and therefore may be at variance to this Principle.

Methodology References

-Woodman Environmental Consulting Pty Ltd (2002)
GIS Databases
-DEC Managed Land
-NWLRA, 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

No wetlands occur within the vicinity of the proposed clearing. A minor non perennial watercourse occurs 250 metres north-east of the application area and a major tributary of the Kukerin Gully occurs 2.7 kilometres to the north of the application area.

Groundwater salinity within vicinity of the application area is high with more than 35000 mg/L (Brine).

There is no evidence of salinity occurring in the area proposed to be cleared however salinity does occur offsite in waterways to the north, west and south of the application area (Commissioner of Soil and Land Conservation 2012). The removal of 10 hectares of native vegetation may result in increased recharge to the groundwater systems and increase the risk of further salinity offsite, however the likelihood is low (Commissioner of Soil and Land Conservation 2012).

It is not considered likely for the proposed clearing to be at variance to this Principle.

Methodology References

-Commissioner of Soil and Land Conservation (2012)
GIS Databases
-Hydrography, linear
-Salinity, 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

No wetlands occur within the vicinity of the proposed clearing. A minor non perennial watercourse occurs 250 metres north-east of the application area and a major tributary of the Kukerin Gully occurs 2.7 kilometres to the north of the application area.

The application area occurs within the Kukerin 2 (259Kk_2) subsystem and it is considered for the side slopes soils within the application area to be well drained (Commissioner of Soil and Land Conservation 2012).

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

Methodology References

- Commissioner of Soil and Land Conservation (2012)
GIS Databases
-Hydrography, linear

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

Comments

The application is to clear 10 hectares for the purpose of a dam and catchment. Water from the proposed dam will gravitate via pipes to a large water tank and then down to a number of troughs across the property to water

stock.

A letter was sent to the applicant on the 5 July 2012 requesting information on whether a farm water assessment for his farm has been done. The letter also outlined that the most appropriate way forward for consideration of future clearing is the development of a whole farm management plan (FMP). On 18 July 2012 the applicant provided a copy of a letter dated 24 June 2002 from the Waters and Rivers Commission stating that a review of the applicants Farm Water Grant application has been completed however it has been declined as the on farm water deficiency was deemed to be too low to warrant consideration of a grant under the Farm Water Grants Scheme. On 31 August 2012 a letter was sent to the applicant requesting for information addressing environmental impacts identified during the assessment of his clearing application including information on avoiding and minimising impacts and offsetting unavoidable impacts including the development of a FMP.

On 5 November 2012 DEC received a response from the applicant, which included a FMP. DEC advised the applicant in letter dated 22 November 2012 that the information provided does not outline opportunities to avoid and minimise the impacts of the proposed clearing or provide detail on offsets to compensate for the impacts of the proposed clearing. A list of what information is required within a FMP was also outlined in the letter and further time was given to the applicant to address the impacts of the proposed clearing. On 28 November 2012 a letter was received from the applicant advising that no further information will be submitted as all information requested by DEC has been provided. The letter also stated that the FMP submitted defines the property's current management and future plans.

On Lot 13895, 197 hectares of proposed clearing was assessed by the Environmental Protection Authority in 1993. On 14 June 1994 the Minister for the Environment decided that the proposal to clear of 197 hectares within Williams Location 13895 may not be implemented under s45(8) of the Environmental Protection Act 1986 (EPA 1993).

EPA Bulletin 689 states that the remnant vegetation proposed for clearing was surveyed for its ecological significance by Mollemans in 1991 as part of a remnant vegetation survey of the Great Southern Region of Western Australia and found that the vegetation on Lot 13895 had very high ecological significance (EPA 1993). The EPA recommended that the Government should ensure the remnant vegetation on Williams location 13895 is protected in the long term (EPA 1993).

The application area is zoned rural under the Shire of Dumbleyung's Town Planning Scheme.

The application area is within the area covered by the EPA Position Statement No.2, which concludes that further clearing for agricultural purposes should not be considered. The proposed clearing is for the purpose of a dam to drought proof the applicant's farm. In exceptional circumstances the EPA could consider supporting clearing in the agricultural area if:

1. The proposed land use addresses alternative mechanisms for protecting biodiversity including rehabilitation of disturbed areas.
2. The area proposed to be cleared is relatively small
3. Land degradation on site and off site is not exacerbated (EPA 2000)

Twelve submissions were received in support of the application. A number of the submissions raised concern about the economic hardship that may be incurred by the applicant if the application is refused.

The Shire of Dumbleyung (2012) advised of no objection to the proposal.

The Commissioner of Soil and Land Conservation (2012) advised that the proposed dam may prove to be unreliable, due to the natural catchment that it occurs within as runoff into the dam may be infrequent.

Methodology

References

- Shire of Dumbleyung (2012)
- Commissioner of Soil and Land Conservation (2012)
- EPA (2000)
- EPA (1993)
- GIS Databases
- Town Planning Scheme Zones

4. References

CALM (2005) Land clearing proposal advice for Lot 13895 Springhurst Road, North Kukerin CPS 481/1. Advice to A/Director General, Department of Environment (DoE). Department of Conservation and Land Management, Western Australia. TRIM ref SWO25343.

Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.

Commissioner of Soil and Land Conservation (2012); Land Degradation Advice and Assessment Report for clearing permit application CPS 5014/1 received 7 June 2012; Department of Agriculture and Food Western Australia (DEC Ref. A511835).

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.

DEC (2012) Site Inspection Report for Clearing Permit Application CPS 5014/1, Lot 13895 Springhurst Road, North Kukerin. Site inspection undertaken 5 June 2012. Department of Environment and Conservation, Western Australia (DEC ref A511616).

EPA (1993) EPA Bulletin 689 - Clearing of 197ha of land for agriculture - Williams location 13895 North Kukerin. TRIM ref SWD42393

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.

Government of Western Australia (2011); 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, 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.

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.

Shire of Dumbleyung (2012) Direct Interest Submission for CPS 5014/1 - Mathew King - Lot 13895 Spinghurst Rd North Kukerin. DEC ref A507804

Woodman Environmental Consulting (2002) Vegetation Survey of the Tarin Rock Target Landscape Area. Prepared for Department of Conservation and Land Management. Perth, Western Australia. DEC ref A

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)