



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 5214/1
File Number: 2012/005976-1
Duration of Permit: 4 January 2013 to 4 January 2015

PERMIT HOLDER

Tutunup Pty Ltd

LAND ON WHICH CLEARING IS TO BE DONE

LOT 964 ON DEPOSITED PLAN 81576 (YOGANUP 6275)

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 4.19 hectares of native vegetation within the area hatched yellow on attached Plan 5214/1.

CONDITIONS

1. Vegetation management - Fencing

- (a) Prior to 30 June 2013, the Permit Holder shall construct a fence enclosing the area hatched red on attached Plan 5214/1 sufficient to exclude all classes of domestic livestock from the area;
- (b) The Permit Holder shall not cause or suffer domestic livestock entering or remaining in the area hatched red on attached Plan 5214/1 for the term of this permit; and
- (c) Within one month of installing the fence required by condition 1(a), the Permit Holder shall notify the CEO in writing that the fence has been completed.

2. Dieback and 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* and *dieback*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) shall only move soils in *dry conditions*;
- (c) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (d) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

3. Fauna management

The Permit Holder must not clear *habitat trees* within the area hatched yellow on attached Plan 5214/1 between the months of July to January.

DEFINITIONS

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

dieback means the effect of *Phytophthora* species on native vegetation;

dry conditions means when soils (not dust) do not freely adhere to rubber tyres, tracks, vehicle chassis or wheel arches;

fill means material used to increase the ground level, or fill a hollow;

habitat tree(s) means trees that have a diameter, measured at 1.5 metres from the base of the tree, of 50 centimetres or greater, that contains or has the potential to develop hollows or roosts suitable for native fauna;

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; and

weed/s 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*.

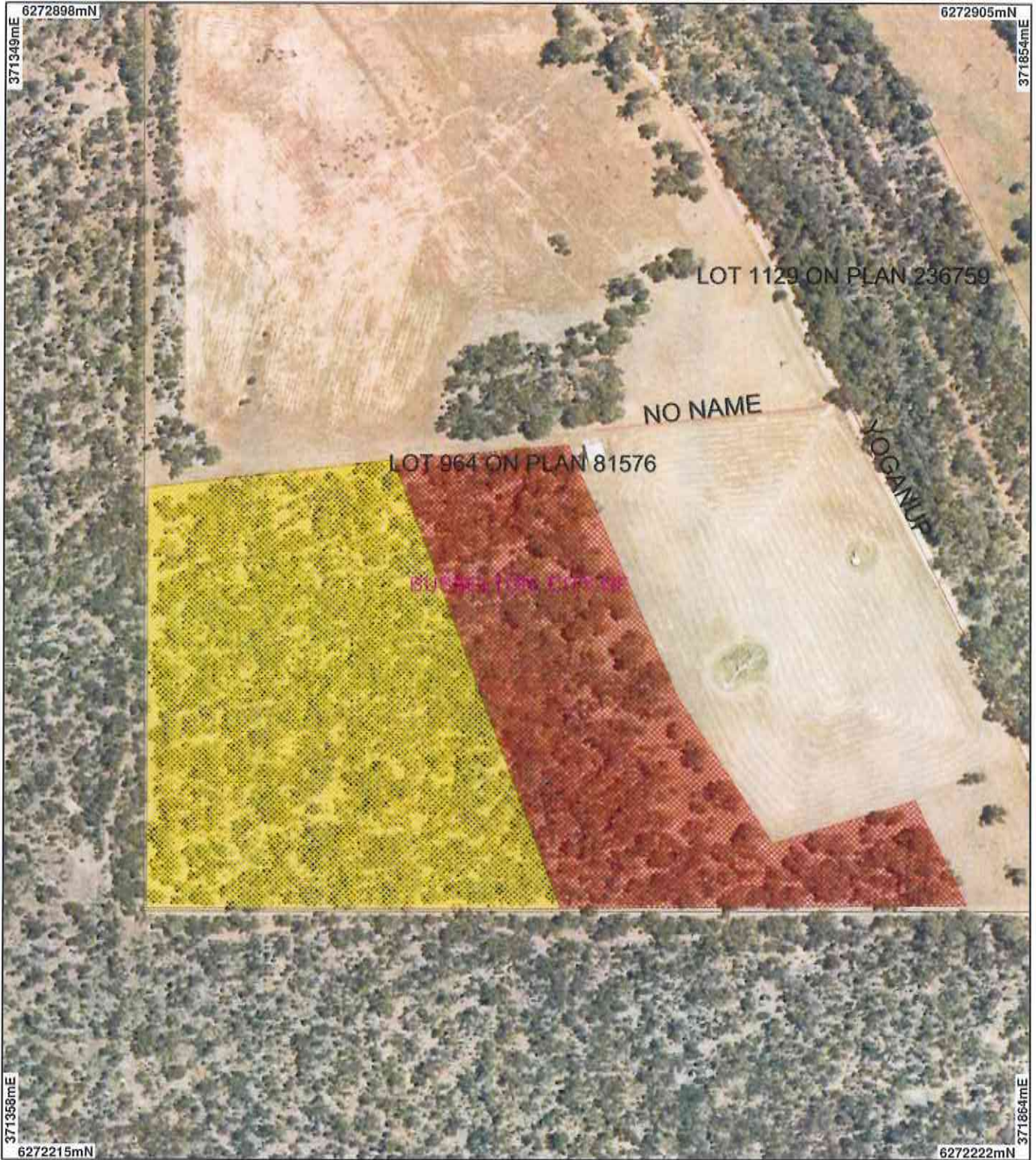


M Warnock
A/MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

13 December 2012

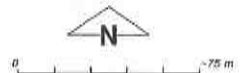
Plan 5214/1



LEGEND

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

- Local Government Authorities
- Donnybrook 50cm Orthomosaic - Landgate 2004**



Scale 1:3000
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

M Warnock Date 13/12/12
M Warnock

Officer with delegated authority under Section 20 of the Environmental Protection Act 1988

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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1. Application details

1.1. Permit application details

Permit application No.: 5214/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Tutunup Pty Ltd

1.3. Property details

Property: LOT 964 ON PLAN 81576 (Lot No. 964 YOGANUP YOGANUP 6275)
Local Government Area: City of Busselton
Colloquial name:

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 13 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
Beard Vegetation Association: 1182: is mapped over the eastern 2/3 and is described as Medium woodland; Eucalyptus rudis & Melaleuca raphiophylla.	The application is to clear 4.19 hectares of native vegetation, from Lot 964 Tutunup Road, for the purpose of expanding pasture areas for stock grazing.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994)	Vegetation condition was determined by a site inspection by the Department of Environment and Conservation on 4 October 2012 (DEC, 2012), photos provided by Commissioner of Soil and Land Conservation in the land degradation assessment (CSLC, 2012) and aerial imagery (Donnybrook 50cm Orthomosaic, 2004).
3: is mapped over the western 1/3 and is described as Medium forest; jarrah-marri. (Shepherd et al., 2001)	The property is to the west of Tutunup Road and is run in combination with Lot 2704, on the opposite side of the road, as a single property with the combined size of approximately 64 hectares.	To	
Mattiske Vegetation Complex: Rosa (RO): is described as Woodland to open forest of Corymbia calophylla-Eucalyptus marginata subsp. marginata-Xylomelum occidentale on slopes and tall shrubland of Agonis linearifolia in valley floors in the humid zone. (Mattiske and Havel, 1998)	The application area is part of an approximately 7.7 hectare of remnant vegetation that is adjacent to the Millbrook State Forest to the west and south and a cleared paddock to the north and east. The vegetation under application is described as Woodland of Eucalyptus marginata and Corymbia haematoxylon (also with Corymbia calophylla at the lowest area in the landscape); over occasional Banksia grandis, Allocasuarina fraseriana, Xylomelum occidentale, Persoonia elliptica, P. longifolia, Xanthorrhoea preissii; over Shrubland of Podocarpus drouynianus, Hakea amplexicaulis, Hibbertia hypericoides, H. amplexicaulis, H. glomerata, Banksia dallanneyi, Lepidosperma squamatum, Hypocalymma robustum, H. angustifolium, Hovea elliptica, Conostylis sp., Leucopogon verticillatus, Macrozamia riedlei, Gompholobium knightianum, G. ovatum, G. marginatum, Acacia lateritica, Grevillea diversifolia, Pultenaea radiata, Bossiaea pulchella, Tetratheca sp., Mirbelia dilatata,	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994)	

Leucopogon sp. and herbs Caladenia flava, Drosera sp., Burchardia congesta and Cyanicula sericea (DEC, 2012).

It is in mostly degraded (Keighery, 1994) condition due to grazing by cattle, however areas adjacent to state forest are in better condition (DEC, 2012). There are few weeds and the vegetation would regenerate well if it was fenced (DEC, 2012). There are areas of exposed laterite in the northwest section of the area, which may be unsuitable for growing pasture (DEC, 2012).

The applicant intends to retain the eastern approximately 3.5 hectares of the remnant, which is adjacent to an existing pasture cultivation area to the east, and has expressed a willingness to fence this area (Tutunup, 2012).

3. Assessment of application against clearing principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments

Proposal is not likely to be at variance to this Principle

The application is to clear up to 4.19 hectares of native vegetation, for the purpose of expanding pasture areas for stock grazing.

The applicant reduced and modified the application area during assessment (the original application was to clear 15.8 hectares from three areas across the two properties) in order to minimise impacts to the Ludlow River, fauna and ecological linkages.

The vegetation under application has been grazed and retains little native understorey, due to grazing by cattle, with some encroachment of pasture weeds (DEC, 2012). Areas adjacent to state forest are in better condition; there are few weeds and the vegetation would regenerate well if it was fenced (DEC, 2012).

The application area is situated on the Whicher Scarp, which has been recognised as an area of high biological conservation significance by the Environmental Protection Authority (EPA, 2009).

The application is on a slender strip of predominantly cleared private land between the Millbrook and Jarrahwood State Forests. The local area (10 kilometre radius) retains approximately 45 per cent native vegetation cover. Approximately 90 per cent of this vegetation is within Department of Environment and Conservation (DEC) land tenure, predominantly in the Millbrook and Jarrahwood State Forests.

There are five records of the Priority 1 priority ecological community (PEC) Whicher Scarp C2 (Whicher Scarp Jarrah woodland of deep coloured sands) in close proximity to the application area and the application areas are within the buffer areas to these occurrences. The closest record is within the Millbrook State Forest, approximately 250 metres southeast of the application area. DEC personnel visited the areas under application on 4 October 2012 for the purpose of determining the floristic communities proposed to be cleared (DEC, 2012). Floristic communities within the area under application do not appear to align with the nearby PEC (DEC, 2012). It is unlikely that the clearing proposed will directly impact the Whicher Scarp C2 PEC.

The area under application is within a high (1000 millimetre) rainfall area, where disturbance associated with the removal of native vegetation poses a high risk of the introduction or spread of weeds and dieback (*Phytophthora cinnamomi*) to the surrounding area. This is of particular importance due to the application area being adjacent to the Millbrook State Forest and in close proximity to an occurrence of the Whicher Scarp C2 PEC.

The vegetation under application contains habitat for arboreal and avian fauna, particularly feeding and breeding habitat for black cockatoos.

There are numerous records of flora of conservation significance within the local area, however considering the lack of understorey, history of grazing and proximity to state forest vegetation in better condition, the vegetation under application is unlikely to be significant as habitat for flora of conservation significance.

Considering the above, the vegetation under application may be significant however it does not support a high level of biodiversity and therefore the proposed clearing is unlikely to be at variance to this principle.

References:

- DEC, 2012
- EPA, 2009
- Keighery, 1994

GIS Databases:

- DEC tenure
- Donnybrook 50cm Orthomosaic - Landgate 2004
- Pre-European vegetation - DA 01/01
- Rainfall, Mean Annual - BOM 09/01
- SAC Bio datasets - Accessed 09/12

(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

There are records of six fauna species listed as Rare or Likely to Become Extinct under the Wildlife Conservation Act 1950 within the local area (10 kilometre radius): *Bettongia pencillata* subsp. *ogilbyi* (woylie), *Calyptorhynchus latirostris* (Carnaby's cockatoo), *Calyptorhynchus banksii* subsp. *naso* (forest red-tailed black cockatoo), *Calyptorhynchus baudinii* (Baudin's cockatoo), *Dasyurus geoffroii* (chuditch), and *Setonix brachyurus* (quokka) (DEC, 2007-).

The applicant reduced and modified the application area during assessment (the original application was to clear 15.8 hectares from three areas across the two properties) in order to minimise impacts to the Ludlow River, fauna habitat and ecological linkages.

The vegetation under application has been grazed and is predominantly in degraded (Keighery, 1994) condition, supporting little understorey vegetation (DEC, 2012). While it has reduced value as habitat for ground dwelling fauna, this does not detract from the quality of the canopy cover provided by the overstorey vegetation. The canopy contributes to habitat for arboreal and avian fauna and protection to ground dwelling fauna moving between the adjacent state forests and the vegetated watercourse.

During a site visit conducted by DEC on 4 October 2012, a small flock of forest red-tailed black cockatoos were observed feeding on *Corymbia calophylla* trees on the adjacent property (DEC, 2012).

The vegetation under application is approximately 200 metres from a possible breeding area for Carnaby's cockatoo. Baudin's cockatoo and forest red-tailed black cockatoo may also breed in the area (SEWPAC, 2012). Black cockatoos breed in hollows in very long-lived trees (SEWPAC, 2012). Hollows large enough for nesting black cockatoos are usually only found in trees that are more than 200 years old (SEWPAC, 2012). The vegetation under application is eucalyptus woodland and contains some large hollow-bearing, or potentially hollow-bearing, trees (DEC, 2012) that may be suitable or potential breeding habitat for threatened black cockatoo species and other fauna. The applicant has expressed a willingness to retain habitat trees where it is practicable for machine operation related to cutting hay and general operations (Tutunup, 2012).

The application area is part of an approximately 7.7 hectare remnant that is adjacent to cleared paddocks to the north and east and the Millbrook State Forest to the west and south. The application area is separated from the Millbrook State Forest by an existing firebreak. The applicant intends to retain the eastern approximately 3.5 hectares of the remnant (Tutunup, 2012), which contains some large hollow-bearing trees (DEC, 2012). The applicant has expressed a willingness to fence the remaining vegetation (Tutunup, 2012). Fencing the area and excluding cattle from it will assist in regeneration of the vegetation, improving its condition, function and long term viability, which will contribute to the maintenance of the existing habitat trees within it.

Habitat suitable for western ringtail possum (*Pseudocheirus occidentalis*) was not identified within the application areas (DEC, 2012).

Considering the above, the application area may be significant for local fauna and the proposed clearing may be at variance to this principle.

Retention of habitat trees wherever possible and fencing of the remaining vegetation to exclude cattle would assist in minimising these impacts.

Methodology

References:

- DEC, 2007-
- DEC, 2012
- DSEWPAC, 2012
- Keighery, 1994
- Tutunup, 2012

GIS Databases:

- Carnabys cockatoo breeding areas unconfirmed - DEC 10/10
- DEC tenure - DEC 06/12

- Donnybrook 50cm Orthomosaic - Landgate 2004
- Pre-European vegetation - DA 01/01
- SAC Bio datasets - Accessed 09/12

(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 numerous records of rare flora within the local area (10 kilometre radius), however considering the lack of understorey, history of grazing (DEC, 2012) and proximity to state forest vegetation in better condition, the vegetation under application is unlikely to be necessary for the continued existence of these species.

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

Methodology

- References:
- DEC, 2012
- GIS Databases:
- DEC tenure
 - Donnybrook 50cm Orthomosaic - Landgate 2004
 - SAC Bio datasets - Accessed 09/12

(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 records of four threatened ecological communities (TEC) within the local area (10 kilometre radius).

DEC personnel visited the areas under application on 4 October 2012 for the purpose of determining the floristic communities proposed to be cleared (DEC, 2012). None of the floristic communities recorded were identified as being representative of a TEC.

Therefore, the vegetation under application is not likely to be at variance to this principle.

Methodology

- References:
- DEC, 2012
- GIS Databases:
- SAC Bio datasets - Accessed 09/12

(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 local area (10 kilometre radius) is approximately 45 per cent vegetated. Approximately 90 per cent of this vegetation is within DEC land tenure, predominantly in the Millbrook and Jarrahwood State Forests.

The vegetation types mapped over the application area are well represented in the bioregion and in the reserve system (Government of Western Australia, 2011; Shepherd, 2007).

The application area is located on an approximately 64 hectares property that is made up of two separate lots, on opposite sides of Tutunup Road. Approximately 50 per cent of this combined area is vegetated, with the remainder cleared for agriculture. The property would retain approximately 43 per cent (28 hectares) native vegetation after the proposed clearing of 4.19 hectares. Except for a narrow strip of vegetation on the banks of the Ludlow River, the neighbouring private properties are cleared for agriculture.

The vegetation under application has been historically grazed and is predominantly in degraded (Keighery, 1994) condition, retaining little native middle storey or understorey vegetation (DEC, 2012). Therefore the vegetation proposed to be cleared is not currently considered representative of the mapped vegetation types, however there are few weeds and the vegetation would regenerate well if it was fenced (DEC, 2012).

While the vegetation under application contains potential breeding habitat for black cockatoos and buffers the Millbrook State Forest, it is not located in an extensively cleared area. Therefore the proposed clearing is not likely to be at variance to this principle.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion*				
Jarrah Forest	4,506,656	2,476,559	54	67

Shire*				
City of Busselton	146,478	62,298	42	66
Beard Vegetation Association in Bioregion*				
1182	11,127	4,838	43	68 (3,642 ha)
3	2,390,591	1,641,271	68	79 (1,307,716 ha)
Mattiske Vegetation Complex **				
RO	16,514	13,020	78	68 (11,270 ha)

* Government of Western Australia, 2011

** Shepherd, 2007

Methodology	References:
	- DEC, 2012
	- Government of Western Australia, 2011
	- Keighery, 1994
	- Shepherd, 2007
	GIS Databases:
	- DEC tenure
	- Donnybrook 50cm Orthomosaic - Landgate 2004
	- Interim Biogeographic Regionalisation of Australia - EA 10/00
	- Mattiske Vegetation Complexes
- Pre-European vegetation - DA 01/01	
- SAC Bio datasets - Accessed 09/12	

(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 applicant reduced and modified the application area during assessment (the original application was to clear 15.8 hectares from three areas across the two properties), in order to minimise impacts to the Ludlow River, fauna habitat and ecological linkages.

There are no mapped wetlands or watercourses within the application area.

The Ludlow River is approximately 400 metres to the east of the application area and the application area comprises dryland vegetation communities.

Therefore the proposed clearing is unlikely to be growing in association with a watercourse and is not likely to be at variance to this principle.

Methodology	GIS Databases:
	- Hydrography, linear - DoW 02/04

(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 a soil type Tc5, which is described as being 'chiefly of acidic yellow mottled soils containing gravels' (Northcote et al., 1960-68).

Assessment of the proposed clearing by the Commissioner of Soil and Land Conservation (CSLC) found the potential for land degradation to occur as a result of the proposed clearing to be low (CSLC, 2012).

The groundwater salinity within the application area is <500-1000 milligrams per litre of Total Dissolved Solids. This level of groundwater salinity is considered to be marginal and salinity risk is low. No salinity is occurring on the property and no offsite salinity was observed (CSLC, 2012).

The risk of eutrophication causing land degradation is low and no significant change is expected to occur as a result of the proposed clearing (CSLC, 2012).

Wind and water erosion is unlikely to occur on the soil types within the application area and no significant change is expected to occur as a result of the proposed clearing (CSLC, 2012). This risk of wind erosion causing land degradation is low (CSLC, 2012).

The proposed clearing is not likely to be at variance to this principle (CSLC, 2012).

Methodology References:
- CSLC, 2012
- Northcote et al., 1960-68
GIS Databases:
- Groundwater Salinity, Statewide - DoW 02/00
- Soils, Statewide - DA 11/99

(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 application area is on a slender strip of private land between two large intact areas of native vegetation in state forest. It is adjacent to the Millbrook State Forest to the west and south, separated by an existing firebreak.

There are also occurrences of a Priority 1 priority ecological community (PEC) in close proximity to the application area, within the Millbrook State Forest. While it is unlikely that the clearing proposed under this application will directly impact the Priority 1 PEC, the proposed clearing may increase the incidence of weeds and dieback establishing in the adjacent state forest and nearby PEC.

Given the close proximity to the Millbrook State Forest, the proposed clearing may impact the environmental values of this area and may be at variance to this principle.

Methodology GIS Databases:
- DEC Tenure - DEC 06/11
- Donnybrook 50cm Orthomosaic - Landgate 2004
- SAC Bio datasets - Accessed 09/12

(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 applicant reduced and modified the application area during assessment (the original application was to clear 15.8 hectares from three areas across the two properties) in order to minimise impacts to the Ludlow River, fauna habitat and ecological linkages.

There are no mapped wetlands or watercourses within the application area.

The Ludlow River is approximately 400 metres to the east of the application area and the application area comprises dryland vegetation communities.

The groundwater salinity within the application area is <500-1000 milligrams per litre of Total Dissolved Solids. This level of groundwater salinity is considered to be marginal and salinity risk is low. No salinity is occurring on the property and no offsite salinity was observed (CSLC, 2012).

The risk of eutrophication causing land degradation is low and no significant change is expected to occur as a result of the proposed clearing (CSLC, 2012).

Considering the distance to the Ludlow River and the existing grazing land use of the land in between, the proposed clearing of 4.19 hectares is unlikely to result in appreciable deterioration in water quality and is not likely to be at variance to this principle.

Methodology References:
CSLC, 2012)
GIS Databases:
- Hydrography, linear - DoW 02/04

(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**

Assessment by the Commissioner of Soil and Land Conservation (CSLC) found the risk of flooding as a result of the proposed clearing to be low (CSLC, 2012).

Therefore the proposed clearing is unlikely to be at variance to this principle.

Methodology References:
CSLC, 2012

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

Comments

The Department of Environment and Conservation (DEC) wrote to the applicant on 30 October 2012 inviting additional information on issues raised in its preliminary assessment of the original clearing permit application for 15.8 hectares of clearing across three areas. The applicant subsequently removed the two areas adjacent to the Ludlow River (on Lot 2704) from the application in order to avoid impacts to the river and minimise impacts to fauna habitat and linkages. The applicant has also expressed a willingness to retain habitat trees where practicable for machine operation and to fence the 3.5 hectare remnant that is to be retained (Tutunup, 2012).

The applicant has advised that the proposed clearing is to gain more productivity from the land and to make up for areas they have forgone the use of on other properties for contribution to conservation in the area (Tutunup, 2012).

Lot 964 is zoned for recreation, which is inconsistent with the proposed land use of pasture cultivation and grazing. The City of Busselton (2012) advised Lot 964 is identified as a Reserve in the Scheme Maps and therefore any removal of vegetation in this area requires planning consent. The City of Busselton has confirmed that submission of a formal development application to the City is not required and the details provided to them by the applicant constitute a written application to grant its approval. The City advised that based on the existing use of the site for grazing / general agriculture the City of Busselton advised it has no objection to the proposed clearing of Lot 964 (City of Busselton, 2012).

The application area is part of an approximately 7.7 hectare remnant that is adjacent to cleared paddocks to the north and east and the Millbrook State Forest to the west and south. The application area is separated from the Millbrook State Forest by an existing firebreak. The applicant intends to retain the eastern approximately 3.5 hectares of the remnant, which contains some large hollow-bearing trees (DEC, 2012). The applicant has expressed a willingness to fence the remaining vegetation in the remnant in order to protect it from cattle and retain habitat trees where it is practicable for machine operation related to cutting hay and general operations (Tutunup, 2012).

The application area is within the Busselton- Capel Groundwater Area, a ground water area proclaimed under the Rights in Water and Irrigation Act 1914 (RIWI Act). The Department of Water (DoW, 2012) advised that the land also falls within a Surface Water Area, proclaimed under the RIWI Act and that this area supports downstream licensed users, plus unlicensed stock and domestic uses (exempt).

Assessment by the Commissioner of Soil and Land Conservation (CSLC) found the potential for land degradation to occur as a result of the proposed establishment of pasture area for livestock grazing to be low (CSLC, 2012).

No public submissions have been received.

Methodology

There are no Aboriginal Sites of Significance mapped within the areas proposed to be cleared.

References:

- City of Busselton, 2012
- CSLC, 2012
- DEC, 2012
- DoW, 2012
- Tutunup, 2012

GIS Databases:

- Aboriginal Sites of Significance - DIA 02/12
- RIWI Act, Groundwater areas - DoW 04/02
- RIWI Act, Surface water areas - DoW 04/02
- Town Planning Scheme Zones - MFP 08/98

4. References

- CSLC (2012) Land Degradation Advice for Application for Clearing Permit CPS 5214/1, Received 12/10/2012. Commissioner of Soil and Land Conservation, Western Australia. DEC Ref: A555219
- DEC (2012) Site Inspection Report for Clearing Permit Application CPS 5214/1. Conducted 04/10/2012. Department of Environment and Conservation, Western Australia. DEC Ref: A560047
- DoW (2012) Direct Interest Submission for CPS 5214/1, Received 16/10/2012. Department of Water, Western Australia. DEC Ref: A556793; A560048
- DSEWPC (2012) EPBC Act Referral Guidelines for Three Threatened Black Cockatoo Species, April 2012. Department of Sustainability, Environment, Water, Populations and Communities. Commonwealth of Australia. Available from <http://www.environment.gov.au/epbc/publications/pubs/referral-guidelines-wa-black-cockatoo.pdf>
- EPA (2009) The Natural Values of the Whicher Scarp. Bulletin No.6 August 2009. Environmental Protection Authority, Perth, Western Australia.
- 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.
- Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- 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.
- 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.
- Tutunup (2012) Clearing Permit Application CPS 5214/1 and supporting correspondence. DEC Ref: A536693; A578354; A578371

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)