



GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 6249/1

File Number: DER2014/001891-1

Duration of Permit: From 21 February 2015 to 21 February 2017

PERMIT HOLDER

John Albert Hartnup

Robyn Gay Hartnup

LAND ON WHICH CLEARING IS TO BE DONE

Lot 8904 on Deposited Plan 201648, Meerup.

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 6.97 hectares of native vegetation within the areas cross hatched yellow on the attached Plan 6249/1.

CONDITIONS

1. 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 clearing area to be cleared;
- (b) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

DEFINITIONS

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

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

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

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;

weed/s means any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
- (b) published in a Department of Parks and Wildlife Regional Weed Rankings Summary, regardless of ranking; or
- (c) not indigenous to the area concerned.

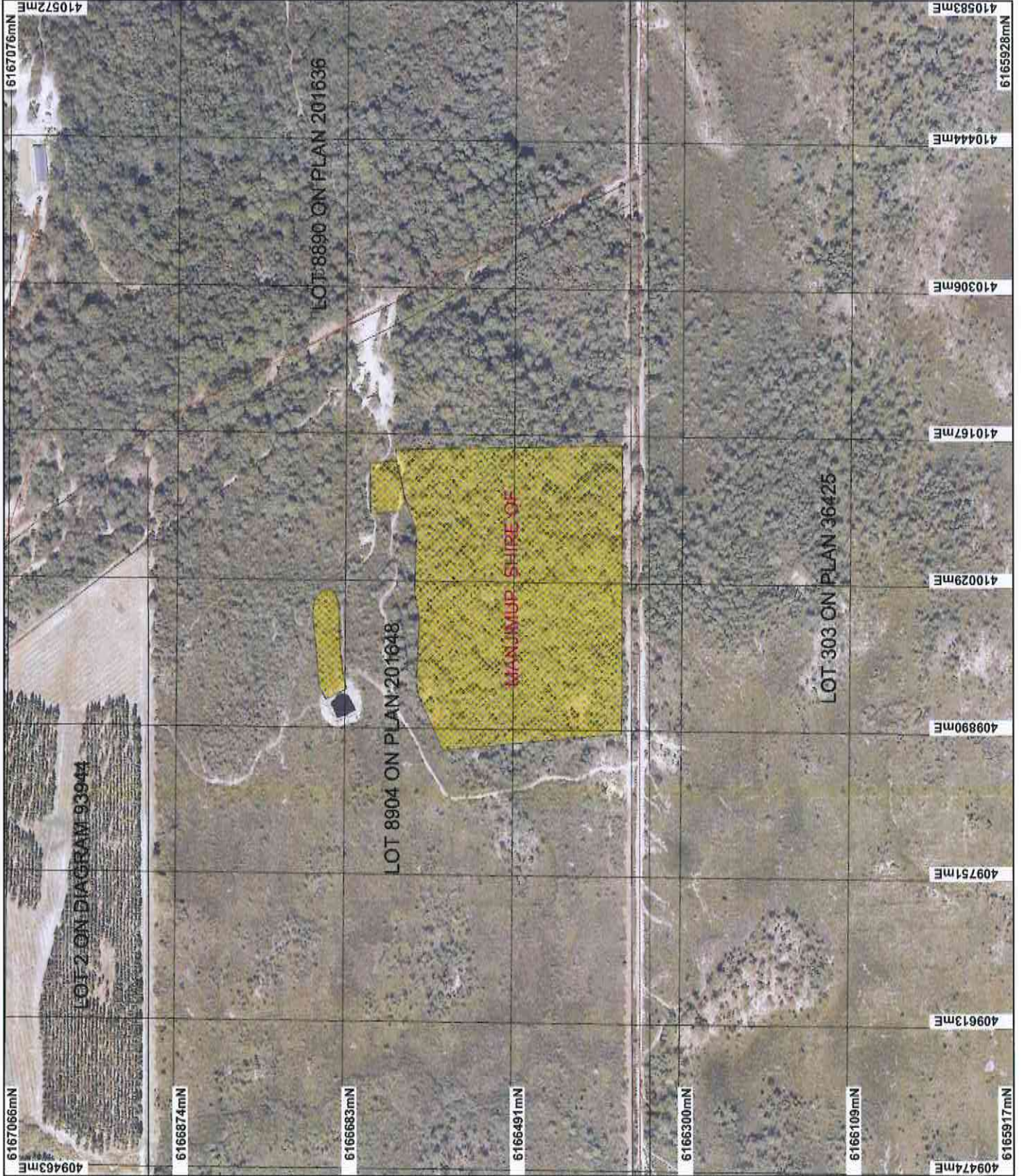
A handwritten signature in black ink, appearing to read 'M Warnock'.

M Warnock
SENIOR MANAGER
CLEARING REGULATION

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

22 January 2015

Plan 6249/1



LEGEND

- Local Government Authorities
- Road Centrelines
- Cadastre
- Clearing Instruments
- Areas Approved to Clear
- Northcliffe 50cm Orthomosaic - Landgate 2007

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



0 150 m

Scale 1:5440

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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

M. Wamock Date: 22/1/15

M. Wamock

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.



Government of Western Australia
Department of Environment Regulation

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Clearing Permit Decision Report

Government of Western Australia
Department of Environment Regulation

1. Application details

1.1. Permit application details

Permit application No.: 6249/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: John Hartnup and Robyn Hartnup

1.3. Property details

Property: LOT 8904 ON DEPOSITED PLAN 201648 (House No. 1 PIONEER MEERUP 6262)

Local Government Area: Shire of Manjimup

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 22 January 2015

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 1144 is described as tall forest; karri & marri (<i>Corymbia calophylla</i>) (Shepherd et al, 2001).	The clearing of 6.97 hectares of native vegetation within Lot 8904 on Deposited Plan 201648, Meerup, is for the purpose of fire hazard reduction, agriculture, horticulture and shed construction.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The condition of the vegetation was determined via a site inspection undertaken by the Department of Environment Regulation (DER, 2014).
Mapped Matiske Vegetation (COy1) Collis 1 Complex consists of tall open forest to woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> - <i>Corymbia calophylla</i> - <i>Banksia grandis</i> - <i>Allocasuarina fraseriana</i> on low hills and with <i>Allocasuarina decussata</i> on slopes in perhumid and humid zones (Matiske and Havel, 1998).			The application area is largely comprised of mixed Jarrah and Marri woodland with a mixture of native understorey species including <i>Pteridium aquilinum</i> (DER, 2014).
Mapped Matiske Vegetation Blackwater (Bwp) Complex consists of mosaic of low open woodland of <i>Melaleuca preissiana</i> , low open woodland of <i>Melaleuca cuticularis</i> , open heath of <i>Myrtaceae</i> - <i>Proteaceae</i> spp. and sedgelands of <i>Restionaceae</i> spp. on low lying flats in hyperhumid and perhumid zones (Matiske and Havel, 1998).			

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

This application proposes to clear 6.97 hectares of native vegetation within Lot 8904 on Deposited Plan 201648, Meerup, for the purpose of fire hazard reduction, agriculture, dam expansion and shed construction.

The initial application comprised eight hectares of vegetation and included an area of paluslope wetland that occurs within Lot 8904, which is part of an extensive wetland system that extends to the north, west and south of Lot 8904. The applicant has amended the application area to exclude the majority of vegetation associated with this high value wetland (Parks and Wildlife (2014a) and most (6.54 hectares) of the application area now maintains a 50 metre buffer from this wetland. A small area (0.26 hectares) proposed for dam expansion is still within the mapped wetland.

While there are small areas of severe localised disturbance (dam, tracks), the majority of the application area is in excellent (Keighery, 1994) condition and is comprised of mixed Marri and Jarrah woodland (DER, 2014).

Several priority flora species have been recorded in the local area (10 kilometre radius). Many of these are priority 3 and 4 species. Priority three species are known from several locations, and do not appear to be under imminent threat, and priority 4 species are considered to have been adequately surveyed, and are considered not currently threatened or in need of special protection, but could be if present circumstances change. Given that there are other suitable areas of extensive undisturbed vegetation nearby, the proposed clearing is unlikely to impact on the conservation status of these species (Parks and Wildlife, 2014b).

The local area also includes one mapped priority 1 species and one priority 2 species. These species are both growing in association with the Meerup River, located approximately 3.1 kilometres south of the application area. Given the distance to the Meerup River and lack of flowing watercourses on site, the proposed clearing is not likely to impact on these species (Parks and Wildlife, 2014b).

There are no threatened or priority ecological communities mapped within the local area (10 kilometre radius).

The vegetation under application provides suitable habitat for indigenous terrestrial fauna species such as quenda (*Isoodon obesulus* subsp. *fusciventer*), and quokka (*Setonix brachyurus*). The quokka is listed as rare or likely to become extinct under the Wildlife Conservation Act 1950, and quenda are listed as priority 5 species by the Department of Parks and Wildlife (DEC, 2007-). However, given that understorey of greater density occurs with the extensive (353 hectares) nearby mapped paluslope wetland, the application area is not likely to provide significant habitat for these species.

The application area also provides suitable foraging habitat for Baudin's cockatoo, forest red-tailed black cockatoo and Carnaby's cockatoo, all listed as rare or likely to become extinct under the Wildlife Conservation Act 1950. Given that there is approximately 80 per cent vegetation remaining in the local area of the proposed clearing (10 kilometre radius), it is unlikely that the 6.97 hectares of vegetation under application constitutes significant foraging habitat for these species.

The proposed clearing would increase the potential for weeds and dieback to spread into the surrounding densely vegetated wetland areas. Weed and dieback mitigation measures would assist in mitigating this risk.

Given that the application area has been amended to exclude high conservation value wetland areas, the proposed clearing is not likely to be at variance to this Principle.

Methodology

References:

- DER (2014)
- Keighery (1994)
- Parks and Wildlife (2014a)
- Parks and Wildlife (2014b)
- DEC (2007-)

GIS Databases:

- SAC Bio Datasets (Accessed November 2014)
- Geomorphic Wetlands, Augusta to Walpole

(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 not likely to be at variance to this Principle

Several fauna species of conservation significance have been recorded within the local area (10 kilometre radius), including Baudin's cockatoo (*Calyptorhynchus baudinii*), forest red-tailed black-cockatoo (*Calyptorhynchus banksii* subsp. *naso*), southern brush-tailed phascogale (*Phascogale tapoatafa* subsp. *tapoatafa*), quokka (*Setonix brachyurus*), short-nosed snake (*Elapognathus minor*), water-rat (*Hydromys chrysogaster*) and quenda (*Isoodon obesulus* subsp. *fusciventer*) (DEC, 2007-).

No large trees with hollows were identified on site (DER, 2014) and the application area is unlikely to provide significant breeding habitat for Baudin's, Carnaby's or forest red-tailed black cockatoos, or habitat for Southern Brush-tailed Phascogale.

The application area provides suitable foraging habitat for black cockatoos as these species forage on the seeds, nuts and flowers of a large variety of plants including proteaceous species (*banksia*, *hakea*, *grevillea*), as well as *allocasuarina* and *eucalyptus* species, *Corymbia calophylla* and a range of introduced species (Valentine and Stock, 2008). Given that there is approximately 80 per cent vegetation remaining in the local area of the proposed clearing (10 kilometre radius), and that much of this is contained within National Parks and State Forest, it is unlikely that the 6.97 hectares of vegetation under application constitutes significant foraging habitat for these species.

Hydromys chrysogaster (water-rat) has a preference for permanent fresh or brackish water whereby it occupies a wide variety of freshwater habitats, from subalpine streams and other inland waterways to lakes, and perennial swamps (CSIRO, 2004). This species has been recorded once within the local area (10 kilometre radius) and is much more likely to occur along the Meerup River (located 3.1 kilometres south), than within the vegetation under application.

Elapognathus minor (short-nosed snake) has been recorded once within the local area (10 kilometre radius). This record was taken in 1982, and was approximately eight kilometres from the application area, therefore impacts to this species are unlikely.

Quenda have a preference for wet or dry sclerophyll forest through to scrubby vegetation on sandy soils. Dense undergrowth and low ground cover are particularly important in providing cover for quenda (DEC, 2010). The quokka has a preference for dense low vegetation offering protection from predators within close proximity to fresh water throughout the year to necessitate the species high water requirements (DotE, 2014).

The vegetation under application provides suitable habitat for these species, however they are much more likely to occur within nearby wetland vegetation of considerably greater density, located immediately west. This dense western vegetation is associated with a mapped paluslope (seasonally inundated slope) that comprises approximately 353 hectares. The proponent has amended the application area to exclude vegetation associated with this wetland with the exception of a small area proposed for dam expansion (0.26 hectares), therefore, the application area is not likely to comprise significant habitat for these species.

Given the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology

References:

- DEC (2007-)
- DEC (2010)
- DER (2014)
- CSIRO (2004)
- DotE (2014)
- Valentine and Stock (2008)

GIS Databases:

- Geomorphic Wetlands, Augusta to Walpole
- Hydrography, hierachy

(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 is one species of rare flora mapped within the local area (10 kilometre radius). This species is mapped approximately nine kilometres south east of the application area on a different soil and vegetation type to the area of proposed clearing.

Given the above, it is not likely that the vegetation under application includes, or is necessary for the continued existence of this species.

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

Methodology

GIS Databases:

- SAC Bio Datasets (Accessed November 2014)

(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 threatened ecological communities (TEC) mapped within the local area (10 kilometre radius), therefore the vegetation under application is not likely to comprise or be necessary for the maintenance of a TEC.

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

Methodology

GIS Databases:

- SAC Bio Datasets (Accessed November 2014)

(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 at variance to this Principle

There is approximately 80 per cent native vegetation remaining in the local area of the proposed clearing (10 kilometre radius).

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 Warren Bioregion, Shire of Manjimup and mapped Beard Vegetation Association (1000) retain approximately 79, 84, and 80 per cent pre-European vegetation remaining respectively (Government of Western Australia, 2013). The Mattiske vegetation complexes mapped within the application area, Coy1 and Bwp, retain approximately 85 and 89 per cent native vegetation respectively.

The application area contains vegetation in an excellent (Keighery, 1994) condition (DER, 2014), however the area under application is not within an area that has been extensively cleared.

Given the above, the proposed clearing is not at variance to this Principle.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DPaW Managed Lands (%)
IBRA Bioregion*				
Warren	833,985	663,203	79	84
Shire*				
Shire of Manjimup	697,368	586,905	84	94
Beard Vegetation Association*				
1144	160,314	128,462	80	92
Mattiske Vegetation**				
Coy1	22,833	19,460	85	75
Bwp	32,296	28,807	89	79

*Government of Western Australia (2013)

**Mattiske and Havel (1998)

Methodology References:
 -DER (2014)
 -Commonwealth of Australia (2001)
 -Government of Western Australia (2013)
 -Mattiske and Havel (1998)
 -Keighery (1994)

(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 at variance to this Principle**
 The initial application comprised eight hectares of vegetation within an area identified in the Geomorphic Wetlands Augusta to Walpole dataset as a paluslope wetland (seasonally waterlogged slope). This wetland is part of an extensive wetland system that extends to the north, west and south of Lot 8904. The applicant has amended the application area to exclude vegetation associated with this high value wetland and the majority of the application area (6.54 hectares) now maintains a 50 metre buffer from this wetland.
 The amended application area also falls within close proximity to a palusplain (seasonally waterlogged flat) at the southern extent of the boundary. The application area is separated from this wetland by firebreaks within Lot 8904.
 There remains a small area (0.26 hectares) proposed for dam expansion within the abovementioned mapped paluslope wetland, therefore the application area contains vegetation growing in association with an environment associated with a wetland, however, given the small extent of clearing within this area, the proposed clearing is not likely to impact on the ecological function of the wetland.

The proposed clearing is at variance to this Principle.

Methodology 6249GIS Databases:
 -Geomorphic Wetlands, Augusta to Walpole

(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 Department of Agriculture and Food Western Australia (DAFWA) advise that the revised application area is mapped as Collis yellow duplex phase, Map Unit 254BrCOy soil type, described as duplex sandy gravel, yellow-brown deep sandy duplex, loamy gravels, shallow gravels and stony soils (CSLC, 2014).
 A Land Degradation Report identified that the risk of water erosion, flooding, wind erosion and salinity is low (CSLC, 2014).

The application area initially included Blackwater podzols Phase Map unit 254BrBWp, which is associated with the mapped wetland and described as wet, semi wet and pale deep sands on flat poorly drained plains with some linear dunes and granite domes (CSLC, 2014). These soils were deemed unsuitable for the proposed end land use, as clearing would likely have resulted in waterlogging and eutrophication resulting in land degradation (CSLC, 2014).

The Commissioner of Soil and Land Conservation (CSLC, 2014) advised that the Collis yellow duplex phase, Map Unit 254BrCOy were more suitable to the end land use.

The proponent has revised the application area to exclude the Blackwater podzols soils, with the exception of the small area proposed for dam expansion (0.26 hectares), and the application is therefore unlikely to result in appreciable land degradation.

Given the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology References:
-CSLC (2014)

(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 to the proposed clearing is Boorara-Gardner National Park located approximately 200 metres south of the application area.

The application is separated from this area by an un-named road reserve and given that the National Park comprises approximately 798 hectares of largely undisturbed vegetation, it is not likely that the proposed clearing of 6.97 hectares 200 metres north, will impact on the environmental values of this conservation area.

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

Methodology GIS Databases:
-Parks and Wildlife Tenure

(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 initial application comprised eight hectares of vegetation within an area identified in the Geomorphic Wetlands Augusta to Walpole dataset as a paluslope wetland (seasonally waterlogged slope). This wetland is part of an extensive wetland system that extends to the north, west and south of Lot 8904. The applicant has amended the application area to exclude vegetation associated with this high value wetland and the majority of the application area (6.54 hectares) now maintains a 50 metre buffer from this wetland.

It is advised that the application area mostly occurs on a low slope and drains slowly towards the south west across broad sedge flats, whereby there is a lack of defined natural drainage (CSLC, 2014). Natural drainage has been identified approximately one kilometre downstream of the application area, with approximately 250 metres separating the site from this area. Given the slow drainage characteristics of the site, it is not likely that the proposed clearing will impact on the Meerup River, particularly given the distance between these areas.

Given the revised application area and exclusion on the majority of the area within the mapped paluslope, there is unlikely to be a change to surface water flows and water quality within the adjoining paluslope vegetation. To further minimise sedimentation of the nearby wetland as a result of clearing, the proponent has advised that clearing will be undertaken during dry months.

Groundwater salinity mapped within the application area is between 500 and 1000 milligrams per litre (marginal). Given this low salinity level, it is considered that the proposed clearing will not lead to a perceptible rise in the watertable and thus an increase in groundwater salinity levels.

The Commissioner of Soil and Land Conservation (2014) has identified the application area as having a shallow water table, whereby the application of fertilisers may impact on the quality of groundwater. The proponent has advised that the majority of the area will be used for agriculture, which will not require fertiliser use. It has been advised that the small area of the application proposed for fruit trees will be grown organically with minimal fertiliser use.

Given the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology References:
-CSLC (2014)

GIS Databases:
-Geomorphic Wetlands, Augusta to Walpole
-Groundwater Salinity, Statewide
-Hydrography, Hierachy

(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 extensive areas of surrounding vegetation, it is unlikely that the proposed clearing of 6.97 hectares will cause or exacerbate the incidence or intensity of flooding, despite being nearby a paluslope wetland.

A Land Degradation Report identified that the proposed clearing was not likely to contribute to flooding (CSLC, 2014).

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

Methodology **References:**
-CSLC (2014)

GIS Databases:
-Geomorphic Wetlands, Augusta to Walpole

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

Comments

This application proposes to clear 6.97 hectares of native vegetation within Lot 8904 on Deposited Plan 201648, Meerup, for the purpose of fire hazard reduction, horticulture, agriculture and shed construction.

The initial application comprised eight hectares of vegetation and included an area of paluslope wetland that occurs within Lot 8904, which is part of an extensive wetland system that extends to the north, west and south of Lot 8904. The applicant has amended the application area to exclude the majority of vegetation associated with this high value wetland and most (6.54 hectares) of the application area now maintains a 50 metre buffer from this wetland. A small area (0.26 hectares) proposed for dam expansion is still within the mapped wetland.

The application area is zoned 'General Agriculture' under the town planning scheme.

There are no Aboriginal Sites of Significance mapped within the application area.

There have been no submissions received from the general public in response to the proposed clearing.

The Shire of Manjimup has no objection to the proposed clearing and advises that as the land is zoned 'General Agriculture' under Local Planning Scheme No. 4, no planning approval for the proposed works is required (Shire of Manjimup, 2014).

The Commissioner of Soil and Land Conservation (2014) has identified the application area as having a shallow water table, whereby the application of fertilisers may impact on the quality of groundwater. The proponent has advised that the majority of the area will be used for agriculture, which will not require fertiliser use. It has been advised that the small area of the application proposed for fruit trees will be grown organically with minimal fertiliser use.

Methodology **References:**
-CSLC (2014)
-Shire of Manjimup (2014)

GIS Databases:
-Town Planning Scheme Zones
-Aboriginal Sites of Significance

4. References

Commissioner of Soil and Land Conservation (2014) Land Degradation Assessment Report for Clearing Permit Application CPS 6249/1. Site inspection undertaken 10/10/2014. DER Ref A832316.
Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
CSIRO, Water for a Healthy Country, 2004, Taxon Attribute Profiles, Hydromys chrysogaster, available on line at: <http://www.anbg.gov.au/cpbr/WfHC/Hydromys-chrysogaster/index.html>
DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dec.wa.gov.au/>. Accessed November 2014.
DEC (2010) World Heritage Area Fact Sheet. Southern Brown Bandicoot. Department of Environment Conservation, Western Australia.
DER (2014) Site Inspection Report for Clearing Permit Application CPS 6249/1. Site inspection undertaken 10/11/2014. Department of Environment Regulation, Western Australia (DER Ref A8632630).
DotE (2014) Setonix brachyurus in Species Profile and Threats Database, Department of the Environment, Canberra.
Government of Western Australia (2013) 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. 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.
- Parks and Wildlife (2014a) Wetland Advice. Additional information for Clearing Permit Application CPS 6249/1. DER Ref A832711
- Parks and Wildlife (2014b) Flora Advice. Additional information for Clearing Permit Application CPS 6249/1. DER Ref A832710
- 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 Manjimup (2014) Direct Interest Response to Clearing Permit Application CPS 6249/1. DER Ref A803030
- Valentine, L.E. and Stock, W. (2008) Food Resources of Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) in the Gnangara Sustainability Strategy Study Area. Edith Cowan University and Department of Environment and Conservation. December 2008.