



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: CPS 7438/1
File Number: DER2017/000099-1
Duration of Permit: 15 April 2017 – 15 April 2032

PERMIT HOLDER

Mrs Amanda Dawe and Mr Colin Dawe

LAND ON WHICH CLEARING IS TO BE DONE

Lot 800 on Deposited Plan 71316, Cooljarloo.

AUTHORISED ACTIVITY

The Permit Holder must not clear more than 5.9 hectares of native vegetation within the area hatched yellow on attached Plan 7438/1.

CONDITIONS

1. Type of clearing authorised

The Permit Holder shall:

- (a) not clear native vegetation unless actively extracting within 2 months of the authorised clearing being undertaken;
- (b) not clear any native vegetation after 7 February 2027; and
- (c) commence revegetation and rehabilitation by 7 February 2028.

2. Retain vegetative material and topsoil, revegetation and rehabilitation

The Permit Holder shall:

- (a) retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil in an area that has already been cleared;
- (b) at an optimal time within 12 months following clearing authorised under this permit, *revegetate* and *rehabilitate* the area(s) that are no longer required for the purpose for which they were cleared under this Permit by:
 - (i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land; and
 - (ii) ripping the pit floor and contour batters within the extraction site; and
 - (iii) laying the vegetative material and topsoil retained under condition 2(a) on the cleared area(s)

DEFINITIONS

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

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

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



Mathew Gannaway
MANAGER
CLEARING REGULATION





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

20 March 2017

Plan - CPS 7438/1



Legend

-  Areas approved to clear
-  Roads
-  LGA
-  Cadastre
- Virtual Mosaic (LGATE-V001)



1:5,000

MGA 94

Geocentric Datum of Australia 1994

Mathew Gammagay Date 20/03/2017

Officer with delegated authority under Section 20
of the Environmental Protection Act 1986



GOVERNMENT OF
WESTERN AUSTRALIA



1. Application details

1.1. Permit application details

Permit application No.: 7438/1
Permit type: Area Permit

1.2. Applicant details

Applicant's name: Amanda Dawe and Colin Dawe

1.3. Property details

Property: Lot 800 on Deposited Plan 71316, Cooljarloo
Local Government Authority: Shire of Dandaragan
DER Region: Midwest
DPaW District: Moora
Localities: Cooljarloo

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
5.9		Mechanical Removal	Extractive industry

1.5. Decision on application

Decision on Permit: Grant

Application:

Decision Date: 20 March 2017

Reasons for Decision:

On 11 January 2017 the applicant applied to clear 5.9 hectares of native vegetation. The clearing application has been assessed against the clearing principles, planning instruments and other matters in accordance with section 51O of the *Environmental Protection Act 1986*, and it has been concluded that the proposed clearing is not likely to be at variance to any of the clearing principles.

In deciding to grant a clearing permit, the Delegated Officer had regard to the advice that planning approval and an extractive industry licence was granted by the Shire of Dandaragan.

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 1026 is described as Mosaic: Shrublands; <i>Acacia rostelifera</i> , <i>A. cyclops</i> (in the south) & <i>Melaleuca cardiophylla</i> (in the north) thicket / Shrublands; <i>Acacia lasiocarpa</i> & <i>Melaleuca acerosa</i> heath (Shepherd et al., 2001).	The application is for the clearing of 5.9 hectares of native vegetation within Lot 800 on Deposited Plan 71316, Cooljarloo, for the purpose of limesand extraction.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994). To: Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994);	The condition of the vegetation within the application area was determined by a survey undertaken by Donald Williams, on 8 January 2017 (Williams, 2017).

3. Assessment of application against clearing principles

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

Comments

Proposed clearing is not likely to be at variance to this Principle

The application is for the clearing of 5.9 hectares of native vegetation within Lot 800 on Deposited Plan 71316, Cooljarloo, for the purpose of limesand extraction.

A survey conducted by Donald Williams on 8 January 2017 described the vegetation within the application area as Kwongan Shrubland predominately including *Acacia rostellifera*, *Allocasuarina lehmanniana* subsp. *lehmanniana*, *Melaleuca leuropoma*, *Austrostipa elegantissima*, and *Cassytha racemosa* (Williams, 2017).

The application area ranges from degraded to good (Keighery, 1994) condition and is subject to disturbance from fire and grazing; as a result the dominant species is *Acacia rostellifera* (Williams, 2017).

Five priority flora species have been recorded within the local area (10 kilometre radius). The application area may contain suitable habitat for three of the five priority flora recorded within the local area (Western Australian Herbarium, 1998-), however no priority flora species were located during the flora survey (Williams, 2017). While the survey was undertaken outside of the optimal survey time, the priority flora species that may occur are perennial species that should have been identifiable during the survey. The survey indicated that as a result of the open semi cleared nature of the project, it is likely that all species present were observed (Williams, 2017). Given the small size of the application area in the context of the extent of surrounding vegetation, the proposed clearing it is not likely to impact the conservation status of any priority flora if they occur within the application area.

As discussed in Principle (b), two conservation significant fauna species are known to occur within the local area (Parks and Wildlife, 2007-) namely, Carnaby's black cockatoo (*Calyptorhynchus latirostris*) and Graceful Sun Moth (*Synemon gratiosa*). The Department of Parks and Wildlife (Parks and Wildlife) advised that the application area is not known to contain significant fauna habitat (Parks and Wildlife, 2017).

No known priority ecological communities (PEC's) are mapped within the application area. A survey of the application area did not observe any vegetation community consistent with a known PEC (Williams, 2017).

The local area retains approximately 93 per cent native vegetation cover (30,803 hectares), of which approximately 24 per cent is within secure tenure (7,400 hectares). The proposed clearing of 5.9 hectares represents 0.02 percent of native vegetation within the local area.

Given the application area is not likely to contain priority flora, significant fauna habitat and that the local area retains extensive areas of similar vegetation, the application area is not likely to contain a high level of biodiversity. The proposed clearing is not likely to be at variance to this Principle.

Methodology

References:

Keighery (1994)
Parks and Wildlife (2017)
Western Australian Herbarium (1998-)
Williams (2017)

GIS Datasets:

- SAC Bio Datasets - accessed February 2017

(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

Proposed clearing not likely to be at variance to this Principle

Two conservation significant fauna species are known to occur within the local area (Parks and Wildlife, 2007-) namely, Carnaby's black cockatoo (*Calyptorhynchus latirostris*) and Graceful Sun Moth (*Synemon gratiosa*).

The vegetation within the application area is Kwongan Shrubland predominately including *Acacia rostellifera*, *Allocasuarina lehmanniana* subsp. *lehmanniana*, *Melaleuca leuropoma*, *Austrostipa elegantissima*, and *Cassytha racemosa* (Williams, 2017).

The Carnaby's black cockatoo is listed as rare or likely to become extinct under the *Wildlife Conservation Act 1950*. Carnaby's cockatoo have a preference for foraging habitat that includes native shrubland, kwongan heathlands and woodlands dominated by proteaceous plant species such as *Banksia* sp., *Hakea* sp. and *Grevillea* sp. (Commonwealth of Australia, 2012). The vegetation within the application area is suitable foraging habitat for Carnaby's cockatoo however given the lack of proteaceous species it is not likely to be a significant food resource for this species. The vegetation within the application area does not contain suitable breeding or roosting habitat for Carnaby's cockatoo.

The Graceful Sun Moth is a priority 4 species. The Graceful sun moth is associated with two habitat types, coastal heathlands on the Quindalup dunes, where it is restricted to secondary sand dunes where the host plant *Lomandra maritima* is located; and *Banksia* woodland on Spearwood and Bassendean dunes, where the second known host plant *Lomandra hermaphrodita* is located (Department of Environment and Conservation, 2011). Given that no *Lomandra* species were identified during the 2017 survey, the Graceful sun moth is unlikely to occur within the application area.

Although the application area contains suitable foraging habitat for the Carnaby's Black Cocaktoo, the local area is well vegetated (as discussed in Principle (a)) and the impacts of the proposed clearing is not likely to cause a significant impact to part of a significant habitat.

Parks and Wildlife advised that the application area is not known to contain significant fauna habitat (Parks and

Wildlife, 2017).

Given the above, the vegetation within the application area is not likely to comprise whole or part of, and is not necessary for the maintenance of significant habitat for fauna indigenous to Western Australia and therefore the clearing is not likely to be at variance to this Principle.

Methodology References:
Commonwealth of Australia (2012)
Department of Environment and Conservation (2011)
Parks and Wildlife (2007-)
Parks and Wildlife (2017)

GIS Datasets:
- SAC Bio Datasets – accessed February 2017

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

Comments Proposed clearing is not likely to be at variance to this Principle

Three rare flora species have been recorded within the local area however the application area does not contain suitable habitat for these rare flora species (Western Australian Herbarium, 1998-)

No rare flora species were observed during a flora survey of the application area (Williams, 2017) and Parks and Wildlife advised that the vegetation within the application area is unlikely to support any rare flora (Parks and Wildlife, 2017).

Given the above, the native vegetation within the application area is unlikely to include, or be necessary for the continued existence of, rare flora and the proposed clearing is not likely to be at variance to this Principle.

Methodology References:
Parks and Wildlife (2017)
Western Australian Herbarium (1998-)
Williams (2017)

GIS Datasets:
- SAC Bio Datasets – accessed February 2017

(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 Proposed clearing is not likely to be at variance to this Principle

No known threatened ecological communities (TEC) are mapped within the local area. Parks and Wildlife advised that the vegetation within the application area is unlikely to represent a known TEC, including *Banksia* Woodlands of the Swan Coastal Plain ecological community (Parks and Wildlife, 2017).

A survey of the application area did not observe any vegetation consistent with a known TEC (Williams, 2017).

Given the above, the native vegetation within the application area is unlikely to comprise the whole, or part of, or be necessary for the maintenance of a TEC. The proposed clearing is not likely to be at variance to this Principle.

Methodology References:
Parks and Wildlife (2017)
Williams (2017)

GIS Datasets:
- SAC Bio Datasets – accessed February 2017

(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 Proposed clearing is not likely to be variance to this Principle

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 percent 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 located within the Swan Coastal Plain Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion has approximately 38 per cent of its pre-European vegetation extent remaining (Government of Western Australia, 2015).

The application area is located within the Shire of Dandaragan, within which there is approximately 44 per cent pre-European vegetation extent remaining (Government of Western Australia, 2015).

The local area retains approximately 93 per cent native vegetation cover (30,803 hectares). The proposed clearing of 5.9 hectares represents 0.02 percent of native vegetation within the local area.

Given the extent of native vegetation within the local area, and that the mapped vegetation type retains more than the national objective and target extents, it is unlikely that the native vegetation within the application area is significant as a remnant of native vegetation in an extensively cleared area. As such, the proposed clearing is not likely to be at variance to this Principle.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in Parks and Wildlife Managed Lands (%)
IBRA Bioregion* - Swan Coastal Plain	1,501,221	579,161	38	37
Shire* - Shire of Dandaragan	671,022	296,631	44	42
Beard vegetation association in Bioregion*				
1026	58419	54819	93	55

Methodology

References:
Commonwealth of Australia (2001)
*Government of Western Australia (2015)

GIS Datasets:
- Imagery
- Pre-European Vegetation
- Remnant 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

Proposed clearing is not likely to be at variance to this Principle

No wetlands or watercourses are mapped within the application area. The closest mapped watercourse or wetland is a dampland, located approximately 3.4 kilometres from the application area.

A survey of the application area did not find vegetation growing in or in association with a wetland or watercourse (Williams, 2017).

Given the distance to the closest watercourse or wetland, the vegetation within the application area is not considered to be growing in, or in association with, a wetland or watercourse and the proposed clearing is not likely to be at variance to this Principle.

Methodology

References:
Williams (2017)

GIS Databases:
- Hydrology, linear
- Geomorphic wetlands Cervantes South

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments

Proposed clearing is may to be at variance to this Principle

The application area is mapped as the Quindalup South System which is described as coastal dunes, of the Swan Coastal Plain, with calcareous deep sands and yellow sands, and the Quindalup South 4 Subsystem which is described as foredune complex adjacent to coast and beach, with parabolic dunes and trailing arms of various ages (Schoknecht et al., 2004). The sandy soils within the application area may be susceptible to wind erosion.

There is no evidence of localised pooling of water within the application area indicating the sandy soils are likely to have high infiltration rates. Given this, the soils within the application area are not likely to be susceptible to water erosion.

Groundwater salinity is mapped between 500 - 1000 total dissolved solids (milligrams per litres). Given the low salinity levels within the application area, high filtration rates of the Quindalup soils and taking into account the extent of vegetation within the local area the proposed clearing is unlikely to cause appreciable land degradation in the form of salinity.

Given the sandy soils within the application area may be susceptible to wind erosion; the proposed clearing may be at variance to this Principle. The risk of land degradation in the form of wind erosion may be managed through staged clearing and rehabilitation.

Methodology

References:

Schoknecht et al. (2004)

GIS Datasets:

- Groundwater salinity statewide
- Hydrography, linear
- Remnant vegetation
- Soils statewide
- Topographic contours 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 Proposed clearing is not likely to be at variance to this Principle

According to available databases, no conservation areas are mapped within the application area. One conservation area known as the Wanagarren Nature Reserve is located approximately 700m to the west of the application area.

The 700 metre vegetated buffer separating the application area from this conservation area will be sufficient to ensure that the proposed clearing will not directly impact on the environmental values of this reserve.

The application area is connected to the Wanagarren Nature Reserve through remnant vegetation. Given the areas to the north and south of the application area are also connected to this reserve through remnant vegetation; the clearing will not disrupt an ecological corridor between the nature reserve and vegetation to the east of the application area.

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

Methodology GIS Datasets:

- 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 Proposed clearing is not likely to be at variance to this Principle

As discussed in Principle (f), no wetlands or watercourses are mapped within the application area. Given the distance to the closest watercourse or wetland, the proposed clearing is unlikely to cause deterioration in the quality of surface water.

The application area is located within the Gingin groundwater area which is proclaimed under the *Rights in Water Irrigation Act 1914*. Groundwater salinity is mapped between 500-1000 total dissolved solids (milligrams per litres). Given the low salinity levels within the application area and that the local area is highly vegetated the clearing is not likely to cause deterioration in the quality of groundwater.

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

Methodology GIS Databases:

- Hydrology, linear
- Groundwater, salinity

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Comments Proposed clearing is not likely to be at variance to this Principle

The mapped soil unit (as discussed in Principle (g)) has a low risk of flooding and this soil type is considered unlikely to cause or exacerbate flooding following vegetation removal. There is no evidence of localised pooling of water within the application area which indicates the sandy soils are likely to have high infiltration rates.

Given the above and considering that the application area is surrounded by extensive areas of vegetation that further reduces the risk of flooding, the proposed clearing is not likely to be at variance to this Principle.

Methodology References:

Schoknecht et al. (2004)

GIS Datasets:

- Hydrography, linear
- Soils, statewide
- Topographic contours, statewide

Planning instruments and other relevant matters.

Comments The application is to clear 5.9 hectares of native vegetation within Lot 800 on Deposited Plan 71316, Cooljarloo, for the purpose of limesand extraction. The application was received on 11 January 2017.

The application was advertised in *The West Australian* newspaper on 6 February 2017 for a 21 day public submission period. No submissions have been received in relation to this application.

The applicant advises that 'the screening of material will be below the 5000 tonnes per year that would classify its use as a Category 70 activity, therefore Department of Environment Regulation works approval has not been sought'. It is the applicant's responsibility to obtain this approval should the screening rate increase above 5000 tonnes per year.

Planning Approval for the Limesand Quarry within Lot 800 (A) Indian Ocean Drive, Cololjarloo was granted by the Shire of Dandaragan on the 29 November 2016.

An extractive industry licence has been issued by the Shire of Dandaragan for this project. The licence is subject to the following relevant conditions:

- details of areas being mined and areas that have been rehabilitated to be advised to council each year; and
- compliance with conditions of planning approval dated November 2016.

The Department of Water (DoW) advise that they do not have any objections to the proposal. The DoW advised that there is no current groundwater licence for the proposed extraction of limesand at this location and that any proposed use of groundwater for commercial purposes would require the applicant to contact the DoW Geraldton Office to discuss licencing requirements.

No Aboriginal Sites of Significance have been recorded within the application area.

Methodology GIS Databases:
- Aboriginal Sites of Significance

4. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Commonwealth of Australia (2012) EPBC Act referral guidelines for three threatened black cockatoo species, Canberra.
- Department of Environment and Conservation (2011) Conservation Advice for *Synemon gratiosa* (Graceful Sunmoth) – January 2011
- Parks and Wildlife (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dpaw.wa.gov.au/>. Accessed 30/01/2017
- Parks and Wildlife (2017) Advice received regarding Clearing Permit Application CPS 7438/1. Department of Parks and Wildlife. Western Australia. DER Ref: A1380713.
- Government of Western Australia (2015) 2015 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2015. WA Department of Parks and Wildlife, 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.
- Schoknecht, N., Tille, P. and Purdie, B. (2004) Soil-landscape mapping in South-Western Australia – Overview of Methodology and outputs' Resource Management Technical Report No. 280. Department of Agriculture.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Parks and Wildlife. <http://florabase.dpaw.wa.gov.au/> (Accessed August 2016).
- Williams, D. (2017) Report on Flora and other environmental factors relating to the application to extract lime sands from farming property Melbourne location 800. DER Ref: A1356718