



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 5500/1
Permit Holder:	Shire of Coorow
Duration of Permit:	24 May 2013 – 24 May 2018

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

1. Purpose for which clearing may be done

Clearing for the purpose of construction of the Leeman Boating Facility

2. Land on which clearing is to be done

Lot 340 on Deposited Plan 66641 (Leeman 6514)
Illyarrie Street Road Reserve (Leeman 6514) (PIN: 11403955)
Unallocated Crown Land (Leeman 6514) (PIN: 13366114)

3. Area of Clearing

The Permit Holder must not clear more than 1.025 hectares of native vegetation within the area hatched yellow on attached Plan 5500/1.

4. Application

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

5. Type of clearing authorised

This Permit authorises the Permit Holder to clear native vegetation for the activities described in condition 1 of this Permit to the extent that the Permit Holder has the power to carry out works involving clearing for those activities under the *Local Government Act 1995* or any other written law.

6. Compliance with Assessment Sequence and Management Procedures

Prior to clearing any native vegetation under conditions 1, 2 and 3 of this Permit, the Permit Holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

7. Avoid, minimise etc clearing

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

- (a) avoid the clearing of native vegetation;
- (b) minimise the amount of native vegetation to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

8. 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*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no *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:

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 declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*; or
- (b) published in the Department of Environment and Conservation Regional Weed Assessments, regardless of ranking; or
- (c) not indigenous to the area concerned.



M Warnock
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH





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

2 May 2013

Plan 5500/1



LEGEND

-  Road Centrelines
-  Cadastre for labelling
-  Clearing Instruments
-  Areas Approved to Clear

Beagle Island 50cm
Orthomosaic - Landgate
2006



Scale 1:1525
(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 Wernock Date *2/5/13*

M Wernock

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.



Department of Environment and Conservation

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1. Application details

1.1. Permit application details

Permit application No.: 5500/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Shire of Coorow

1.3. Property details

Property: LOT 340 ON PLAN 66641 (Lot No. 340 ILLYARRIE LEEMAN 6514)
UNALLOCATED CROWN LAND (COOROW, SHIRE OF) (PIN: 13366114)
ROAD RESERVE (LEEMAN 6514) (PIN: 11403955)
Local Government Area: Shire of Coorow
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.025		Mechanical Removal	Building or Structure

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 2 May 2013

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; Acacia rostellifera, A. cyclops (in the south) & Melaleuca cardiophylla (in the north) thicket / Shrublands; Acacia lasiocarpa & Melaleuca acerosa heath (Shepherd et al 2001).	The application proposes to clear up to 1.025 hectares of native vegetation for the purpose of constructing Leeman boating facility.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	The condition of the native vegetation under application was determined by digital imagery (Beagle Island 50cm Orthomosaic - Landgate 2006) and a flora and vegetation survey conducted by AECOM (2013).
	Four vegetation communities were identified in the Project area:	To	
	ScSp: Scaevola crassifolia, Acanthocarpus preissii and Acacia blakelyi low open heathland over Schoenus pedicellatus and Chordifex sinuosus sparse sedgeland (AECOM 2013a).	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	
	TdSc: Templetonia diffusa, Acacia saligna subsp. saligna and Spyridium globulosum low open shrubland over Scaevola crassifolia, Acanthocarpus preissii and Santalum acuminatum low heathland (AECOM 2013a).		
	MhMc: Melaleuca huegelii subsp. saligna tall open shrubland to shrubland over Melaleuca cardiophylla, Templetonia retusa and Leptomeria preissiana low open heathland (AECOM 2013a).		
OaSc: Olearia axillaria, Acacia blakelyi and Myoporum insulare low open shrubland over Scaevola crassifolia, Threlkeldia diffusa and Acanthocarpus preissii low sparse to open heathland (AECOM 2013a).			
	The application area includes 0.25 hectares of seagrass.		
	The vegetation condition within the proposal area is reflective of a disturbed environment adjacent to an		

completely degraded to very good (Keighery 1994).
The majority of the vegetation within the application
is in a good to very good (Keighery 1994) condition
(AECOM 2013).

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 proposes to clear up to 1.025 hectares of native vegetation for the purpose of constructing Leeman boating facility.

A total of 37 native vascular plant species of 32 genera and 23 families were recorded in the application area. Sixteen fauna species were recorded during the field survey. This included 15 birds and one reptile (AECOM 2013).

The majority of the vegetation under application is in a Good to Very Good (Keighery 1994) condition (AECOM 2013). Digital imagery (Beagle Island 50cm Orthomosaic – Landgate 2006) indicates that the local area (10 kilometre radius) retains approximately 90 percent vegetation cover.

Eight priority flora species have been recorded within the local area (10 kilometre radius). A flora and vegetation survey conducted within application area determined there was suitable habitat for four priority flora species however during the survey no priority or rare flora were identified within the application area (AECOM 2013).

Two terrestrial fauna species listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 have been recorded within the local area (10 kilometre radius) being *Pezoporus allicus* subsp. *flaviventris* (Wester Ground Parrot) and *Sterna nereis* subsp. *nereis* (Fairy Tern). In addition two marine fauna species listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 have been recorded within the local area (10 kilometre radius) being *Dermochelys coriacea* (Leatherback Turtle) and *Eubalaena australis* (Southern Right Whale) (DEC 2007-). The distribution of these species is widespread and fauna habitats within the area proposed to be cleared are well represented elsewhere within the local and regional area, and no significant loss of habitat for fauna indigenous to Western Australia is expected.

The application area is located adjacent to remnant vegetation, The disturbance resulting from the proposed clearing may increase the risk of weeds and dieback spreading into this vegetation. Weed and dieback management practices will assist in mitigating this risk.

Given the findings of surveys undertaken, the condition of the vegetation and the size of the area under application in the context of the high vegetation representation within the local area, the application area is not considered to comprise a high level of biological diversity when compared to the local and regional area.

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

Methodology

References:

- AECOM (2013a)
- DEC (2007-)
- Keighery (1994)

GIS Databases:

- Beagle Island 50cm Orthomosaic - Landgate 2006
- SAC Biodata sets - accessed March 2013

(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

Two terrestrial fauna species listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 have been recorded within the local area (10 kilometre radius) being *Pezoporus allicus* subsp. *flaviventris* (Wester Ground Parrot) and *Sterna nereis* subsp. *nereis* (Fairy Tern). In addition two marine fauna species listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 have been recorded within the local area (10 kilometre radius) being *Dermochelys coriacea* (Leatherback Turtle) and *Eubalaena australis* (Southern Right Whale) (DEC 2007-).

A Level 1 Flora and Vegetation Survey has been conducted within the application area. Suitable habitat was identified for *Tringa brevipes* (Grey-tailed Tattler), *Egretta sacra* (Eastern Reef Heron), *Larus novae-hollandiae* (Silver Gull) and *Larus pacificus* (Pacific Gull) these species are listed as migratory and/or marine under the Environmental Protection and Biodiversity Conservation Act 1999 (AECOM 2013).

Sixteen fauna species were recorded during a field survey. This included 15 birds and one reptile (AECOM 2013a). Five of the species of conservation significance were observed during the field survey including The

Bridled Tern, Silver Gull, Pacific Gull, Whistling Kite and Australian Kestrel which are all listed under the EPBC Act as Marine and/or migratory species. All species are widespread and common species (AECOM 2013).

The distribution of the above species is widespread and fauna habitats within the area proposed to be cleared are well represented elsewhere within the local and regional area, therefore no significant loss of habitat for fauna indigenous to Western Australia is expected.

Approximately 0.025 hectares of seagrass is proposed to be cleared. Given the small area of seagrass proposed to be cleared it is not likely the vegetation is significant habitat for marine fauna indigenous to Western Australia.

Methodology Based on the above, the proposed clearing is not likely to be at variance to this principle.
References:
- AECOM (2013)
- DEC (2007-)

GIS Databases:
- SAC Biodata sets - accessed March 2013

(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**
No species of rare flora have been recorded in the local area (10 kilometre radius). The closest record of rare flora is located approximately 19 kilometres west of the application area on different soil and vegetation types.

A flora and vegetation survey was conducted within the application area, no rare flora were identified (AECOM 2013).

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

Methodology References:
- AECOM (2013)

GIS Databases:
- SAC Biodata sets - accessed March 2013

(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 Threatened Ecological Communities (TEC's) have been recorded within the local area (10 kilometre radius). The closest record of a TEC is located approximately 26 km east of the application area.

Given the distance to the closest TEC it is unlikely the vegetation proposed to be cleared is necessary for the maintenance of a TEC.

Therefore the clearing as proposed is not likely to at variance to this principle.
Methodology GIS Database:
- SAC Biodata set - accessed April 2013

(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 area under application is located within the Geraldton Sandplains Interim Biogeographic Regionalisation of Australia (IBRA) region. This IBRA bioregion has approximately 45 per cent of its Pre European vegetation extent remaining (Government of Western Australia 2013)

The vegetation under application is mapped as Beard Vegetation Association 1026 which has approximately 93 percent of their Pre European extent remaining in the Geraldton Sandplains Bioregion (Government of Western Australia 2011).

Digital imagery (Beagle Island 50cm Orthomosaic – Landgate 2006) indicates that the local area (10 kilometre radius) retains approximately 90 percent vegetation cover.

Given the above the vegetation proposed to be cleared is not likely to be significant as a remnant of native vegetation in an area that has been extensively cleared.

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

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion*				
Geraldton Sandplains	3,136,026	1,408,070	45	40
Shire*				
City of Coorow	418,942	166,033	40	44
Beard Vegetation Association in Bioregion*				
1026	11,424	10,651	93	52

Methodology * Government of Western Australia (2013)
Reference:
-Government of Western Australia. (2013).

GIS Database:
- Beagle Island 50cm Orthomosaic - Landgate 2006
- NLWRA, Current Extent of Native
-Sac bio datasets - accessed March 2013

(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 at variance to this Principle**
The application area is located adjacent to the Western Australian coastline. Approximately 0.025 hectares of seagrass is proposed to be cleared.

Given the above the vegetation proposed to be cleared is not growing in association with a watercourse. Therefore the clearing as proposed is not at variance to this principle.

The applicant has advised prior to the commencement of construction, temporary site drainage aimed at containing sediment and other contaminants within the application area will be undertaken. Stormwater collected within the facility will be controlled and managed to ensure that nutrients and/or contaminants do not have an adverse impact on either the terrestrial or marine environment (AECOM 2013).

Methodology References:
- AECOM (2013)

GIS Database:
- Hydrology, linear

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

Comments **Proposal may be at variance to this Principle**
Soil type A13 is described as Broad sand plain with occasional sand dune formations: chief soils are red earthy sands with only minor occurrences of loose red sands on the dunes. (Northcote et al 1960 - 1968).

Sandy soils have the potential for wind erosion and the application area is adjacent to the WA coastline where wind speeds are sufficient for sand dislodgement.

Given the location, size and soil type of the proposed clearing footprint, clearing may cause appreciable land degradation. Therefore the clearing as proposed may be at variance to this principle.

Dust management measures will be applied during construction including: only clear vegetation when necessary to avoid unnecessary exposure of soil, a water tanker to be available to dampen exposed surfaces and dust-generation activities are to be minimised during days with high winds (AECOM 2013).

The applicant has advised to reduce land degradation disturbed areas will be stabilised and landscaped immediately following the completion of work (AECOM 2013).

Methodology References:
- AECOM (2013)
- Northcote et al (1968)

- 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 is not likely to be at variance to this Principle

Milligan Islands Nature Reserve is located approximately 100 m west offshore from the application area. Beekeepers Nature Reserve is located 400 metres east of the application area.

Given the distance between the applied area and the nature reserves it is unlikely that the clearing as proposed will have an impact on the environmental values of the nearby conservation areas.

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

Methodology References:
- AECOM (2013)

GIS Database:
- DEC 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 application area is located adjacent to the Western Australian coastline, the clearing as proposed may increase runoff into the adjacent ocean.

Groundwater salinity is mapped as ~7000 mg/L which is considered to be Moderately Saline to Saline. Given the small size of the application area, the clearing as proposed is not likely cause deterioration in the quality of ground water.

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

The applicant has advised prior to the commencement of construction, temporary site drainage aimed at containing sediment and other contaminants within the application area will be undertaken. Stormwater collected within the facility will be controlled and managed to ensure that nutrients and/or contaminants do not have an adverse impact on either the terrestrial or marine environment (AECOM 2013).

Methodology References:
- AECOM (2013)

GIS Database:
- Hydrology, linear

(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 at variance to this Principle

The soils of the application area are mapped as Broad sand plain with occasional sand dune formations: chief soils are red earthy sands with only minor occurrences of loose red sands on the dunes. (Northcote et al 1960 - 1968).

Given the small area under application and the high porosity of sand the clearing as proposed is not likely to exacerbate the incidence or intensity of flooding. Therefore the clearing as proposed is not at variance to this principle.

Methodology References:
- Northcote et al (1968)

GIS Databases:
- Soils, statewide

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

Comments

The application proposes to clear up to 1.025 hectares of native vegetation for the purpose of constructing Leeman boating facility.

The Department of Regional Development and Lands (DRDL) (2013) has given authorisation and approval to the construction of the Leeman boat ramp and associated works including access to the seabed that adjoins

course.

The application is located within the Aboriginal Site of Significance 'Ceremonial, Fish Trap'. It is the proponent's responsibility to ensure that no Aboriginal Sites are damaged and it is recommended that they liaise with the Department of Indigenous Affairs regarding obligations under the Aboriginal heritage Act 1972.

No submissions have been received.

- Methodology** **References:**
- Department of Regional Development and Lands (2013)
- GIS Databases:**
- Aboriginal Sites of Significance

4. References

- AECOM (2013) Leeman Boat Ramp - Environmental Impact Assessment and Management Plan. Western Australia. DEC Ref: A601885)
- DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed March 2013
- Department of Regional Development and Lands (2013) Authority to construct the Leeman boat ramp and associated works including access to the seabed adjoining Reserve 50828. Western Australia (DEC Ref: A62359)
- 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.
- 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., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.

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)