



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 6130/1
Permit Holder:	Shire of Esperance
Duration of Permit:	6 December 2014 – 6 December 2019

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

PART I – CLEARING AUTHORISED

1. Purpose for which clearing may be done

Clearing for the purpose of road maintenance, widening and upgrades.

2. Land on which clearing is to be done

Gibson Road reserve (PIN 11644311, PIN 11644312, PIN11644958 and PIN 11644313) (Gibson 6448)

Coolinup Road reserve (PIN 11645690) (Condingup 6450)

3. Area of Clearing

The Permit Holder must not clear more than 3 hectares of native vegetation within the combined areas hatched yellow on attached Plan 6130/1a and Plan 6130/1b.

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.

PART II – MANAGEMENT CONDITIONS

6. Avoid, minimise

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:

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

7. 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) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared;
- (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.



M Warnock
SENIOR MANAGER
CLEARING REGULATION

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

6 November 2014

Plan 6130/1a



LEGEND

- Cadastre for labelling
- Road Centrelines
- Local Government Authorities
- Clearing Instruments
- Areas Approved to Clear
- Esperance Causeway 50cm Orthomosaic - Landgate 2007

Scale 1:75000
 (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: *amw* Date: *6/11/14*
 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.

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 Department of Environment Regulation
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Plan 6130/1b



LEGEND

- Cadastre for labelling
- Road Centrelines
- Local Government Authorities
- Clearing Instruments
- Areas Approved to Clear
- Esperance Causeway 50cm Orthomosaic - Landgate 2007
- Merivale 50cm Orthomosaic - Landgate 2007

M Warnock
 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 responsible in the legend.

Government of Western Australia
 Department of Environment Regulation

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Scale 1:40000
 Approximate when reproduced at A4
 Geocentric Datum Australia 1994

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

North arrow and scale bar (0 to 1 km).

Warnock Date **6-11-14**



Clearing Permit

Decision Report

Government of Western Australia
Department of Environment Regulation

1. Application details

1.1. Permit application details

Permit application No.: 6130/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Shire of Esperance

1.3. Property details

Property: ROAD RESERVE (GIBSON 6448)
ROAD RESERVE (CONDINGUP 6450)
Local Government Area: Shire of Esperance
Colloquial name:

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 6 November 2014

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 47 is described as shrublands; tallerack mallee-heath (Shepherd et al 2001).	The clearing of three hectares of native vegetation within Coolinup Road reserve, Condingup and Gibson Road reserve, Gibson is for the purpose of road maintenance, widening and upgrades.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The description and condition of the vegetation under application was determined from vegetation reports provided by the applicant (Shire of Esperance 2013). Coolinup Road reserve consists of mixed shrubs with numerous <i>Lambertia inermis</i> . The vegetation within this area has been determined to be in excellent (Keighery 1994) condition (Shire of Esperance 2013).
Mapped Beard vegetation association 6048 is described as shrublands; banksia scrub-heath on sandplain in the Esperance Plains Region (Shepherd et al 2001).		To	Gibson Road reserve consists of vegetation in a degraded (Keighery 1994) condition with high weed infestation including Victorian Tea tree, Pine Trees and bridal creeper. There are also planted Tuarts (<i>Eucalyptus gomphocephala</i>) and other plantation Eucalypts in some locations. There are several riparian sections along the road dominated by <i>Melaleuca</i> species. The few sections of remaining bush area dominated by <i>Acacia</i> and <i>Nuytsia</i> . The majority of the understory is extensively weed infested but includes <i>Xanthorrhoea</i> and <i>Adenanthos cuneatus</i> . A small pocket in very good (Keighery 1994) condition is found near a drainage line towards Dempster Road (Shire of Esperance 2013).
Mapped Beard vegetation association 41 is described as shrublands; teatree scrub (Shepherd et al 2001).		Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	
Mapped Beard vegetation association 125 is described as bare areas; salt lakes (Shepherd et al 2001).			

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 may be at variance to this Principle**
The clearing of three hectares of native vegetation within Coolinup Road reserve, Condingup and Gibson Road reserve, Gibson is for the purpose of road maintenance, widening and upgrades.

The area under application within Coolinup Road reserve is in an excellent (Keighery 1994) condition. The majority of the vegetation under application within Gibson is in a degraded (Keighery 1994) condition (Shire of Esperance 2013).

Numerous priority flora species have been recorded within the local area (10 kilometre radius) of the areas under application. One Priority 2 flora species has been recorded within close proximity of Coolinup Road reserve. This species occurs on gravelly sand or gravelly clay on granite outcrops and has been recorded within the north western side of Coolinup Road and therefore may occur within the area under application (Parks and Wildlife 2013). The area under application contains vegetation in an excellent condition and therefore additional threatened flora may occur within the area under application including a Priority 1 and Priority 3 species (Parks and Wildlife 2013). A targeted flora survey was undertaken within the area under application within Coolinup Road reserve and no rare or priority flora species were identified (Shire of Esperance 2014a).

Two Priority 3 and one Priority 1 flora species have been recorded within close proximity of the area under application within Gibson Road reserve. Suitable habitat for the two Priority 3 flora species may be located within the area under application; the taking of a small number of individuals from the application area of these species is unlikely to impact upon the conservation status of these species (Parks and Wildlife 2013). The Priority 1 flora species occurs on dry white sands on flats and in seasonally-wet areas (Western Australian Herbarium 1998-). Habitat for this species may occur within the area under application located within the drainage line vegetation in very good (Keighery 1994) condition (Parks and Wildlife 2013). A targeted flora survey was undertaken within the area under application within Gibson Road reserve and no rare or priority flora species were identified (Shire of Esperance 2014b).

The clearing proposed may indirectly impact adjacent remnant vegetation through the spread of weeds and dieback. Weed and dieback management practices will help mitigate this risk.

Numerous fauna species listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 have been recorded within the Shire of Esperance, including Curlew Sandpiper (*Calidris ferruginea*), Carnaby's Cockatoo (*Calyptorhynchus latirostris*), Chuditch (*Dasyurus geoffroii*), Malleefowl (*Leipoa ocellata*), Black-flanked Rock-wallaby (*Petrogale lateralis*), Recherche Black-footed Rock-wallaby (*Petrogale lateralis* subsp. *hacketti*) and Black-flanked Rock-wallaby (*Petrogale lateralis* subsp. *lateralis*) (DEC 2007-). The vegetation within the areas under application may provide habitat for the above fauna species and act as a corridor for fauna movement between remnant vegetation. However given the narrow, linear shape of the areas under application the vegetation proposed to be cleared is not likely to impact upon significant habitat for indigenous fauna species.

The vegetation located within the Coolinup road reserve may provide a linkage for fauna movement between larger remnants and conservation areas within the local area (10 kilometre radius). However, Coolinup Road reserve retains approximately 50 metres of vegetation on the north side of the road reserve and 20 metres of native vegetation on the south side of the road reserve. The Shire of Esperance proposes to widen the roads by approximately one to two metres and therefore the clearing proposed within Coolinup Road reserve will not have a significant impact on the linkage provided by the road reserve.

The vegetation under application contains vegetation in an excellent (Keighery 1994) condition and therefore may comprise a high biological diversity.

Methodology

References:

- DEC (2007-)
- Keighery (1994)
- Parks and Wildlife (2013)
- Shire of Esperance (2013)
- Shire of Esperance (2014a)
- Shire of Esperance (2014b)
- Western Australian Herbarium (1998-)

GIS Database:

- SAC Bio Datasets - accessed June 2014

(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

Numerous fauna species listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 have been recorded within the Shire of Esperance, including Curlew Sandpiper (*Calidris ferruginea*), Carnaby's Cockatoo (*Calyptorhynchus latirostris*), Chuditch (*Dasyurus geoffroii*), Malleefowl (*Leipoa ocellata*), Black-flanked Rock-wallaby (*Petrogale lateralis*), Recherche Black-footed Rock-wallaby (*Petrogale lateralis* subsp. *hacketti*) and Black-flanked Rock-wallaby (*Petrogale lateralis* subsp. *lateralis*) (DEC 2007-).

Carnaby's cockatoo is listed as endangered under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999. Carnaby's cockatoo nests in large hollows of eucalyptus trees and forages 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, especially seeds from cones of Pinus species (Shah, 2006). The areas under application within Coolinup Road reserve may contain foraging habitat for the Carnaby's cockatoo, however given the narrow, linear shape of the areas under application the clearing proposed is not likely to impact upon significant habitat for this species.

The Chuditch inhabits most kinds of wooded habitat including eucalypt forest, dry woodland and mallee shrublands (Department of the Environment 2013). The vegetation within the areas under application consist of mallee vegetation, therefore the Chuditch may utilise these areas as a corridor for movement between remnant vegetation. However given the narrow, linear shape of the areas under application the vegetation proposed to be cleared is not likely to impact upon significant habitat for indigenous fauna species.

The vegetation located within the Coolinup Road reserve may provide a linkage for fauna movement between larger remnants and conservation areas within the local area (10 kilometre radius). However Coolinup Road reserve currently retains approximately 50 metres of vegetation on the north side of the road reserve and 20 metres of native vegetation on the south side of the road reserve. The Shire of Esperance proposes to widen the road by approximately one to two metres and therefore the clearing proposed within Coolinup Road reserve will not have a significant impact on the linkage provided by the road reserve.

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

Methodology

References:

- Department of the Environment (2013).
- DEC (2007-)
- Keighery (1994)
- Shah (2006)

GIS Database:

- SAC Bio Datasets - accessed June 2014

(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 no rare flora species recorded within close proximity to the areas under application. A targeted flora survey undertaken within the areas proposed to be cleared did not identify any rare flora species (Shire of Esperance 2014a and 2014b).

Given the above, the proposed clearing of three hectares of native vegetation over two road reserves is not likely to include or be necessary for the continued existence of rare flora.

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

Methodology

References:

- Shire of Esperance (2014a and 2014b)

GIS Database:

- SAC Bio Datasets - accessed June 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

One threatened ecological community (TEC), Proteaceae Dominated Kwongan Shrubland, is known to occur within local area (10 kilometre radius). This community is dominated by flowering shrub species from the Proteaceae family (e.g Banksias, Grevilleas and Hakeas) (Department of the Environment 2014). This TEC has a broad distribution throughout the south coast region with large areas located within conservation estate (Department of the Environment 2014).

The mapped Beard vegetation association within the areas under application may be representative of this TEC. The Department of the Environment (2014) has identified the areas under application as either 'indicative of the TEC's current distribution' or 'indicative of the TEC's mapped pre-European distribution'.

Given the above, this TEC may be present within the area under application. However, the Shire of Esperance proposes to widen the roads by approximately one to two metres and given the long linear shape of the areas under application the three hectares of native vegetation proposed to be cleared is not likely to be necessary for the maintenance of this TEC.

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

Methodology

References:

- Department of the Environment (2014)

GIS Database:

- SAC Bio Datasets - accessed June 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 likely to be variance to this Principle

The areas under application are located within the Esperance Plains and Mallee Interim Biogeographic Regionalisation of Australia (IBRA) bioregions. These IBRA bioregions have approximately 52 and 57 per cent of their Pre European vegetation extent remaining (Government of Western Australia 2013).

The vegetation under application is mapped as Beard Vegetation Associations 47, 6048, 41 and 125 which have approximately 36, 14, 50 and 67 per cent of their Pre-European extent remaining respectively within the Esperance Plains and Mallee bioregions (Government of Western Australia 2013).

The National Objectives and Targets for Biodiversity Conservation include a target that prevents the clearance of ecological communities with an extent below 30 per cent of that present pre-European settlement (Commonwealth of Australia, 2001). Beard vegetation association 6048 retains less than the 30 per cent threshold.

Digital imagery indicates that the local area (10 kilometre radius) surrounding the areas under application retain less than 25 per cent vegetation cover and therefore the vegetation proposed to be cleared is considered to be located within an extensively cleared area.

The area under application does not contain rare or priority flora species or significant fauna habitat and therefore is not likely to be considered to be a significant remnant.

Given the above, 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*				
Esperance Plains	2,899,941	1,508,057	52	54
Mallee Shire*	7,395,894	4,185,989	56	31
Shire of Esperance	4,459,670	3,211,034	72	30
Beard Vegetation Association in Bioregion*				
47	1,026,063	372,254	36	49
6048	114,135	16,296	14	25
41	25,127	12,507	50	55
125	183,770	123,767	67	32

*Government of Western Australia (2013)

Methodology References:

- Commonwealth of Australia (2001)
- Government of Western Australia (2013)

GIS Databases:

- Local Government Authorities - Landgate
- Pre-European Vegetation

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments Proposal is at variance to this Principle

A minor watercourse intersects the application area within Gibson Road reserve.

A non-perennial lake is located adjacent to the application within Coolinup Road reserve.

Given the above the vegetation proposed to be cleared is likely to be growing in association with a watercourse and wetland. Therefore the clearing as proposed is at variance to this principle.

However, the application area is long and linear in shape and therefore the clearing proposed is not likely to have a significant impact on the environmental values of the watercourse or lake.

Methodology GIS Databases:

- Geomorphic wetlands, Wheatbelt
- Hydrology, linear

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

Comments Proposal is not likely to be at variance to this Principle

Two soil types have been mapped within the areas under application:

Xd1: Gently undulating plain or plateau at low elevation with small granitic hills, some flats, seasonal swamps and talus; and some more strongly undulating land where dissection has begun: chief soils are sandy neutral yellow mottled soils containing variable amounts of ironstone gravel in the surface sand, with leached sands sometimes containing ironstone gravel and underlain by clay substrate at depths of 3-5 feet (Northcote et al 1960 - 1968) and;

Va68: Stream valleys--broken terrain with some steep and often rocky valley side slopes, mesas and buttes of units Xd1 or Cz1, stream terraces and levees, some swamps: chief soils of the valley side slopes seem to be hard alkaline and neutral yellow mottled soils which may contain ironstone gravel (Northcote et al 1960 - 1968).

The proposed clearing of three hectares in a linear and narrow shape within two road reserves is not likely to cause appreciable land degradation.

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

Methodology References:

- Northcote et al (1960-1968)

GIS Databases:

- Soils, statewide

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Comments Proposal is not likely to be at variance to this Principle

Numerous conservation areas are located within the local area (10 kilometre radius). The closest being a Department of Parks and Wildlife managed reserve located approximately 3.6 kilometres south of the area under application within Gibson Road reserve. Kau Rock Nature Reserve is located approximately 4.5 kilometres north of the area under application within Coolinup Road reserve.

The vegetation within Coolinup Road reserve may provide a linkage between conservation areas and remnant vegetation located within the local area (10 kilometre radius). Coolinup Road reserve currently retains approximately 50 metres of vegetation on the north side of the road reserve and 20 metres of native vegetation on the south side of the road reserve. The Shire of Esperance proposes to widen the roads by approximately one to two metres and therefore the clearing proposed within Coolinup Road reserve will not have a significant impact on the linkage provided by the road reserve.

Given the distance to the closest conservation area, and the narrow linear nature of the application area, the clearing proposed is not likely to have an impact on the environmental values of conservation areas within the local area (10 kilometre radius).

Given the above the clearing as proposed is not likely to be 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

A minor watercourse intersects the application area within Gibson Road reserve. A non-perennial lake is located adjacent to the application within Coolinup Road reserve.

Given the above, the clearing as proposed may increase sedimentation into the watercourse located within the area under application. However sedimentation will be minor and short term, and given the proposed clearing is for road widening and construction there are likely to be culverts in place to manage surface water flow. Therefore the clearing proposed is not likely to cause deterioration in the quality of surface water.

Groundwater salinity ranges from 3000 - 7000 milligrams per litre of Total Dissolved Solids (TDS) which is considered to be moderately saline to saline. The proposed clearing of three hectares over two road reserves is not expected to cause a measurable deterioration in the quality of underground water.

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

Methodology GIS Databases:
- Geomorphic wetlands, Wheatbelt
- 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 likely to be at variance to this Principle**

The proposed clearing of three hectares in a linear shape over two road reserves is not likely to cause or exacerbate the incidence or intensity of flooding.

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

Methodology

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

Comments

No Submissions have been received in relation to this application.

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

Methodology

4. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed June 2014
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- Department of the Environment (2014) Proteaceae Dominated Kwongan Shrubland: a nationally-protected ecological community. Western Australia.
- 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.
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- Parks and Wildlife (2013) Species and Communities Advice for Clearing Permit Application CPS 5818/1 - Flora Advice. Department of Parks and Wildlife. Western Australia. (DER Ref: A700761).
- Parks and Wildlife (2014) Regional Advice for Clearing Permit CPS 6130/1. Department of Parks and Wildlife. South Coast Region.
- Shah, B. (2006) Conservation of Carnaby's Black-Cockatoo on the Swan Coastal Plain, Western Australia. December 2006. Carnaby's Black-Cockatoo Recovery Project. Birds Australia, Western Australia.
- Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.
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- Shire of Esperance (2014a) Coolinup Road reserve CPS 6130/1 Targeted Flora Survey 2014. Western Australia DER Ref: A825963
- Shire of Esperance (2014b) Gibson Road reserve CPS 6130/1 Targeted Flora Survey 2014. Western Australia DER Ref: A825963
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Parks and Wildlife. <http://florabase.dpaw.wa.gov.au/>