



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 6493/1
Permit Holder:	Shire of Collie
Duration of Permit:	9 May 2015 – 9 May 2020

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 waterway restoration.

2. Land on which clearing is to be done

Lot 316 on Deposited Plan 222272 (Reserve 7818), Collie
Lot 1219 on Deposited Plan 222272 (Reserve 7818), Collie
Lot 1205 on Deposited Plan 404432 (Reserve 15783), Collie
Lot 1369 on Deposited Plan 404432 (Reserve 21082), Collie
Lot 1860 on Deposited Plan 74364 (Reserve 23606), Collie
Lot 1971 on Deposited Plan 93266 (Reserve 18806), Collie
Lot 2044 on Deposited Plan 213415 (Reserve 15195), Collie
Collie Esplanade reserve (PIN 11749444), Collie
Coombes Street reserve (PIN 11749443), Collie
Preston Road reserve (PIN 11485008), Collie
Wells Street reserve (PIN 11440951), Collie
Collie River, Collie

3. Area of Clearing

The Permit Holder must not clear more than 2 hectares of native vegetation within the area hatched yellow on attached Plan 6493/1.

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.

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*

9 April 2015

Plan 6493/1



Legend

- Areas approved to clear
- Roads
- Cadastre
- Virtual Mosaic
-



1:7,170

MGA 94
Geocentric Datum of Australia 1994

Matt Warnock Date 9/4/15

Matt Warnock

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.: 6493/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Shire of Collie

1.3. Property details

Property: ROAD RESERVE - 11485008, COLLIE
WATER FEATURE, COLLIE
ROAD RESERVE - 11749444, COLLIE
ROAD RESERVE - 11749443, COLLIE
ROAD RESERVE - 11440951, COLLIE
COLLIE TOWNSITE LOT 1205, COLLIE
COLLIE TOWNSITE LOT 1369, COLLIE
LOT 1219 ON PLAN 222272, COLLIE
LOT 1860 ON PLAN 74364, COLLIE
LOT 1971 ON PLAN 93266, COLLIE
LOT 2044 ON PLAN 213415, COLLIE
LOT 316 ON PLAN 222272, COLLIE

Colloquial name:
Local Government Authority:
DER Region:
DPaW District:
LCDC:
Localities:

COLLIE, SHIRE OF
Greater Swan
WELLINGTON
COLLIE
COLLIE

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2		Poisoning	Restoration

1.5. Decision on application

Decision on Permit: Granted
Application:
Decision Date: 09 April 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
The vegetation under application is mapped as:	The application is to clear two hectares within Lots 316 and 1219 on Deposited Plan 222272 - Reserve 7818, Lots 1205 and 1369 on Deposited Plan 404432 - Reserve 15783 and 21082, Lot 1860 on Deposited Plan 74364 - Reserve 23606, Lot 1971 on Deposited Plan 93266 - Reserve 18806, Lot 2044 on Deposited Plan 213415 - Reserve 15195, Collie Esplanade (PIN 11749444), Coombes Street (PIN 11749443), Preston Road (PIN 11485008), Wells Street (PIN 11440951) road reserves, Collie River, Collie.	Degraded; Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).	The vegetation condition was determined through aerial imagery.
Beard vegetation association 3: Medium forest; jarrah-marri (Shepherd et al. 2001).			
Hedde vegetation Muju complex: Open woodland of Melaleuca preissiana-Banksia littoralis-Banksia ilicifolia with some Eucalyptus patens on moister sites, s24 Banksia spp. on drier sites of valley floors in the subhumid zone (Hedde et al 1980).			
Mattiske vegetation Muja: Open woodland of Melaleuca preissiana-Banksia littoralis-Banksia ilicifolia with some	The vegetation under application falls within the Collie River and consists of Marsilea mutica (Nardoo) which has proliferated in the river due to		

Eucalyptus patens on moister sites, s24 Banksia spp. on drier sites of valley floors in the subhumid zone (Mattiske & Havel 1998).

historical management alterations to the flow regime. The application is part of a larger management plan seeking to restore the River.

3. Assessment of application against clearing principles

Comments

The application is to clear up to two hectares of native vegetation for the purpose of restoring a section of the Collie River by removing *Marsilea mutica* (Nardoo).

Nardoo is native to Western Australia but has been a problem in the Collie River since approximately 1969 after it was dredged and widened in 1965 due to a flood event in 1964. It is thought that the widening of the river and use of stop boards at Venn Street has created ideal conditions for the Nardoo to thrive.

A site inspection undertaken by the Department of Environment and Conservation (DEC) in 2011 for CPS 4135/1, found that the species has now flourished in the Collie River around the Collie town site, to a point where control of the plant is required to restore the health and aesthetics of the river (DEC 2011). Trials were conducted in 2011 to determine the most effective control measures and a management plan (Shire of Collie 2014) was developed based on these results.

The Centre of Excellence in Natural Resource Management (CENRM) studied the environmental effect of the 2014 herbicide treatment season. The results of the study determined that the application of the herbicide had been extremely effective in removing Nardoo. Whilst previous surveys had indicated that herbicide treatment could reduce biodiversity whilst the Nardoo is dying and decaying, the results of the study indicate this is temporary. Fauna surveys indicate that there is no significant reduction in fauna in sites where the herbicide treatment has occurred. The study recommends the continued use of herbicide to treat Nardoo (CENRM 2014).

The application is specifically targeting Nardoo and therefore the proposed clearing does not comprise of a high level of biodiversity, significant fauna habitat, rare flora or threatened ecological communities. The vegetation proposed to be cleared is not a significant remnant and is not part of, or nearby, to a conservation area. Given the proposed clearing is within the Collie River, it is unlikely to cause appreciable land degradation. The proposed spraying of Nardoo may cause degradation in water quality with the addition of the herbicide, and the removal of the dead vegetation post clearing may cause short term sedimentation, however significant impacts are unlikely and a management plan for the works has been written following extensive planning and consultation.

Given the above, the proposed clearing is at variance to principle (f) and is not likely to be at variance to the remaining clearing principles.

Methodology

References:

- The Centre of Excellence in Natural Resource Management 2014
- DEC 2011
- Shire of Collie 2014

GIS databases:

- Hydrography, linear
- SAC Biodatasets

Planning instruments and other relevant matters.

Comments

The application area falls within the Wellington Dam Catchment Area, which is a Public Drinking Water Source Area that does not have an assigned priority classification. The application is also within the Collie River Irrigation District Surface Water Area and Collie Groundwater Area covered by the Rights in Water and Irrigation Act 1914. The application is within Zone D of the Wellington Dam Catchment Area covered by the Country Areas Water Supply Act (1947). Given the Shire of Collie does not propose to take water or excavate during the spraying of the Nardoo, there is no requirements under the Rights in Water and Irrigation Act (1914) (DoW 2015). However, the planned construction of riffles and bio-filtration basins in the Collie River as discussed in the 'Shire of Collie – Collie River Revitalisation Plan' would result in the interference with the bed and banks of the Collie River, and would therefore require a Permit to Obstruct or Interfere (Dow 2015). The Department of Water (DoW) has no objections to the proposed clearing (DoW 2015).

The Department of Water has identified the following risks in relation to the proposed clearing (DoW 2015):

- Decomposing aquatic vegetation has the potential to reduce dissolved oxygen levels, with a risk of anaerobic conditions and associated odours, together with potential impacts on river ecology.
- If sediment is disturbed during the removal of the dead vegetation, turbidity may also result in negative impacts.

The application area falls within two Aboriginal Sites of Significance, and the applicant is advised to contact the Department of Indigenous Affairs in relation to their responsibilities under the Aboriginal Heritage Act 1972.

Methodology

References:

Department of Water 2015

GIS databases:

- Aboriginal sites of significance
- Country Area Water Supply Act (Part IIA) - Clearing Control Catchments
- Public Drinking Water Source Areas
- RIWI Act – Groundwater Areas
- RIWI Act – Surface Water Areas

4. References

- The Centre of Excellence in Natural Resource Management (2014) Collie River Revitalisation Project - Follow-up report at the end of a herbicide treatment season. The Centre of Excellence in Natural Resource Management, Western Australia (DER REF: A848708).
- Department of Water (2015) Advice for Clearing Permit Application CPS 6493/1, Collie River, Collie. Received 1 April 2015. Department of Water, Western Australia (DER REF: A890710).
- Shire of Collie (2014) Shire of Collie, Collie River Revitalisation Plan: Weed Removal Management Plan. Shire of Collie 2014 (DER REF: A848719).
- DEC (2011) Site Inspection Report for Clearing Permit Application CPS 4135/1, Lot Numerous Land Parcels, Collie River, Collie. Site Inspection undertaken 27 January 2011. Department of Environment Conservatoin, Western Australia (DEC REF: A367070).
- Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
- 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.
- 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.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.