



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 6845/1
Permit Holder:	Shire of Tammin
Duration of Permit:	2 April 2016 to 2 April 2021

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 widening.

2. Land on which clearing is to be done

Yorkrakine Road reserve, North Tammin (PIN 1302126).

3. Area of Clearing

The Permit Holder must not clear more than 0.6 hectares of native vegetation within the area cross hatched yellow on attached Plan 6845/1.

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.

PART II – MANAGEMENT CONDITIONS

6. 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:

- 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.

A handwritten signature in blue ink, appearing to read "J Widenbar".

J Widenbar
A/SENIOR MANAGER
CLEARING REGULATION

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

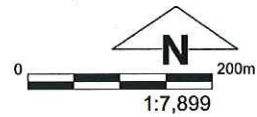
3 March 2016

Plan 6845/1



Legend

-  Roads
-  Imagery
-  Clearing Instruments Activities
-  Local Government Authority



(Approximate when reproduced at A4)
GDA 94 (Lat/Long)

Geocentric Datum of Australia 1994

 Date 3/3/2016
J Widenbar



1. Application details

1.1. Permit application details

Permit application No.: 6845/1
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: Shire of Tammin

1.3. Property details

Property: ROAD RESERVE - 1302126, NORTH TAMMIN
Colloquial name:
Local Government Authority: TAMMIN, SHIRE OF

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 03 March 2016
Reasons for Decision: The clearing application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, and has concluded that the proposed clearing is at variance to Principle (f), is not at variance to principle (h) and is not likely to be at variance to any of the remaining clearing principles.

Through assessment it has been determined that the clearing of a relatively small, degraded to completely degraded (Keighery, 1994) area is unlikely to have any significant environmental impacts. Relevant State policies and other relevant policies have been taken into consideration in the decision to grant a clearing permit.

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
Beard vegetation association 1049: Medium woodland; wandoo, york gum, salmon gum, morrel and gimlet (Shepherd et al., 2001).	The application is to clear 0.6 hectares within Yorkrakine Road reserve (PIN 1302126), North Tammin, for the purpose of road widening.	Degraded; Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994). To Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994)	The condition and structure of the vegetation under application was determined from aerial imagery and photos supplied by the applicant (Shire of Tammin, 2016).

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 to clear 0.6 hectares of native vegetation within Yorkrakine Road reserve (PIN 1302126), North Tammin, for the purpose of road widening. The vegetation under application consists of Eucalyptus trees, with very little native understorey and ground cover present. The vegetation under application is in a degraded to completely degraded (Keighery, 1994) condition.

A total of 18 priority flora species have been mapped within five kilometres of the area under application. Of the 18 priority flora species two species have been recorded in the same mapped vegetation and soil type as the application area. It is unlikely the application area would consist of suitable habitat for the recorded priority flora

given the lack of understorey present and it's degraded to completely degraded (Keighery, 1994) condition.

There have been no priority or threatened ecological communities mapped within five kilometres of the area under application.

The application area falls within Carnaby's cockatoo breeding range, however trees within the application area are not of a size and age as to contain potential breeding hollows (Shire of Tammin, 2016). The application area has very little ground cover and understorey present and is unlikely to provide habitat for ground dwelling fauna.

Given the above the clearing as proposed is not likely to comprise a high level of biological diversity and is therefore not likely to be at variance to this principle.

Methodology References:
Keighery (1994)
Shire of Tammin (2016)

GIS Datasets:
- Sac Bio Datasets - accessed January 2016

(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 is not likely to be at variance to this Principle

Chuditch (*Dasyurus geoffroii*) and bilby (*Macrotis lagotis*) have been recorded within the local area (five kilometre radius) (Parks and Wildlife, 2007-). Carnaby's cockatoo (*Calyptorhynchus latirostris*) have not been recorded within the local area, however the application area does exist within their known breeding range.

The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) referral guidelines for three threatened black cockatoo species (SEWPaC 2012) defines breeding habitat as trees of species known to support breeding within the range of the species which either have a suitable nest hollow or are of suitable diameter at breast height (DBH) to develop a nest hollow. For most trees, suitable DBH is 500 millimetres. For wandoo, suitable DBH is 300 millimetres. The applicant has advised 15 large trees are proposed to be cleared (Shire of Tammin, 2016), however the trees are not of an appropriate size to support breeding for black cockatoos.

Photos supplied by the applicant indicate that there is very little understorey or ground cover within the proposed clearing area. Considering this it is unlikely the application area provides significant habitat for ground dwelling fauna such as the chuditch and bilby.

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

Methodology References:
Parks and Wildlife (2007-)
SEWPaC (2012)
Shire of Tammin (2016)

(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 five kilometres of the area under application. These species have been recorded within a different soil and vegetation types than those mapped within the application area.

The vegetation under application is in a degraded to completely degraded (Keighery, 1994) condition and is unlikely to support rare flora species.

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

Methodology References:
Keighery (1994)

GIS Datasets:
- Sac Bio Datasets - accessed January 2016

(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

There are no threatened ecological communities recorded within five kilometres of the area under application.

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

Methodology GIS Datasets:
 - Sac Bio Datasets - accessed January 2016

(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 at variance to this Principle**
 Aerial imagery indicates the local area (five kilometre radius) is approximately 10 per cent vegetated.

The Interim Biogeographic Regionalisation for Australia's Bioregion (IBRA) (Avon Wheatbelt) and the local government authority area (Shire of Tammin) retain approximately 19 per cent and 8 per cent of their respective pre-European vegetation extents (Government of Western Australia, 2014).

The application area is mapped as Beard vegetation association 1049 which retains approximately 7 per cent of its pre-European vegetation extent within the Avon Wheatbelt IBRA Bioregion.

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 vegetation under application is not likely to form part of a significant ecological corridor for fauna moving between patches of remnant vegetation. The watercourse that intersects the application area will have higher value as an ecological linkage.

The application falls within a highly cleared landscape with approximately 10 per cent of vegetation remaining within five kilometres of the applied area. However, the application area does not provide significant habitat for flora and fauna of conservation significance therefore the application area is unlikely to represent a significant remnant of vegetation in an extensively cleared landscape.

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*				
Avon Wheatbelt	9,517,109	1,765,881	19	10
Shire*				
Tammin, Shire of	110,138	9,255	8	15
Beard Vegetation Association in Bioregion*				
1049	833,384	56,842	7	6

Methodology References:
 Commonwealth of Australia (2001)
 Government of Western Australia (2014)*

GIS Datasets:
 - 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 **Proposed clearing is at variance to this Principle**
 A minor, non-perennial watercourse intersects the application area. Nine wetlands have been mapped within five kilometres of the application area. These wetlands are likely to be seasonally inundated during the winter months. The proposed clearing will impact upon vegetation within the mapped watercourse, however any impacts to the watercourse are likely to be minor and managed during road construction.

Given the above, the proposed is at variance to this principle.

Methodology GIS Datasets:
 - Geomorphic Wetland, Wheatbelt
 - Hydrography linear

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

Comments **Proposed clearing is not likely to be at variance to this Principle**
The mapped soil type in the application area consists of gneissic rock outcrops and chief soils are hard neutral red (Northcote et al., 1960-68)

Increased water erosion due to the proposed clearing is likely to be minimal given that the one watercourse intersected is minor and non-perennial, annual local rainfall is low (500 millimetres), the landscape is gently undulating and the vegetation proposed to be cleared is in a degraded to completely degraded (Keighery, 1994) condition.

The proposed clearing is unlikely to cause wind erosion given the linear nature of the application area.

Groundwater is highly saline, mapped at 14000-35000 total dissolved solids (milligrams per litres). Considering the relatively small amount of clearing over a linear distance of approximately 500 metres it is not likely to contribute to the rise of groundwater causing land degradation in form of salinity.

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

Methodology **References:**
Keighery (1994)
Northcote et al. (1960-68)

GIS Datasets:
- Groundwater Salinity Statewide
- Hydrography linear
- Rainfall, Mean Annual
- Topographic contours

(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 at variance to this Principle**
There are no records of conservation areas mapped within five kilometres of the area under application.

Given the above, the clearing as proposed is not 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**
Groundwater salinity within the application area has been mapped as highly saline at 14000-35000 total dissolved solids (milligrams per litres). The proposed clearing is not expected to significantly change salinity levels given its relatively small scale and the condition of the vegetation.

The proposed clearing may cause an increase in turbidity of the watercourse that it intersects within the area. However, this is likely to be short term and minimal given the relatively small extent of vegetation to be cleared.

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

Methodology **GIS Datasets:**
- Groundwater Salinity Statewide
- Hydrography linear
- Topographic contours

(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 proposed clearing is not expected to cause flooding given the small scale and linear nature of the application area.

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

Methodology **GIS Datasets:**
- Groundwater Salinity Statewide
- Hydrography linear
- Topographic contours

Planning instruments and other relevant matters.

Comments The application area is located within the Avon River Surface Water Area, proclaimed under the Rights in Water and Irrigation Act 1914, where there may be a requirement to obtain a permit to interfere with the bed and banks of a watercourse. The proponent is advised to liaise with the Department of Water to determine if approvals are required.

No registered Aboriginal Sites of Significance occur within the application area.

No public submissions have been received.

Methodology GIS Databases:
- Aboriginal Sites Register
- RIWI Surface Water Areas

4. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Department of Sustainability, Environment, Water, Population and Communities (SEWPaC) (2012) EPBC Act Referral guidelines for three threatened black cockatoo species: Carnaby's cockatoo (endangered) *Calyptorhynchus latirostris*, Baudin's cockatoo (vulnerable) *Calyptorhynchus baudinii*, Forest red-tailed black cockatoo (vulnerable) *Calyptorhynchus banksii naso*.
- Government of Western Australia (2014) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2014. 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.
- 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.
- Parks and Wildlife (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dpaw.wa.gov.au/>. Accessed January 2016
- 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.
- Shire of Tammin (2016) Information received in relation to Clearing Permit Application CPS 6845/1 – Shire of Tammin (DER Ref:A1056261)