



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 6381/1
Permit Holder:	Commissioner of Main Roads Western Australia
Duration of Permit:	21 February 2015 - 21 February 2017

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 construction.

2. Land on which clearing is to be done

Unallocated Crown Land (PIN 11800638), WATTLE GROVE
Lot 63 on Deposited Plan 7066, WATTLE GROVE
Lot 4 on Plan 3781, WATTLE GROVE

3. Area of Clearing

The Permit Holder must not clear more than 0.99 hectares of native vegetation within the area hatched yellow on attached Plan 6381/1.

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 project 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 *project activities* under the *Main Roads Act 1930* or any other written law.

PART II – MANAGEMENT CONDITIONS

6. 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*:

- clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared;
- restrict the movement of machines and other vehicles to the limits of the areas to be cleared; and
- only move soils in *dry conditions*; and

DEFINITIONS

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

dieback means the effect of *Phytophthora* species on native vegetation;

dry conditions means when soils (not dust) do not freely adhere to rubber tyres, tracks, vehicle chassis or wheel arches;

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;

soil disease status means soil types either infested, not infested, uninterpretable or not interpreted with a pathogen.

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*

22 January 2015



1. Application details

1.1. Permit application details

Permit application No.: 6381/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Commissioner of Main Roads Western Australia

1.3. Property details

Property: UNALLOCATED CROWN LAND (WATTLE GROVE 6107)
LOT 63 ON PLAN 7066 (WATTLE GROVE 6107)
LOT 4 ON PLAN 3781 (House No. 17 HARDEY EAST WATTLE GROVE 6107)

Local Government Area:

Colloquial name:

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 22 January 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
Mapped Beard vegetation association 968 is described as Medium woodland; jarrah, marri & wandoo (Shepherd et al. 2001).	The clearing of 0.99 hectares within a 4.14 hectare area on Lot 63 on Deposited Plan 7066, Lot 4 on Plan 3781 and Unallocated Crown Land, Wattle Grove for the purpose of road construction.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	Vegetation condition was established from supporting information provided with the application to clear (GHD 2014).
Hedde vegetation complex Southern River Complex is described as Open woodland of <i>Corymbia calophylla</i> (Marri) - <i>Eucalyptus marginata</i> (Jarrah) - <i>Banksia</i> species with fringing woodland of <i>Eucalyptus rudis</i> (Flooded Gum) - <i>Melaleuca raphiophylla</i> (Swamp Paperbark) along creek beds (Hedde et al 1980).		To Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The vegetation under application consists of remnant regrowth native vegetation and remnant trees (<i>Corymbia calophylla</i> and <i>Allocasuarina fraseriana</i>) over grassy weeds in a completely degraded to good (Keighery 1994) condition.

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 area under application consists of 0.05 hectares of remnant vegetation consisting of one Marri (*Corymbia calophylla*) tree and four *Allocasuarina fraseriana* over grassy weeds in a completely degraded (Keighery 1994) condition. The remaining vegetation (0.94 hectares) consists of native regrowth and previously planted vegetation which has been previously cleared in the early 1980s for the construction of Tonkin Highway. This vegetation consists of small areas of scattered *Banksia menziesii* and planted non-native trees over areas of *Jacksonia floribunda*, *Leptospermum laevigatum* over heathland of *Eremaea pauciflora* and *Verticordia plumosa* over *Desomocladus flexuosus*, *Lomandra hermaphrodita*, *Patersonia occidentalis* and non-native *Briza maxima*. The vegetation ranges from good to degraded (Keighery 1994) condition (GHD, 2014).

A site visit conducted by GHD of the application area in October 2014 recorded 31 native flora species and 12

introduced flora species within the application area. Rare and priority listed flora were targeted during this site inspection and no rare or priority flora species were found within the application area (GHD, 2014).

The application area does not contain significant fauna habitat given its small size, linear shape and good to completely degraded (Keighery 1994) condition. Given its predominantly degraded (Keighery 1994) condition the application area also does not represent a Threatened Ecological Community or the highly cleared mapped Beard vegetation association 968.

Given the above and that the application area is surrounded by a Bush Forever site which has similar vegetation types in a better condition, it is not considered that the vegetation under application to represent a high level of biodiversity. Therefore, the proposed clearing is not likely to be at variance to this principle.

Methodology References
-GHD (2014)
-Keighery (1994)
GIS Databases
-Sac Bio datasets (16 December 2014)
-Pre-European Vegetation
- NWLRA, Extent of Native Vegetation

(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**
The local area (10 kilometre radius) surrounding the application is highly cleared, retaining approximately 25 percent native vegetation cover. The area under application consists of 0.05 hectares of remnant vegetation consisting of one Marri (*Corymbia calophylla*) tree and four *Allocasuarina fraseriana* over grassy weeds in a completely degraded (Keighery 1994) condition. The remaining vegetation (0.94 hectares) consists of native regrowth and previously planted vegetation that includes *Banksia menziesii* in a degraded to good (Keighery 1994) condition.

Carnaby's cockatoo (*Calyptorhynchus latirostris*) (Endangered, Wildlife Conservation Act 1950 (WC Act); Endangered, Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)), Baudin's cockatoo (*Calyptorhynchus baudinii*) (Endangered, WC Act; Vulnerable, EPBC Act), and Forest Red-tailed black cockatoo (*Calyptorhynchus banksii* subsp. *naso*) (Endangered, WC Act; Endangered, EPBC Act) have been recorded within the local area (10 kilometre radius) of the application to clear (DEC 2007-).

Important native food for these species includes *Banksia attenuata*, *B. menziesii*, *B. grandis*, *B. ilicifolia*, *B. sessilis*, *B. prionotes*, *Corymbia calophylla* and *Eucalyptus marginata* (Valentine and Stock 2008). As the application area contains some of these flora species, the application area may consist of foraging habitat for the three black cockatoo species. In addition, a Marri tree containing a small hollow that may have potential to develop into a nesting hollow for black cockatoo species occurs in the northern end of the application area (GHD 1994).

A sit visit conducted by GHD in October 2014 did not find any evidence of foraging or nesting by threatened black cockatoo species within the application area (GHD 2014).

Given that the majority of the area is in a degraded (Keighery 1994) condition and the clearing is small and linear, it is not considered likely that the application area represents significant fauna habitat. Therefore, the proposed clearing is not likely to be at variance to this principle.

Methodology References
-DEC (2007-)
-GHD (2014)
-Keighery (1994)
-Valentine and Stock (2008)
GIS Databases
-Sac Bio datasets (16 December 2014)
- NWLRA, Extent of Native Vegetation

(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**
The area under application occurs within the 50 meter buffer of two rare flora species populations.

A site inspection of the application area undertaken in October 2014 by GHD did not observe these two rare flora species which are readily identifiable outside their flowering times, within the application area (GHD 2014).

As the application area has been disturbed, is mainly in a degraded (Keighery 1994) condition and does not contain the two rare flora species, it is not considered for that the proposed clearing will impact on critical

habitat of rare flora (Parks and Wildlife 2015).

However, given that rare flora is in close proximity, weed and dieback management measures are necessary to prevent the spread of weeds and dieback (RCC 2015).

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

- Methodology** **References**
- Parks and Wildlife (2015)
 - GHD (2014)
 - Keighery (1994)
 - RCC (2015)
 - GIS Databases
 - SAC Bio datasets (16 December 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**

Two threatened Ecological Communities (TEC) occur within close proximity the application area, including floristic community type Swan Coastal Plain (SCP) 20a Banksia attenuata woodlands over species rich dense shrublands recorded 800m east and SCP10a shrublands on dry clay flats recorded 1.2 kilometres south of the application area.

The area under application consists of 0.05 hectares of remnant vegetation consisting of one Marri (*Corymbia calophylla*) tree and four *Allocasuarina fraseriana* over grassy weeds in a completely degraded (Keighery 1994) condition. The remaining vegetation (0.94 hectares) consists of native regrowth and previously planted vegetation which has been previously cleared in the early 1980s for the construction of Tonkin Hwy. This vegetation consists of small areas of scattered *Banksia menziesii* and planted non-native trees over areas of *Jacksonia floribunda*, *Leptospermum laevigatum* over heathland of *Eremaea pauciflora* and *Verticordia plumosa* over *Desmodium flexuosus*, *Lomandra hermaphrodita*, *Patersonia occidentalis* and non-native *Briza maxima*. This area ranges from good to degraded (Keighery 1994) condition (GHD, 2014).

Given that no clay flats occur within the application area, it is not considered likely that the proposed clearing will impact on TEC SCP10a.

As the application area is in a predominately degraded (Keighery 1994) condition, it is not considered likely for the application area to support TEC SCP20a.

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

- Methodology** **References**
- GHD 2014)
 - Keighery (1994)
 - GIS Databases
 - Sac Bio datasets (16 Decemebr 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 at variance to this Principle**

The local area (10 kilometre radius) is approximately 25 per cent vegetated. The vegetation has been mapped as Beard vegetation association 968, of which there is approximately 7.2 per cent pre-European extent remaining within the Swan Coastal Plain bioregion (Government of Western Australia, 2013).

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). Within constrained areas (i.e. areas of urban development in cities and major towns) on the Swan Coastal Plain and within the Greater Bunbury Region Scheme and Peel Region Scheme the target for representation of the pre-clearing extent of a particular native vegetation complex is 10 per cent (EPA 2006).

Vegetation association 968 retains less than the national recommended levels however, as the application area is long and linear, is mainly in a degraded (Keighery 1994) condition and occurs in an area previously cleared for the Tonkin Highway, it is not considered to represent a significant remnant.

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

Lands	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in Parks and Wildlife Managed (%)
IBRA Bioregion*				

Swan Coastal Plain	1,501,221.9	586,975.2	39.1	36.4
Shire*				
Shire of Kalamunda	32,387.8	23,613.7	72.9	84.0
Beard Vegetation Association in Bioregion*				
968	136,188.2	9,795.8	7.2	16.0
Hedde Vegetation Complex **				
Southern River Complex	44,995.0	18,474.0	41.1	8.8

Methodology References
- Commonwealth of Australia (2001)
- Government of Western Australia (2013)*
- Hedde et al. (1980)**
- GIS Databases:
- Interim Biogeographic Regionalisation of Australia
- Pre-European Vegetation
- SAC Bio datasets (16 Decemebr 2014)
- NWLRA, Extent of Native 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 not likely to be at variance to this Principle**
Approximately 50 per cent of the application area is mapped as a conservation category palusplain wetland and a minor perennial watercourse occurs 20 meters north of application area.
No wetland dependent vegetation growing in association with this watercourse or mapped wetland was observed during the site inspection conducted by GHD (GHD 2014).
Therefore, it is not considered likely for the vegetation under application to be growing in or in association with a watercourse or wetland and is not likely to be at variance to this principle.

Methodology References
-GHD (2014)
GIS Databases
-Hydrography, 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**
The chief soils are leached sands on the low dunes and small areas of other sandy soils (Northcote et al, 1960). These soils are susceptible to wind erosion.
However, given the small area proposed to be cleared (0.99 hectares) and its linear shape, it is not considered for the proposed clearing to cause appreciable land degradation in the form of erosion.

Methodology References
-Northcote et al. (1960)
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 may be at variance to this Principle**
A small portion of the application area falls within Hartfield Park which is Bush Forever site 320.
The area under application is in a previously cleared area and is mainly in a degraded (Keighery 1994) condition. Therefore, the proposed clearing is not considered likely to directly impact the environmental values of the Bush forever site.
However, the proposed clearing may lead to further encroachment of weeds into adjacent bushland through edge effects. Therefore, the proposed clearing may be at variance to this principle.
Weed and dieback management measures are necessary to prevent the spread of weeds and dieback (RCC 2015).

Methodology References
-RCC (2015)
-Keighery (1994)
GIS Databases
-Bush Forever
-Parks and Wildlife Managed Lands

(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**
Approximately 50 per cent of the application area is mapped as a conservation category palusplain wetland and a minor perennial watercourse occurs 20 meters north of application area.

The chief soils are leached sands on the low dunes and small areas of other sandy soils (Northcote et al, 1960).

Due to the sandy soils present and small linear size of the application area, it is not considered likely that the proposed clearing will increase surface water runoff or cause deterioration of surface water of the nearby watercourse or adjacent wetland.

Given the small size of the proposed clearing it is not considered likely to increase the risk of salinity of underground water.

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

Methodology References
-Northcote et al. (1960)
GIS Databases
-Hydrography, linear
-Soils, statewide

(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 chief soils are leached sands on the low dunes and small areas of other sandy soils (Northcote et al, 1960). Given the sandy soils present and small area proposed to be cleared (0.99 hectares) it is not considered that the proposed clearing will cause or exacerbate flooding.

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

Methodology References
-Northcote et al (1960)
GIS Databases
-Soils, statewide

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

Comments

The clearing of 0.99 hectares of native vegetation within a 4.14 hectare area on Lot 63 on Plan 7066, Lot 4 on Plan 3781 and Unallocated Crown Land, Wattle Grove is for the purpose of upgrading Tonkin Highway and Hale road intersection in order to extend work being undertaken by the Gateway WA project.

The proposed upgrade will result in an additional through-lane southbound on Tonkin Highway through the Hale Road intersection. Temporary works include temporary office, crib hut, toilet and laydown facilities and temporary accesses from existing roads (GHD 2014).

MRWA proposes to revegetate batters and degraded areas adjacent to the road after construction (GHD 2014).

Native title notification of this application was sent to the South West Aboriginal Land and Sea Council and Whadjuk People Native Title claimants.

The area under application is zoned Primary Regional Road under the Metropolitan Regional Scheme.

Methodology References
-GHD (2014)
Gis Databases
-Metropolitan Regional Scheme zones
-Native Title

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/>.

EPA (2006) Guidance for the Assessment of Environmental Factors - Level of Assessment for Proposals Affecting Natural Areas Within the System 6 Region and Swan Coastal Plain Portion of the System 1 Region. Guidance Statement No 10. Environmental Protection Authority, Western Australia.

GHD (2014) CPS 6381/1 - Tonkin Highway and Hale Road Intersection Upgrade Clearing permit Supporting Document. November 2014 (DER ref A 843318)

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.

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.

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, 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.

Parks and Wildlife (2015) Flora advice for CPS 6381/1 - MRWA. Department of Parks and Wildlife, Western Australia. (DER ref A852505)

RCC (2015) Roadside Conservation Committee advice for CPS 6381/1. Roadside Conservation Committee (DER ref A852507)

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.