



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 6664/1

File Number: DER2015/001653

Duration of Permit: From 3 October 2015 to 3 October 2020

PERMIT HOLDER

Housing Authority

LAND ON WHICH CLEARING IS TO BE DONE

Lot 9236 on Deposited Plan 69102, Bertram

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 0.11 hectares of native vegetation within the area cross hatched yellow on attached Plan 6664/1.

CONDITIONS

1. 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; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

2. Retain vegetative material and topsoil, revegetation and rehabilitation

The Permit Holder shall:

- (a) retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil in an area that has already been cleared.
- (b) within six months of decommissioning the temporary sump, *revegetate* and *rehabilitate* the area(s) that are not required for future scheduled and approved development, by:
 - (i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land;
 - (ii) ripping the floor and contour batters within the sump; and
 - (iii) laying the vegetative material and topsoil retained under condition 2(a) on the cleared area(s).

DEFINITIONS

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

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

direct seeding means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

fill means material used to increase the ground level, or fill a hollow;

local provenance means native vegetation seeds and propagating material from natural sources within 10 kilometres and the same Interim Biogeographic Regionalisation for Australia (IBRA) subregion of the area cleared;

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;

planting means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;

regenerate/ed/ion means re-establishment of vegetation from in situ seed banks and propagating material (such as lignotubers, bulbs, rhizomes) contained either within the topsoil or seed-bearing *mulch*;

rehabilitate/ed/ion means actively managing an area containing native vegetation in order to improve the ecological function of that area;

revegetate/ed/ion means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as natural *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area;

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*

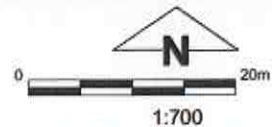
3 September 2015

Plan 6664/1



Legend

-  Cadastre
-  Roads
-  Imagery
-  Clearing Instruments Activities



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

Geocentric Datum of Australia 1994

M Wamock Date 3/9/15

M Wamock

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986



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1. Application details

1.1. Permit application details

Permit application No.: 6664/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Housing Authority

1.3. Property details

Property: LOT 9236 ON PLAN 69102, BERTRAM
Local Government Authority: KWINANA, CITY OF
DER Region: Greater Swan
DPaW District: SWAN COASTAL
Localities: PARMELIA

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.11		Mechanical Removal	Drainage

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 03 September 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
Beard vegetation association 6 is described as medium woodland; tuart and jarrah (Shepherd et al, 2001).	This application is to clear 0.11 hectares of native vegetation within Lot 9236 on Deposited Plan 69102, Bertram, for the purpose of constructing a temporary sump.	Degraded; Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994). To	The condition of the vegetation was determined during a flora and vegetation survey undertaken by 360 Environmental (2015) and aerial imagery.
Hedde vegetation Bassendean complex-central and south is comprised of woodland to low woodland and sedgelands (Hedde et al 1980).		Completely Degraded; No longer intact, completely/almost completely without native species (Keighery 1994).	

3. Assessment of application against clearing principles

Comments The application is for the proposed clearing of 0.11 hectares of native vegetation within Lot 9236 on Deposited Plan 69102, Bertram, for the purpose of constructing a temporary sump.

The City of Kwinana retains approximately 35 per cent (Government of Western Australia 2014) of the original vegetation extent and mapped Beard vegetation association 6 (Shepherd et al 2001) retains approximately 37 per cent (Government of Western Australia 2014) of the original vegetation extent, within the Swan Coastal Plain Interim Biogeographic Regionalisation for Australia Bioregion. The local area (10 kilometre radius) retains approximately 30 per cent of its Pre-European native vegetation.

Although the application area falls within the Bassendean complex-central and south (Hedde et al 1980) which has 23 per cent of its pre-European extent remaining (Parks and Wildlife, 2015); the vegetation is in a degraded to completely degraded (Keighery 1994) condition, as most of the applied area has been previously cleared (360 Environmental 2015). Therefore it is not considered a significant remnant within a highly cleared landscape.

There are numerous records of rare and priority flora within the local area (10 kilometre radius), however none of these species were identified within the application area during a flora survey (360 Environmental 2015). The survey concluded that one priority three flora species is considered to possibly occur within the area, but was not found. The survey was undertaken outside of the flowering period of this species. Priority three species are generally known from collections from several different localities not under imminent threat, but could be if circumstances change. Given this, clearing the vegetation under application is not likely to have a significant impact on conservation significant flora species.

Several fauna species of conservation significance have been recorded within ten kilometres of the applied area, this includes but is not limited to, *Calyptorhynchus latirostris* (Carnaby's cockatoo), *Calyptorhynchus baudinii* (Baudin's Black Cockatoo) and *Calyptorhynchus banksii* subsp. *naso* (forest red-tailed black cockatoo) (Parks and Wildlife 2007-). No potential breeding habitat was identified within the property boundary (360 Environmental, 2015). Given the small size (0.11 hectares) and degraded nature of the applied area, the proposed clearing is unlikely to significantly impact on black cockatoos or any other fauna species recorded within the local area.

Bush Forever sites 272 and 269 are located adjacent to the applied area and both contain areas of *Banksia* woodland communities (360 Environmental 2015). The disturbance caused by the proposed clearing will increase the likelihood of weeds and dieback being spread into adjacent areas of native vegetation. Weed and dieback management practices will assist in mitigating this risk.

Given the condition of the vegetation under application, clearing the vegetation under application is not likely to impact on priority or threatened ecological communities recorded from the local area (360 Environmental 2015).

Due to the limited amount of clearing proposed (0.11 hectares) and as no watercourses are recorded within the local area, the application is not likely to cause or exacerbate land degradation or flooding, impact on water quality or impact on riparian vegetation.

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

Methodology

References:

360 Environmental (2015)
Government of Western Australia (2014)
Heddle, E.M., Loneragan, O.W. and Havel, J.J. (1980) '
Keighery, B.J. (1994)
Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001)
Parks and Wildlife (2007)
Parks and Wildlife (2015)

GIS Databases:

SAC Bio datasets (Accessed August 2015)

Planning instruments and other relevant matters.

Comments The proposed temporary drainage sump will serve the residential development south of Durrant Avenue, Parmelia, until permanent drainage infrastructure can be installed (360 Environmental 2015). The Department of Water (2015) has advised that it is not expected that a ground water licence is required for this activity.

Methodology

References:

360 Environmental (2015)
Department of Water (2015)

4. References

- 360 Environmental (2015) Clearing permit application, Lot 9231 Sulphur Road, Parmelia, Flora and Vegetation Survey. DER ref: A941367.
- Department of Water (2014) Rights in Water and Irrigation Act 1914 advice. DER Ref: A958686.
- 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.
- Heddle, 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.
- Parks and Wildlife (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dpaw.wa.gov.au/>. Accessed 5 August 2015.
- Parks and Wildlife (2015) 2015 South West Forest and Swan Coastal Plain Vegetation Complex Statistics: a report prepared for the Department of Environment Regulation. Current as of March 2015. Department of Parks and Wildlife, Perth, 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.