



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 5218/1

File Number: DEC8555

Duration of Permit: From 23 November 2012 to 23 November 2014

PERMIT HOLDER

Scott Nicklaus Dunnet

LAND ON WHICH CLEARING IS TO BE DONE

Lot 5192 on Deposited Plan 229257, YEAGARUP

Lot 7586 on Deposited Plan 140125, YEAGARUP

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 20.9 hectares of native vegetation within the area hatched yellow on attached Plan 5218/1.

CONDITIONS

1. Dieback and weed control

- (a) 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;
 - shall only move soils in *dry conditions*;
 - ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
 - restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

2. Fauna management

- (a) Prior to undertaking any clearing authorised under this Permit, the area(s) shall be inspected by a *fauna specialist* who shall identify *habitat tree(s)* suitable to be utilised by fauna species listed below:
- Carnaby's Cockatoo (*Calyptorhynchus latirostris*);
 - Baudin's Cockatoo (*Calyptorhynchus baudinii*);
- (b) Prior to clearing, any *habitat/habitat tree(s)* identified by condition 2(a) shall be inspected by a *fauna specialist* for the presence of fauna listed in condition 2(a).
- (c) Where fauna are identified in relation to condition 2(b) of this Permit, the Permit Holder shall ensure that no clearing of the identified *habitat tree(s)* occurs, unless approved by the CEO.

3. Records must be kept

In relation to fauna management pursuant to condition 2 of this Permit:

- the location of each *habitat tree* identified recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;

- (ii) the species name of fauna reasonably likely to utilise, or that have been observed utilising, the *habitat tree(s)*; and
- (iii) a copy of the fauna specialist's report.

4. Reporting

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
 - (i) of records required under condition 3 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.

- (b) Prior to 23 August 2012 the Permit Holder must provide to the CEO a written report of records required under condition 3 of this Permit where these records have not already been provided under condition 4(a) of this Permit.

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;

fauna specialist means a person with training and specific work experience in fauna identification or faunal assemblage surveys of Western Australian fauna;

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

habitat tree(s) means trees that have a diameter, measured at 1.5m above the ground, of 50cm or greater, healthy but with dead limbs and broken crowns that are likely to contain hollows and roosts suitable for native fauna, or where these are not present then healthy but with the potential to contain hollows and roosts;

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; and

weed/s means a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*

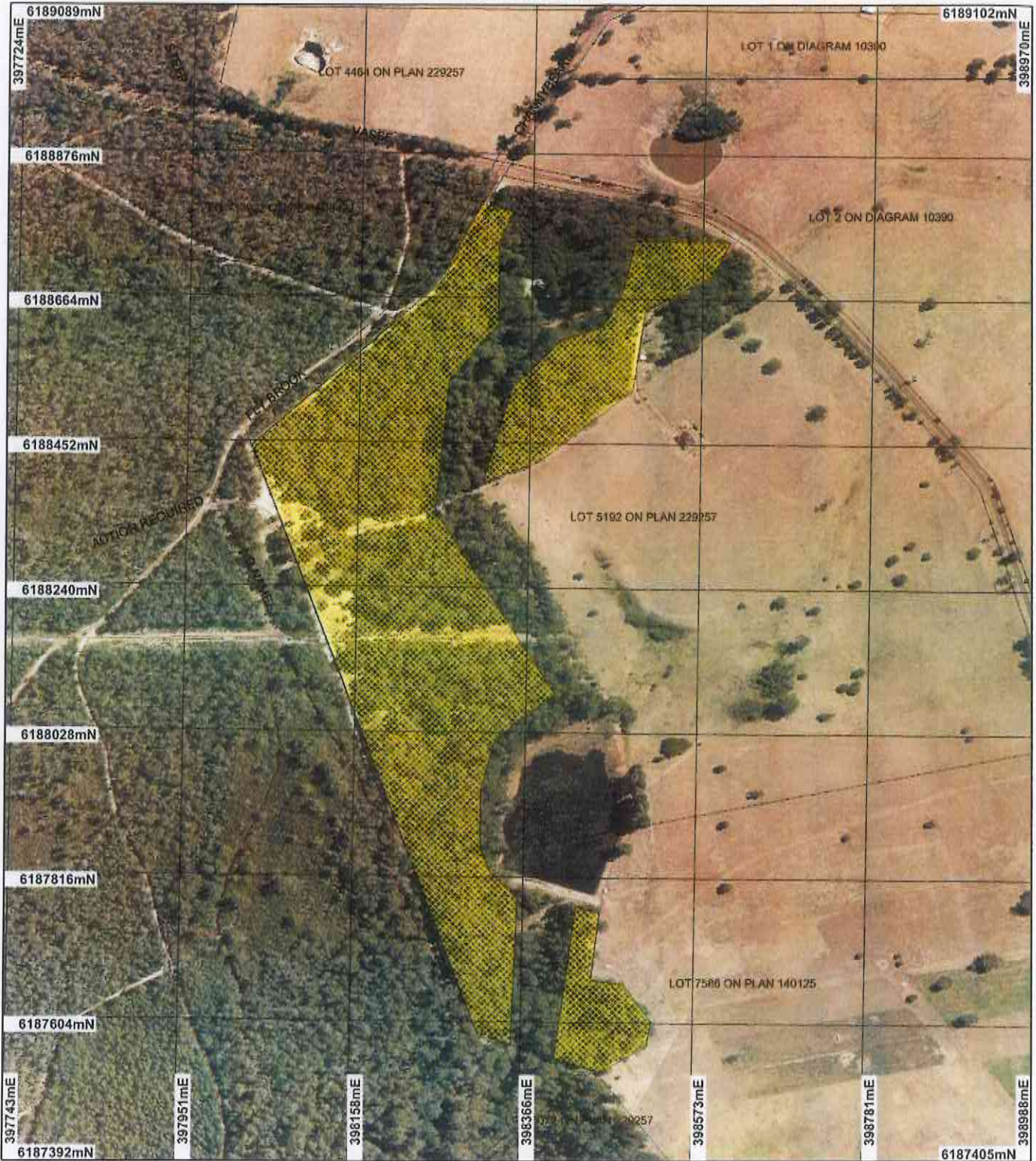


Roxane Shadbolt
A/MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

1 November 2012

Plan 5218/1



LEGEND

Road Centrelines
 Cadastral for labelling

- Freehold
- Crown Reserve
- State Forest / Timber Reserve
- Marine Park (cont)

- Crown Lease
- Lease / Reserve
- Lease on State Forest / Timber Reserve
- Public Roads
- Unallocated Crown Land
- Water

Clearing Instruments

- Areas Approved to Clear



0 200 m

Scale 1:7431

(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.

R. Shadbolt Date 11/11/12
 Roxane Shadbolt

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.



Department of Environment and Conservation

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1. Application details

1.1. Permit application details

Permit application No.: 5218/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Scott Nicklaus Dunnet

1.3. Property details

Property: LOT 5192 ON PLAN 229257 (House No. 11820 VASSE YEAGARUP 6260)
LOT 7586 ON PLAN 140125 (YEAGARUP 6260)

Local Government Area: Shire of Manjimup

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
20.9		Mechanical Removal	Grazing & Pasture

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 1 November 2012

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: 3: Medium forest; jarrah-marri	The proposed clearing of 20.5 hectares is for the purpose of pasture and grazing.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The vegetation condition was established through a site visit under taken by Department of Environment and Conservation (DEC) officers in October 2012 (DEC 2012).
1144: Tall forest; karri & marri (Corymbia calophylla) (Shepherd et al. 2001).	The area under application consists of closed regrowth forest consisting of, karri with some Marri. A portion in the north of the application area also has Jarrah. The middle storey is comprised of Sheoak and peppermint trees. The application area has been previously cleared or heavily selection cut and possibly some grazing has occurred. Understorey vegetation is in very good condition (DEC, 2008).		
Mattiske Vegetation: Q: Mosaic of low open woodland of Eucalyptus marginata subsp. marginata-Banksia ilicifolia-Nuytsia floribunda and low open woodland of Eucalyptus patens-Melaleuca preissiana-Nuytsia floribunda on less undulating flats in hyperhumid and perhumid zones.			
CRd: Open forest to tall open forest of Eucalyptus marginata subsp. marginata-Corymbia calophylla on uplands in hyperhumid and perhumid zones.			
PM1: Tall open forest of Eucalyptus diversicolor with mixtures of Corymbia calophylla on valley slopes and low forest of Agonis juniperina-Banksia seminuda-Callistachys lanceolata on valley floors in the perhumid zone.			

(Mattiske and Havel 1998).

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 area proposed to be cleared consists of regrowth Karri forest with Marri and Jarrah in a very good (Keighery, 1994) condition (DEC 2012).

The local area (10km) surrounding the application area has approximately 85 percent of its pre-European vegetation remaining.

Much of the vegetation within the application area is in a very good (Keighery, 1994) condition with the potential to provide some nesting habitat for black cockatoo species and for other conservation significant indigenous fauna (DEC 2012).

Given the above the proposed clearing may be at variance to this Principle.

Methodology

References

- DEC (2012)
- Keighery (1994)
- GIS Databases
- SAC Bio datasets (6/9/2012)
- 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 may be at variance to this Principle**

Numerous conservation significant fauna have been recorded within the local area (10 km radius) including *Calyptorhynchus baudinii* (Baudin's Cockatoo), *Calyptorhynchus latirostris* (Carnaby's Cockatoo), *Falco peregrinus* (Peregrine Falcon), *Geotria australis* (Pouched lamprey) and *Setonix brachyurus* (Quokka) (DEC 2007-).

The vegetation under application consists of regrowth Karri forest with Marri and Jarrah in very good condition (DEC 2012).

The Baudin's Cockatoo is listed as vulnerable under the Environment Protection and Biodiversity Conservation Act 1986 (EPBS Act) and rare under the Wildlife Conservation Act 1950 (WC Act) and are known to occur within Jarrah, Marri and Karri forest feeding on Marri and nesting within Karri trees (DEWHA 2008). The Carnaby's Cockatoo is listed as Endangered under the EPBC Act and WC Act and are known to nest in and feed on Marri and Jarrah (Shah 2008). The application area is predominately Karri and therefore is not the preferred food source for these black cockatoo species (DEC 2012).

A current clearing permit exists within the area under application for the purpose of silviculture. An annual report of clearing activities under this permit identified approximately 30 habitat trees which are trees that have a diameter of 70cm at head height and contain hollows or the potential to have hollows, within the majority of the proposed clearing area (WAPRES 2009). A site inspection did not identify trees large enough to support hollows within most of the application area; however it did identify some large Marri and Jarrah trees in the northern portion that are likely to contain suitable nesting hollows for black cockatoo species (DEC 2012).

Therefore, it is considered for the proposed clearing area to contain suitable breeding habitat for these two threatened cockatoo species.

As there is approximately 85 per cent of native vegetation remaining within the local area and that the application area is adjacent to state forest and national parks that contain similar habitat, the proposed clearing may be at variance to this Principle. Fauna management measures may reduce this identified impact.

Methodology

References

- DEC (2012)
- DEWHA (2008)
- WAPRES (2009)
- Shah (2008)
- DEC (2007-)
- GIS Databases
- NWLRA, Extent of Native Vegetation
- DEC Managed Lands

(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 is one rare flora occurring within the local area and on the same vegetation and soil types as the area under application.

This species is known to occur along creeklines in jarrah and karri forest (Brown et al. 1998) and has been found in the adjoining national park.

The area under application consist of jarrah, Marri and Karri forest in very good (Keighery 1994) condition (DEC 2008) and a 30m buffer has been provided for a minor perennial watercourse that intercepts the application areas.

Given, the proposed clearing avoids riparian vegetation; it is not considered likely for the proposed clearing to be at variance to this principle.

Methodology **References**
-DEC (2008)
-Brown et al. (1998)
-Keighery (1994)
GIS Databases
-Sac Bio datasets (10 September 2012).

(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**
There are no threatened ecological communities recorded within the local area (10km radius).

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

Methodology **GIS Databases**
-Sac Bio datasets (10 September 2012).

(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 vegetation under application is mapped as Beard vegetation type 3 and 1144 which both have 79.5 per cent of pre-European extent remaining within the warren bioregion. The Mattiske vegetation types mapped within the application area are CRd, Q and PM1 which have 80 per cent, 95 per cent and 67 per cent of pre-European vegetation remaining, respectively.

The local area (10 km radius) is well vegetated with approximately 85 per cent vegetation remaining.

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 Region, Shire and Vegetation complexes shown below all retain greater than 65 per cent native vegetation.

The vegetation under application contains vegetation in a very good to good (Keighery, 1994) condition, with habitat for conservation significant fauna, however given the vegetation representations outlined above, it is not likely to be a significant remnant in an extensively cleared area.

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

	Pre-European (ha)	Current Extent (ha)	Remaining (%)
IBRA Bioregion*			
Warren	833,982.00	664,123.16	79.63
Shire*			
Shire of Manjimup	697,369.62	589,098.40	84.47
Beard Vegetation Association in Bioregion*			
1144	159,668.36	126,978.72	79.53
3	250,262.60	198,873.43	79.47
Mattiske Vegetation Complex **			

CRd	1,904.36	1,526.26	80.15
Q	14,958.27	14,276.47	95.44
PM1	25,801.15	17,372.58	67.33

(Mattiske and Havel, 1998)**
(Government of Western Australia, 2011)*

- Methodology** References
- Mattiske and Havel (1998)
 - Government of Western Australia (2011)
 - Commonwealth of Australia (2001)
 - Keighery (1994)
- GIS Databases
- Pre-European vegetation
 - 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**
A dam occurs 30 m east of application area and a perennial minor watercourse occurs between the application areas. A 30 m buffer has been provided to both the dam and watercourse.

Given this, the vegetation under application does not consist of riparian vegetation and therefore, the proposed clearing is not likely to be at variance to this principle.

- Methodology** 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 majority of the soils within the area under application consists of Quagering subsystem (Pimelia) - poorly drained flats and very gentle slopes with pale deep sands, wet and semi wet soils and grey deep sandy duplexes and Crowea (Pimelia) sandy duplex phase - broad ridge crest with duplex sandy gravels and grey deep sandy duplexes. A small area also consists of Pemberton Subsystem (Pimelia) - minor valleys with loamy gravels, red/brown loamy earths, and red deep loamy duplexes (Commissioner of Soil and Land Conservation 2012).

No salinity onsite was observed and it is not considered likely for the proposed clearing to cause salinity (Commissioner of Soil and Land and Conservation 2012).

Given the soil types present, it is not considered for the proposed clearing to cause wind or water erosion (Commissioner of Soil and Land and Conservation 2012).

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

- Methodology** References
- Commissioner of Soil and Land Conservation (2012)
- GIS Databases
- Soils, statewide
 - Salinity Risk

(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**
The proposed clearing is directly adjacent to the Donnelly State Forest and the Greater Beedalup National Park and is connected through continuous vegetation to Greater Hawke National Park occurring 1 km south.

The vegetation under application provides some buffering capacity against the spread of weeds and dieback into this conservation area from surrounding agricultural land use.

Given the close proximity to these conservation reserves it may be considered likely for the proposed clearing to introduce and cause the spread of weeds and dieback into these conservation areas. Weed and dieback mitigation measures would reduce this impact.

The proposed clearing may be at variance to this Principle

Methodology GIS Databases
-DEC Managed Lands
-Manjimup 50cm Orthomosaic - Landgate 2007

(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 dam occurs 30 m east of application area and a perennial minor watercourse occurs between the application areas. A 30 m buffer has been provided to both the dam and watercourse.

The area proposed to be cleared lies within the Donnelly River catchment area. The area receives high rainfall (1300mm), with a high evapotranspiration rate (900mm). Despite the large area applied for clearing (20.9ha) it is unlikely that groundwater recharge will be affected as the clearing occurs within a highly vegetated area (80 per cent remaining).

The risk of Eutrophication of surface water is low if the riparian vegetation adjacent of the application area is maintained (Commissioner of Soil and Land Conservation 2012).

As the proposed clearing provides a 30m buffer to the watercourse and dam, it is not considered likely for the clearing to cause erosion and subsequent sedimentation or eutrophication of surface water of the watercourse. Therefore, the proposed clearing is not likely to be at variance to this Principle.

Methodology References
-Commissioner of Soil and Land Conservation (2012)
GIS Databases
-Hydrography, linear
- Hydrographic Catchments - Catchments
- Rainfall, Mean Annual Isohytes
-NWLRA, Current Extent of Native Vegetation

(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**
A dam occurs 30 m east of application area and a perennial minor watercourse occurs between the application areas. A 30 m buffer has been provided to both the dam and watercourse.

The area proposed to be cleared lies within the Donnelly River catchment area. The area receives high rainfall (1300mm), with a high evapotranspiration rate (900mm). Despite the large area applied for clearing (20.6ha) it is unlikely that groundwater recharge will be affected as the clearing occurs within a highly vegetated area (80 per cent remaining).

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

Methodology GIS Databases
-Hydrography, linear
- Hydrographic Catchments - Catchments
- Rainfall, Mean Annual Isohytes

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

Comments
The proposed clearing of 20.9 hectares is for the purpose of pasture and grazing.
A current clearing permit occurs within the proposed clearing area for the purpose of silviculture. An application to surrender this permit has been received.
The application area is zoned Priority Agriculture under the Shire of Manjimup's Town Planning Scheme.
The Shire of Manjimup (2012) has advised that they have no objection to the proposed clearing.
Department of Water (2012) has advised that a 30 m buffer should be retained around watercourse adjacent to clearing area.

Methodology References
-Shire of Manjimup (2012)

-Department of Water (2012)
GIS Databases
-Town Planning Scheme Zones

4. References

- Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.
- Commissioner of Soil and Land Conservation (2012) Land Degradation Assessment Report. Department of Agriculture and Food, Western Australia. DEC ref A561044
- 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/>.
- Department of Water (2012) Direct Interest Submission for CPS 5218/1- Scott Dunnet, Lot 7586 on Plan 140125 and Lot 5192 on Plan 229257 Yeagarup. DEC ref A556808
- DEWHA (2008). *Calyptorhynchus baudinii* in Species Profile and Threats Database, Department of the Environment, Water, Heritage and the Arts, Canberra. Available from: <http://www.environment.gov.au/sprat>. Accessed 2008-05-09@15:07:14
- Government of Western Australia (2011); 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). 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.
- 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. (2007) Adapted from: 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.
- 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.
- Shire of Manjimup (2012)Direct Interest Submission for CPS 5218/1 - Scott Dunnet, Lot 7586 on Plan 140125 and Lot 5192 on Plan 229257 Yeagarup. DEC ref A547289
- WAPRES (2009) 2009 Annual Report for Clearing Permit CPS 2626/2. DEC ref Doc 112821

5. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now BCS)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)