



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 6597/1
Permit Holder:	B & J Catalano Pty Ltd
Duration of Permit:	24 September 2016 – 24 September 2028

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 extractive industry.
- 2. Land on which clearing is to be done**
Lot 914 on Deposited Plan 211080, Chapman Hill
Lot 2699 on Deposited Plan 203062, Chapman Hill
- 3. Area of Clearing**
The Permit Holder must not clear more than 6.96 hectares of native vegetation within the area hatched yellow on attached Plan 6597/1.
- 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**
The Permit Holder shall not clear any native vegetation after 24 September 2021.

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:
 - (a) avoid the clearing of native vegetation;
 - (b) minimise the amount of native vegetation to be cleared; and
 - (c) reduce the impact of clearing on any environmental value.

7. 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.

8. Fauna management

- (a) Prior to clearing, any hollow bearing *habitat tree(s)* identified within the 'Black Cokcatoo Habitat Assessment of Proposed Clearing Areas (CPS 6597/1) – Lot 914 and Lot 2699 Jamison's Road, Chapman Hill, October 2015' report shall be inspected by a *fauna specialist* for the presence of forest red-tailed black cockatoo (*Calyptorhynchus banksii subsp. naso*), Baudin's cockatoo (*Calyptorhynchus baudinii*), Carnaby's cockatoo (*Calyptorhynchus latirostris*).
- (b) Where fauna are identified in relation to condition 8(a) of this Permit, the Permit Holder shall ensure that no clearing of the identified hollow bearing habitat tree(s) occurs, unless approved by the CEO.

9. Management Plan - revegetation

The Permit Holder must implement and adhere to the document "Revegetation Plan – Lots 914 and 2699 on Deposited Plans 211080 and 203052, Jamison Road, Chapman Hill, City of Busselton", submitted to the Department of Environment Regulation on 24 August 2016.

PART III - RECORD KEEPING AND REPORTING

10. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit:

- (a) In relation to the clearing of native vegetation authorised under this Permit:
 - (i) the location where the clearing occurred, 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 date that the area was cleared; and
 - (iii) the date the extraction operations ceased; and
 - (iv) the size of the area cleared (in hectares).
- (b) The Permit Holder must maintain a description of the activities undertaken in relation to the revegetation of areas pursuant to condition 9 of this permit.

11. 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 10 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding year.
- (b) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar year, a written report confirming that no clearing under this permit has been carried out, must be provided to the CEO on or before 30 June of each year.
- (c) Prior to 24 June 2028, the Permit Holder must provide to the CEO a written report of records required under condition 10 of this Permit where these records have not already been provided under condition 11(a) of this Permit.

Definitions

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

black cockatoo habitat tree/s: means trees that have a diameter, measured at 1.5 metres from the base of the tree, of 50 centimetres or greater;


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

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; and

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.

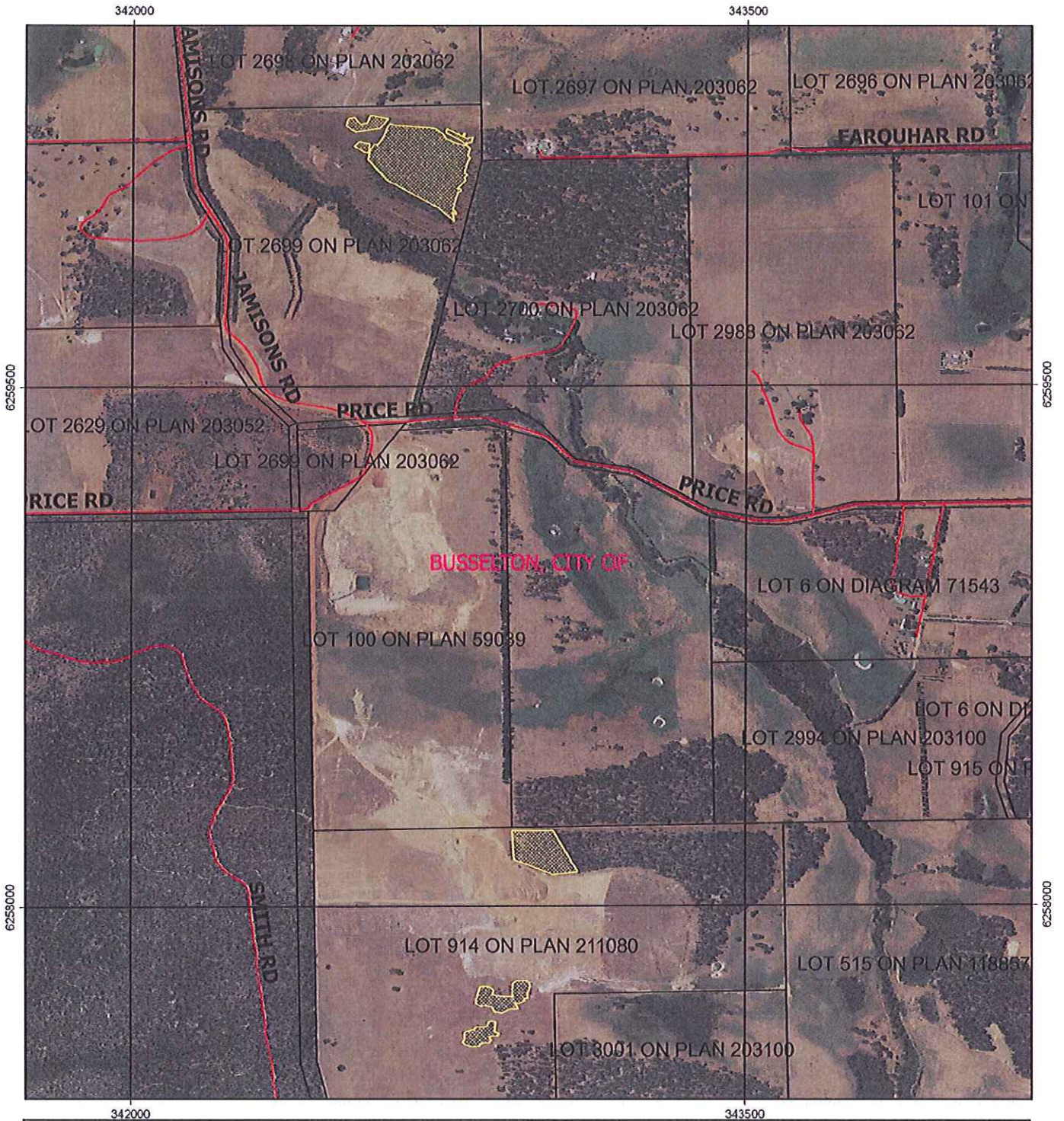


JAMES WIDENBAR
MANAGER
CLEARING REGULATION

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

25 August 2016

Plan 6597/1



Legend

-  Clearing Instruments Activities
-  Roads
-  LGA
-  Cadastre
- Virtual Mosaic (LGATE-V001)



1:10,000

MGA 94
Geocentric Datum of Australia 1994

James Wsoenbar Date 25/8/16

JAMES WSOENBAR
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.: 6597/1
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: B and J Catalano Pty Ltd

1.3. Property details

Property: LOT 2699 ON PLAN 203062, CHAPMAN HILL
LOT 914 ON PLAN 211080, CHAPMAN HILL

Colloquial name:
Local Government Authority: BUSSELTON, CITY OF
DER Region: Greater Swan
DPaW District: BLACKWOOD
LCDC: VASSE-WONNERUP
Localities: CHAPMAN HILL

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
6.96		Mechanical Removal	Extractive industry

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 25 August 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 it has been concluded that the proposed clearing may be at variance to principles (b) and (e) and not likely to be at variance to the remaining clearing principles.

The Delegated Officer determined that the application area has the potential to provide nesting habitat and provides foraging habitat for Carnaby's cockatoo (*Calyptorhynchus latirostris*), Baudin's cockatoo (*Calyptorhynchus baudinii*) and forest red-tailed black-cockatoo (*Calyptorhynchus banksii* subsp. *naso*).

In determining the significance of impacts to black cockatoos the Delegated Officer took into consideration the condition of the application area and the proximity of the nearby state forest and remnant vegetation to the application area.

The requirement to identify and check all identified potential nesting trees prior to clearing and to revegetate 6.96 hectares of native vegetation within Lot 914 and Lot 2699 to a very good (Keighery 1994) condition, once extraction activities cease, will help mitigate impacts to black cockatoos.

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
The vegetation under application is mapped as: Beard vegetation associations (Shepherd et al. 2001): • 3: medium forest; jarrah-marri; • 1000: mosaic: medium forest; jarrah-marri / low woodland; banksia / low forest; teatree (<i>Melaleuca</i> spp.); and	To clear 6.96 hectares of native vegetation on Lot 914 on Deposited Plan 211080 and Lot 2699 on Deposited Plan 203062, Chapman Hill, for the purpose of gravel extraction.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994) To Degraded; Structure severely	The condition of the vegetation under application was determined via a Department of Environment Regulation site inspection (DER 2015a).

- 1181: medium woodland, jarrah and *Eucalyptus haematoxylon* (Whicher Range).

disturbed; regeneration to good condition requires intensive management (Keighery 1994).

Mattiske vegetation complexes (Mattiske and Havel 1998):

- Y (Yelverton): woodland of *Eucalyptus marginata* subsp. *marginata* - *Corymbia calophylla* - *Allocasuarina fraseriana* - *Agonis flexuosa* and open woodland of *Corymbia calophylla* on low undulating uplands in the humid zone;
- Yw (Yelverton): woodland of *Allocasuarina fraseriana* - *Nuytsia floribunda* - *Agonis flexuosa* - *Banksia attenuata* on slopes and open forest of *Corymbia calophylla* - *Eucalyptus patens* - *Eucalyptus marginata* subsp. *marginata* on the lower slopes and woodland of *Eucalyptus rudis* - *Melaleuca raphiophylla* on valley floors in the humid zone; and
- T (Treeton): woodland of *Eucalyptus marginata* subsp. *marginata* - *Corymbia calophylla* with some *Allocasuarina fraseriana* on mild slopes in the perhumid zone.

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 up to 6.96 hectares of native vegetation within Lot 914 on Deposited Plan 211080 and Lot 2699 on Deposited Plan 203062, Chapman Hill, for the purpose of gravel extraction. The application area can be broadly divided into northern (within Lot 2699) and southern sections (within Lot 914). Both can be described as open *Eucalyptus marginata*, *Corymbia calophylla* woodland in a good to degraded (Keighery 1994) condition (DER 2015a), with the majority of the vegetation in a degraded (Keighery, 1994) condition. Both areas have been subjected to historic and current grazing by cattle and contain minimal middle storey or understorey vegetation (DER 2015a).

Forty priority flora species have been mapped within the local area (10 kilometre radius). These are unlikely to occur within the application area given the largely degraded (Keighery 1994) condition of the vegetation. In addition, the Department of Parks and Wildlife (Parks and Wildlife) (2015a) has advised that given the type of plant community present, the area under application is unlikely to support any currently listed rare flora species.

Seven priority ecological communities are located within the local area. Two of these are approximately 560 and 750 metres northwest of the southern application area, described respectively as:

- Whicher Scarp C1 - Central Whicher Scarp Jarrah woodland (P1); and
- Whicher Scarp G2 – Shrublands of near permanent wetlands in creeklines of the Whicher Scarp (P1).

Given the lack of middle and understorey vegetation as well as the observed vegetation condition (DER 2015a), the application area is unlikely to contain vegetation representative of these communities.

The local area surrounding the application area retains approximately 30 per cent native vegetation.

Eight fauna species listed as rare or likely to become extinct under the *Wildlife Conservation Act 1950* have been recorded in the local area (10 kilometre radius). A site inspection and black cockatoo habitat assessment of the application area identified suitable foraging habitat and potential nesting habitat for the forest red-tailed black cockatoo (*Calyptorhynchus banksii* subsp. *naso*), Baudin's cockatoo (*Calyptorhynchus baudinii*) and Carnaby's cockatoo (*Calyptorhynchus latirostris*) (DER 2016 and Harewood 2015). Fauna management practices such as identifying and checking habitat trees prior to clearing will assist in mitigating impacts to black cockatoo species.

The application area within Lot 2699 is approximately 50 metres northeast of the axis lines of an ecological linkage identified in the South West Regional Ecological Linkage (SWREL) Technical Report (Molloy et al. 2009). These linkages are recognised for their significance in facilitating indigenous fauna movement across the landscape (Molloy et al. 2009). As the application area is classified as 1a within the SWREL report, the vegetation under application may assist in the movement of fauna across the landscape.

The application area is located adjacent to remnant vegetation, the proposed clearing may impact this remnant vegetation through the spread of weeds and dieback. Weed and dieback management practices will help mitigate this risk.

Although the application area contains habitat for black cockatoos, given its predominantly degraded (Keighery 1994) condition it is not likely to comprise a high level of biological diversity. Therefore the proposed clearing is not likely to be at variance to this clearing principle.

Fauna management practices such as checking identified habitat trees prior to clearing will assist in mitigating impacts to black cockatoo species.

Methodology

References:

DER (2015a)

Keighery (1994)

Parks and Wildlife (2015a)

GIS Datasets:

South West Remnant Vegetation

Sac Biodatasets - accessed July 2015

SWREL-AL

(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 may be at variance to this Principle

Eight fauna species listed as rare or likely to become extinct under the *Wildlife Conservation Act 1950* have been recorded in the local area (10 kilometre radius). These include Baudin's cockatoo (*Calyptorhynchus baudinii*), Carnaby's cockatoo (*Calyptorhynchus latirostris*), chuditch (*Dasyurus geoffroi*), malleefowl (*Leipoa ocellata*) and southern brush-tailed phascogale (*Phascogale tapoatafa subsp. tapoatafa*) (Parks and Wildlife 2007-). Forest red-tailed black cockatoo (*Calyptorhynchus banksii subsp. naso*) is also known to occur within the local area (Commonwealth of Australia 2012).

Forest red-tailed black cockatoo, Baudin's cockatoo and Carnaby's cockatoo have a preference for foraging habitat that includes jarrah and marri woodlands, forest heathland and woodland dominated by proteaceous plant species such as banksia, hakea and grevillea (Commonwealth of Australia 2012).

The habitat critical to survival of forest red-tailed black cockatoo and Baudin's cockatoo comprises all marri, karri and jarrah forests, woodlands and remnants in the south-west of Western Australia receiving more than 600 millimetres of annual average rainfall (Commonwealth of Australia 2012). In October 2015 Harewood undertook a black cockatoo habitat assessment which identified the application area as representing black cockatoo foraging habitat given the dominance of marri and jarrah (Harewood 2015). Evidence of all three species of black cockatoos foraging onsite was observed during the field assessment, consisting of chewed marri, jarrah and sheoak fruits (Harewood 2015). Several forest red-tailed black cockatoos were sighted within the adjacent Lot 2992 during a site inspection undertaken by officers of the Department of Environment Regulation (DER) for Clearing Permit Application CPS 6464/1 (DER 2015b). The application area contains foraging habitat for the black cockatoo species however, the application area is located in close proximity to the Blackwood State Forest and remnant vegetation that contains similar vegetation in the same or better condition as the application area that will provide foraging habitat for the black cockatoo species.

The black cockatoo habitat assessment identified 141 trees that fit the criteria for black cockatoo breeding habitat, having a diameter at breast height of more than 50 centimetres. Eight of these trees appeared to contain hollows with entrances that appeared big enough to possibly allow the entry of a black cockatoo into a suitably size and orientated branch/trunk. No sign of current or previous use of nesting by the black cockatoos was identified (Harewood 2015). A site inspection of the application area, undertaken by DER officers (DER 2015a), recorded five trees with hollows that could be suitable for nesting by black cockatoos.

An unconfirmed Carnaby's cockatoo breeding area has been mapped approximately seven kilometres east of the application area. The Carnaby's Cockatoo Recovery Plan (DEC 2012) states that, "Success in breeding is dependent on the quality and proximity of feeding habitat within 12 kilometres of nesting sites. Along with the trees that provide nest hollows, the protection, management and increase of this feeding habitat that supports the breeding of Carnaby's cockatoo is a critical requirement for the conservation of the species".

The black cockatoo habitat assessment concluded that the vegetation was unsuitable for western ringtail possums or chuditch. The current application area is considered unlikely to impact on the habitat of other ground-dwelling fauna species of conservation significance given the scattered distribution of the vegetation, its largely degraded (Keighery 1994) condition and the presence of large expanses of better quality habitat in nearby state forest and conservation reserves.

The application area within Lot 2699 is approximately 50 metres northeast of the axis lines of an ecological linkage identified in the South West Regional Ecological Linkage (SWREL) Technical Report (Molloy et al. 2009). These linkages are recognised for their significance in facilitating indigenous fauna movement across the landscape (Molloy et al. 2009). As the application area is classified as 1a within the SWREL report, the vegetation under application may assist in the movement of fauna across the landscape.

The application area has the potential to provide nesting habitat, provides foraging habitat for the black cockatoo species and may contribute to an ecological linkage and assist in the movement of fauna across the landscape.

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

Fauna management practices such as checking identified habitat trees prior to clearing and the requirement to revegetate 6.96 hectares within Lot 914 and Lot 2699 to a very good (Keighery 1994) condition, representative of the mapped vegetation association, once extraction activities cease, will assist in mitigating impacts to black cockatoos species.

Methodology References:
Commonwealth of Australia (2012)
DEC (2012)
DER (2015a)
DER (2015b)
Harewood (2015)
Keighery (1994)
Molloy et al. (2009)
Parks and Wildlife (2007-)

GIS Datasets:
Carnaby's Cockatoo Breeding Areas
Carnaby's Cockatoo Feeding Areas
South West Hydrography
SWREL-AL

(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

Thirteen rare flora species have been mapped within the local area (10 kilometre radius), within the same vegetation association and soil type as the application area.

The application area is dominated by exotic grass species and is virtually devoid of native ground cover and middle storey species (DER 2015a). Parks and Wildlife (2015a) has advised that the area under application is unlikely to include or support any rare flora species.

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

Methodology References:
DER (2015a)
Parks and Wildlife (2015a)

GIS Dataset:
SAC Biodatasets - accessed July 2015

(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

Five threatened ecological communities (TECs) are located within the local area (10 kilometre radius). The closest is floristic community type SCP 10b, described as 'Shrublands on southern Swan Coastal Plain Ironstones', approximately 600 metres southwest of the application area.

Given the largely degraded (Keighery 1994) condition of the application area (DER 2015a), it is not representative of the above community.

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

Methodology GIS Dataset:
SAC Biodatasets - accessed July 2015

(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 may be at variance to this Principle

The application area is located within the Jarrah Forest and Swan Coastal Plain IBRA bioregions. These bioregions retain approximately 54 and 39 per cent of their pre-European vegetation extents respectively (Government of Western Australia 2015).

The vegetation under application is mapped as Beard vegetation associations 3, 1000 and 1181 of which there is approximately 68, 25 and 39 per cent, respectively, of their pre-European extent remaining within the Jarrah Forest and Swan Coastal Plain bioregions (Government of Western Australia 2015). The application area is also mapped as comprising Matiske vegetation complexes Yelverton (Y), Yelverton (Yw) and Treeton (T) of which approximately 37, 28 and 47 per cent pre-European vegetation remains, respectively (Parks and Wildlife 2015b).

The application area is located within the City of Busselton, within which there is approximately 41 per cent pre-European vegetation remaining (Government of Western Australia 2015). It is estimated that the local area (10 kilometre radius) retains approximately 30 per cent remnant native vegetation.

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 application area within Lot 2699 is approximately 50 metres northeast of the axis lines of an ecological linkage identified in the South West Regional Ecological Linkage (SWREL) Technical Report (Molloy et al. 2009). These linkages are recognised for their significance in facilitating indigenous fauna movement across the landscape (Molloy et al. 2009). As the application area is classified as 1a within the SWREL report, the vegetation under application may assist in the movement of fauna across the landscape.

The application area contains habitat for black cockatoo species and may contribute to an ecological linkage, therefore it may be a significant remnant. Two of the vegetation types mapped within the application area contain less than the abovementioned 30 per cent threshold, therefore the proposed clearing may be within an extensively cleared area.

The proposed clearing may be at variance to this Principle.

The requirement to revegetate 6.96 hectares within Lot 914 and Lot 2699 to a very good (Keighery 1994) condition, representative of the mapped vegetation association, once extraction activities cease, will ensure no permanent loss of extensively cleared vegetation types will occur.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in Parks and Wildlife Managed Lands (%)
IBRA Bioregion				
Swan Coastal Plain	1,501,222	579,162	39	37
Jarrah Forest	4 506 660	2 425 551	54	69
Shire				
City of Busselton	146,478	60,212	41	69
Beard Vegetation Association in Bioregion*				
3 (Jarrah Forest)	2 390 591	1613 657	67	81
1000 (Swan Coastal Plain)	94,175	23,767	25	19
1181 (Swan Coastal Plain)	9,239	3,606	39	42
Matiske Complex Associations in Bioregion**				
T	27,830	13,117	47	42
Y	9,050	3,331	37	21
Yw	4219	1,192	28	9

Methodology

References:
Commonwealth of Australia (2001)
*Government of Western Australia (2015)
**Parks and Wildlife (2015b)

GIS Dataset:
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

Proposed clearing is not likely to be at variance to this Principle
No wetlands or watercourses are mapped within the application area. The Vasse River is located approximately 50 metres southwest of the northern application area. No riparian vegetation was noted during a site visit undertaken by Department of Environment Regulation officers (DER 2015a).

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

Methodology References:
DER (2015a)

 GIS Dataset:
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**
There are no watercourses or wetlands within the application area.

The soils mapped within the application area are described as hard acidic yellow mottled soils containing small to very large amounts of ironstone gravels (Northcote et al. 1960-68). The mean annual rainfall is 1000 millimetres and groundwater salinity is mapped at less than 500 milligrams per litre total dissolved solids.

The Commissioner of Soil and Land Conservation (2015) has advised that the risk of land degradation associated with the proposed clearing is low.

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

Methodology References:
Commissioner of Soil and Land Conservation (2015)
Northcote et al. (1960-68)

 GIS Datasets:
Hydrography linear

(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 likely to be at variance to this Principle**

The Blackwood State Forest is located approximately 400 metres west of the application area. A cleared paddock exists between the application area and this conservation area and activities associated with extractive industry have occurred within this area. Weed species are therefore likely to be already present in these areas and the proposed clearing is not likely to impact on the environmental values of the Blackwood State Forest.

The northern section of the application area is approximately 50 metres northeast of the axis lines of two ecological linkages identified in the South West Regional Ecological Linkage Technical Report (Molloy et al. 2009). These linkages are recognised for their significance in facilitating indigenous fauna movement across the landscape (Molloy et al. 2009). Although the native vegetation in the application area may aid in the movement of fauna through the landscape, given the extent of reserves to the south of the application area, the disruption to these linkages resulting from the proposed clearing is not likely to be significant.

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

Methodology References:
Molloy et al. (2009)

 GIS Datasets:
Parks and Wildlife Tenure
SWREL-AL

(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 is mapped as less than 500 milligrams per litre total dissolved solids. This level is considered to be low. Given this, the proposed clearing is not likely to impact on the quality of ground water.

The application area within Lot 2699 is situated on land with a gradient of up to one in ten, part of which slopes towards Vasse River, approximately 50 metres south west of the application area.

The Department of Water (2015) has advised that the main risk related to the proposed clearing is sediment transport and associated turbidity to the Vasse River. This potential impact can be mitigated through conservation earthworks including silt pits and contour banks (Commissioner of Soil and Land Conservation 2015).

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

Methodology References:
Commissioner of Soil and Land Conservation (2015)
DoW (2015)

GIS Datasets:
Groundwater Salinity Statewide
Hydrography, Linear
Topographic Contours, 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 Proposed clearing is not likely to be at variance to this Principle

There are no watercourses or wetlands within the application area and the soils under application are porous. The Commissioner of Soil and Land Conservation (2015) has advised that the proposed clearing is not likely to significantly increase surface runoff, which would contribute to stream flows, therefore, it is unlikely to cause or exacerbate the incidence of flooding.

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

Methodology References:
Commissioner of Soil and Land Conservation (2015)

GIS Dataset:
Hydrography linear

Planning instruments and other relevant matters.

Comments On 17 August 2016 the City of Busselton approved the applicant's application for Development Approval for extractive industry (gravel) within the application area (City of Busselton 2016).

The subject land is zoned as 'Agriculture' under the local Town Planning Scheme.

The subject land is located within the Busselton-Capel Groundwater Area and within the Geographe Bay Rivers Surface Water Area as proclaimed under the *Rights in Water and Irrigation Act 1914*. Groundwater abstraction in this proclaimed area, for the extractive industry, is subject to licensing. This includes the taking of water from on-site groundwater fed dams. Any taking or diversion of surface water in this proclaimed area can also be subject to licensing. If the proponent requires the use of either surface or groundwater for the extractive industry, the proponent is advised to contact the Department of Water's (DoW) Busselton licensing section. This includes the use of water from the adjacent Lot 100 on Deposited Plan 59039 for which the applicant has a licence (DoW 2015).

The DoW has identified risks associated with the proposed extractive land use including the potential for sediment, hydrocarbons and herbicides to escape into the Vasse River. There is also the risk of groundwater contamination if extractive activities intersect the water table or if surface spills infiltrate into the groundwater. A number of mitigation measures are recommended through the adoption of best practices including the information contained within the Department of Water's Water Quality Protection Note (WQPN) No. 15 'Extractive industries near sensitive water resources' where appropriate and practical (DoW 2015).

No Aboriginal sites of Significance are mapped within the application area.

This application was advertised in *The West Australian* newspaper on 8 June 2015 with a 21 day submission period. No submissions were received in relation to this application.

Methodology References:
City of Busselton (2016)
DoW (2015)

GIS Dataset:
Aboriginal Sites of Significance

4. References

- City of Busselton (2016) Decision on Application For Development Approval – Extractive Industry (Gravel) – Lot 2699 and Lot 914 Jamisons Road Chapman Hill WA 6280. Western Australia. DER Ref: A1152730
- Commissioner of Soil and Land Conservation (2015) Advice received in relation to clearing permit application CPS 6597/1, received 21 July 2015. Department of Agriculture and Food, Western Australia, Western Australia (DER Ref: A937303).
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Commonwealth of Australia (2012) EPBC Act referral guidelines for three threatened black cockatoo species, Canberra.
- Department of Environment Conservation (DEC 2012) Carnaby's cockatoo (*Calyptorhynchus latirostris*) Recovery Plan. Perth, Western Australia.
- Department of Environment Regulation (DER 2015a) Site Inspection Report for Clearing Permit Application CPS 6597/1, Lot 914 on Deposited Plan 211080, Lot 2699 on Deposited Plan 203062, Chapman Hill. Site inspection undertaken 24 June 2015. Department of Environment Regulation, Western Australia (DER Ref: A926722).
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