



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 5981/2
Permit Holder:	Parcel Property Pty Ltd
Duration of Permit:	22 January 2015 – 22 January 2022

ADVICE NOTE:

The funds referred to in condition 11 of this permit are intended for contributing towards purchasing 150 hectares of black cockatoo foraging habitat within the Swan Coastal Plain to be added into conservation estate.

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 pasture and grazing.

2. Land on which clearing is to be done

Lot 5889 on Deposited Plan 208236 (Bullsbrook 6084)

Lot 1808 on Deposited Plan 108469 (Bullsbrook 6084)

Lot 1876 on Deposited Plan 131371 (Bullsbrook 6084)

3. Area of Clearing

The Permit Holder must not clear more than 56.65 hectares of native vegetation within the areas hatched yellow on attached Plan 5981/2.

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.

PART II – MANAGEMENT CONDITIONS

5. Avoid, minimise etc clearing

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

- avoid the clearing of native vegetation;
- minimise the amount of native vegetation to be cleared; and
- reduce the impact of clearing on any environmental value.

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*:

- (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.

7. Type of clearing authorised

Clearing shall be conducted in a slow, progressive manner towards the conservation areas to the north and west of the area approved to be cleared.

8. Vegetation management

- (a) The Permit Holder shall construct boundary fencing of the area hatched yellow on Plan 5981/2 to exclude stock from surrounding vegetation.
- (b) Within one month of installing the fence the Permit Holder shall notify the CEO in writing that the fence has been completed.

9. Land degradation management

The Permit Holder must implement the following management measures:

Action	Timeframe
Machinery and vehicle access will be restricted to one entry point where possible	Ongoing
Use of heavy machinery will be limited to between December - May	During clearing
Clearing will be undertaken in stages	During clearing
Where use of heavy machinery cannot be undertaken in dry conditions and compaction occurs, compacted areas will be ripped to depth of 30-40 cm with lines following natural contours. Lines will be spaced 2 m apart	Within three months of clearing
Vegetation will be reinstated through sowing of pasture grass at an approximate rate of 4 kg/ha	Within one month of clearing
Annual monitoring and removal of weed species that are identified to have a significant impact on the reinstatement of vegetation. A site visit will be conducted with a qualified weed contractor prior to any control programs to determine weed species, their location, and appropriate control measures.	Annually, over a three year period
Stock and other grazing animals (such as kangaroos) will be prevented from entering seeded areas until vegetation is reinstated	Up to three years following clearing
Drainage contours will be installed where necessary to slow water movement and redirect flow into natural catchment points	Within six months of clearing
Annual monitoring of remediated areas to determine where contingency actions are required (such as additional sowing or reinstatement of drainage contours)	Annually, over a three year period

10. Revegetation and Rehabilitation Offset

- (a) The Permit Holder must implement and adhere to the Revegetation Plan for Lot 2294 and 1808, North Ellenbrook, May 2017 (Attachment 1);
- (b) Prior to undertaking any clearing authorised under this permit the Permit Holder must give a conservation covenant under section 30B of the *Soil and Land Conservation Act 1945* setting aside the covenant area, being the area cross hatched red on attached Plan 5981/2, for the protection and management of vegetation in perpetuity;
- (c) The Permit Holder shall *revegetate* and *rehabilitate* the 31.1 hectare area cross-hatched red on attached Plan 5981/2;
- (d) *Revegetation* and *rehabilitation*, identified under condition 10(c), must commence within 12 months following the beginning of clearing authorised under this permit;
- (d) The Permit Holder shall establish two 10x10 metre quadrats within each Management Zone, with an additional two being established in Management Zone 1, and monitor vegetation condition, plant species diversity, plant density, plant cover and abundance, weed cover and plant structure. Monitoring must be undertaken for ten years, with annual monitoring occurring in the first five years and twice in the last five years;
- (e) The Permit Holder shall achieve the following completion criteria after the 10 year monitoring period for areas *revegetated* and *rehabilitated* under this Permit; and

Criteria	Basis	Target
Vegetation condition	10 x 10m quadrat or equivalent 100m ²	Vegetation is: Well-formed and exhibits signs of healthy growth, 70% free of disease symptoms (yellowing, wilting etc.), and 70% free from signs of insect pests
Plant species diversity	10 x 10m quadrat or equivalent 100m ²	Minimum of 70% of native species returned, based on reference sites.
Plant density (excluding weeds)	10 x 10m quadrat or equivalent 100m ²	3 species per 2.5m x 2.5m quadrat for any 2 representative quadrats over any treated area of 100m ² /6,000 stems per hectare.
Plant cover and abundance	10 x 10m quadrat or equivalent 100m ²	70% coverage of native species within any 100m ² area by year 5.
Weed cover	10 x 10m quadrat or equivalent 100m ²	Less than 20% weed cover per quadrat of 2.5m x 2.5m for any 2 representative quadrats over any treated area of 100m ² .
Plant structure	10 x 10m quadrat or equivalent 100m ²	Vegetation structure consists of 20% overstorey, 50% midstorey and 30% understorey within any 100m ² area by year 5.

- (f) The Permit Holder shall undertake the following remedial actions for areas *revegetated* and *rehabilitated* where monitoring indicates that revegetation is not trending towards meeting the completion criteria.

Item	Issue/trigger	Action
Weeds	Excessive weeds in revegetation area	Employ weed control contractor before weeds set seed. Undertake weed control as required until targeted species effect on native seedling establishment is minimised.
Grazing	Excessive grazing of seedlings by rabbits or kangaroos	Check integrity of fencing (e.g. holes). Undertake repairs and maintenance of fencing where required. Undertake rabbit baiting if required.
Species diversity	Species diversity completion criteria is not met by year 5	Undertake infill planting at 30% of the initial planting rate ensuring that species selection for planting are based on the species list for each Management Zone. Planting should be undertaken using the approved method.
Plant cover and abundance	Plant cover and abundance completion criteria is not met by year 5 and year 10.	Undertake infill planting at 30% of the initial planting rate ensuring that species selection for planting are based on the species list for each Management Zone. Planting should be undertaken using the approved method.
Topsoil	Inadequate quantities of good quality topsoil available.	The thickness of good quality topsoil will be reduced to cover the area to be rehabilitated.

11. Monetary contributions to a fund maintained for the purpose of establishing or maintaining vegetation (offset)

Prior to undertaking any clearing authorised under this permit and no later than 31 December 2018, the Permit Holder shall provide documentary evidence to the CEO that funding of \$71,370 has been transferred to the Department of Water and Environmental Regulation for the purpose of establishing or maintaining vegetation.

PART III - RECORD KEEPING AND REPORTING

12. 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;
- (ii) the date(s) that the area was cleared; and
- (iii) the size of the area cleared (in hectares).

- (b) In relation to the revegetation of areas pursuant to condition 10 of this Permit:

- (i) the location of any area *revegetated* and *rehabilitated* recorded as a *shapefile*;
- (ii) a description of the *revegetation* and *rehabilitation* activities undertaken;
- (iii) the size of the area *revegetated* and *rehabilitated* (in hectares); and
- (iv) the date that the area was *revegetated* and *rehabilitated*.

13. 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 12 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding calendar 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 22 October 2021, the Permit Holder must provide to the CEO a written report of records required under condition 12 of this Permit where these records have not already been provided under condition 13(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;

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;

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.



James Widenbar
MANAGER
CLEARING REGULATION

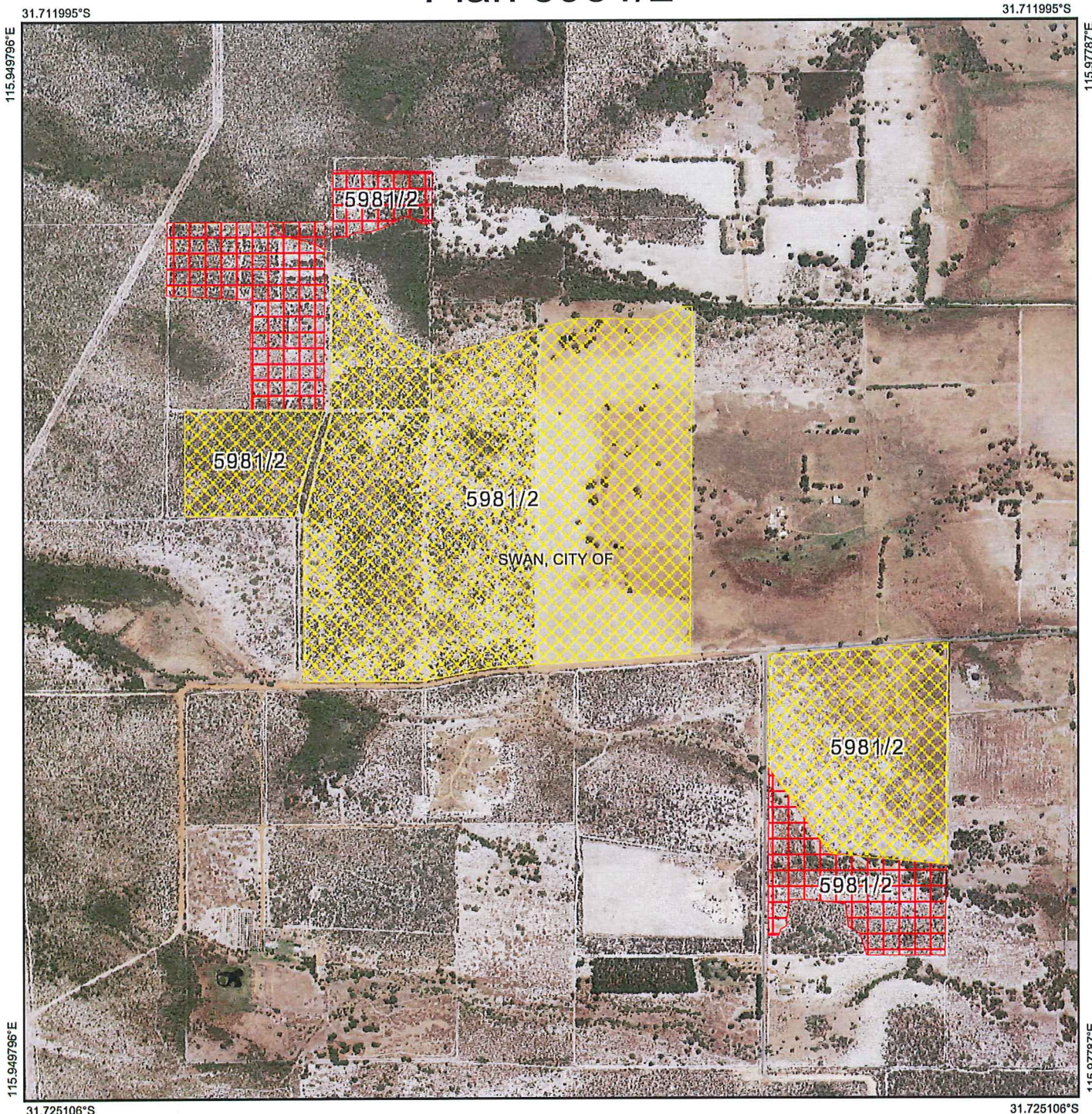
Officer delegated under Section 20
of the *Environmental Protection Act 1986*

10 November 2017

Attachment 1

Lot 2294 and 1808, North Ellenbrook Revegetation Plan. Prepared for ABN Group, May 2017

Plan 5981/2



Legend

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



1:14,095
 (Approximate when reproduced at A4)
 GDA 94 (Lat/Long)
 Geocentric Datum of Australia 1994

[Signature] Date 10/11/17

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



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5981/2
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: Parcel Property Pty Ltd

1.3. Property details

Property: LOT 5889 ON PLAN 208236, BULLSBROOK
LOT 2294 ON PLAN 124824, BULLSBROOK
LOT 1876 ON PLAN 131371, BULLSBROOK
LOT 1808 ON PLAN 108469, BULLSBROOK

Colloquial name:
Local Government Authority:
DWER Region:

City of Swan
Swan

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
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1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 10 November 2017

Reasons for Decision: This amendment has been made to implement the Minister for Environment's appeal determination (Reference C001/15). The Minister for Environment determined that the former Department of Environment Regulation's (DER) decision to grant clearing permit CPS 5981/1 was reasonable, however a number of amendments were to be made to the permit. There amendments are:

The clearing footprint is revised to exclude:

- The part of Lot 2294 to the west of Della South Road;
- A buffer area of 50 metres along the western boundary of Lot 5889;
- An increased buffer area along the northern boundary of the permit area; and
- The area south of the water course on Lot 1808 (including a buffer area extending 30 metres north of the watercourse).

Conditions are added to the permit to require:

- Boundary fencing of the clearing footprint to exclude stock from buffer areas;
- Clearing to be undertaken in a progressive manner, slowly towards the conservation areas to the north and west of the site to enable small fauna to relocate off the site;
- Preparation of a land degradation minimisation strategy for approval by the Chief Executive Officer of DER prior to the commencement of clearing, and implementation of the approved strategy; and
- The applicant to prepare a revised offset proposal, including revegetation of the 'Good/Degraded – Good' or worse condition vegetation, excluded from the permit area, as above in accordance with a revegetation plan (to be approved by the Chief Executive Officer prior to the commencement of clearing).

On 10 May 2017 the applicant's consultant submitted a revegetation management plan and on 19 September 2017 land degradation minimisation measures, developed in consultation with the Commission of Soil and Land Conservation, were provided.

The monetary contribution offset has been recalculated taking into account the percentage of the offset which the revegetation equated to. The monetary contribution offset was recalculated from \$110,861 (clearing permit CPS 5981/1) to \$71,370.

The remaining amendments have been incorporated on the clearing permit and plan.

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
<p>Mapped Heddle vegetation Yanga complex is described as closed scrub and low open forest (Heddle et al. 1980).</p> <p>Mapped Heddle vegetation Bassendean complex - North is described as low open forest and low woodland and sedgeland (Heddle et al. 1980).</p>	<p>The proposed clearing of 56.65 hectares of native vegetation is for the purpose of grazing and pasture.</p>	<p>Excellent; Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994).</p> <p>To</p> <p>Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)</p>	<p>The vegetation condition and description was determined by a flora and vegetation survey undertaken by 360 Environmental (2012) and a site inspection undertaken by the former Department of Environment Regulation (DER) (DER 2014).</p> <p>Eight vegetation communities have been recorded within the application area including;</p> <p>BaBmEt: <i>Banksia attenuata</i>, <i>Banksia menziesii</i>, <i>Eucalyptus tottiana</i> low woodland over <i>Scholtzia involucreta</i> and <i>Beaufortia elegans</i> high shrublands over <i>Eremaea pauciflora</i> var. <i>pauciflora</i>, <i>Astroloma xerophyllum</i>, <i>Croninia kingiana</i> and <i>Leucopogon conostephioides</i> low shrublands.</p> <p>BaBmBi: <i>Banksia attenuata</i>, <i>Banksia ilicifolia</i>, <i>Banksia menziesii</i> low woodland over <i>Xanthorrhoea preissii</i>, <i>Xanthorrhoea brunonis</i> subsp. <i>brunonis</i> shrubland over <i>Calytrix flavescens</i>, <i>Conostephium pendulum</i>, <i>Adenanthos obovatus</i>, <i>Eremaea pauciflora</i> var. <i>pauciflora</i> low open shrublands over <i>Phlebocarya ciliata</i>, <i>Patersonia occidentalis</i>, <i>Dasyopogon bromeliifolius</i> low herblands.</p> <p>EmBiXp: <i>Eucalyptus marginata</i> subsp. <i>marginata</i> scattered trees over <i>Banksia attenuata</i>, <i>Banksia ilicifolia</i>, <i>Nuytsia floribunda</i> scattered low trees over <i>Xanthorrhoea preissii</i> shrubland over <i>Dielsia stenostachya</i>, <i>Pentaschistis airoides</i> very open grassland/sedgeland. Dampland Vegetation.</p> <p>Cc: <i>Corymbia calophylla</i> woodland over <i>Xanthorrhoea preissii</i> scattered shrubs to open shrubland.</p> <p>MpRi: <i>Melaleuca preissiana</i> scattered low trees over <i>Regelia inops</i> (<i>Xanthorrhoea preissii</i>) open to closed heath.</p> <p>BiXp: <i>Banksia ilicifolia</i> scattered low trees over <i>Xanthorrhoea preissii</i> shrubland over <i>Eremaea pauciflora</i> var. <i>pauciflora</i>, <i>Melaleuca seriata</i> low shrublands over <i>Lyginia barbata</i>, <i>Alexgeorgea nitens</i> open sedgelands.</p> <p>CcEm: <i>Eucalyptus marginata</i> subsp. <i>marginata</i>, <i>Corymbia calophylla</i> scattered trees over <i>Banksia ilicifolia</i>, <i>Banksia attenuata</i> scattered low trees to low open woodland (patches) over <i>Xanthorrhoea preissii</i> shrublands over <i>Hypocalymma angustifolium</i> scattered low shrubs to low shrublands over <i>Hypolaena exsulca</i> open sedgelands.</p> <p>and</p> <p>Scattered paddock trees.</p> <p>(360 Environmental 2012)</p>

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 at variance to this Principle**

The clearing consists of 56.65 hectares of native vegetation of varying quality within a larger footprint of 131.4 hectares (360 Environmental 2014).

The vegetation under application ranges from completely degraded to excellent (Keighery 1994) condition (360 Environmental 2014).

One hundred and eighty one native plant species were recorded in the North Ellenbrook survey area (360 Environmental 2014).

One Priority 3 species was recorded within Lot 2294, however it was identified outside the application area within the 50 metre buffer to the nearby Conservation Category wetland (360 Environmental 2012). Priority 3 taxa are generally known from collections from several different localities not under imminent threat. Given the above, the proposed clearing is not likely to have a significant impact on the conservation status of priority flora species.

A Level 2 Flora and Vegetation Survey undertaken between 5 November and 4 December 2010 did not identify any rare flora species (360 Environmental 2012). Therefore the area under application is not likely to contain rare flora species.

Nine regionally significant plant species were recorded within the survey area of a Level 2 Flora and Vegetation Survey undertaken by 360 Environmental (2012) which included areas under application. These flora species have been identified as being regionally significant as they are either endemic to the Perth Metropolitan area or are located at the limit of their geographic range.

Two priority ecological communities (PEC) 'Swan Coastal Plain *Banksia attenuata*-*Banksia menziesii* woodlands (P3)' and 'Low lying *Banksia attenuata* woodlands or shrublands' (P3) have been recorded within the application area (360 Environmental 2012). Priority 3 PEC's are poorly known ecological communities that are known from several to many occurrences, a significant number or area which are not under threat of habitat destruction or degradation. Priority 3 PEC's also include communities known from a few widespread occurrences which are either large or with significant remaining areas of habitat much of it not under imminent threat or communities made up of large, and/or widespread occurrences that may or may not be represented in the reserve system. Given this the proposed clearing is not likely to have an impact on the conservation status of these PEC's.

Numerous fauna species listed as rare or likely to become extinct under the *Wildlife Conservation Act 1950* have been recorded within the local area (10 kilometre radius) including: Baudin's cockatoo (*Calyptorhynchus baudinii*), Carnaby's cockatoo (*Calyptorhynchus latirostris*), chuditch (*Dasyurus geoffroii*), bee (*Leioproctus douglasiellus*), bilby (*Macrotis lagotis*), southern brush-tailed phascogale (*Phascogale tapoatafa* subsp. *tapoatafa*), western Sswamp turtle (*Pseudemydura umbrina*) and Australian painted snipe (*Rostratula australis*) (DBCAs 2007-). The application area contains foraging and possible breeding habitat for Carnaby's cockatoo. Given the relatively large size of the application area, the proposed clearing is likely to have a significant impact on habitat for Carnaby's cockatoo.

Given the relatively large application area (56.65 hectares) which contains vegetation in an excellent to completely degraded (Keighery 1994) condition, regionally significant flora and significant habitat for fauna, the application area contains high biological diversity.

Therefore the clearing as proposed is at variance to this Principle.

To offset the residual impacts outlined above, the proponent will be required to contribute funds towards the purchase of land containing native vegetation within the Swan Coastal Plain to be secured in conservation estate. In addition, the proponent will be required to revegetate 31.1 hectares of vegetation which was identified to be in a 'good/degraded – good' (Keighery 1994) or worse condition in the vicinity of the amended application area.

Methodology

References:

360 Environmental (2012)
360 Environmental (2014)
Keighery (1994)
Parks and Wildlife (2007-)

GIS Datasets:

- SAC Datasets accessed – November 2017

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

Comments

Proposed clearing is at variance to this Principle

Numerous fauna species listed as rare or likely to become extinct under the *Wildlife Conservation Act 1950* have been recorded within the local area including: Baudin's cockatoo (*Calyptorhynchus baudinii*), Carnaby's cockatoo (*Calyptorhynchus latirostris*), chuditch (*Dasyurus geoffroii*), bee (*Leioproctus douglasiellus*), bilby (*Macrotis lagotis*), southern brush-tailed phascogale (*Phascogale tapoatafa* subsp. *tapoatafa*), western Swamp turtle (*Pseudemydura umbrina*) and Australian painted snipe (*Rostratula australis*) (DBCWA 2007-).

A Black Cockatoo Foraging and Breeding Habitat Survey undertaken by 360 Environmental (2013) identified 14 potential breeding trees (more than 50 centimetre diameter at breast height (DBT)), within the surveyed area. Eight of these potential breeding trees are located within the application area. No hollows were observed within any of the 14 trees identified (360 Environmental 2013).

Black cockatoos have a preference for foraging habitat that includes jarrah and marri woodlands and forest heathland and woodland dominated by proteaceous plant species such as *Banksia* sp. *Hakea* sp. and *Grevillea* sp. (Commonwealth of Australia 2012). The application area consists of *Banksia* woodland in an excellent to degraded (Keighery 1994) condition. Some degraded areas within the application area contain a number of *Banksia* sp. and therefore contain suitable habitat for the black cockatoo species (DER 2014).

The application area contains 55.3 hectares of suitable foraging habitat for the Carnaby's cockatoo and Baudin's cockatoo, however the application area is found outside the general distribution for the Baudin's cockatoo (Commonwealth of Australia 2012). No evidence of foraging by the black cockatoo species was observed during the fauna survey (360 Environmental 2014).

Basic ecological theory, expert opinion and recent evidence, suggests that the remaining native and pine plantation foraging habitat on the Swan Coastal Plain is just sufficient to support the current population of Carnaby's cockatoo. Therefore, it is considered that any reduction in foraging habitat will result in a reduction in the carrying capacity of the region and therefore a decline in the population of Carnaby's cockatoo.

Given the application area contains vegetation in an excellent to good (Keighery 1994) condition, the vegetation proposed to be cleared may also provide habitat for ground dwelling and arboreal fauna. The applicant has advised that (if approved) clearing will be undertaken slowly towards the conservation areas to the north and west of the site to enable small fauna to relocate off the site (360 Environmental 2014). Appropriate management conditions will ensure that clearing is undertaken in this manner.

The application area contains 55.3 hectares of significant foraging habitat and potential breeding habitat for Carnaby's cockatoo.

The proposed clearing is at variance to this Principle.

To offset the residual impacts outlined above, the proponent will be required to contribute funds towards the purchase of land containing native vegetation within the Swan Coastal Plain to be secured in conservation estate. In addition, the proponent will be required to revegetate 31.1 hectares of vegetation which was identified to be in a 'good/degraded – good' or worse condition in the vicinity of the amended application area.

Methodology

References:

360 Environmental (2013)
360 Environmental (2014)
Cockerill et al. (2013)
Commonwealth of Australia (2012)
DER (2014)
Parks and Wildlife (2007-)

GIS Datasets:

- SAC Datasets accessed – November 2017

(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

Six rare flora species have been recorded within the local area, the closest being recorded approximately 2.5 kilometres south west of the application area.

Five of these species are known to occur within winter wet soils, wetlands, swamps, seasonally inundated areas or low lying depressions (WA Herbarium 1998-, Brown et al. 1998 and DotE 2014). The application area avoids the wetland and watercourse areas located within the vicinity and therefore suitable habitat for these species are not likely to be located within the application area.

The sixth species is found entangled amongst low shrubs in low open woodland of Jarrah (*Eucalyptus marginata*), Wandoo (*Eucalyptus wandoo*) and Marri (*Corymbia calophylla*), over heath dominated by grevilleas, dryandras, hakeas and acacias (Brown et al. 1998).

A Level 2 Flora and Vegetation Survey undertaken between 5 November and 4 December 2010 did not identify any rare flora species (360 Environmental 2012).

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

Methodology References:
 360 Environmental (2012)
 Brown et al.(1998)
 DotE(2014)
 WA Herbarium (1998-)

GIS Datasets:
 - SAC Datasets accessed – November 2017

(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

The following assessment is based on information available when the application was first assessed in December 2014 prior to the September 2016 listing of the Banksia Woodlands of the Swan Coastal Plain ecological community. As this amendment is to implement the Minister's appeal determination new information is not being considered.

A number of threatened ecological communities (TEC) have been recorded within the local area. The closest record is 'Forests and woodlands of deep seasonal wetlands of the Swan Coastal Plain' which is located approximately 3.5 kilometres east of the application area.

A Level 2 Flora and Vegetation Survey undertaken over the area under application did not identify vegetation representative of this TEC (360 Environmental 2012).

Therefore the proposed clearing is not likely to comprise of or be necessary for the maintenance of a TEC and is not likely to be at variance to this Principle.

Methodology References:
 360 Environmental (2012)

GIS Datasets:
 - SAC Datasets accessed - February 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 Proposed clearing is at variance to this Principle

The vegetation under application is within the Swan Coastal Plain IBRA Bioregion and Heddle vegetation complexes Yanga Complex and Bassendean Complex North. The mapped Heddle vegetation complexes under application have approximately 16 and 71.5 per cent respectively of their pre-European vegetation remaining (Government of Western Australia 2016).

The local area has approximately 25 per cent of its pre-European 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 application area contains vegetation in completely degraded to excellent (Keighery 1994) condition, comprises high biological diversity, regionally significant flora, contains significant fauna habitat and is therefore considered to be a significant remnant.

The local area and Heddle vegetation Yanga complex retain less than the recommended 30 per cent threshold. Therefore the application area is considered to be located within an extensively cleared landscape.

Given the above, the clearing as proposed is at variance to this Principle.

To offset the residual impacts outlined above, the proponent will be required to contribute funds towards the purchase of land containing native vegetation within the Swan Coastal Plain to be secured in conservation estate. In addition, the proponent will be required to revegetate 31.1 hectares of vegetation which was identified to be in a 'good/degraded – good' (Keighery 1994) or worse condition in the vicinity of the amended application area.

	Pre-European	Current Extent	Remaining	Extent in DBCA Managed Lands
	(ha)	(ha)	(%)	(%)
IBRA Bioregion				

Swan Coastal Plain	1,501,222	578,432	38.5	38
City of Swan	104,254	44,631	42.8	29
Hedde Vegetation Complex in Bioregion				
Yanga Complex	26,176	4,250	16	2
Bassendean Complex - North	79,057	57,555.50	71.5	39

Methodology References:
Commonwealth of Australia (2001)
Government of Western Australia (2016)
Keighery (1994)

GIS Databases:
- Local Government Authorities - Landgate
- Pre-European Vegetation

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments Proposed clearing is at variance to this Principle

One minor perennial watercourse has been mapped within the application area and there is a small area subject to inundation along the northern boundary. This watercourse is located on Lot 5589 in an area mapped as being in a completely degraded (Keighery, 1994) condition and therefore does not require further clearing.

A second watercourse is located 30 metres south of the area proposed to be cleared on Lot 1808.

A multiple use wetland is mapped within the eastern portion of Lot 1876. This area is in a completely degraded (Keighery 1994) condition.

A resource enhancement wetland is mapped approximately 80 metres north of the proposed clearing on Lot 5589 west of Della South Road and a conservation category wetland is mapped approximately 50 metres from the northern boundary of the application area.

The 50 to 80 metre buffers to the conservation category and resource enhancement wetlands will help mitigate impacts to these wetlands. The proposed clearing may indirectly impact the above wetlands through the spread of weeds and dieback. Weed and dieback management practices will help mitigate this risk.

Clearing is proposed within a multiple use wetland and therefore the proposed clearing is at variance to this Principle.

The area mapped within the multiple use wetland is in completely degraded to degraded (Keighery 1994) condition and multiple use wetlands area described as wetlands with few important ecological attributes and functions remaining (Water and Rivers Commission 2001). Therefore the proposed clearing is not likely to impact upon the environmental values of this wetland.

Methodology References:
Keighery (1994)
Water and Rivers Commission (2001)

GIS Databases:
- Geomorphic Wetlands, (Mgt Categories), Swan Coastal Plain
- Hydrology, linear

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

Comments Proposed clearing may be at variance to this Principle

The application area is mapped within soil type Cb39: subdued dune-swale terrain: chief soils are leached sands. Associated are small areas of other sand soils (Northcote et al. 1960 - 1968).

Wind erosion is likely on the area proposed to be cleared due to soil types present and the extent of the proposed clearing. A progressive clearing plan with suitable wind erosion minimisation techniques may reduce the risk of wind erosion (Commissioner of Soil and Land Conservation 2014).

In addition, water erosion may occur within parts of the application area due to the soil types present. Suitable preventative measures could be employed to reduce this risk (Commissioner of Soil and Land Conservation 2014).

The Commissioner of Soil and Land Conservation (2014) has advised that eutrophication is possible on the soil types present and is likely to increase with the clearing of significant native vegetation on this site. The majority

of the application is on higher ground and unlikely to be inundated. However, some areas are in lower slope positions which may promote eutrophication.

The removal of native vegetation cover will expose the sandy soils to erosion. This risk is manageable by the timing of the clearing operation and careful management during the pasture establishment grazing phases. The water erosion risk identified can be similarly managed.

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

The applicant has advised that the clearing will be undertaken on an as needed basis to ensure cleared areas are not left exposed for significant periods. Any clearing will be immediately accompanied by sowing of grass for cattle or cropping (360 Environmental 2014).

The implementation of land management measures such as staged clearing, limiting the use of heavy machinery between December and May and installation of drainage contours, will minimise the risk of appreciable land degradation occurring.

Methodology References:
360 Environmental (2014)
Commissioner of Soil and Land Conservation (2014)
Northcote et al. (1960-68)

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 Proposed clearing is not likely to be at variance to this Principle

Gnangarra Moore River State Forest is located 50 metres west of the proposed clearing on Lot 5889 (west of Della South Road).

Bush Forever Site 298 is located 35 to 150 metres north of the northern boundary of the proposed clearing area. This Bush Forever Site is associated with the nearby conservation category wetland.

Bush Forever Site 399 is located approximately 80 metres north of the area proposed to be cleared on Lot 5889 (west of Della South Road). This Bush Forever Site is associated with the nearby resource enhancement wetland.

Given the separation distances between these conservation areas and the application area, the proposed clearing is not likely to negatively impact on the environmental values of these areas.

The application area is part of a larger remnant that forms a north to south linkage. The proposed clearing may contribute to the degradation and disruption of this linkage. However, the majority of vegetation within this linkage is protected within conservation areas, in better condition than the application area and therefore the proposed clearing is not likely to have a significant impact on the environmental values of this ecological linkage.

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

A requirement to fence the boundary of the application area to exclude stock will assist in mitigating impacts to the nearby conservation areas.

Methodology GIS Databases:
- Bush Forever
- DBCA, Tenure

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Comments Proposed clearing is not likely to be at variance to this Principle

One minor perennial watercourse has been mapped within the application area and there is a small area subject to inundation along the northern boundary. This watercourse is located on Lot 5589 in an area mapped being in a completely degraded (Keighery 1994) condition and therefore does not require further clearing.

A second watercourse is located 30 metres south of the application area on Lot 1808.

A multiple use wetland is mapped within the eastern portion of Lot 1876. This area is in a completely degraded (Keighery 1994) condition.

A resource enhancement wetland is mapped approximately 80 metres north of the proposed clearing on Lot 5589 west of Della South Road and a conservation category wetland is mapped approximately 50 metres from the northern boundary of the application area.

Given the distance to the conservation category and resource enhancement wetlands the clearing as proposed

is not likely to impact upon the water quality of these wetlands. Multiple use wetlands are described as wetlands with few important ecological attributes and functions remaining (Water and Rivers Commission 2001). Therefore the clearing as proposed is not likely to cause deterioration in the water quality of this wetland.

Groundwater salinity within the application area ranges between 500 - 1000 milligrams/Litre Total Dissolved Solids (TDS) which is considered to be marginal. The proposed clearing is not likely to have an impact on ground water salinity.

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

A requirement to fence the boundary of the proposed clearing area to exclude stock will reduce sedimentation and nutrient export to the nearby wetlands and watercourse. In addition, The implementation of land management measures such as staged clearing, limiting the use of heavy machinery between December and May and installation of drainage contours will further reduce the chance of sedimentation being transported into nearby wetlands and watercourse.

Methodology References:
Keighery (1994)
Water and Rivers Commission (2001)

GIS Databases:
- Geomorphic Wetlands, (Mgt Categories), Swan Coastal Plain
- Hydrography, linear

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Comments **Proposed clearing is not likely to be at variance to this Principle**
The Commissioner of Soil and Land Conservation (2014) has advised that the removal of native vegetation is not expected to contribute to flooding given the soil types present within the application area.

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

Methodology References:
Commissioner of Soil and Land Conservation (2014)

Planning instruments and other relevant matters.

Comments Clearing Permit CPS 5981/1 was granted on 23 December 2014. This permit authorised the clearing of 73.05 hectares of native vegetation within Lot 1808 on Deposited Plan 108469, Lot 1876 on Deposited Plan 131371, Lot 2294 on Deposited Plan 124824 and Lot 5889 on Deposited Plan 208236, Bullsbrook, for the purposes of pasture and grazing.

The decision to grant this permit was appealed and on 13 October 2015 the Minister for Environment determined that the Department's decision to grant the clearing permit was reasonable, however a number of amendments need to be made to the permit. There amendments include:

The clearing footprint is revised to exclude:

- The part of Lot 2294 to the west of Della South Road;
- A buffer area of 50 metres along the western boundary of Lot 5889;
- An increased buffer area along the northern boundary of the permit area; and
- The area south of the water course on Lot 1808 (including a buffer area extending 30 metres north of the watercourse).

Conditions are added to the permit to require:

- Boundary fencing of the clearing footprint to exclude stock from buffer areas;
- Clearing to be undertaken in a progressive manner, slowly towards the conservation areas to the north and west of the site to enable small fauna to relocate off the site;
- Preparation of a land degradation minimisation strategy for approval by the Chief Executive Officer of DER prior to the commencement of clearing, and implementation of the approved strategy; and
- The applicant to prepare a revised offset proposal, including revegetation of the 'Good/Degraded – Good' or worse condition vegetation, excluded from the permit area, as above in accordance with a revegetation plan (to be approved by the Chief Executive Officer prior to the commencement of clearing).

The City of Swan (2014) advised it does not support the proposal to clear native vegetation within the application for the following reasons:

- The area is mapped as Yanga vegetation complex of which only 12 per cent is remaining in the City of Swan and Bassendean complex-North of which only 50 per cent is remaining in the City of Swan.
- The area contains environmentally sensitive areas.
- Contains a Bush Forever site.
- Abuts Crown land to the north and west that is Bush Forever
- Contains Banksia Woodland, which is black cockatoo habitat, and
- The soil is not suitable for agriculture.

The former Department of Water (DoW 2014) advised that it was unable to support the clearing application. The former DoW (2014) advised that the proposed clearing is located over a minor waterway. The former DoW does not support the clearing of waterways and ideally a foreshore reserve should be proclaimed over the waterway and vested with the local government for conservation and protection.

The former DoW (2014) advised that it requires a Biophysical Assessment to be undertaken in accordance with the DoW's Operational policy 4.3: Identifying and establishing waterways foreshore areas, to determine the appropriate buffer to the waterway, to ensure protection of stream bank stability and the retention of native vegetation. The former DoW (2014) recommends the maintenance of a vegetated buffer adjacent to waterways to prevent erosion and to maintain habitat.

The former Department of the Environment determined the proposed clearing to be a 'controlled action'.

The former Department of the Environment assessed the application in accordance with Part 9 of the *Environment Protection and Biodiversity Conservation Act 1999* and made a decision to grant approval to ABN Developments Pty Ltd (EPBC 2014/7120).

The application area is located within the Swan River System Surface Water Area proclaimed under the *Rights in Water and Irrigation Act 1914*. A licence to interfere with bed and banks is required if interfering with a watercourse.

The North Swan Land Conservation District Committee (North Swan LCDC 2014) has advised they do not support the application. The North Swan LCDC (2014) raised a number of concerns including the soil type not being suitable for agricultural purposes, impacts on significant feeding habitat for the Carnaby's cockatoo and Baudin's cockatoos and impacts to water quality of the Ellen Brook and Swan River. These issues have been addressed in the above assessment in principle (b), (g) and (i).

The Ellen Brockman Integrated Catchment Group Inc (2014) has raised concerns related to land degradation, impacts to significant fauna habitat, surface water quality and conservation areas. These issues have been addressed in the above assessment in principle (b), (g) (h) and (i).

Two Aboriginal sites of significance are located within the application area. The applicant has been notified of their obligations under the *Aboriginal Heritage Act 1972*.

The applicant has advised the following management actions will be undertaken to minimise any direct or indirect impacts to native vegetation:

- Install or update fencing to ensure cattle cannot access the conservation reserves.
- Undertake clearing on as needed basis to ensure cleared areas are not left exposed for significant periods.
- Undertake clearing slowly towards the conservation areas to the north and west of the site to enable small fauna to relocate off the site.

Methodology References:
City of Swan (2014)
DoW (2014)
Ellen Brockman Integrated Catchment Group Inc. (2014)
North Swan LCDC (2014)

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