



## CLEARING PERMIT

*Granted under section 51E of the Environmental Protection Act 1986*

<b>Purpose Permit number:</b>	CPS 3761/1
<b>Permit Holder:</b>	Dani Narelle Russell
<b>Duration of Permit:</b>	8 August 2010 – 8 August 2015

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 of selected *Xanthorrhoea preissii* and *Macrozamia riedlei* for the purpose of commercial sale.

**2. Land on which clearing is to be done**

Lot 5 on Diagram 91435 (NEERABUP 6031)

**3. Area of Clearing**

The Permit Holder must not clear more than 125 *Xanthorrhoea preissii*, 25 *Macrozamia riedlei* and up to 0.01ha of surrounding native vegetation within the area hatched yellow on attached Plan 3761/1.

**4. Clearing not authorised**

This Permit does not authorise the Permit Holder to clear *Lomandra hermaphrodita* or *Lomandra maritima*.

**5. 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.

**6. Compliance with Assessment Sequence and Management Procedures**

Prior to clearing any native vegetation under conditions 1, 2 and 3 of this Permit, the Permit Holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

**PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES**

**7. 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.



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Kelly Faulkner  
MANAGER  
NATIVE VEGETATION CONSERVATION BRANCH

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

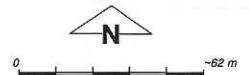
8 July 2010

# Plan 3761/1



## LEGEND

- |                             |                                   |
|-----------------------------|-----------------------------------|
| <b>Clearing Instruments</b> | <input type="checkbox"/> Cadastre |
| Areas Applied to Clear      | <b>Perth Metropolitan Area</b>    |
| Areas Subject to Conditions | <b>North 20cm Orthomosaic -</b>   |
| Areas Approved to Clear     | <b>Landgate 2007</b>              |
| Road Centrelines            |                                   |



Scale 1:2475  
(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.

Date 2/7/10

K. Faulkner  
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.: 3761/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Dani Narelle Russell

### 1.3. Property details

Property: LOT 5 ON DIAGRAM 91435 (House No. 190 FLYNN NEERABUP 6031)  
Local Government Area: City of Wanneroo  
Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.01	145	Mechanical Removal	Miscellaneous

## 2. Site Information

### 2.1. Existing environment and information

#### 2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Mapped Beard vegetation association 6 is described as Medium woodland; tuart & jarrah (Shepherd, 2007).	The area under application is located within Lot 5 on Diagram 91435, Neerabup.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The condition of the vegetation under application was determined through a site visit conducted by DEC (2010).
KARRAKATTA COMPLEX - CENTRAL AND SOUTH: Predominantly open forest of Eucalyptus gomphocephala (Tuart) - Eucalyptus marginata (Jarrah) - Corymbia calophylla (Marri) and woodland of Eucalyptus marginata (Jarrah) - Banksia species (Hedde et al. 1980).	The proposal is to clear 125 Xanthorrhoea preissii, 25 Macrozamia riedlei and 0.01 hectares of surrounding native vegetation. The applicant proposes to harvest grasstrees for commercial gain.	Vegetation observed during Department of Environment and Conservation site visit (DEC, 2010) includes Banksia attenuata, Banksia menziesii, Banksia ilicifolia, Acacia sp, Jacksonia sternbergia, Jarrah, Lomandra sp, Xanthorrhoea preissii, Daviesia triflora and Hibbertia hypericoides.	

## 3. Assessment of application against clearing principles

### (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

#### Comments

#### Proposal is not likely to be at variance to this Principle

The proposed clearing comprises the removal of 125 *Xanthorrhoea preissii*, 25 *Macrozamia riedlei* and up to 0.01ha of surrounding vegetation all from within a footprint area of 0.5ha. The proposal is to sustainably harvest selected grasstrees and *Macrozamia*s for commercial sale. The applicant has advised that she will be removing approximately 1 in 10 large grasstrees within the footprint area and leave any near well established native vegetation as to not disturb their root structure.

The vegetation under application is predominantly in good (Keighery, 1994) condition. Disturbance within the area owes to tracks, fire break, fire and burrow pits.

A flora survey conducted in October 2006 and November 2006 by ATA Environmental (2007) identified 127 species of native flora and 12 species of introduced flora within the Neerabup Industrial Area, which included Lot 5. A flora quadrat situated within the western area under application identified 36 species of native flora; however, DEC (2008) considers that the number of flora species recorded seems very low. In addition, ATA Environmental (2007) conducted fauna surveys (November 2006) over Lot 5 Flynn Drive and found a total of 25 vertebrate fauna species comprising 615 individual reptiles and mammals and observed 42 species of birds and 2096 individual birds.

Although Lot 5 may contain a high level of biodiversity the areas under application are not considered to hold areas of high biological diversity.

Therefore, this proposal is not likely to be at variance to this principle.

**Methodology** References:  
ATA Environmental (2007)  
DEC (2008)  
Keighery (1994)

GIS Database:  
- Perth Metropolitan Area North 20cm Orthomosaic - Landgate 2007  
- Pre European Vegetation - DA01/01  
- SAC Biodatasets - accessed 8 June 2010

**(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**

ATA Environmental (2007) advises that fauna surveys were conducted in November 2006 within the Neerabup Industrial Area, which included Lot 5. A total of 25 vertebrate fauna species comprising 615 individual reptiles and mammals were trapped within Lot 5 (ATA Environmental, 2007). In addition, 42 species of birds and 2096 individual birds were observed (ATA Environmental, 2007). Of these, two of the bird species observed are protected under Commonwealth legislation (i.e. EPBC Act 1999), being Carnaby's black cockatoo (*Calyptorhynchus latirostris*) and Rainbow Bee-eater (*Merops ornatus*) (ATA Environmental (2007).

Surveys of Carnaby's populations and their feeding and roosting habits show that the Northern Region of the Swan Coastal Plain appears to be an important area throughout the season (Shah, 2006). Native species such as Banksia and Eucalypts play a significant role in the ecology of the Carnaby's Cockatoos on the Swan Coastal Plain (Shah, 2006).

The cumulative impacts from the reduction of Carnaby's foraging habitat on the Swan Coastal Plain has resulted in vegetation that provides a food source for Carnaby's cockatoos being considered as significant habitat; the continual net loss of critical habitat will result in additional pressure on the current population of Carnaby's cockatoos (DEC, 2009). The area under application has been identified as feeding habitat for Carnaby's Black Cockatoo and potential habitat for the Rainbow Bee Eater (DEC, 2009a).

The Graceful Sunmoth (*Synemon gratiosa*) has been recorded within the local area (5km Radius). Therefore, it is considered likely that the area under application provides habitat for the conservation significant Graceful Sunmoth. This species requires *Lomandra* spp. as host plants and shows some preference for high quality vegetation (Williams, 2009). A condition has been added to the permit which does not authorise the applicant to clear *Lomandra hermaphrodita* or *Lomandra maritima*. This condition has been added to safeguard potential habitat for the Graceful Sunmoth.

Given the proposed vegetation to be cleared consists of 125 *Xanthorrhoea preissii*, 25 *Macrozamia riedlei* and up to 0.01ha of surrounding vegetation this vegetation is not considered to be significant habitat for native fauna, with the exception of the Graceful Sunmoth Therefore, giving consideration to the Graceful Sunmoth this proposal may be at variance to this principle.

**Methodology** References:  
ATA Environmental (2007)  
DEC (2009)  
DEC (2009a)  
Shah (2006)  
Williams (2009)

GIS Database:  
- SAC Biodatasets - accessed 8 June 2010

**(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 are four known records of rare flora, *Eucalyptus argutifolia* within the local area (5km radius). The nearest record of *Eucalyptus argutifolia* is located approximately 3.7km north-west of the area under application.

*Eucalyptus argutifolia* typically occurs in shallow sand on limestone ridges and slopes, where it emerges from heath and thicket of parrot bush (*Dryandra sessilis*) and chenille honey-myrtle (*Melaleuca huegelii*) (Brown et al., 1998). The habitat types identified within the area under application is jarrah (*Eucalyptus marginata*) Woodland over diverse heath to shrubland (ATA Environmental, 2007), which is not typical habitat for *Eucalyptus argutifolia*.

A flora survey conducted in October and November 2006 by ATA Environmental (2007) identified 127 species of native flora and 12 species of introduced flora within the Neerabup Industrial Area, which included Lot 5. No rare flora was identified during the flora survey (ATA Environmental, 2007).

Given the above, it is not considered likely that selective removal of grasstrees will impact any rare or threatened flora.

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

**Methodology**

**References:**

ATA Environmental (2007)  
Brown et al (1998)

**GIS Database:**

- Pre European Vegetation - DA01/01
- Heddle Vegetation Complexes - DEP 22/06/95
- SAC Biodatasets - accessed 8 June 2010

**(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 is a known occurrence of Floristic Community Type (FCT) 20a - Banksia attenuata woodland over species rich dense shrublands, which is a Threatened Ecological Community (TEC), located immediately adjacent (west) of Lot 5. The area under application located 360 m east of this occurrence.

Given the vegetation under application is located outside the recommended TEC buffer, the clearing of the vegetation within the area under application is not considered likely to impact this TEC. Therefore, the clearing as proposed is not likely to be at variance to this Principle.

Therefore, this proposal is not likely to be at variance to this proposal.

**Methodology**

**GIS Databases:**

-SAC Bio Datasets accessed 12/03/2009

**(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**

	Pre-European (ha)	Current extent (ha)	Remaining (%)
IBRA Bioregion Swan Coastal Plain	1,501,208	583,140	38.8
City of Wanneroo	67,697	33,637	49.7
Beard vegetation association 6	56,343	14,749	26.2
Heddle vegetation complex Karrakatta Complex-Central	49,912	14,729	29.5

\* (Shepherd et al. 2007)

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 vegetation under application is identified as a component of Beard Vegetation Association 6 and Heddle Karrakatta Complex -Central and South, of which there is 26.2% and 29.5% of pre-European vegetation extent remaining respectively. Both of these mapped vegetation complexes retain less than this 30% threshold level. However, the EPA (2006) recognises the Perth Metropolitan Region as a constrained area, providing for the reduction of vegetation complexes to a minimum of 10% of the Pre-European extent.

Given the current representation levels of the Heddle complex and Beard vegetation associations it is not considered likely that the vegetation under application is significant as a remnant in an area that has been extensively cleared.

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

**Methodology** References:  
Commonwealth of Australia (2001)  
EPA (2006)  
Shepherd et al (2007)

GIS Database:  
- Heddle Vegetation Complexes - DEP 22/06/95  
- Pre European Vegetation - DA01/01  
- SAC Biodatasets - accessed 8 June 2010

**(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**

There are three Conservation Category Wetlands (CCWs) and one Resource Enhancement Wetland (REW) located within the local area (5km radius). The closest wetlands are a CCW - Lake Pinjar (also mapped as an EPP Lake) located 1.3 km north-east and a CCW - Lake Adams (also mapped as an EPP lake) located 2.3km south-east of the area under application. Further, there are no watercourses within the local area.

Given the distance to the nearest wetlands it is not considered likely that the vegetation under application is growing in, or associated with, an environment associated with a watercourse or wetland.

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

**Methodology** GIS Database:  
- EPP, Lakes  
- 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** **Proposal is not likely to be at variance to this Principle**

The landscape of the area under application and surrounds can be described as undulating dune landscape underlain by aeolianite which is frequently exposed and small swales of estuarine deposits (Northcote et al., 1960-68). The chief soils are siliceous sands with smaller areas of brown sands and leached sands in the wetter sites (Northcote et al., 1960-68).

There is a potential risk for land degradation through wind erosion, as the sandy soils within the area under application are considered to be highly erodible. DAFWA (2007) advice for an adjacent application confirms that the sandy soils are potentially erodible, however the applicant's proposal to remove selected Grasstrees with a larger footprint of 0.5ha is unlikely to cause appreciable land degradation.

Therefore, this application is not likely to be at variance to this principle.

**Methodology** References:  
DAFWA (2007)  
Northcote et al. (1960-68)

GIS Database:  
- SAC Biodatasets - accessed 8 June 2010

**(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 is not likely to be at variance to this Principle**

There are two conservation reserves in the local area (5km radius) including State Forest 65 (Gnangara-Moore River State Forest )(which also includes Bush Forever Sites 139, 140, 293, 446 and 455) located 2.5km north and 1.9 km east; Neerabup National Park (also identified as Bush Forever Site 383 and a System 6 Conservation Reserve) located 6 km south-west; and Lake Joondalup Nature Reserve (also identified as an ANCA wetland, Conservation Category Wetland and System 6 Conservation Reserve) located 4.3 km south.

Bush Forever Site 295 (Flynn Drive Bushland, 112.6 ha area) is located 20m south and Site 494 (West Flynn Drive Bushland, 7.0 ha area) is located 500 m south-west of the area under application. In addition, Bush Forever Site 382 (also identified as Lake Pinjar and a System 6 Conservation Reserve) is located 1.3 km north-east of one of the area under application.

For a previous application on the same site Biodiversity Planning (incorporating Bush Forever) (DPI, 2008) advised that as the proposed clearing was outside Bush Forever site 295 it is unlikely that the proposal will directly or indirectly impact on the site.

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

**Methodology Reference:**  
DPI (2008)

GIS databases:

- Bushforever
- DEC Managed Lands and Waters
- Geomorphic wetlands (Mgt Categories)- Swan Coastal Plain
- System 6 Conservation Reserves

**(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**

There are three Conservation Category Wetlands (CCWs) and one Resource Enhancement Wetland (REW) within the local area (5km radius). The closest wetlands are a CCW - Lake Pinjar (also mapped as an EPP Lake) located 1.3 km north-east and a CCW - Lake Adams (also mapped as an EPP lake) located 2.3km south-east of the area under application. Further, there are no watercourses within the local area.

The area under application is not located in a Public Drinking Water Source Area and has a low salinity risk.

Given the distance to the nearest wetlands and the absence of clearly defined drainage lines running from the area under application and Lake Pinjar, the clearing as proposed is not considered likely to cause deterioration in the quality of surface and ground water.

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

**Methodology GIS Databases:**

- EPP, Areas
- EPP, Lakes
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC
- Public Drinking Water Source Areas (PDWSAs)
- Salinity Risk LM 25m - DOLA 00

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

**Comments Proposal is not likely to be at variance to this Principle**

The clearing as proposed is not considered likely to cause or increase the incidence or intensity of localised flooding.

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

**Methodology GIS Databases:**

- Geomorphic Wetlands (Mgt Categories) Swan Coastal Plain
- Hydroraphy, Linear



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

### Comments

A permit (CPS 2666/1) has been refused over this area in the past. The previous application proposed to clear 5.61 hectares for a hardstand. The application was refused because planning approval was not obtained.

The City of Wanneroo has advised that they support the application to remove grasstrees (DEC Ref: A312278).

Nature Protection Branch of DEC has advised that they have received an application for a Commercial Producers License (DEC Ref: A307346).

The National Grasstree Harvesting Guidelines (Department of the Environment and Water Resources, 2007) says that Grasstree harvesting, other than in salvage situations, is to be undertaken in an ecologically sustainable manner. The applicant proposal to clear 1 in 10 grasstrees within a 0.5ha area is considered to be sustainable.

### Methodology

References:  
DEWR (2007)

## 4. References

- ATA Environmental (2007) Consultant's Report: Flora, Vegetation and Vertebrate Fauna Assessment; Lot 5, Neerabup. ATA Environmental. TRIM Ref DOC60092
- Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DAFWA (2007) Land degradation advice. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food, Western Australia. TRIM Ref ED1913
- DEC (2008) DEC Species and Communities Branch - Threatened Ecological Community advice. Department of Environment and Conservation (DEC), Western Australia. TRIM Ref DOC67555
- DEC (2009) Fauna advice for CPS 3074/1; Species and Communities Branch, Department of Environment and Conservation. TRIM Ref DOC92367
- DEC (2009a) Fauna advice for CPS 2666/1; Species and Communities Branch, Department of Environment and Conservation. TRIM Ref DOC97167
- DEC (2010) Site Inspection Report for Clearing Permit Application CPS 3761/1, Lot 5 on Diagram 91435, Neerabup. Site inspection undertaken 17/06/2010. Department of Environment and Conservation, Western Australia, DEC Ref. A313307.
- DEWR (2009) National Grasstree Harvesting Guidelines, Department of the Environment and Water Resources. DEC Ref: A313801
- DPI (2008) Strategic Biodiversity Planning -advice for Lot 5 on Diagram 91435 Flynn Drive, Neerabup, Department of Planning and Infrastructure (DPI), Western Australia. TRIM Ref DOC64194
- EPA (2006) Guidance for the Assessment of Environmental Factors - Level of Assessment for Proposals Affecting Natural Areas Within the System 6 Region and Swan Coastal Plain Portion of the System 1 Region. Guidance Statement No 10. Environmental Protection Authority, Western Australia.
- Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- 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.
- Williams M.R (2009) Butterflies and Day-flying Moths in a Fragmented Urban Landscape, South-west Western Australia: Patterns of Species Richness. Pacific Conservation Biology V15,p 32-46. TRIM Ref DOC88237

## 5. Glossary

Term	Meaning
CALM	Department of Conservation and Land Management (now DEC)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment (now DEC)
DoW	Department of Water
DMP	Department of Mines and Petroleum (ex DoIR)
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)