



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 4955/1
File Number: 2012/002037-1
Duration of Permit: From 12 April 2013 to 12 April 2015

ADVICE NOTE:

The funds referred to in condition 1 of this permit are intended for contributing towards the purchase of 100 hectares of Carnaby's cockatoo foraging habitat within the Shire of Gingin.

PERMIT HOLDER

Landalla Investments Pty Ltd

LAND ON WHICH CLEARING IS TO BE DONE

Lot 406 on Deposited Plan 22032, Neergabby.

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 6.65 hectares of native vegetation within the area cross hatched yellow on attached Plan 4955/1.

CONDITIONS

- 1. Monetary contributions to a fund maintained for the purpose of establishing or maintaining vegetation (offset)**
Prior to undertaking any clearing authorised under this permit, the Permit Holder shall contribute documentary evidence to the CEO that funding of \$35,000 has been transferred to the Department of Environment and Conservation to purchase land for the purpose of establishing or maintaining vegetation.
- 2. The Permit Holder shall retain a 20 metre vegetated buffer within the area cross-hatched red on attached Plan 4955/1.**

A handwritten signature in cursive script, appearing to read "M Warnock", written over a horizontal line.

M Warnock
A/MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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



21 March 2013

Plan 4955/1



LEGEND

Clearing Instruments

-  Areas Subject to Conditions
-  Areas Approved to Clear
- Gingin 50cm Orthomosaic - Landgate 2008



Scale 1:4402

(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.

M Warnock Date *2/3/13*

M Warnock

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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* Project Data is denoted by asterisk. This data has not been quality assured. Please contact map author for details.



1. Application details

1.1. Permit application details

Permit application No.: 4955/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Landalla Investments Pty Ltd

1.3. Property details

Property: LOT 406 ON PLAN 22032 (House No. 131 COWALLA NEERGABBY 6503)
Local Government Area: Shire of Gingin
Colloquial name:

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 21 March 2013

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 949: Low woodland; banksia (Shepherd et al, 2001)	The application is to clear 6.65 hectares of native vegetation for the purpose of extending the current vegetable farm.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The condition of the vegetation under application was obtained from a recent site inspection undertaken by the Department and Environment and Conservation (DEC) on the 21 June 2012 (DEC, 2012).
Hedde vegetation complex karrakatta complex-north: Predominantly low open forest and low woodland of Banksia species E-Eucalyptus todtiana (Pricklybark), less consistently open forest of Eucalyptus gomphocephala (Tuart) - Eucalyptus todtiana (Pricklybark) - Banksia species (Hedde, et al, 1980).	The vegetation under application consists of a Banksia woodland, containing Banksia attenuata, Banksia illicifolia over Xanthorrhoea preissii, Banksia nivea, Hibbertia sp and Conostylis sp (DEC, 2012). There was scattered Eucalyptus todtiana and Corymbia calophylla trees within the application area. Weeds species were mainly contained to the perimeter of the application area on the edge of the fire breaks. The vegetation under application was in a very good to excellent (Keighery, 1994) condition (DEC, 2012).	To Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	

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 at variance to this Principle**
The application is to clear 6.65 hectares of native vegetation for the purpose of extending the current vegetable garden. The area under application is approximately 16 km east from the townsite of Guilderton.

The area under application (7.4ha) was previously applied for in August 2006 (CPS 1882/1). The assessment of

the application area identified that the proposed clearing would have significant environmental issues, consequently the application was refused in January 2007. The applicant appealed the decision in April 2008. The Minister upheld the appeal. Clearing permit (CPS 1882/2) was granted in February 2010 with the condition to retain a 20 metre vegetated buffer along the western boundary of the application area, reducing the total clearing to 6.65 hectares. The applicant did not undertake any clearing during the 2 year duration of the permit, consequently the permit expired without being exercised.

The vegetation under application consisted of a Banksia woodland, dominated by Banksia sp. over Xanthorrhoea preissii, Banksia nivea, Hibbertia sp and Conostylis sp. Eucalyptus todtiana and Corymbia calophylla trees were scattered throughout the application area. Weed species were observed mainly on the outside of the application area and become less profound the further into the application area. The vegetation under application is in a very good to excellent (Keighery, 1994) condition (DEC, 2012).

A flora survey of the application area was undertaken by Regeneration Technology in November and December 2007. The survey recorded 58 native flora species and 5 weed species and described the vegetation as Banksia menziesii low woodland with the occasional Corymbia calophylla and Eucalyptus todtiana over Xanthorrhoea and mixed shrub layer (Regeneration Technology, 2008). Of the identified species none were recorded as priority or rare flora (Regeneration Technology, 2008). The survey assessed the vegetation as being in a very good (Keighery, 1994) condition, with the south east corner of the survey area being completely degraded (Regeneration Technology, 2008).

There is approximately 50 percent native vegetation remaining in the local area (10km radius). Of that, approximately 20 percent falls within DEC managed lands. The application area is adjacent to a parcel of remnant vegetation to the south and cleared land to the north. Given this, the application area is part of a vegetated linkage which facilitates the dispersal and gene flow of flora and fauna.

The vegetation under application is considered to contain a high level of biological diversity, and therefore the proposed clearing is at variance to this principle.

To offset the above impacts, DEC has approved the applicant's offset package which commits to contributing funds towards the purchase of 100 hectares of foraging habitat within the Shire of Gingin to offset the loss of 3.1 hectares within CPS 4954/1 and 6.65 hectares within CPS 4955/1 proposed to be cleared under these applications.

Methodology References
- DEC (2012)
- Keighery (1994)
GIS Databases
-SAC Bio Datasets (May 2012)

(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 is at variance to this Principle**
Three fauna species of conservation significant have been recorded in the local area (10 km radius) including Carnaby's cockatoo (*Calyptorhynchus latirostris*). Carnaby's cockatoo is listed as 'rare or likely to become extinct' under the Wildlife Conservation Act 1950 and 'endangered' under the Environment Protection and Biodiversity Conservation Act 1999.

The proposed clearing is unlikely to impact upon other conservation significant fauna known in the area given the large amount of surrounding vegetation remaining.

The area under application consists predominately of open Banksia woodland in very good to excellent (Keighery 1994) condition (DEC 2012) and comprises of flora species recognised as feeding habitat for Carnaby's cockatoo.

Surveys of Carnaby's cockatoo populations and their feeding and roosting habits show that the Northern Region of the Swan Coastal Plain appears to be an important area for Carnaby's (Shah 2006). Important native food for this species include Banksia attenuata, B. menziesii, B. grandis, B. ilicifolia, B. sessilis, B. prionotes, Corymbia calophylla and Eucalyptus marginata (Valentine and Stock 2008); some of which the application area contains.

We must take into consideration that the vegetation under application is significant as feeding habitat for Carnaby's cockatoos. Although the local area contains a high level of native vegetation (50 percent in the local area), not all this vegetation is suitable as feeding habitat.

The loss of off reserve native vegetation makes it difficult for Carnaby's cockatoos to move between conservation reserves, especially foraging hen birds which can only travel up to 12kms with their young. A Carnaby's cockatoo roost site is mapped approximately 7.8km south east of the application area. One of the major threats to this species is accumulative clearing of feeding habitat on the Swan Coastal Plain (Cale, 2003). Therefore all feeding habitat within the Swan Coastal Plain is considered significant. Any clearing of cockatoo feeding habitat will contribute to the cumulative loss of habitat that is occurring on the Swan Coastal

Plain.

The Department of Environment and Conservation previously assessed application CPS 1482/1, which covers the same native vegetation as this application, to be may be at variance to this principle. DEC has since obtained more detailed information in regard to the significance of Carnaby's feeding habitat and considers the proposed clearing to now be at variance to this principle.

To offset the above impacts, DEC has approved the applicant's offset package which commits to contributing funds towards the purchase of 100 hectares of foraging habitat within the Shire of Gingin to offset the loss of 3.1 hectares within CPS 4954/1 and 6.65 hectares within CPS 4955/1 proposed to be cleared under these applications.

Methodology **References**
-DEC (2012)
-Cale (2003)
-Keighery (1994)
- Shah (2006)
- Valentine and Stock (2008)

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

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

There is one recorded rare flora species mapped within 10km of the application area. *Drakaea elastica* has been recorded approximately 9.2km south of the application area. *D. elastica* prefers White or grey sand and low-lying situations adjoining winter-wet swamps (Florabase, 2012). The application area is not located within a low-lying area and contains no mapped wet areas. In addition, the species has been mapped as occurring within different vegetation and soil types to the application area.

Considering the above, it is not likely that the vegetation under application is necessary for the continued existence of rare flora. The application is not likely to be at variance to this principle.

Methodology **GIS Databases**
-SAC Bio datasets (May 2012)

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

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

The closest Threatened Ecological Community (TEC) to the application area is Floristic Community Type SCP 26a - *Melaleuca huegelii* - *M. acerosa* shrublands on limestone ridges, approximately 8.7 km south west of the application area.

The application area consists of *Banksia* woodland predominantly containing *Banksia attenuata* on predominately grey sandy soil (DEC 2012) and does not contain the landforms affiliated with the TEC. *Melaleuca* sp were not observed during the site inspection (DEC 2012).

The application is not likely to be at variance to this principle.

Methodology **References**
-DEC (2012)
GIS Databases
-SAC Bio Datasets (May 2012)

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

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

The vegetation under application is described as Beard vegetation associations 949, which has 57 percent of pre-European extent remaining in the bioregion (Government of Western Australia, 2011). The application area also comprises of Heddle vegetation complex, Karrakatta Complex-North, where there is 43 percent pre-European extent remaining in the bioregion (Heddle et al, 1980).

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 percent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001). The vegetation complexes mapped within the area under application are above the recommended minimum of 30 percent representation.

The application area is considered not to occur within an extensively cleared landscape, with approximately 50 per cent of pre-European vegetation remaining in the local area (10km). Considering this and that the mapped vegetation complexes being above the 30 percent threshold, the vegetation under application is not significant as a remnant in an extensively cleared landscape.

The application is not likely to be at variance to this principle

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion Swan Coastal Plain	1,501,209	587,889	39	16
Shire Shire of Gingin	319,670	176,644	55	52
Beard Vegetation Association in Bioregion 949	209,983	121,248	57	51
Hedde Vegetation Complex Karrakatta Complex North	44,273	19,296	43	25

Methodology References
 -Commonwealth of Australia (2001)
 -Government of Western Australia (2011)
 -Hedde et al (1980)
 GIS Databases
 -Pre-European Vegetation
 -NLWRA, Current Extent of Native Vegetation
 -Interim Biogeographic Regionalisation of Australia

(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**
 An unnamed Conservation Category Wetland (CCW) has been mapped as occurring approximately 1.2km east of the application area. Another unnamed CCW has been mapped and occurring approximately 1.3km south west of the application area. The mapped CCW are not joined by connective vegetation to the application.
 A recent site inspection undertaken by DEC considered the vegetation in the applied area consisted of upland species and not associated with mapped CCW's.
 Given the distance to the wetland, and that the applied area consists of upland species, the application is not likely to be at variance to this principle.

Methodology GIS Databases
 -Hydrography, Linear
 -Geomorphic Wetlands, Swan Coastal Plain

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

Comments **Proposal may be at variance to this Principle**
 A soil assessment of the application area indicates that the area proposed to be cleared is dominated by soil type Spearwood, Phase 5 - Map Unit 211Sp_5 (Commissioner of Soil and Land Conservation, 2012). Pale brown to light grey sands to 90cm overlying brownish-yellow sand to weak clayey sand (Commissioner of Soil and Land Conservation, 2012).
 Given the soils type present, the proposed clearing has a high risk of land degradation from wind erosion. This risk can be controlled if good management practices are put in place (Commissioner of Soil and Land Conservation, 2012).
 The risk of water erosion from the proposed clearing causing land degradation is considered low, due to the soil type present in the application area (Commissioner of Soil and Land Conservation, 2012). Additionally, the Commissioner of Soil and Land Conservation (2012) expressed that there were no signs of salinity on the property and that no significant changes in salinity to the local area is likely to occur from the proposed clearing
 Given the high risk of land degradation from wind erosion the proposed clearing may be at variance to this principle.

Methodology References
 -Commissioner of Soil and Land Conservation (2012)

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Comments Proposal may be at variance to this Principle

The closest conservation area to the application area is the Gingin Stock Route Nature Reserve which is located approximately 4km south of the application area.

There is approximately 50 percent native vegetation remaining in the local area (10km radius). Of that, approximately 20 percent falls within DEC managed lands. The application area is adjacent to a parcel of remnant vegetation to the south and cleared land to the north. Given this, the application area is part of a vegetated linkage which facilitates the dispersal and gene flow of flora and fauna.

Although the local area contains a high level of native vegetation, not all this vegetation is suitable as feeding habitat. The loss of off reserve native vegetation makes it difficult for Carnaby's cockatoos to move between conservation reserves, especially foraging hen birds which can only travel up to 12 kms with their young. One of the major threats to this species is accumulative clearing of feeding habitat on the Swan Coastal Plain (Cale, 2003). Therefore all feeding habitat within the Swan Coastal Plain is considered significant. Any clearing of cockatoo feeding habitat will contribute to the cumulative loss of habitat that is occurring on the Swan Coastal Plain.

The Department of Environment and Conservation previously assessed application CPS 1484/1, which covers the same native vegetation as this application, as not likely to be at variance to this principle. DEC has since obtained more detailed information in regard to the significance of Carnaby's feeding habitat and linkages of potential foraging habitat off reserve.

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

Methodology GIS Databases
-DEC 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 Proposal is not likely to be at variance to this Principle

An unnamed Conservation Category Wetland (CCW) has been mapped as occurring approximately 1.2km east of the application area. Another unnamed CCW has been mapped and occurring approximately 1.3km south west of the application area. The application is within the Moore River groundwater catchment.

The Commissioner of Soil and Land Conservation (2012) expressed that there were no signs of salinity on the property and that no significant changes in salinity to the local area is likely to occur from the proposed clearing.

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

Methodology References
- Commissioner of Soil and Land Conservation (2012)
GIS Database
-Hydrography, Linear
-Geomorphologic Wetlands, Swan Coastal Plain

(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 at variance to this Principle

The proposed clearing of native vegetation is not expected to cause, or exacerbate, the incidence or intensity of flooding.

The application is not at variance to this principle.

Methodology

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

Comments

The land is zoned 'Rural' under the Shire of Gingin's Town Planning Scheme. Planning consent for the irrigated horticulture (market garden) over Lot 406 has been received for the proposal subject to conditions (Shire of Gingin, 2012).

The property under application falls within an area (Gingin Groundwater) which is proclaimed under the Rights in Water and Irrigation Act 1914 (RIWI Act). The applicant has obtained a water licence over Lot 406 for the irrigation of up 18 hectares of vegetables.

The area under application (7.4ha) was previously applied for in August 2006 (CPS 1882/1). The assessment of the application area identified that the proposed clearing would have significant environmental issues, consequently the application was refused in January 2007. The applicant appealed the decision in April 2008. The Minister upheld the appeal. Clearing permit (CPS 1882/2) was granted in February 2010 with the condition to retain a 20 metre vegetated buffer along the western boundary of the application area, reducing the total clearing to 6.65 hectares. The applicant did not undertake any clearing during the 2 year duration of the permit, consequently the permit expired without being exercised.

The Commissioner of Soil and Land Conservation (2012) has advised that there is some potential for nutrient export from the site, however, as there is a monitoring program in place on the property that guides fertilizer applications, significant land degradation is not expected.

Methodology	References
	- Commissioner of Soil and Land Conservation (2012)
	- Shire of Gingin (2012)
	GIS Database
	- Town Planning Scheme

4. References

- Cale, B (2003) Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) Recovery Plan 2002- 2012. Department of Environment and Conservation. Wanneroo WA.
- Commissioner of Soil and Land Conservation (2012); Land Degradation Advice and Assessment Report for clearing permit application CPS 4955/1 received 27/5/2012; Department of Agriculture and Food Western Australia (TRIM Ref. DOCA498738).
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DEC (2012) Site Inspection Report for Clearing Permit Application CPS 4955/1, Lot 406 Neergabby. Site inspection undertaken 21/5/2012. Department of Environment and Conservation, Western Australia (TRIM Ref. DOCA521533).
- Government of Western Australia (2011); 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, Perth.
- Heddl, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. 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.
- 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., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.
- Shire of Gingin (2012) Direct Interest Submission for clearing permit application CPS 4955/1. Received 6 December 2012, Shire of Gingin, Western Australia (Ref. A599046).
- Valentine and Stock (2008) Food Resources of Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) In the Gnangara Sustainability Strategy Study Area. Edith Cowen University and Department of Environment and Conservation.

5. Glossary

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