



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 5362/1

File Number: DEC8845

Duration of Permit: From 14 December 2013 to 14 December 2015

ADVICE NOTE:

The funds referred to in condition 2 of this permit are intended for contributing towards the purchase of 22 hectares of native vegetation containing a high level of biological diversity and Carnaby's cockatoo foraging habitat within the Shire of Gingin.

PERMIT HOLDER

Alvito Pty Ltd

LAND ON WHICH CLEARING IS TO BE DONE

Lot 5 On Diagram 91435 (Neerabup 6031)

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 7.14 hectares of native vegetation within the area hatched yellow on attached Plan 5362/1.

CONDITIONS

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

2. 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 \$25,000 has been transferred to the Department of Environment Regulation to purchase land for the purpose of establishing or maintaining vegetation.

DEFINITIONS

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

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

dry conditions means when soils (not dust) do not freely adhere to rubber tyres, tracks, vehicle chassis or wheel arches;

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;

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 the former Department of Environment and Conservation Regional Weed Assessments, regardless of ranking; or
- (c) not indigenous to the area concerned.



M Warnock
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

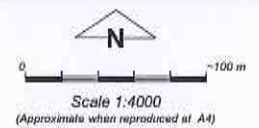
14 November 2013

Plan 5362/1



LEGEND

- Road Centrelines
 - Local Government Authorities
 - Cadastre for labelling
 - Clearing Instruments
 - Areas Approved to Clear
- Perth Metropolitan Area
Central 15cm Orthomosaic -
Landgate 2012



Geocentric Datum Australia 1994
Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

M. Warrock Date 14/11/13
M Warrock

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.



Government of Western Australia
Department of Environment Regulation
WA Crown Copyright 2002

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



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5362/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Alvito Pty Ltd

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:
7.14		Mechanical Removal	Building or Structure

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 14 November 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 6 is described as medium woodland; tuart & jarrah (Shepherd et al 2001).	The clearing of 7.14 hectares of native vegetation within Lot 5 on Diagram 91435, Neerabup is for the purpose of constructing a storage yard and associated hardstand and access roads.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The description and condition of the vegetation was determined by a site inspection (DEC 2012), a Flora survey undertaken by ATA Environmental (2007) and digital imagery (Perth Metropolitan Central 15cm Orthomosaic - Landgate 2011).
Heddle vegetation complex Karrakatta Complex Central and South is described as: predominantly open forest of Eucalyptus gomphocephala (Tuart) - Eucalyptus marginata (Jarrah) - Corymbia calophylla (Marri) and woodland of Eucalyptus marginata (Jarrah) - Banksia species (Heddle et al 1980).		To	The application area consists of two vegetation types:
		Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	'Jarrah (Eucalyptus marginata) woodland to tall Woodland with scattered Sheoak (Allocasuarina fraseriana) and Banksia menziesii over Xanthorrhoea preissii, Hibbertia hypericoides, Jacksonia sternbergiana and Acacia pulchella Low Closed Heath to Shrubland' (ATA Environmental 2006), and
			'Jarrah Tall Open Woodland with scattered Banksia attenuate and B. Menziesii over Xanthorrhoea preissii and Hibbertia hypericoides Low Open Heath (ATA Environmental 2006).

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 proposes to clear 7.14 hectares of native vegetation within Lot 5 on Diagram 91435, Neerabup, for the purpose of constructing a storage yard and associated hardstand and access roads.

This vegetation comprises two vegetation types, both Eucalyptus marginata dominated woodlands over diverse heath to shrubland (ATA Environmental, 2007).

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. This flora survey did not identify any rare or priority flora within the application area (ATA Environmental 2007).

Fauna surveys conducted within the Neerabup Industrial Area (including Lot 5) in November 2006 by ATA Environmental (2007) trapped a total of 25 vertebrate fauna species comprising 615 individual reptiles and mammals and observed 42 species of birds and 2096 individual birds.

Four species of fauna listed as rare or likely to become extinct under the Wildlife Conservation Act 1950, have been recorded within the local area (five kilometre radius) (DEC 2007-). *Calyptorhynchus latirostris* (Carnaby's cockatoo) and the *Merops ornatus* (Rainbow Bee-eater) were recorded within the study area in the fauna survey conducted by ATA Environmental (2007).

Given the number of flora and fauna species identified and the very good (Keighery 1994) condition of the majority of the vegetation under application, the vegetation applied to be cleared is likely to comprise of high biological diversity. Therefore the clearing as proposed is at variance to this Principle.

To address the environmental impacts identified in this assessment, the applicant has advised they are willing to provide an offset package which comprises of contributing funds towards the purchase of 22 hectares of remnant vegetation containing a high level of biological diversity and Carnaby's cockatoo foraging habitat within the Shire of Gingin to offset the loss of the 7.14 hectares proposed to be cleared under this application.

Methodology

References:

- ATA Environmental (2007)
- DEC (2007-)
- Keighery (1994)

GIS Database:

- Sac Biodata sets - accessed 26 November 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

Four species of fauna listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 have been recorded within the local area (five kilometre radius) including *Calyptorhynchus latirostris* (Carnaby's cockatoo), *Calyptorhynchus banksii* subsp. *naso* (Forest red-tailed black-cockatoo), *Myrmecobius fasciatus* (numbat) and *Perameles bougainville* (western barred bandicoot) (DEC 2007-).

Fauna surveys conducted within the Neerabup Industrial Area (including Lot 5) in November 2006 by ATA Environmental (2007) trapped a total of 25 vertebrate fauna species comprising 615 individual reptiles and mammals and observed 42 species of birds and 2096 individual birds.

Two species identified within the Neerabup Industrial Area, Carnaby's cockatoo and the *Merops ornatus* (Rainbow Bee-eater), listed as 'endangered' and 'marine and migratory species' respectively under the Environment Protection and Biodiversity Conservation (EPBC) Act 1999, were recorded within the study area (ATA Environmental 2007).

The location is confirmed habitat for Carnaby's cockatoo and *Synemon gratiosa* (graceful sun-moth)(Priority 4 under the Wildlife Conservation Act 1950), and potential habitat for the Forest red-tailed black cockatoo and bee species *Hylaeus globuliferus*. Lot 5 is located on the northern extent of intensive urban development and is surrounded by areas of development. The loss of 7.14 hectares of habitat for these species in this location is considered to be significant (DEC 2013a).

The Carnaby's cockatoo is listed as endangered under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). Carnaby's cockatoo nests in large hollows of eucalyptus trees and forages on the seeds, nuts and flowers of a large variety of plants including Proteaceous species (*Banksia*, *Hakea*, *Grevillea*), as well as *Allocasuarina* and *Eucalyptus* species, *Corymbia calophylla* and a range of introduced species, especially seeds from cones of *Pinus* species (Shah, 2006; Valentine and Stock, 2008). Clearing of feeding habitat on the Swan Coastal Plain poses a significant threat to the long term survival of Carnaby's cockatoos (Shah, 2006).

The Carnaby's cockatoo was once abundant in Western Australia. Since the late 1940s the species has suffered a 30 per cent contraction in range, a 50 per cent decline in population, and between 1968 and 1990 disappeared from more than a third of its breeding range (Saunders 1990; Johnstone and Storr 1998; Saunders and Ingram 1998; Garnett et al. 2011). 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 any reduction in the amount of food source will result in a reduction in the carrying capacity of the region and therefore a decline in the population of Carnaby's cockatoo.

The application area is located within the Buffer Zone of a Carnaby's cockatoo roost area. Thirteen roost sites are located within the local area. The closest being approximately 1.7 kilometres east of the application area. Carnaby cockatoos usually forage within 6 kilometres of a roost site (Department of Sustainability, Environment, Water, Population and Communities 2012).

A survey of the trees on the site was undertaken by PGV Environmental in 2012 to identify any trees within the 7.14 hectare remnant that may be existing or potential breeding or foraging habitat for black cockatoos (PVG Environmental, 2012). The 2012 review, by PGV Environmental, of the impacts of the proposed hardstand area on the EPBC Act reported the density of Banksia trees in the application area is low, the vegetation is in very good (Keighery 1994) condition and no evidence of foraging on the site was observed during the 2012 tree survey (PVG Environmental, 2012). PGV Environmental (2012) concluded that, given the overall low density of Banksia trees on the site, the quality of habitat as a foraging source is considered to be low and advised that the proposed clearing is unlikely to result in a significant impact on Carnaby's cockatoo and referral under the EPBC Act is not required (PVG Environmental, 2012).

It is acknowledged that a consultant was engaged to conduct targeted black cockatoo surveys and provided the above advice on the significance of the clearing and obligations under the EPBC Act. However, a site inspection undertaken by DEC (2012) and advice received from fauna specialists has determined the vegetation under application includes preferred feeding habitat for Carnaby's cockatoo. One of the major threats to Carnaby's cockatoo is the cumulative clearing of feeding habitat on the Swan Coastal Plain (Cale, 2003). Given this, all feeding habitat within the Swan Coastal Plain is considered significant. Any clearing of cockatoo feeding habitat on the Swan Coastal Plain will contribute to the cumulative loss and fragmentation of habitat that is occurring on the Swan Coastal Plain and poses a significant threat to the long term survival of Carnaby's cockatoo.

The applicant has advised foraging habitat for the black cockatoo species will be retained within the uncleared areas within Lot 5.

Lot 5 contains Jarrah, Banksia spp. and Grevillea spp. which are known feeding habitat for the Carnaby's cockatoo. The fauna survey undertaken by ATA Environmental (2007), a site inspection undertaken by DEC (2012) and information received from fauna specialists has determined the vegetation proposed to be cleared represents significant feeding habitat for Carnaby's cockatoo.

A total of 26 trees with a diameter at breast height of greater than 500 millimetres were recorded within the application area. Nine of the 26 trees contained either hollows or spouts which could be suitable for birds and bats to nest in. All hollows and spouts were small and were considered unsuitable as breeding sites for black cockatoos due to their small size (PVG Environmental 2012). Methodology for this survey has not been provided. Of the habitat trees identified 18 trees will be retained (Landvision 2012) and 8 potential habitat trees are proposed to be cleared. The application area has been designed to specifically avoid as many habitat trees as possible.

Rainbow bee-eaters are listed as migratory and marine species under the EPBC Act 1999, are insectivorous and are found in most vegetation types around Australia. The species nest in excavated holes in sandy ground. The clearing as proposed is unlikely to have an impact on this species.

Given the overall condition of the vegetation under application it provides suitable habitat for ground dwelling fauna including the numbat and western barred bandicoot. The applicant has advised clearing will be staged from east to west to allow movement of fauna to adjoining vegetation adjacent to the west of the property (Landvision 2012). This management strategy of sequential clearing and fauna movement into Lot 4 may be beneficial for some fauna, but will not be beneficial to others. It is also dependent on the security of Lot 4 and the capacity of this isolated bush area to maintain these animals (DEC 2013a).

The area under application is surrounded by areas reserved for conservation and forms a linkage to the adjacent lot and south to Bush Forever site 295. Flynn Drive separates the application area from Bush Forever site 295. The creation of Flynn Drive has severed this contiguous link, however avian fauna will be able to adapt to this. The vegetation under application contributes to connectivity across the landscape and the proposed clearing will increase the distance fauna has to negotiate between remnant patches of vegetation, increasing the risk of predation.

In addition to species of conservation significance, the vegetation under application also provides suitable habitat and a refuge for a range of other indigenous mammals and avifauna.

The application area contains foraging habitat for black cockatoo species, hollow bearing trees, suitable habitat for ground dwelling fauna and forms part of an ecological linkage, therefore the clearing as proposed is at variance to this Principle.

To address the environmental impacts identified in this assessment, the applicant has advised they are willing to provide an offset package which comprises of contributing funds towards the purchase of 22 hectares of remnant vegetation containing a high level of biological diversity and Carnaby's cockatoo foraging habitat within the Shire of Gingin to offset the loss of the 7.14 hectares proposed to be cleared under this application.

- Methodology** References:
- ATA Environmental (2007)
 - Cale, 2003
 - DEC 2013a
 - Garnett et al (2011)
 - Johnstone and Storr (1998)
 - Keighery (1994)
 - Landvision (2012)
 - PGV Environmental (2012)
 - Saunders (1990)
 - Saunders and Ingram (1998)
 - Shah (2006)
 - Valentine and Stock (2008)

GIS Database:
-Sac Biodata sets - accessed 26 November 2012

(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 record of rare flora at approximately 3.9 kilometres from the proposed clearing area.

This species typically occurs in shallow sand on limestone ridges and slopes, where it emerges from heath and thicket of parrot bush (*Banksia 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 this species.

Given the above, it is not considered likely that the vegetation proposed to be cleared includes, or is necessary for the continued existence of rare 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:
-SAC Bio Datasets accessed 26 November 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**

Threatened Ecological Community (TEC) 'Banksia attenuata woodland over species rich dense shrublands' (SCP20a) is located adjacent to Lot 5. The application area is located within the buffer zone of this TEC.

A flora survey undertaken by ATA Environmental (2007) determined this TEC is not located within the application area. Information provided from PGV Environmental to DEC confirms the methodology and statistical analysis undertaken in the ATA Environmental (2007) survey is sufficient to determine that this TEC is not located within the application area (DEC 2013b).

The applicant has provided a 40 metre fenced vegetated buffer to the adjacent TEC. The Department of Parks and Wildlife (DPaW, 2013) has advised the 40 metre buffer is reasonable and will help minimise the impacts of the proposed clearing and future development.

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

- Methodology** References:
- DEC (2013b)
 - DPaW (2013)

GIS Database:
SAC Datasets accessed - 26 November 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 within the Swan Coastal Plain IBRA Bioregion and has been mapped as comprising of Beard vegetation association 6 and Heddle vegetation complex, Cottlesloe Complex Central and South. The mapped Beard and Heddle vegetation complexes under application have approximately 24.9 per cent and 29.5 per cent respectively of their pre-European vegetation remaining (Government of Western Australia, 2011).

The local area (five kilometre radius) surrounding the application has approximately 30 per cent of its pre-European vegetation remaining.

The National Objectives and Targets for Biodiversity Conservation include a target that prevents the clearance of ecological communities with an extent below 30 per cent of that present pre-European settlement (Commonwealth of Australia, 2001). The mapped Beard and Heddle vegetation complex associated with the area under application is below the 30 per cent threshold. However, the Environmental Protection Authority (EPA) recognises the Perth Metropolitan Region as a constrained area, which provides for the reduction of vegetation complexes to a minimum of 10 per cent of the pre-European extent (EPA, 2006).

The application area contains significant fauna habitat, is an important stepping stone for fauna to nearby remnant vegetation and is located within the buffer zone of a TEC and is therefore significant as a remnant. However, as the local area retains approximately 30 per cent native vegetation in a constrained area it is not considered to be extensively cleared.

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

	Pre-European (ha)	Current Extent Remaining (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion*				
Swan Coastal Plain	1,501,209.20	587,832.98	39.16	34.79
Shire*				
City of Wanneroo	67,698.05	31,541.29	46.59	50.7
Beard Vegetation Association in Bioregion*				
6	56,343.00	14,018.91	24.88	35.63
Heddle Vegetation Complex **				
Karrakatta Complex Central and South	49,912	14,729	29.5	7.5

* Government of Western Australia (2011)
** Heddle (1998)

Methodology

References:

- Commonwealth of Australia (2001)
- EPA (2006)
- Government of Western Australia (2011)
- Heddle (1998)

GIS Databases:

- Perth Metropolitan Area Central 15cm Orthomosaic - Landgate 2011
- 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 Proposal is not likely to be at variance to this Principle

No watercourses or wetlands are located within the application area. A conservation category wetland is located approximately 1.5 kilometres north east of the application area.

Given the distance to the closest watercourse the vegetation proposed to be cleared is not considered to be growing in association with an environment associated with a watercourse or wetland. Therefore, the clearing as proposed is not likely to be at variance to this Principle.

Methodology

GIS Databases:

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

(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

Two soil types are mapped within the application area. Soil type B24 is described as Undulating dune landscape underlain by aeolianite which is frequently exposed; small swales of estuarine deposits are included: chief soils are siliceous sands with smaller areas of brown sands and leached sands in the wetter sites (Northcote et al 1960 - 1968).

Soil type JK9 is described as 'undulating dune landscape with some steep dune slopes and underlain by aeolianite at depth: chief soils are brown sands. Associated are siliceous sands on the deeper dunes, especially on the western side of the unit; and leached sands on the more subdued dunes, especially on the eastern side of the unit (Northcote et al 1960 - 1968).

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. Department of Agriculture and Food Western Australia (DAFWA 2007) advice for an adjacent application confirms that the sandy soils are potentially erodible and that the clearing is likely to cause wind erosion.

Given the sandy soils present on site, it is considered that there is the potential for the proposed clearing to result in wind erosion, and without appropriate management of the exposed surfaces the proposal may cause appreciable land degradation.

Given the above the clearing as proposed may cause appreciable land degradation and therefore may be at variance to this principle.

The applicant has advised the land to be cleared will be surfaced with a solid surface of either limestone or bitumen. The uncleared areas will remain in their current natural state. Drainage will be contained within the hardstand area.

Methodology

References:

- DAFWA (2007)
- Northcote et al (1960 - 1968)

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 Proposal may be at variance to this Principle

Gnangara-Moore River State Forest is located approximately 1.8 kilometres east and 2 kilometres north of the application area.

Bush Forever site 295 is located approximately 20 metres south of the application and Bush Forever site 428 is located 1.5 kilometres north.

The area under application is surrounded by areas reserved for conservation and forms a link through to the adjacent lot and south to Bush Forever site 295. Flynn Drive separates the application area from Bush Forever site 295. The creation of Flynn Drive has severed this contiguous link, however avian fauna will be able to adapt to this.

The vegetation under application contributes to connectivity across the landscape and the proposed clearing will increase the distance fauna has to negotiate between remnant patches of vegetation, increasing the risk of predation.

The application area contributes to an ecological linkage between State Forest, Bush Forever Sites and patches of remnant vegetation. Given the close proximity of the application area to the conservation areas listed above the clearing as proposed will impact the environmental values of these areas through the increase potential for the intrusion of weeds and dieback and through the decreased capacity for fauna dispersal. Weed and dieback management practices will help mitigate this risk.

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

Methodology

GIS Databases:

- Bushforever
- 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**
No watercourses or wetlands are located within the application area. A conservation category wetland is located approximately 1.5 kilometres north east of the application area.

Given the distance to the closest watercourse the clearing of the vegetation is not likely to cause deterioration in the quality of surface water.

The groundwater salinity within the application area is less than 500 milligrams/Litre Total Dissolved Solids (TDS). Given the low groundwater salinity the proposed clearing is unlikely to cause salinity levels to alter.

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

Methodology 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 **Proposal is not likely to be at variance to this Principle**
Given the sandy soils within the application area and the low rainfall (800 millimetres), the proposed clearing is not expected to cause or exacerbate the incidence or intensity of flooding.

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

Methodology

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

Comments
The application proposes to clear 7.14 hectares of native vegetation within Lot 5 on Diagram 91435, Neerabup, for the purpose of constructing a temporary hardstand.

The City of Wanneroo (2013) issued planning approval to Alvito Pty Ltd for a storage yard and associated hardstand and access roads within Lot 5 on Deposited Plan 91435.

The Land is zoned Industrial Development under the City's District Planning Scheme No. 2 (DPS 2) and is subject to Agreed Structure Plan No. 17 which designates the land as General Industrial. The construction of a hardstand in this zone is a permitted use under DPS 2 (City of Wanneroo 2012).

In response to this assessment the applicant has advised as part of the structure planning process that preceded the rezoning a substantial area to the east of Lot 5 was specifically set aside as Bush Forever site 295 as an offset of the anticipated clearing of the remaining area. The Department of Planning (DoP) has advised that subdivision of Lot 2477 was approved with the understanding that Lot 900 and 901 could be developed for industrial purposes and Lot 902 (Bush Forever site 295) is to compass the Bush Forever portion, Lot 5 was not part of the negotiations.

No public submissions have been received.

No Aboriginal Sites of Significance are located within the application area.

To address the environmental impacts identified in this assessment, the applicant has advised they are willing to provide an offset package which comprises of contributing funds towards the purchase of 22 hectares of remnant vegetation containing a high level of biological diversity and Carnaby's cockatoo foraging habitat within the Shire of Gingin to offset the loss of the 7.14 hectares proposed to be cleared under this application.

Methodology References
-City of Wanneroo (2012)

4. References

- ATA Environmental (2007) Consultant's Report: Flora, Vegetation and Vertebrate Fauna Assessment; Lot 5, Neerabup. ATA Environmental. DEC Ref: A587113
- Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.
- Cale, B. (2003) Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) Recovery Plan 2002- 2012. Department of Environment and Conservation. Wanneroo WA.
- 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 (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed 26 November 2012
- DEC (2012) Site Inspection Report for Clearing Permit Application CPS 5362/1, Lot 5 Flynn Drive, Neerabup. Site inspection undertaken 10 December 2012. Department of Environment and Conservation, Western Australia (DEC Ref: A587106).
- DEC (2013a) Fauna advice for Clearing Permit CPS 5362/1. Species and Communities Branch. Department of Environment and Conservation. Western Australia. (DEC Ref:A621823)
- DEC (2013b) Threatened Ecological Community Advice for Clearing Permit CPS 5362/1. Species and Communities Branch. Department of Environment and Conservation. Western Australia. (DEC Ref:A628444).
- 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.
- Garnett, S., Szabo, J. and Dutton, G. (2011). The Action Plan for Australian Birds 2010. CSIRO Publishing, Melbourne, Victoria.
- Government of Western Australia. (2013). 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. WA Department of Environment and Conservation, Perth.
- 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.
- Johnstone, R.E. and Storr, G.M. (1998). Handbook of Western Australian Birds, Volume I, Non-passerines (Emu to Dollarbird). Western Australian Museum, Perth.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Landivision (2012) Proposal for Temporary Hard Stand - Lot 5 Flynn Drive, Neerabup. Landivision. Western Australia. (DEC Ref: A565086)
- 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.
- PGV Environmental (2012) Environmental Assessment - Lot 190 Flynn Drive. PGV Environmental. DEC Ref: A565086
- Saunders, D.A. (1990). Problems of survival in an extensively cultivated landscape: the case of Carnaby's cockatoo *Calyptorhynchus funereus latirostris*. *Biological Conservation*. 54: 277-290.
- Saunders, D.A. and Ingram, J.A. (1998). Twenty-eight years of monitoring a breeding population of Carnaby's cockatoo. *Pacific Conservation Biology*. 4: 261-270.
- 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.
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed November 2012).