



1. Application details

1.1. Permit application details

Permit application No.: 6955/1
Permit type: Area Permit

1.2. Applicant details

Applicant's name: Alvito Pty Ltd
Application received date: 15 February 2016

1.3. Property details

Property: Lot 5 on Diagram 91435
Local Government Authority: Wanneroo, City of
Localities: Neerabup

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	Purpose category:
3.51		Mechanical Removal	Industrial

1.5. Decision on application

Decision on Permit Application: Refuse

Decision Date: 7 January 2019

Reasons for Decision:

The clearing permit application has been assessed against the clearing principles, planning instruments and other matters in accordance with section 51O of the *Environmental Protection Act 1986* (EP Act). It has been concluded that the proposed clearing is at variance to Principles (a) and (b), may be at variance to Principles (d) and (g), and is not likely to be at variance to the remaining Principles.

It has been determined that the proposed clearing will result in the following impacts:

- loss of 3.51 hectares of Carnaby's cockatoo foraging habitat; and
- loss of vegetation that is considered an area of high biodiversity.

It has been determined that the proposed clearing may:

- be representative of the Banksia Dominated Woodlands of the Swan Coastal Plain threatened ecological community; and
- may lead to land degradation through wind erosion.

In accordance with section 51O(4) of the EP Act, in considering a clearing matter, the Chief Executive Officer (or Delegated Officer) shall have regard to any planning instrument or other matter considered relevant. The applicant has not provided Planning Approval from the City of Wanneroo for the proposed development. This is considered a relevant consideration by the Delegated Officer.

The Department of Water and Environmental Regulation (DWER) wrote to Alvito on 21 August 2017 and 9 October 2018 requesting that the environmental issues as well as planning matters raised during the assessment of the application be addressed. The applicant was given written notification of the intent to refuse the application in accordance with section 51E(6) of the *Environmental Protection Act 1986*.

A meeting was also held with the applicant on 22 November 2017 in order to discuss the application and potential ways forward.

Following the above correspondence and meeting, no further formal advice has been received from the applicant, regarding the provision of an offset or planning approval.

After consideration of the above, the Delegated Officer decided to refuse to grant a clearing permit.

2. Site Information

Clearing Description

The proposed clearing within Lot 5 on Diagram 91435, Neerabup, is for the purpose of establishing a hardstand area of compacted limestone (PGV Environmental, 2016). The hardstand will be used for waste recycling activities including receiving, sorting and storing waste and crushing inert materials.

The clearing permit application form states 3.1 hectares of vegetation is within the application area, however based on digital aerial imagery, the then Department of Environment Regulation (DER) calculated the area to be 3.51 hectares. A DER site inspection found approximately 2.5 hectares of this area to have been impacted by clearing (Figure 1). As the cleared area has not been compacted and it does not appear that large trees were impacted by the clearing, the application area is likely to return to a pre-clearing state if left to regenerate (DER, 2017). Given this, the application area has been assessed as 3.51 hectares of vegetation.

Vegetation Description

The application area consists of the following two vegetation types which occupy approximately half of the area each (ATA Environmental, 2007):

- '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'; and
- 'Jarrah Tall Open Woodland with scattered *Banksia attenuata* and *B. menziesii* over *Xanthorrhoea preissii* and *Hibbertia hypericoides* Low Open Heath'.

The application area is mapped as Heddle vegetation complex 'Karrakatta Complex Central and South' which is described as 'predominantly open forest of *Eucalyptus gomphocephala* (tuart) - *Eucalyptus marginata* (jarrah) - *Corymbia calophylla* (marr) and woodland of *Eucalyptus marginata* (jarrah) - *Banksia* species', (Heddle et al., 1980).

Vegetation Condition

The vegetation within the application area is in a good to very good (Keighery, 1994) condition, described as:

- Good; Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994); and
- Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).

Local Area

The local area is defined as a five kilometre radius from the edge of the application area.

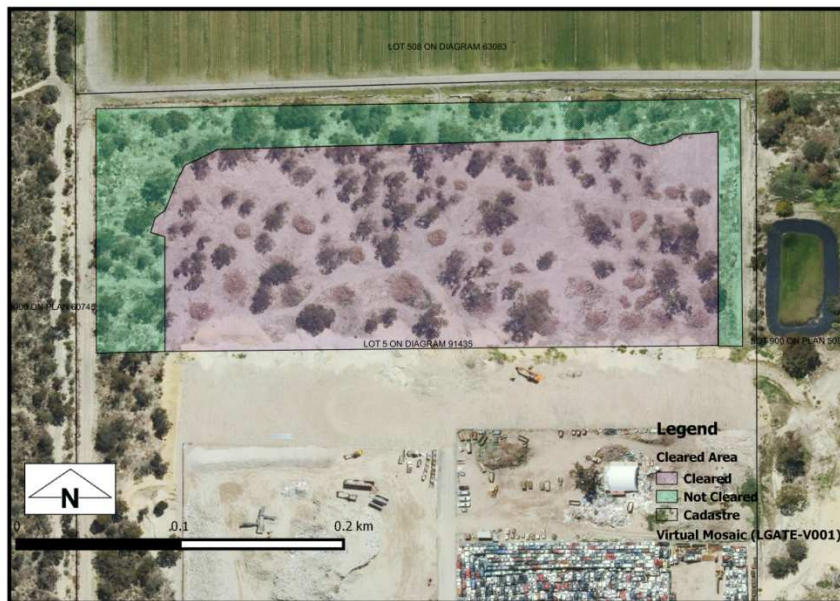


Figure 1: Cleared vegetation identified within the application area.

3. Minimisation and mitigation measures

No minimisation or mitigation measures have been proposed.

4. Assessment of application against clearing principles

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

Proposed clearing is at variance to this Principle

The application area comprises two vegetation types, both Jarrah (*Eucalyptus marginata*) dominated woodlands over diverse heath to shrubland (ATA Environmental, 2007).

The native vegetation within the application area is contiguous with 82 hectares of native vegetation on the property to the west, which contains a threatened ecological community (TEC), part of Bush Forever Site 295 and contributes to ecological connectivity across the local landscape.

A flora, vegetation and vertebrate fauna survey of the wider Neerabup Industrial Area was conducted by ATA Environmental in October 2006 and November 2006 (2006 Survey). The 2006 Survey included a level 2 flora and vegetation survey of Lot 5, which identified 127 species of native flora and 12 species of introduced flora and did not identify any threatened or priority flora within Lot 5 (ATA Environmental, 2007).

The 2006 Survey recorded 615 individual reptiles and mammals from 25 species and 2096 birds from 42 species (ATA Environmental, 2007). Two birds of conservation significance, namely Carnaby's cockatoo (*Calyptorhynchus latirostris*) and rainbow bee-eater (*Merops ornatus*), were recorded on Lot 5 (ATA Environmental, 2007).

As assessed under Principle (b), the application area represents suitable foraging habitat for Carnaby's cockatoo. The former Department of Parks and Wildlife (Parks and Wildlife) (Parks and Wildlife, 2017) advised that Lot 5 also supports habitat for a native bee (*Hylaeus globuliferus*, Priority 3) and forest red-tailed black cockatoo (*Calyptorhynchus banksii* subsp. *naso*).

As assessed under Principle (d) the vegetation within the application area may be representative of the TEC 'Banksia Dominated Woodlands of the Swan Coastal Plain', listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), if left to regenerate.

Given the number of flora and fauna species identified, the predominantly good to very good (Keighery, 1994) condition of the vegetation, the potential for the vegetation to be representative of a TEC and the presence of suitable foraging habitat for Carnaby's cockatoo, the application area comprises a high biological diversity.

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

(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.

Proposed clearing is at variance to this Principle

Fauna habitat within the application area is described as Jarrah (*Eucalyptus marginata*) dominated woodlands over diverse heath to shrubland. The native vegetation within the application area is contiguous with 82 hectares of native vegetation on the property to the west, which contributes to ecological connectivity across the local landscape.

The following rare and priority fauna have been recorded within the local area (five kilometre radius) (Parks and Wildlife, 2007-):

- Carnaby's cockatoo (*Calyptorhynchus latirostris*) – threatened
- native cricket (*Austrosaga spinifer*) – Priority 3
- native bee (*Hylaeus globuliferus*) – Priority 3
- native bee (*Leioproctus contrarius*) – Priority 3
- western brush wallaby (*Macropus irma*) – Priority 4
- blue-billed duck (*Oxyura australis*) – Priority 4
- graceful sunmoth (*Synemon gratiosa*) – Priority 4
- quenda (*Isoodon obesulus* subsp. *fusciventer*) – Priority 5

In addition, Parks and Wildlife advised that the forest red-tailed black cockatoo (*Calyptorhynchus banksii* subsp. *naso*) may utilise the vegetation within the application area as this species has been recorded breeding, roosting and foraging in Jarrah, which is found throughout the site (Parks and Wildlife, 2017). Carnaby's cockatoo is listed as endangered and forest red-tailed black cockatoo is listed as vulnerable under the *Biodiversity Conservation Act 2016* (BC Act) within the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* and EPBC Act.

Black cockatoos breed in large hollow-bearing trees, generally within woodlands or forests or in isolated trees. These species nest in hollows in live or dead trees of karri, marri, wandoo, tuart, salmon gum, jarrah, flooded gum, York gum, powder bark, bullich and blackbutt (Commonwealth of Australia, 2012). Six confirmed and four unconfirmed Carnaby's cockatoo roost sites are located within six kilometres of the application area, with the closest being approximately 1.2 kilometres to the east.

Biological surveys of the property were undertaken in 2006 and 2012 (ATA Environmental, 2007; PGV Environmental, 2012). The 2006 Survey mapped three potential Carnaby's cockatoo breeding trees within the application area. The 2012 Survey identified 26 trees with a diameter at breast height of greater than 500 millimetres within Lot 5, nine of which contained hollows and none of which were of sufficient size to support breeding for black cockatoos. Parks and Wildlife advised that if Carnaby's cockatoo breeding did occur on Lot 5, subsequent degradation through fires in the area are likely to have destroyed suitable hollows (Parks and Wildlife, 2017). The former Department of Environment Conservation (DEC) advised such degradation is likely to continue with encroaching development in the area, thus the vegetation is unlikely to recover to sustain breeding habitat in the future (DEC, 2013). Therefore the proposed clearing is unlikely to impact significant breeding habitat for black cockatoos.

Carnaby's cockatoo 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). Lot 5 contains Jarrah, *Banksia* spp. and *Grevillea* spp. which are known foraging species. The 2006 Survey recorded Carnaby's cockatoo foraging within Lot 5 on five out of the seven survey mornings (ATA Environmental, 2007). An environmental assessment of Lot 5 conducted by PVG Environmental in 2012 (2012 Survey) reported that the density of banksia trees in the application area was low and concluded that the quality of habitat as a foraging source was low (PGV Environmental, 2012).

The recovery plan for Carnaby's cockatoo defines breeding habitat as including nesting sites, and the foraging habitat and water sources within foraging distance of nesting sites (Parks and Wildlife, 2013). These areas are considered to be habitat critical to

the survival for Carnaby's cockatoo (Parks and Wildlife, 2013). The loss or degradation of foraging habitat within 12 kilometres of nesting sites is considered to pose the greatest risk to Carnaby's cockatoo (Saunders and Ingram, 1998; Parks and Wildlife, 2013). The recovery plan further notes that habitat critical to the survival of Carnaby's cockatoo reflects the distinct, but equally important, behavioural components during the breeding and non-breeding seasons (Parks and Wildlife, 2013). The long-term survival of a robust population of Carnaby's cockatoos depends on the availability of suitable woodland breeding habitat and tree hollows, and foraging habitat capable of providing enough food to sustain the population (Parks and Wildlife, 2013).

The extent of nearby suitable foraging habitat within the property to the west is acknowledged. However, noting the extent of development within the local area, size of the application area, number of roost sites in the local area, foraging records within the application area and the predominantly good to very good (Keighery, 1994) condition of the vegetation, the application area is considered to provide significant foraging habitat for Carnaby's cockatoo.

While the vegetation within the application area may provide suitable foraging habitat for forest red-tailed black cockatoo, considering the lack of observations of this species in the local area and the lack of large breeding hollows, the application area is unlikely to represent significant habitat for this species.

Parks and Wildlife (2017) advised that Lot 5 supports confirmed habitat for the graceful sunmoth (Priority 4), potential habitat for a native bee (*Hylaeus globuliferus*, Priority 3) and that the loss of habitat for this species in this location on the edge of intensive urban development may be significant.

Given the type and condition of the vegetation within the application area, it may provide suitable habitat for ground dwelling fauna including western brush wallaby (Priority 4) and quenda (Priority 5). While the proposed clearing may impact on a local population, given the size of the application area, wide distribution of these species and vegetation remaining within the local area, impacts are not likely to be significant.

Suitable habitat for the blue-billed duck (Priority 4) and the native cricket (Priority 3) is not located within the application area.

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

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

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

There is one record of threatened flora mapped in the local area, 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 huegeli*) (Brown et al., 1998). The habitat types identified within the application area is jarrah (*Eucalyptus marginata*) woodland over diverse heath to shrubland (ATA Environmental, 2007), which is not typical habitat for this species.

A flora survey of the application area did not record any threatened flora species (ATA Environmental, 2007).

Given the above, the proposed clearing is not likely to include, or be necessary for the continued existence of threatened flora. Therefore, the proposed clearing is not likely to be at variance to this Principle.

(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.

Proposed clearing may be at variance to this Principle

The TEC '*Banksia attenuata* woodland over species rich dense shrublands' (SCP20a) is located adjacent to Lot 5. This TEC is listed as endangered by the Western Australian Minister for Environment and forms part of the EPBC listed '*Banksia woodlands of the Swan Coastal Plain*' TEC. This TEC is listed as endangered under the EPBC Act. The 2006 Survey found that the vegetation on Lot 5 is not consistent with the TEC (ATA Environmental, 2007). The then Department of Environment Conservation (DEC) considered that the methodology and statistical analysis undertaken in the 2006 Survey was sufficient to make this determination (DEC, 2013).

Parks and Wildlife have advised that a 40 metre vegetated buffer would help minimise the impacts of the proposed clearing and future development on this TEC (Parks and Wildlife, 2013; Parks and Wildlife, 2017). The proposed clearing retains a 40 metre vegetated buffer from the TEC.

The recently listed TEC '*Banksia Woodlands of the Swan Coastal Plain*' has been mapped over the application area. The mapping of this TEC is based on indicative locations and has not been ground-truthed.

The key diagnostic characteristics for this TEC are outlined in the EPBC Act, approved conservation advice (Department of the Environment and Energy, 2016). In order to be representative, a patch usually contains a distinctive upper sclerophyllous layer of trees typically dominated or co-dominated by one or more of the listed *Banksia* species and often highly species-rich understorey (Department of the Environment and Energy, 2016). Statistical analysis undertaken in the 2006 Survey determined that the vegetation aligns with Floristic Community Type 21a (ATA Environmental, 2007). The approved conservation advice lists Floristic Community Type 21a as an associated vegetation type. Given this, the vegetation may align with the TEC.

The conservation advice lists the condition and patch size thresholds required to be considered part of the TEC (DotEE, 2016). In line with the conservation advice, vegetation in a degraded condition does not align with the TEC, two hectares of vegetation in good condition is required for a patch to align with the TEC and one hectare of very good condition vegetation. As the

application area covers 3.51 hectares of native vegetation, assessed in a good to very good condition, it meets the minimum size and condition threshold to be considered part of the TEC.

The conservation advice for the '*Banksia Woodlands of the Swan Coastal Plain*' states that areas considered critical to the survival of the Banksia Woodlands covers all patches that meet the key diagnostic characteristics and condition thresholds for the ecological community, plus the buffer zones, particularly where this comprises surrounding native vegetation (Department of the Environment and Energy, 2016). As the application area, as assessed, may meet the key diagnostic criteria for the TEC, it may be considered critical to the survival of the TEC.

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

(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.

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

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 (pre-European), below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001). In the Perth Metropolitan and Bunbury regions, the Environmental Protection Authority (EPA) has a modified objective to retain at least 10 per cent of the pre-clearing extent of vegetation complexes for defined constrained areas (intensely developed) (EPA, 2008). The application area is located within a constrained area.

The application area is located within an area that is experiencing intensive urban and industrial development. The local area (five kilometre radius) surrounding the application area retains 39.4 per cent native vegetation (3,277 hectares).

The application area is within the Swan Coastal Plain Interim Biogeographic Regionalisation of Australia bioregion and is mapped as Heddle vegetation complex 'Karrakatta Complex Central and South'. This vegetation type retains approximately 24 per cent pre-European extent remaining on the Swan Coastal Plain (Government of Western Australia, 2017).

Given the mapped vegetation type and local area are above the minimum threshold for the constrained Perth Metropolitan Region, the application area is not likely to comprise a significant remnant of native vegetation in an extensively cleared area.

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

Table 1: Vegetation remaining statistics

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in Parks and Wildlife Managed Lands (%)
IBRA Bioregion*				
Swan Coastal Plan	1,501,222	579,162	39	37
Heddle Vegetation Complex **				
Karrakatta Complex – Central and South	53,081	12,532	24	6

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

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

There are no watercourses or wetlands mapped within the application area. The 2006 Survey, 2012 Survey and a site inspection by DER did not identify the presence of wetlands or watercourses within the application area (ATA Environmental, 2007; PGV Environmental, 2012; DER, 2017).

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

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

Proposed clearing may be at variance to this Principle

The application area is mapped as soil type B24 which is described as 'Undulating dune landscape underlain by aeolianite which is frequently exposed with small swales of estuarine deposits. Chief soils are siliceous sands, with smaller areas of brown sands and leached sands in the wetter sites' (Northcote et al., 1960 - 1968).

The proposed clearing poses a risk of land degradation through wind erosion, as the sandy soils within the application area are considered to be highly erodible. Land degradation hazards mapping indicates more than 70 per cent of the mapped land unit has a high to extreme risk of wind erosion. Given the sandy soils present on site, the proposed clearing may result in wind erosion and, without appropriate management of the exposed surfaces, the proposal may cause appreciable land degradation.

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

Appropriate soil management and the proposed construction of a compacted limestone hardstand area would minimise this risk.

(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.

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

The local area contains numerous areas reserved for conservation and the application area is within two kilometres of conservation areas in all directions. Bush Forever site 295 is located approximately 500 metres south of the application and Bush Forever site 428 is located 1.3 kilometres north. Gngangara-Moore River State Forest extends to within approximately 1.8 kilometres east and two kilometres north of the application area.

The 3.51 hectares of proposed clearing is within a 4.11 hectare remnant in the northern part of the property which is adjacent to cleared areas on three sides. While the vegetation proposed to be cleared contributes to the ecological connectivity of state forest, bush forever sites and patches of remnant vegetation in the local area, given the separation distances to conservation areas and that the proposed clearing will not sever an intact linkage, the proposed clearing is unlikely to impact the environmental values of these areas.

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

(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.

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

There are no watercourses or wetlands mapped within the application area. A conservation category wetland, Lake Pinjar, is located approximately 1.3 kilometres northeast of the application area. Given the distance to the closest waterbody the proposed clearing is not likely to cause deterioration in the quality of surface water.

The groundwater salinity within the application area is less than 500 milligrams per litre total dissolved solids and the salinity risk has been mapped as low. Phosphorus export risk is also mapped as low.

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

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

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

The mapped soil land unit has a low risk of flooding. Given the sandy soils within the application area, the proposed clearing is not expected to cause or exacerbate the incidence or intensity of flooding.

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

Planning instruments and other relevant matters.

The application is to clear 3.51 hectares of native vegetation within Lot 5 on Diagram 91435, Neerabup, for the purpose establishing a hardstand area of compacted limestone (PGV Environmental, 2016). The hardstand is proposed to be used for waste recycling activities, including receiving, sorting and storing waste and crushing inert materials. A DER site inspection found approximately 2.5 hectares of this area to have been impacted by clearing (Figure 1).

A works approval for the proposed land use has been granted under Part V of the EP Act. In accordance with Schedule 6 clause 2(c) of the EP Act, any clearing that is done in accordance with a works approval or licence would not require a clearing permit. At the time of granting Works Approval W5942/2015/1 (granted 20 April 2016), the assessment of the proposed clearing had not been completed and therefore, condition 1.2.4 of the Works Approval was imposed, requiring the grant of a clearing permit.

Lot 5 is 20.24 hectares in size and prior to 2004 was approximately 85 per cent (17.2 hectares) vegetated. Two clearing permits have previously been granted for the property:

- Clearing permit CPS 3761/1 was granted in 2010 to Dani Narelle Russell and authorised the harvesting of 125 grass trees (*Xanthorrhoea* sp.) and 25 zamia palms (*Macrozamia* sp.) within an area approximately 0.5 hectares in size in the south-western corner of Lot 5.
- Clearing permit CPS 5362/1 was granted in 2013 to Alvito Pty Ltd for the clearing of 7.14 hectares of native vegetation on Lot 5. In accordance with condition 2 of Clearing Permit CPS 5362/1, Alvito Pty Ltd provided funds of \$25,000 to DER to purchase 22 hectares of native vegetation for conservation to counterbalance residual impacts to black cockatoo foraging habitat and an area of high biodiversity. During the assessment for Clearing Permit CPS 5362/1, the applicant advised black cockatoo foraging habitat and ten significant trees were to be retained within 'the area not to be cleared' at the north of the property (Landvision, 2013). The portion of Lot 5 comprising 'the area not to be cleared' includes an area of approximately 1.2 hectares that has since been cleared and the 3.51 hectare application area.
- The retention of the 10 significant trees and 'area not to be cleared' was considered in the grant of CPS 5362/1 as avoidance and mitigation measures however was not conditioned to be retained on the permit.

The alleged clearing of approximately two hectares of native vegetation on Lot 5 in the absence of a clearing permit is currently under investigation by DWER. In a separate matter, on 4 February 2013, the former DEC wrote to the director of Alvito Pty Ltd in relation to the clearing of 2.4 hectares of native vegetation on Lot 5 between March 2010 and April 2012 stating that any further clearing of native vegetation must comply with the clearing provisions of the *Environmental Protection Act 1986*, and its associated regulations.

The applicant holds an existing groundwater licence (GWL179117). The former Department of Water's online Water Register indicates the licence expires 29 June 2024 and has an allocation of 10,000 kilolitres. The applicant's consultant advised the groundwater is used to supply water for the purpose of dust suppression, staff amenities and other light industry uses (IW Projects, 2015).

The property is zoned 'Industrial' under the Metropolitan Regional Scheme. In relation to Clearing Permit CPS 5362/1 (expired), the City of Wanneroo advised the land is zoned Industrial Development under the City of Wanneroo's District Planning Scheme No. 2 and is subject to Agreed Structure Plan No. 17 which designates the land as General Industrial (City of Wanneroo, 2012).

The City of Wanneroo issued planning approval to Alvito Pty Ltd for a change of use to Industry - General (Storage and Sorting Activities) within part of Lot 5 on Deposited Plan 91435. The planning approval does not cover the application area (City of Wanneroo, 2016). The City of Wanneroo has advised that further planning approval is required from the City should the landowner wish to lease out area which is not covered by the current planning approval (City of Wanneroo, 2016). The required planning approval has not been received to date.

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

The clearing permit application was advertised in *The West Australian* newspaper on 12 December 2016 with a 21 day submission period. No submissions from the public have been received in relation to this application.

5. Suitability of Offset

Through assessment of the application it was determined that the proposed clearing will result in the following significant residual environmental impacts:

- 3.51 hectares of feeding habitat for Carnaby's cockatoo (*Calyptorhynchus latirostris*), listed as rare or likely to become extinct under the BC Act and endangered under the EPBC Act; and
- 3.51 hectares of vegetation that contains a high biodiversity and may impact the threatened ecological community, '*Banksia Dominated Woodlands of the Swan Coastal Plain*'.

A calculation using the Commonwealth Environmental Offsets Calculator was undertaken to determine the size of offset required to offset the significant residual impacts of the proposed clearing. It was determined that securing 38.99 hectares of Carnaby's cockatoo habitat and banksia woodland TEC for conservation, would offset the significant residual impact of the clearing.

On 22 November 2017, a meeting was held with the applicant (Mr Stampalia), the applicant's consultant (Mr Frank Borello), and DWER representatives. DWER's offset procedure and how offset figures are calculated were explained. The offset calculator for CPS 6955/1 and area of land required to offset the identified environmental impact was presented to the applicant.

To date, no offset proposal has been received by or on behalf of the applicant.

6. References

- ATA Environmental (2007) Consultant's Report: Flora, Vegetation and Vertebrate Fauna Assessment; Lot 5, Neerabup. ATA Environmental. DER Ref: A587113
- Brown, A., Thomson-Dans, C. and Marchant, N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.
- City of Wanneroo (2012) Advice in relation to Clearing Permit Application CPS 5362/1, Lot 5 Flynn Drive, Neerabup. DER Ref: A583364.
- City of Wanneroo (2016) Advice received in relation to Planning approval for Lot 5 (190) Flynn Drive Neerabup - Retrospective approval for change of use to storage and sorting park issued 2 December 2015. Received 13 October 2016. DER Ref: A1178633.
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Commonwealth of Australia (2012) EPBC Act referral guidelines for three threatened black cockatoo species. Department of Sustainability, Environment, Water, Populations and Communities, Canberra.
- Department of Environment and Conservation (DEC) (2013) Threatened Ecological Community Advice for Clearing Permit CPS 5362/1. Species and Communities Branch. Department of Environment and Conservation, Western Australia. DER Ref: A628444, A672155.
- Department of the Environment and Energy (2016) Approved Conservation Advice (incorporating listing advice) for the Banksia Woodlands of the Swan Coastal Plain ecological community. Conservation Advice approved 26 August 2016. Listing effective 16 September 2016.
- Department of Parks and Wildlife (Parks and Wildlife) (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dpaw.wa.gov.au/>. Accessed 21 March 2016.
- Department of Parks and Wildlife (Parks and Wildlife) (2013a) Carnaby's cockatoo (*Calyptorhynchus latirostris*) Recovery Plan. Western Australian Wildlife Management Program No. 52. Department of Parks and Wildlife Locked Bag 104, Bentley Delivery Centre, Perth, WA 6983.
- Department of Parks and Wildlife (Parks and Wildlife) (2013b) Threatened Ecological Community Buffer Advice for Clearing Permit CPS 5362/1. Species and Communities Branch. Department of Parks and Wildlife. Western Australia. DER Ref: A672155.
- Department of Parks and Wildlife (Parks and Wildlife) (2017) Advice received for Clearing Permit CPS 5362/1 from Dr Margaret Byrne. Director Science and Conservation. Department of Parks and Wildlife. Western Australia.
- Environmental Protection Authority (EPA) (2008) Environmental Guidance for Planning and Development. Guidance Statement No 33. Environmental Protection Authority, Western Australia.
- Government of Western Australia. (2015). 2015 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full CPS 6955/1

Report). Current as of June 2015. WA Department of Parks and Wildlife, Perth.

Government of Western Australia. (2017) 2016 South West Vegetation Complex Statistics. Current as of December 2016. WA Department of Parks and Wildlife, 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.

IW Projects (2015) Incredible Bulk - Area 17, 190 (Lot 5) Flynn Drive Neerabup. Works Approval Application Supporting Documentation. 24 November 2015. DER Ref: A1015949.

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Landvision Pty Ltd (2013) Response to Department of Environment and Conservation's letter dated 9 May 2013 in relation to clearing permit application CPS 5362/1. Landvision, 22 May 2012. DER Ref: A633029

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. DER Ref: A565086

PGV Environmental (2016) Clearing permit application form for Lot 5 Flynn Drive Neerabup. Received 15 February 2016. DER Ref: A1050880

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.

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.

GIS Database List

- Aboriginal Sites of Significance
- DPaW Estate
- Hydrography, linear
- Land degradation risk categories
- Pre-European vegetation
- RIWI, PDWSA, CAWS Areas
- SAC Bio datasets
- Soils, statewide