



## CLEARING PERMIT

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

### ADVICE NOTE

In regards to condition 5, it is noted that the Permit Holder has allocated 481 hectares of its banked offset site at Lot 1 on Plan 12354, Mindarra, to this project. The nominated 481 hectare area contains similar environmental values to the application area, being; habitat for Carnaby's cockatoo (*Calyptorhynchus latirostris*) and vegetation commensurate with the *Banksia* Woodlands of the Swan Coastal Plain threatened ecological community.

### PERMIT DETAILS

Area Permit Number: 7405/1  
File Number: DER2016/002484  
Duration of Permit: From 8 May 2019 to 8 May 2024

### PERMIT HOLDER

Western Australian Land Authority T/A Landcorp

### LAND ON WHICH CLEARING IS TO BE DONE

Lot 503 on Deposited Plan 409677, Neerabup

### AUTHORISED ACTIVITY

The Permit Holder must not clear more than 93.4 hectares of native vegetation within the area hatched yellow on attached Plan 7405/1(a).

### CONDITIONS

#### 1. Avoid, minimise and reduce the impacts and extent of clearing

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

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

#### 2. Dieback and weed control

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds* and *dieback*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

#### 3. Wind erosion management

The Permit Holder shall not clear native vegetation unless the works approved under condition 1 of this Permit commence within three months of the authorised clearing being undertaken.

#### 4. Fauna Management

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

## 5. Offset – Land Transfer

- (a) The Permit Holder must fund the purchase of the area cross hatched red on attached Plan 7405/1(b) to be ceded to the Department of Biodiversity Conservation and Attractions for conservation.
- (b) The Permit Holder shall provide documentary evidence to the CEO that the area cross hatched red on attached Plan 7405/1(b) has been ceded to the Department of Biodiversity Conservation and Attractions within three months of executing the land transfer.

## 6. Flora management

- (a) Prior to undertaking any clearing within vegetation community BsOH, as shown on Appendix 1, the Permit Holder shall engage a *botanist* to conduct a *targeted flora survey* for the presence of *Melaleuca* sp. Wanneroo (G.J. Keighery 16705).
- (b) Where *Melaleuca* sp. Wanneroo (G.J. Keighery 16705) is identified under Condition 6(a) of this Permit, the Permit Holder shall ensure that:
  - (i) no clearing of *Melaleuca* sp. Wanneroo (G.J. Keighery 16705) occurs; and
  - (ii) no clearing within 50 metres of *Melaleuca* sp. Wanneroo (G.J. Keighery 16705) occurs, unless first approved by the CEO.

## 7. Records must be kept

The Permit Holder must maintain the following records for activities done in pursuant to this Permit:

- (a) In relation to the clearing of native vegetation authorised under this Permit:
  - (i) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
  - (ii) the date that the area was cleared; and
  - (iii) the size of the area cleared (in hectares).
- (b) Actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 1 of the Permit.
- (c) Actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with condition 2 of the Permit;
- (d) The date works commenced in accordance with condition 3 of the Permit;
- (e) In relation to flora management pursuant to condition 6 of this Permit:
  - (i) the location of each *Melaleuca* sp. Wanneroo (G.J. Keighery 16705) recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees; and
  - (ii) a copy of the botanists flora survey report.

## 8. Reporting

- (a) The Permit Holder must provide to the *CEO* on or before 30 June of each year, a written report:
  - (i) of records required under condition 7 of this Permit; and
  - (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding calendar year.
- (b) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar, a written report confirming that no clearing under this permit has been carried out, must be provided to the *CEO* on or before 30 June of each year.
- (c) Prior to 8 February 2024, the Permit Holder must provide to the *CEO* a written report of records required under condition 7 of this Permit where these records have not already been provided under condition 8(a) of this Permit.

## DEFINITIONS

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

***botanist***: means a person who holds a tertiary qualification in environmental science or equivalent, and has a minimum of 2 years work experience in identification and surveys of flora native to the bioregion being inspected or surveyed, or who is approved by the CEO as a suitable botanist for the bioregion;

**CEO** means the Chief Executive Officer of the Department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*;

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


**fill** means material used to increase the ground level, or fill a hollow;

**mulch** means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation; and

**targeted flora survey:** means a field-based investigation, including a review of established literature, of the biodiversity of flora and vegetation of the Permit Area, focusing on habitat suitable for flora species that are being targeted and carried out during the optimal time to identify those species. Where target flora are identified in the Permit Area, the survey should also include sufficient surrounding areas to place the Permit Area into local context;

**weed/s** means any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
- (b) published in a Department of Biodiversity, Conservation and Attractions Regional Weed Rankings Summary, regardless of ranking; or
- (c) not indigenous to the area concerned.

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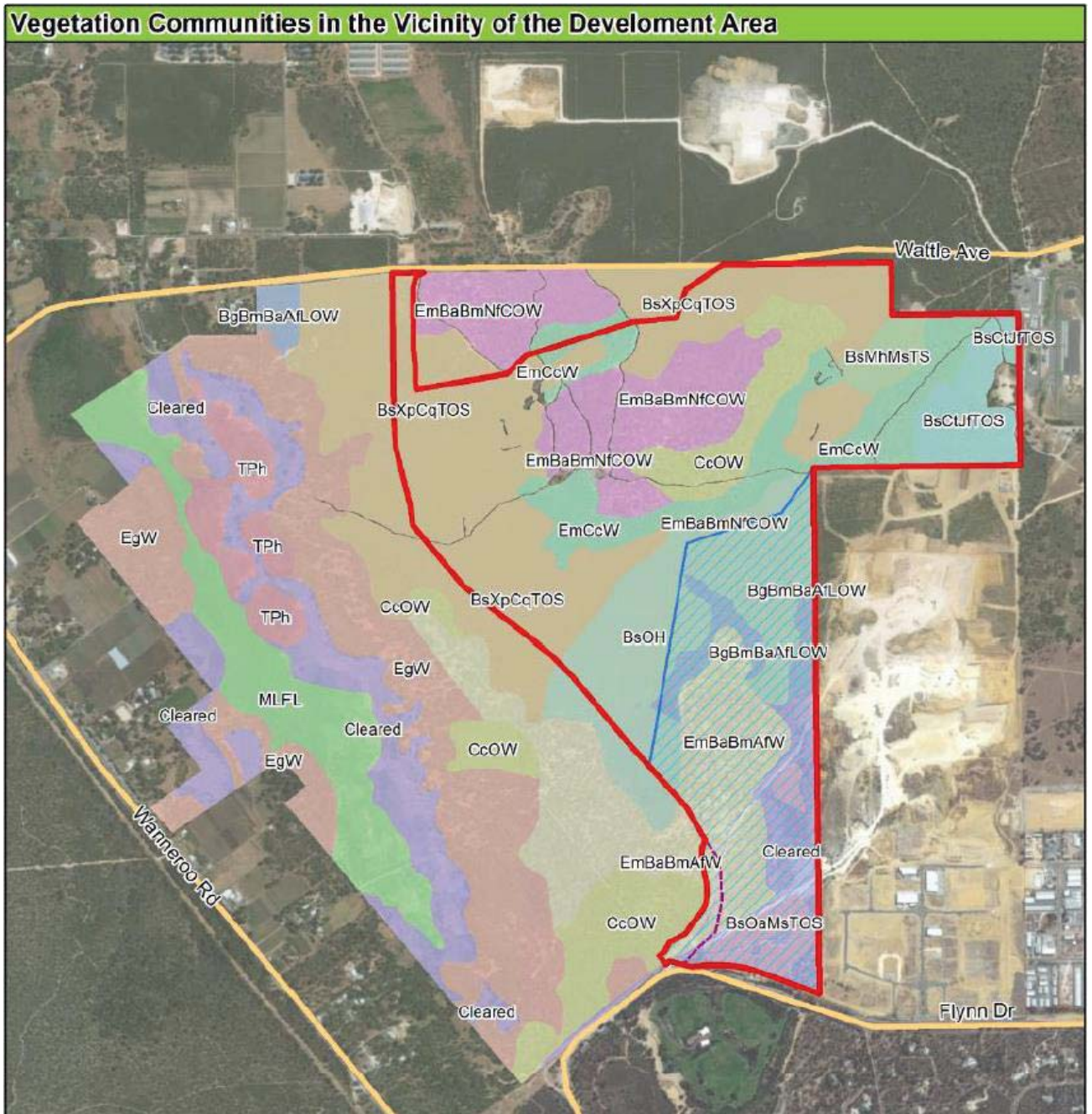
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Ryan Mincham  
MANAGER  
NATIVE VEGETATION REGULATION

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

11 April 2019

# APPENDIX 1



# Plan 7405/1(a)

115°45.300'

115°46.200'

115°47.100'

-31°39.900'

-31°39.900'

-31°40.800'

-31°40.800'



115°45.300'

115°46.200'

115°47.100'

**Legend**

CPS areas approved to clear base layers

Road Centrelines

Cadastre Image



0 200 400 600 800 m



MGA 94  
Geocentric Datum of Australia 1994

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



GOVERNMENT OF WESTERN AUSTRALIA

# Plan 7405/1(b)

115°55.200'

115°56.100'

115°57.000'

115°57.900'

115°58.800'

-31°7.500'

-31°8.400'

-31°9.300'

-31°10.200'

-31°7.500'

-31°8.400'

-31°9.300'

-31°10.200'



115°55.200'

115°56.100'

115°57.000'

115°57.900'

115°58.800'

## Legend

 CPS subject to conditions

base layers

 Road Centrelines

 Cadastre

Image



0 400 800 1200 1600 m



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Geocentric Datum of Australia 1994

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



GOVERNMENT OF  
WESTERN AUSTRALIA



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 7405/1  
Permit type: Area Permit

### 1.2. Applicant details

Applicant's name: Western Australian Land Authority T/A Landcorp  
Application received date: 14 December 2016

### 1.3. Property details

Property: LOT 503 ON DEPOSITED PLAN 409677  
Local Government Authority: WANNEROO, CITY OF  
Localities: NEERABUP

### 1.4. Application

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

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 11 April 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), (b) and (d), may be at variance to principles (c), (g) and (h) and is not likely to be at variance to the remaining principles.

Through assessment it was determined that the application area contains 69.2 hectares of foraging habitat for Carnaby's cockatoo (*Calyptorhynchus latirostris*) and vegetation synonymous with the *Banksia* Woodlands of the Swan Coastal Plain threatened ecological community.

To mitigate the significant residual environment impacts identified above, and in accordance with the WA Environmental Offset Policy and Environmental Offsets Guidelines the applicant has allocated 481 hectares of its banked offset site at Lot 1 on Plan 12354, Mindarra to this project.

Through assessment it was determined that the application area may support ground dwelling fauna, such as, the western brush wallaby (*Macropus irma*) and quenda (*Isodon obesculus fusciventer*). A condition has been added to the permit requiring slow progressive clearing towards areas of retained native vegetation to minimise impacts to ground dwelling fauna.

Through assessment it was also identified that threatened flora species, *Melaleuca* sp. Wanneroo (G.J. Keighery 16705), has the potential to occur within vegetation community type BsOH. A condition has been added to the permit requiring this vegetation type to be surveyed prior to clearing and to not clear within 50 metres of the species if identified, unless first approved by the CEO.

The Delegated Officer determined that the proposed clearing may increase the spread of weeds and dieback into adjacent vegetation. To minimise this impact, a condition has been placed on the permit requiring the implementation of weed and dieback management measures.

It was also determined that the proposed clearing may cause appreciable land degradation in the form of wind erosion. To minimise the impacts of wind erosion a condition has been placed on the permit requiring works to commence within three months of clearing.

Given the above, the Delegated Officer decided to grant a clearing permit subject to weed and dieback management, fauna management, wind erosion and offset conditions.

## 2. Site Information

<b>Clearing Description</b>	The application is to clear 93.4 hectares of native vegetation within Lot 503 on Deposited Plan 409677, Neerabup, for the purposes of extractive industry and industrial development (Figure 1).
<b>Vegetation Description</b>	<p>The application area has been mapped as Heddle vegetation complex Cottesloe – Central and South: Mosaic of woodland of <i>Eucalyptus gomphocephala</i> (tuart) and open forest of tuart - <i>Eucalyptus marginata</i> (jarrah) - <i>Corymbia calophylla</i> (marri); closed heath on the limestone outcrops (Heddle <i>et al.</i>, 1980).</p> <p>In Spring 2008, a flora and vegetation survey of the former Lot 21 Flynn Drive, Neerabup was conducted. Lot 21 comprised approximately 437 hectares and included the application area.</p> <p>Vegetation mapping associated with the 2008 survey identified six vegetation types within the application area being (Ecoscape, 2016a);</p> <p>BsOH (26.5 hectares): <i>Banksia sessilis</i> Open Heath with scattered <i>Xanthorrhoea preissi</i> over Low Open Heath dominated by <i>Calothamnus quadrifidus</i> and <i>Hibbertia hypericoides</i>. This area has been mapped as being in a very good to excellent (Keighery, 1994) condition.</p> <p>EmBaBmAfW (31.7 hectares): <i>Eucalyptus marginata</i>, <i>Banksia attenuata</i>, <i>B. menziesii</i> and <i>Allocasuarina fraseriana</i> Woodland. This area has been mapped as being in good (Keighery, 1994) condition.</p> <p>BsOaMsTOS (9 hectares): <i>Banksia sessilis</i>, <i>Olearia axillaris</i> and <i>Melaleuca systema</i> Tall Open Scrub. This area has been mapped as being in a very good (Keighery, 1994) condition.</p> <p>BgBmBaAfLOW (9.1 hectares): <i>Banksia grandis</i>, <i>B. menziesii</i>, <i>B. attenuata</i> and <i>Allocasuarina fraseriana</i> Low Open Woodland. This area has been mapped as being in a very good (Keighery, 1994) condition.</p> <p>CcOW (0.2 hectares): <i>Corymbia calophylla</i> Open Woodland over <i>Allocasuarina fraseriana</i>, <i>Banksia attenuata</i>. Low Open Woodland. This area has been mapped as being in good (Keighery, 1994) condition.</p> <p>EmCcW (0.2 hectares): <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> Woodland. This area has been mapped as being in a very good (Keighery, 1994) condition.</p> <p>The remaining area has been mapped as being in a completely degraded (Keighery, 1994) condition.</p> <p>The above vegetation descriptions and conditions were consistent with observations from a site inspection conducted by former Department of Environment Regulation staff on 27 February 2017.</p>
<b>Vegetation Condition</b>	<p>Excellent; Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994).</p> <p>To</p> <p>Completely Degraded; No longer intact, completely/almost completely without native species (Keighery, 1994).</p>
<b>Soil type</b>	<p>The application area has been mapped as the following soil types (Schoknecht <i>et al.</i>, 2004):</p> <ul style="list-style-type: none"><li>• Karrakatta Shallow Soils Phase (approximately 60 per cent of application area): Bare limestone or shallow siliceous or calcareous sand over limestone.</li><li>• Karrakatta Sand Yellow Phase (approximately 40 per cent of application area): Yellow sand over limestone at 1-2 metres.</li></ul>
<b>Comment</b>	The local area considered in the assessment of this application is defined as a 10 kilometre radius measured from the centre of the application area.



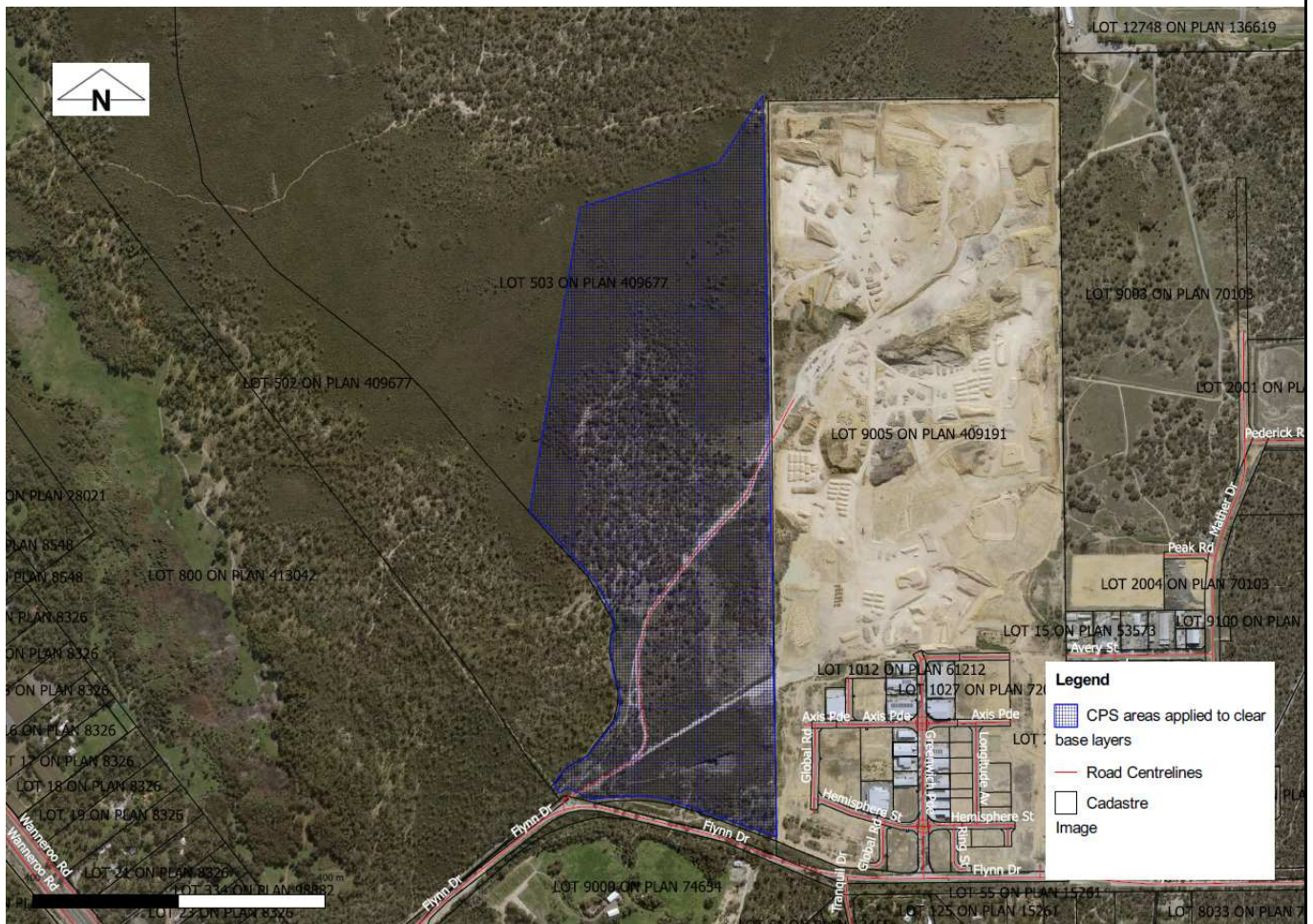


Figure 1: Application Area

### 3. Minimisation and mitigation measures

The project was initially for a larger area involving the clearing of 218 hectares and has since been reduced to 93.4 hectares to avoid and minimise potential environmental impacts.

The clearing is proposed to take place progressively over five years. Clearing will be subject to a Construction Environmental Management Plan (CEMP) to reduce the impact on retained vegetation until it is scheduled for clearing (Eco Logical, 2016b).

A quarry and earthworks contract will also address management of potential environmental impacts associated with other requirements during construction and operation of the quarry (e.g. fauna relocation, erosion management, storage and handling of chemicals and hydrocarbons, groundwater and surface water quality management).

### 4. Assessment of application against clearing principles

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

##### Proposed clearing is at variance to this Principle

The applicant proposes to clear 93.4 hectares of native vegetation within Lot 503 on Deposited Plan 409677, Neerabup, for the purposes of extractive industry and industrial development.

In Spring 2008, a flora and vegetation survey of the former Lot 21 Flynn Drive, Neerabup was conducted. Lot 21 comprised approximately 437 hectares and included the application area. The survey of the 437 hectare area identified 153 flora species which was compiled from sampling 21 floristic quadrats, six of which were located within the application area (Ecoscape, 2009).

Two main vegetation types were observed within the application area, being;

1. BsOH (26.5 hectares): *Banksia sessilis* Open Heath with scattered *Xanthorrhoea preissi* over Low Open Heath dominated by *Calothamnus quadrifidus* and *Hibbertia hypericoides*.
2. EmBaBmAfW (31.7 hectares): *Eucalyptus marginata*, *Banksia attenuata*, *B. menziesii* and *Allocasuarina fraseriana* Woodland.

(Ecoscape, 2009)

Two floristic community types (FCT) were recorded within the application area being; FCT 24 – Northern Spearwood shrublands and woodlands and FCT 28 – Spearwood *Banksia attenuata* or *B. attenuata* – *Eucalyptus* sp. woodlands.

Four of the six quadrats sampled within the application area were identified as FCT 24. This FCT is recognised as a Priority 3 ecological community.

On 16 September 2016, the Commonwealth Department of the Environment and Energy (DotEE) listed *Banksia* Woodlands of the Swan Coastal Plain ecological community as endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The broad scale mapping of this threatened ecological community (TEC) indicates that it is likely to occur within the application area. The approved conservation advice for this TEC indicates that FCT 24 has a relationship with this TEC (Parks and Wildlife, 2017a). The conservation advice also states that certain vegetation components of the TEC are recognised as threatened and are priorities for protection and this includes FCT 24 (Parks and Wildlife, 2017a).

Twenty five priority and two threatened flora species have been recorded within the local area (10 kilometre radius). The spring flora survey conducted by Ecoscape in 2008 did not identify any threatened or priority flora within the application area. Since this time several species recorded within the local area have been added to the Priority Flora List (Parks and Wildlife, 2017b). These species are not likely to have been targeted in the 2008 flora survey. Of these species, it is considered that four have the potential to occur within the application area (Parks and Wildlife, 2017b).

The first of these species is *Baeckea* sp. Limestone (N. Gibson & M.N. Lyons 1425). This species was listed as Priority 1 in December 2012. There is suitable habitat present within the application area for *B. sp. Limestone* (N. Gibson & M.N. Lyons 1425) which has been recorded as occurring on sand over limestone and has been recorded in *Banksia*, jarrah and tuart woodland. *B. sp. Limestone* (N. Gibson & M.N. Lyons 1425) (P1) is known from a restricted range on coastal limestone between Seabird and North Beach on the Swan Coastal Plain over approximately 75 kilometres. Of the five locations, one is most likely extinct. From WA Herbarium data there are approximately 12 populations, five of which appear to have been cleared already with another two most likely cleared, leaving only five that may be extant (Parks and Wildlife, 2017b).

The second species is *Leucopogon* sp. Murdoch (M. Hislop 1037) (P3). This species was listed as Priority 3 in December 2016. There is potentially suitable habitat present within the application area for *L. sp. Murdoch* (M. Hislop 1037) (P3) which has been recorded on yellow/brown/grey sand on sandplains and winter wet swamps within *Banksia* and jarrah woodland. *L. sp. Murdoch* (M. Hislop 1037) (P3) is known from approximately 12 locations from 36 WA Herbarium collections between Eneabba south to Harvey on the Swan Coastal Plain and Lesueur Sandplain (Parks and Wildlife, 2017b).

Most populations are very small, consisting of few, scattered plants (Parks and Wildlife, 2017b). If present within the application area there is potential for significant impacts on a local scale, however the proposed clearing is unlikely to have a significant impact to the overall conservation status of the species (Parks and Wildlife, 2017b).

The third species is *Fabronia hampeana* (P2), a moss which has been recorded as growing on trunks of *Macrozamia* species. The 2008 flora report states that there was no information on Florabase for *Fabronia hampeana* and so this species "was effectively excluded from the search". *Fabronia hampeana* has been recorded as a "highly distinctive moss, endemic to Western Australia, and easily recognized by its silvery green, imbricate, linear-lanceolate leaves that have numerous, long, single-celled cilia along the margins" (Nuytsia 18: 1–30 (2008)). *Macrozamia riedlei* was recorded within the application area (Quadrat 5 and 13) and thus the species has the potential to occur within the application area. *Fabronia hampeana* is known from four widespread locations in WA; Eneabba, Mindarie/Tamala Park, Floreat, and Dalyup near Esperance. Locally this species is known from two populations both on private property with one subpopulation within a Bush Forever site. One of these populations has already been partially cleared (one of four subpopulations) for housing and another may have been cleared for the Mitchell Freeway extension (Ministerial Statement 629) (Parks and Wildlife, 2017b). Whilst this species is present in the local area, those populations are also under threat from clearing and so if present within the application area, the proposed clearing has the potential to have a significant impact on a local scale. The proposed clearing, however, is unlikely to have a significant impact on the overall conservation status of this species. Given the widespread distribution of *Fabronia hampeana*, and the widespread distribution of its known host, *Macrozamia*, and being a moss species it is likely to be under collected (Parks and Wildlife, 2017b).

The fourth species is *Poranthera moorokatta* (P2). A new population of *Poranthera moorokatta* was located in 2012 approximately 2.5 kilometres from the application area. This species was not previously recorded within the local area and, therefore is not likely to have been targeted in the 2008 survey. There is suitable habitat for this species within the application area. The population nearby is located within similar habitat (*Banksia attenuata*, *Banksia menziesii*, *Allocasuarina fraseriana* low woodland over *Xanthorrhoea preissii* open shrubland over *Hibbertia hypericoides*, *Calothamnus sanguineus*, *Calytrix flavescens* low shrubland over *Mesomelaena pseudostygia* scattered sedges). *Poranthera moorokatta* is a small (16-47 millimetres tall) annual herb, recorded flowering in late September to early November. Whilst the 2008 survey by Ecoscape was undertaken within the flowering period of this species it may not have been specifically targeted and could have been easily overlooked given its small size. *Poranthera moorokatta* is known from three locations and one unconfirmed location (Parks and Wildlife, 2017b).

A site inspection undertaken by former Department of Environment Regulation (DER) staff on 27 February 2017 identified what is most likely to be Priority 4 species *Jacksonia sericea* within the application area (DER, 2017). A record of this species from 2001 is mapped within 500 metres of the application area within Bush Forever site 384. According to the location description of the record, the species was recorded from Lot 21 Flynn Drive, Neerabup. The potential population identified within the application area may represent the 2001 record.

Priority 4 species are defined as species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. This species has been recorded within nearby Bush Forever Site 293 and approximately 6020 individuals were recorded within a flora survey undertaken for a project located within four kilometres of the application area. Given its Priority 4 status and nearby records, the proposed clearing is not likely to impact upon the conservation status of this species.

As discussed in Principle (c) one threatened flora species, *Melaleuca* sp. Wanneroo (G.J. Keighery 16705), has the potential to occur within one of the vegetation types mapped within the application area.

As discussed in Principle (b) nine terrestrial fauna species listed as specially protected under the *Biodiversity Conservation Act 2016* (BC Act) within the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* have been recorded within the local area. The application area contains 69.2 hectares of significant foraging habitat for Carnaby's cockatoo.

The application area contains vegetation in very good to excellent (Keighery, 1994) condition and significant habitat for Carnaby's cockatoo. The application area may also contain priority and threatened flora, and vegetation representative of a TEC. Therefore, the application area contains a high level of biodiversity and the proposed clearing is at variance to this principle.

To offset the residual impacts outlined above, the proponent has allocated 481 hectares of its banked offset site at Lot 1 on Plan 12354, Mindarra to this project.

**(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.**

**Proposed clearing is at variance to this Principle**

Nine terrestrial fauna species, listed as specially protected under the BC Act within the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* have been recorded within the local area, including; Baudin's cockatoo (*Calyptorhynchus baudinii*), Carnaby's cockatoo (*Calyptorhynchus latirostris*), woylie (*Bettongia penicillata* subsp. *ogilbyi*), curlew sandpiper (*Calidris ferruginea*), chuditch (*Dasyurus geoffroii*), western barred bandicoot (*Perameles bougainville* subsp. *bougainville*), black-flanked rock-wallaby (*Petrogale lateralis* subsp. *lateralis*), Rottneest dugite (*Pseudonaja affinis* subsp. *exilis*) and fairy tern (*Sterna nereis* subsp. *nereis*) (Parks and Wildlife, 2007-).

Two main vegetation types were recorded within the application area, being;

1. BsOH: *Banksia sessilis* Open Heath with scattered *Xanthorrhoea preissi* over Low Open Heath dominated by *Calothamnus quadrifidus* and *Hibbertia hypericoides*.
2. EmBaBmAfW: *Eucalyptus marginata*, *Banksia attenuata*, *B. menziesii* and *Allocasuarina fraseriana* Woodland.

(Ecoscape, 2009)

In Autumn (late March – early April) 2012, Eco Logical Australia conducted a vertebrate fauna survey of former Lot 701 Flynn Drive, Neerabup. The former Lot 701 covered an area of 435.5 hectares and included the application area. This fauna survey identified that the survey area supported a diverse range of vertebrate fauna species. A total of 69 vertebrate species were recorded in the field (Eco Logical, 2012).

The fauna survey identified that four mammals, twelve birds and three reptile species of conservation significance could potentially occur in the survey area. Of these, two mammals, two birds and two reptiles were either recorded or are likely to occur within the survey area. These species are:

**Recorded**

Carnaby's cockatoo (*Calyptorhynchus latirostris*) Endangered (State & Federal)

Rainbow bee-eater (*Merops ornatus*) Migratory (State & Federal)

South-west carpet python (*Morelia spilota imbricata*) Other Specially Protected Fauna (State)

**Likely to Occur**

Black-striped snake (*Neelaps calonotus*) Priority 3 (State)

Western brush wallaby (*Macropus irma*) Priority 4 (State)

Quenda (*Isoodon obesculus fusciventer*) Priority 5 (State)

Carnaby's cockatoo is listed as endangered under the EPBC Act. Carnaby's cockatoo breed in large hollow-bearing trees, generally within woodlands or forests or in isolated trees (Commonwealth of Australia, 2012). This species nests 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).

Within former Lot 701, 143 trees with hollows greater than 10 centimetres were recorded, three of which were observed within the application area (Eco Logical, 2015), none of which showed evidence of use. The majority of potential breeding trees are tuart, but also includes some jarrah and marri (Eco Logical, 2015).

Twenty two Carnaby's cockatoo roost sites have been recorded within the local area, the closest of which is located approximately 350 metres north of the application area.

Black cockatoos have a preference for foraging habitat that includes jarrah and marri woodlands and forest heathland and woodland dominated by proteaceous plant species such as *Banksia* sp., *Hakea* sp. and *Grevillea* sp. (Commonwealth of Australia, 2012).

Approximately 69.2 hectares of Carnaby's cockatoo foraging habitat has been recorded within the application area. This includes 44.6 hectares of high value foraging habitat (vegetation in very good (Keighery, 1994) or better condition) and 24.6 hectares of medium value foraging habitat (vegetation in good (Keighery, 1994) condition) (Eco Logical, 2015).

The rainbow bee-eater is a migratory species that arrives in the south west of Western Australia in late September-early October nesting in burrows dug in the ground. No breeding hollows were observed on site during the fauna survey, however,

the sandy substrate available provides potentially suitable nesting areas (Eco Logical, 2012). Although this species was present within the application area, given its large distribution and large population size (DotEE, 2017), it is not likely to be significantly impacted by the proposed clearing.

The south west carpet python occurs in semi-arid coastal and inland habitats consisting of *Banksia* woodland, eucalypt woodlands, and grasslands with known populations in close proximity to the application area (DEC, 2012a). The fauna report states that a sloughed skin was identified within Lot 701, and a specimen has also been recorded in private property on Flynn Drive which is in close proximity to Lot 701 (Eco Logical, 2012).

The black-striped snake occurs on the coastal plain and coastal dune formations supporting low shrublands, heaths, and *Banksia* woodlands between Mandurah and Cataby (Bush et al., 2010; Eco Logical, 2012). Although not observed on site, the application area contains suitable habitat for this species.

The application area is not likely to contain significant habitat for the two snake species discussed above. It is the applicant's intention to have a fauna handler present at all times during vegetation clearing to facilitate the capture and relocation of fauna (Eco Logical, 2016a).

The western brush wallaby is found in the south-west coastal region of Western Australia where populations are particularly centralised near the Swan River and the dry sclerophyll Jarrah forests to the east of Perth (Groves, 2005; Eco Logical, 2012). Scats identified as most likely to be of this species were recorded during the survey and suitable habitat for grazing and breeding occurs throughout much of the survey area (Eco Logical, 2012). It has been advised that the proposed clearing will be undertaken in stages to facilitate the movement of fauna species into the surrounding vegetation (Eco Logical, 2016a).

Quenda prefers low dense vegetation such as heath and swampy habitat that provide shelter, often associated with forests, woodland and shrublands and foraging often extends into adjacent more open grasslands, pastures, or including areas subject to regular burning, also often associated with riparian areas (DEC, 2012b). Quenda was not recorded during the fauna survey, however suitable habitat does occur within the survey area and the species is likely to occur on at least a seasonal basis (Eco Logical, 2012). A site inspection conducted by the former Department of Environment Regulation staff on 27 February 2017 identified diggings that could potentially be that of the quenda (DER, 2017).

Quenda are listed as priority 5 by the Department of Biodiversity Conservation and Attractions. Priority 5 is defined as species that are managed under a specific conservation program, the cessation of which would result in the species becoming threatened. Given this, although it may be present within the application area, the proposed clearing is unlikely to alter the conservation status of the taxon.

Ecological linkages, defined by the Gngangara Sustainability Strategy (Brown *et al*, 2009) run through contiguous vegetation to the south, west and north of the application area, connecting it to nature reserves in all directions. Ecological linkages have been defined as 'a series of (both contiguous and non-contiguous) patches of native vegetation which, by virtue of their proximity to each other, act as stepping stones of habitat which facilitate the maintenance of ecological processes and the movement of organisms within, and across, a landscape' (Molloy *et al*, 2009). The application area is significant in the movement of fauna within the landscape as it supports these linkages.

The application area contains significant foraging habitat for Carnaby's cockatoo and supports a significant ecological linkage. Therefore, the proposed clearing is at variance to this principle.

To offset the residual impacts outlined above, the proponent has allocated 481 hectares of its banked offset site at Lot 1 on Plan 12354, Mindarra to this project.

In regards to the proposed clearing which supports the ecological linkage the applicant's consultant has advised that "The ecological linkage present, as per the Gngangara Sustainability Strategy (Brown et al. 2009) will be maintained despite the clearing of vegetation in the Development Area, as vegetation will remain immediately to the west and north of the Development Area (land that LandCorp is intending to be managed for conservation into the future)" (Eco Logical, 2017).

The applicant proposes to manage potential impacts to fauna through management actions which will be outlined in a Construction Environmental Management Plan (CEMP). A CEMP will be prepared prior to clearing. Prior to the development of the CEMP the applicant's consultant has committed to management actions, including:

- A fauna relocation program will be undertaken prior to commencement of each stage;
- Vegetation clearing will occur from a disturbed edge, where possible, to encourage any remaining fauna to naturally relocate to retained vegetated areas; and
- A fauna handler will be available during on-site clearing activities.

(Eco Logical, 2017)

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

**Proposed clearing may be at variance to this Principle**

Three threatened flora species have been recorded within the local area (10 kilometre radius); *Marianthus paralius*, *Melaleuca* sp. Wanneroo (G.J. Keighery 16705) and *Eucalyptus argutifolia*.

*Eucalyptus argutifolia* is a small, multi-stemmed mallee tree growing to four metres in height. It occurs on slopes or gullies near the coast and, to a lesser extent, close to the summits of limestone ridges. This species was targeted in the 2008 survey,

however no mallee eucalypts were observed within the survey area and therefore the application area is not likely to support this species.

*Marianthus paralius* is a woody, almost prostrate shrub, approximately 50 cm wide, with red-orange flowers and white stamens. *Marianthus paralius* is known from three populations and grows amongst coastal heath in areas of white sand and brown loam, on coastal limestone cliffs (DEC, 2009). All three of the known populations have been identified on the coast and therefore the application area is not likely to support this species.

In 2018, *Melaleuca* sp. Wanneroo (G.J. Keighery 16705) was added to the list of extant threatened flora. This species was previously listed as a Priority 1 species. The 2008 flora survey stated that there was no information available on the flowering time of this species. *M. sp. Wanneroo* is known to co-occur often as a dominant, in dense patches with other *Melaleuca* species, predominantly *M. systema*, when growing on very shallow soils over limestone 'caprock' on ridges. Advice from Parks and Wildlife's Swan Coastal District is that the north-eastern section of the application area, mapped as the vegetation community type BsOH which is on upper slopes of limestone ridges is potential habitat for *M. sp. Wanneroo* (G.J. Keighery 16705), and that the vegetation at Quadrat 12 appears to have similar associated vegetation to the known habitats of *M. sp. Wanneroo* (G.J. Keighery 16705). *M. sp. Wanneroo* (G.J. Keighery 16705) flowers in late November to late December, and so the 2008 flora survey (mid October to early November) would have been too early to be able to detect and identify this species whilst flowering (Parks and Wildlife, 2017b).

*M. sp. Wanneroo* (G.J. Keighery 16705) is restricted to limestone ridges within the locality of Nowergup, 35 kilometres north of Perth, Western Australia. It is currently known from an extensively cleared region, and subpopulations are scattered across a 3.3 kilometres (east to west) by 3.0 kilometres (north to south) area. There is a population of *M. sp. Wanneroo* (G.J. Keighery 16705) located approximately 1.5 kilometres north-east of the application area (Parks and Wildlife, 2017b).

Given that *M. sp. Wanneroo* (G.J. Keighery 16705) is now listed as threatened and that the application area contains suitable habitat, pre-clearance surveys are required within vegetation community type BsOH. If this species is identified then no clearing within 50 metres of the identified species is permitted without CEO approval and a licence issued under the Biodiversity Conservation Regulations 2018.

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

As discussed in Principle (a), the Banksia Woodlands of the Swan Coastal Plain TEC is listed as endangered under the EPBC Act.

The Banksia Woodlands TEC is restricted to areas in and immediately adjacent to the Swan Coastal Plain Interim Biogeographic Regionalisation of Australia (IBRA) bioregion, including the Dandaragan plateau. This coastal plain stretches from around Jurien Bay in the north, to Dunsborough in the south (DotEE, 2016).

This ecological community has undergone a decline of about 60 per cent in its original extent and almost all of the ecological community that remains, occurs as highly fragmented patches less than 10 hectares in size (DotEE, 2016).

This ecological community has a dominant *Banksia* component, which includes at least one of four key species—*Banksia attenuata* (candlestick banksia), *B. menziesii* (firewood banksia), *B. prionotes* (acorn banksia) and/or *B. ilicifolia* (holly-leaved banksia) (DotEE, 2016).

The ecological community provides habitat for many native plants and animals that rely on *Banksia* woodlands for their homes and food. Remaining patches of the ecological community provide important wildlife corridors and refuges in a mostly fragmented landscape (DotEE, 2016).

The broad scale DotEE mapping of this ecological community includes the application area.

The raw quadrat data in Appendix D of the 2008 flora report includes descriptions that indicate affinities for the Banksia Woodlands TEC (Parks and Wildlife, 2017a).

The approved conservation advice for the Banksia Woodlands TEC indicates FCT24 has a relationship with this TEC. The approved conservation advice also states that certain vegetation components of the TEC are recognised as threatened and are priorities for protection, and this includes FCT24 (Parks and Wildlife, 2017a).

The information pertaining to vegetation types provided in the 2008 survey and 2016 additional data (Eco Logical Australia, 2016b) indicates that the Banksia Woodland community is present, but does not provide quantification of the extent of its occurrence, relative composition, nor likely impact from the proposed clearing on this community and its component parts (Parks and Wildlife, 2017a).

Further survey work is required to assess the application area against the key diagnostic characteristics, condition and size thresholds held in the approved conservation advice for the Banksia Woodlands TEC (Parks and Wildlife, 2017a). The FCTs present in any vegetation that aligns with the Banksia Woodlands TEC should be identified and mapped. Mapping of component FCTs in each condition category should also be provided, and the area of each FCT in each condition category tabulated (Parks and Wildlife, 2017a).

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

To offset the residual impacts outlined above, the proponent has allocated 481 hectares of its banked offset site at Lot 1 on Plan 12354, Mindarra to this project.

**(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 area under application is located within the Swan Coastal Plain IBRA bioregion. This bioregion has approximately 38.5 per cent of its pre-European vegetation extent remaining (Government of Western Australia, 2018a).

The application area is mapped as Heddle vegetation complex Cottesloe Central and/South which retains approximately 32 per cent pre-European extent (Government of Western Australia, 2018b).

The area under application is located within the City of Wanneroo, within which there is approximately 44 per cent pre-European extent remaining ((Government of Western Australia, 2018b).

The local area retains approximately 26 per cent native vegetation.

The national objectives and targets for biodiversity conservation in Australia have a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

The Environmental Protection Authority (EPA) recognises the Perth Metropolitan Region to be a constrained area, within which a modified objective to retain at least 10 per cent of the pre-clearing extent of vegetation complexes for constrained areas (intensely developed) applies (EPA 2015; EPA 2008). The application area is zoned 'Public purposes – special uses' under the Metropolitan Region Scheme. The application area is considered to occur within a constrained area and the 10 per cent threshold applies in this instance.

Although the application area is a significant remnant due to its fauna and biodiversity values, it is located within a constrained area and the mapped vegetation complex retains above 10 per cent native vegetation. The proposed clearing is not likely to be at variance to this principle.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DBCA lands (%)
<b>IBRA Bioregion*</b>				
Swan Coastal Plain	1,501,222	578,432	38.5	38
<b>Shire*</b>				
City of Wanneroo	67,517	29,805	44	54
<b>Heddle Vegetation Complex **</b>				
Cottesloe Complex-Central And\South	45,300	14,571	32	14.5

**(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**

No wetlands or watercourses have been recorded within the application area.

The closest watercourse or wetland is Neerabup Lake which is located approximately 870 metres west of the application area. Neerabup Lake is mapped as a resource enhancement category wetland. Resource enhancement wetlands are defined as wetlands which may have been partially modified but still support substantial ecological attributes and functions (Water and Rivers Commission, 2001). The 870 metre vegetated buffer between the application area and Neerabup Lake should be sufficient to ensure that the environmental values of this wetland are not compromised by the proposed clearing.

The flora survey of the application area did not record vegetation growing in association with a wetland (Ecoscape, 2009).

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 has been mapped as the following soil types (Schoknecht et al., 2004):

- Karrakatta Shallow Soils Phase (approximately 60 per cent of application area): Bare limestone or shallow siliceous or calcareous sand over limestone.
- Karrakatta Sand Yellow Phase (approximately 40 per cent of application area): Yellow sand over limestone at 1-2 metres.

Land Degradation Risk Category	Karrakatta Shallow Soils Phase	Karrakatta Sand Yellow Phase
Water Erosion	3-10% of map unit has a high to extreme water erosion risk	3-10% of map unit has a high to extreme water erosion risk
Wind Erosion	30-50% of map unit has a high to extreme wind erosion risk	>70% of the map unit has a high to extreme wind erosion risk
Waterlogging	<3% of map unit has a moderate to very high waterlogging risk	<3% of map unit has a moderate to very high waterlogging risk
Flooding	<3% of the map unit has a moderate to high flood risk	<3% of the map unit has a moderate to high flood risk

Based on the mapped land degradation risk outlined above, the application area has a relatively low likelihood of water erosion, waterlogging and flooding (Schoknecht *et al.*, 2004).

Wind erosion is mapped between 30-50 per cent and greater than 70 per cent of the map unit having a high to extreme risk of wind erosion (Schoknecht *et al.*, 2004).

Given the sandy nature of the soils and mapped land degradation risk, the proposed clearing may lead to appreciable land degradation through wind erosion.

The proposed clearing may be at variance to this principle.

The applicant proposes to manage potential impacts associated with clearing and construction, such as land degradation from erosion, sedimentation and spread of weeds, through a Construction Environmental Management Plan (CEMP) (Eco Logical, 2016a). A CEMP will be prepared prior to clearing. Prior to the development of the CEMP the applicant's consultant has committed to management actions, including:

- Installation of wind fencing around the perimeter of the site;
- Stockpiled soil to be stabilised with hydro mulch or similar material; and
- Earthworks slopes to be stabilised with hydro-mulch.

**(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 may be at variance to this Principle**

Approximately 3.6 hectares of Bush Forever Site 384 (Neerabup Lake and Adjacent Bushland, Neerabup) overlaps the application area. This 3.6 hectare area has been termed the Boundary Rationalisation Area by Eco Logical (2016a), in which clearing may be necessary in the future as part of road widening. The applicant intends on requesting an amendment to the Metropolitan Regional Scheme to alter the zoning of this area of Bush Forever from 'Parks and Recreation' to 'Industrial'.

The Bush Forever mapping indicates that the majority of the Boundary Rationalisation Area is not mapped as native vegetation (Map Sheet no. 20; WAPC 2000). The vegetation and general fauna habitat that is shown on this map is described as good to poor condition (Eco Logical, 2017).

The 3.6 hectare area of Bush Forever Site 384 within the application area has been subjected to degrading processes, including an access road (Eco Logical, 2016a). The proposed clearing of this area will have a direct impact on Bush Forever Site 384 through the removal of vegetation. The proposed clearing may lead to further degradation of this conservation area through impacts such as the spread of weeds and dieback, alteration of the hydrology, increased wind speed resulting in drying of vegetation and excess dust, spread of rubbish, increased human activity and an increased frequency of fires. Weed and dieback management practices will assist in mitigating these risks.

Neerabup National Park is located approximately 1.4 kilometres west of the application area and Lake Joondalup Nature Reserve is located approximately 3.7 kilometres south.

Ecological linkages, defined by the Gngara Sustainability Strategy (Brown *et al.*, 2009) run through contiguous vegetation to the south, west and north of the application area, connecting it to nature reserves in all directions. Ecological linkages have been defined as 'a series of (both contiguous and non-contiguous) patches of native vegetation which, by virtue of their proximity to each other, act as stepping stones of habitat which facilitate the maintenance of ecological processes and the movement of organisms within, and across, a landscape' (Molloy *et al.*, 2009). The application area supports this linkage in facilitating the movement of fauna within the landscape. Although the application area supports this linkage, the proposed clearing will not sever the linkage as vegetation will remain immediately to the west and north of the application area (land that LandCorp is intending to be managed for conservation into the future) (Eco Logical, 2017).

Given the above, the proposed clearing may 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**

No watercourses or wetlands are mapped within the application area, therefore, the proposed clearing is not likely to impact on the quality of surface water.

Groundwater salinity within the application area is mapped as less than 500 total dissolved solids, milligrams per litre. This level of groundwater salinity is classified as 'fresh' and therefore, noting the scale of this clearing and the vegetation cover in the local area, the proposed clearing is not likely to increase the salinity of groundwater or surface water.

Given the above the proposed clearing is not likely to cause deterioration in the quality of surface or groundwater and is therefore, 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**

Given the porous nature of the mapped soils and the low mapped (<3 per cent) flood risk, the proposed clearing is not likely to increase the incidence or intensity of flooding.

The proposed clearing is not likely to be at variance to this principle.

**Planning instruments and other relevant matters.**

The State Planning Policy 2.4 Basic Raw Materials identifies the application area as being within a priority area for basic raw material extraction such as limestone.

In 1994, the Environmental Protection Authority (EPA) considered Metropolitan Region Scheme (MRS) amendment 948/33 in which the application area (with the exception of the Boundary Rationalisation Area) was zoned Industrial. The EPA recommended more detailed planning for the proposed industrial area be referred to the EPA to ensure the detailed plans accommodate site constraints and provide for adequate services.

The proposal to develop Lot 503 (under its previous lot numbers) was referred to the EPA and, on 7 September 2012, the EPA decided to not assess the proposal, with public advice given.

The proposed clearing was deemed a controlled action under the EPBC Act in 2012 (EPBC Reference: 2012/6424). The proposed action was approved by DotEE on 20 September 2018.

The Neerabup Industrial Area Agreed Structure Plan (as amended) was adopted in January 2005, under the provisions of Part 9 of City of Wanneroo District Planning Scheme (DPS) No. 2 (Eco Logical, 2016a). The City of Wanneroo advises that under the City's District Planning Scheme No. 2, a Development Application is required to be submitted and approved prior to undertaking extractive industry or industrial development on the subject lot (City of Wanneroo, 2017).

On 8 March 2019, the City of Wanneroo issued Planning Approval for the proposed extractive industry.

The application was advertised in *The West Australian* newspaper on 2 January 2017 by the former DER inviting submissions from the public within a 21 day period. No submissions were received in relation to this application.

An Aboriginal Site of Significance has been mapped over the majority of the application area, being Lake Neerabup. The applicant is to contact the Department of Planning, Lands and Heritage regarding its obligations under the *Aboriginal Heritage Act 1972*.

**Previous clearing permits covering the current application area**

**CPS 2142/1, CPS 2515/1 and CPS 4949/1**

Clearing permit application CPS 2142/1 (Rocla Quarry Products) was received on 10 October 2007 and was for the proposed clearing of 159.4 hectares of native vegetation within Lot 21 on Plan 13583 for the purpose of sand excavation. This application covered the majority of the current application area and approximately 70 hectares north of the current application area.

In early May 2008, the application was amended to 100.72 hectares. The application was reduced to take out areas which required surveying (the area which overlaps the current application area) and on 12 May 2008, a separate clearing permit application (CPS 2515/1) was received for the areas removed from CPS 2142/1.

On 22 May 2008, a letter was sent to the applicant identifying that the application (CPS 2142/1) area may contain an area of TEC and that the area is adjacent to Bush Forever Site 384. Additional information was requested addressing these issues.

On 12 July 2008, the applicant committed to retaining a 50 metre buffer to Bush Forever Site 384 and advised that a vegetation survey was almost complete.



On 31 October 2008, a letter was sent to the applicant advising that the assessment of CPS 2142/1 was complete, however, an Extractive Industry Licence (EIL) was outstanding. The applicant was requested to provide a copy of the EIL within six months.

On 15 October 2009, a letter was sent to the applicant regarding CPS 2142/1 and CPS 2515/1 stating that the applications had been reassessed and that it was identified that the application areas contained significant habitat for Carnaby's cockatoo and it is unlikely that clearing permits would be granted.

Both applications were refused on 19 November 2009.

An appeal against the decisions to refuse was lodged on 23 December 2009.

In October 2010, the Appeals Convenor determined that the decision to refuse the permits was justified. However, the Minister was of the view that a permit to clear the southern portion of CPS 2515/1, approximately 32 hectares, could be granted subject to the following:

1. habitat trees at the site being identified by Rocla and excluded from the proposal, where practicable, having regard to the location of the sand resource;
2. requirement to restore degraded areas onsite which are not proposed to be cleared; and
3. securing remnant native vegetation off site in the event restoration is unsuccessful. The vegetation was to be of a positive ratio, with the actual ratio to be determined by the former Department of Environment and Conservation through conditions, taking into account the quality of the restoration (that is, a higher ratio where restoration fails).

On 15 March 2012, Rocla Quarry Products reapplied (CPS 4949/1) for a 67.1 hectare area which was similar to the area refused under CPS 2142/1.

At the request of the applicant, on 18 May 2012, the applications CPS 4949/1 and CPS 2515/2 were withdrawn. The application was withdrawn as the applicant decided that they would like to use their offset site for a different clearing permit application (CPS 4935/1).

## 5. Suitability of Proposed Offset

The applicant initially proposed three offsets for this project, being;

1. The change in tenure and zoning of part of Bush Forever Site 293 for conservation.
2. The rehabilitation and management of part of Bush Forever Sites 293 and 384.
3. The acquisition of offsite land that contains Carnaby's cockatoo habitat for management by the former Department of Parks and Wildlife (now Department of Biodiversity, Conservation and Attractions).

On 30 November 2017, a letter was received from the applicant's consultant formally requesting to revise the proposed offset to now consist solely of land acquisition.

To mitigate the significant environment impacts identified in the above assessment, and in accordance with the WA Environmental Offset Policy and Environmental Offsets Guidelines, the Permit Holder has allocated 481 hectares of its banked offset site at Lot 1 on Plan 12354, Mindarra.

In assessing whether the proposed offset is adequately proportionate to the significance of the habitat being impacted, DWER undertook a calculation using the Commonwealth Offsets Assessment Guide. The calculations determined that the allocation of 481 hectares of the banked offset is adequate to counterbalance the significant residual impacts associated with this project.

DWER officers inspected the proposed offset site on 27 September 2017 and confirmed that it contained appropriate attributes to be considered an offset for this project.

Given the above, the proposed offset is considered adequate to counterbalance the significant residual impacts to black cockatoo foraging habitat and the *Banksia* woodland TEC consistent with the *Environment Protection and Biodiversity Conservation Act 1999*, Environmental Offsets Policy October 2012 and *WA Environmental Offsets Policy September 2011*.

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