

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number:

CPS 7166/1

File Number:

DER2016/001328

Duration of Permit:

From 29 October 2016 to 29 October 2018

ADVICE NOTE

Monetary contribution to the Department of Parks and Wildlife for the acquisition of lands into conservation estate (offset).

As part of approval 2012/6631 under the Environment Protection and Biodiversity Conservation Act 1999 the proponent contributed funds to the Department of Parks and Wildlife for the purchase of 635 hectares of native vegetation at Lot 24, Mimegarra Road, Lancelin, and 34 hectares of native vegetation within Lot 102 Wannamal Road, Cullalla, of land containing Carnaby's cockatoo (Calyptorhynchus latirostris) foraging habitat.

PERMIT HOLDER

Westminster Estates Pty Ltd

LAND ON WHICH CLEARING IS TO BE DONE

Lot 8000 on Deposited Plan 403862, Jindalee

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 19.638 hectares of native vegetation within the area cross-hatched yellow on attached Plan 7166/1.

CONDITIONS

1. Dieback and weed control

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

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) 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.

DEFINITIONS

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

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

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 Parks and Wildlife Regional Weed Rankings Summary, regardless of ranking; or
- (c) not indigenous to the area concerned.

Samara/Rogers A/ MANAGER

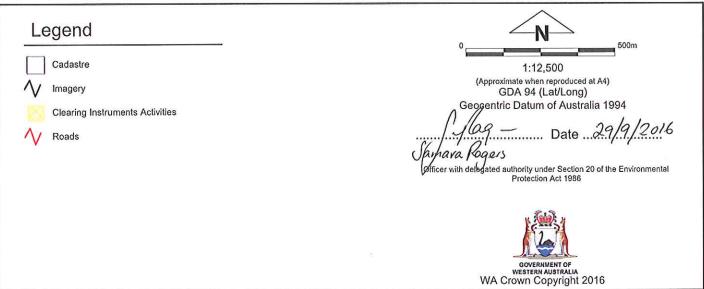
CLEARING REGULATION

Officer delegated under Section 20 of the Environmental Protection Act 1986

29 September 2016

31.625706°S







Clearing Permit Decision Report

1. Application details

Permit application details

Permit application No.:

7166/1

Permit type:

Area Permit

Applicant details 1.2.

Applicant's name:

Westminster Estates Pty Ltd

Property details 1.3.

Property:

Colloquial name:

Local Government Authority:

DER Region: **DPaW District:** Localities:

LOT 8000 ON DEPOSITED PLAN 403862, JINDALEE

Jindee Innovation Project WANNEROO, CITY OF Greater Swan

SWAN COASTAL JINDALEE

1.4. Application

Clearing Area (ha) 19.638

No. Trees

Method of Clearing

For the purpose of:

Mechanical Removal

Establishing access routes and undertaking earthworks

associated with the Jindee Innovation Project.

1.5. Decision on application

Decision on Permit Application:

Decision Date:

Reasons for Decision:

Granted

29 September 2016

The clearing permit application was received on 5 July 2016 and has been assessed against the clearing principles, planning instruments and other matters in accordance with section 510 of the Environmental Protection Act 1986. It has been concluded that the proposed clearing is at variance to principles (a) and (b), may be at variance to principles (g) and (h), and is not likely to be at variance to the remaining clearing principles.

The Delegated Officer determined that the proposed clearing will lead to the loss of 19.638 hectres of native vegetation that contains Carnaby's cockatoo habitat and a high level of biological diversity.

To mitigate the significant environment impacts to Carnaby's cockatoo and a high level of biological diversity, and as part of approval 2012/6631 under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), the applicant provided a total of \$310,00 to the Department of Parks and Wildlife (Parks and Wildlife), for the purchase of 669 hectares of land containing Carnaby's cockatoo (Calyptorhynchus latirostris) foraging habitat. The offset was based upon the clearing of 41 hectares of Carnaby's cockatoo foraging habitat which included the 19.638 hectares of native vegetation the subject of this application. The offset has been fully acquitted.

State policies and other relevant policies have been taken into consideration in the decision to grant a clearing permit.

To mitigate the impacts to conservation areas, the clearing permit will include conditions for weed and dieback management.

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description

Two Beard vegetation associations are mapped over the application area;

- 949: Low woodland; Banksia
- 1007: Mosaic: Shrublands; Acacia lasiocarpa & Melaleuca acerosa heath / Shrublands; Acacia rostellifera & Acacia cyclops thicket (Shepherd et al., 2001).

Two Heddle vegetation complexes are mapped over the application area;

- Cottesloe Complex-Central
 And\South: Woodland and open forest
 and closed heath
- Quindalup Complex: Coastal dune complex - low closed complex - low closed forest and closed scrub (Heddle et al., 1980).

Clearing Description

The application is for the clearing of up to 19.638 hectares of native vegetation for the purpose of establishing access routes and undertaking earthworks associated with the Jindee Innovation Project.

Vegetation Condition Degraded; Structure

severely disturbed; regeneration to good condition requires intensive management;

To

Excellent; Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994).

Comment

The condition of the vegetation was determined through surveys (Strategen, 2016) and verified by Department of Environment Regulation (DER) officers (DER, 2016).

3. Assessment of application against clearing principles

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

Comments

Proposed clearing is at variance to this Principle

The application is to clear 19.638 hectares of native vegetation within Lot 8000 on Deposited Plan 403862, Jindalee for the purpose of establishing access routes and undertaking works associated with the Jindee Innovation Project.

A total of 11 vegetation types were identified within the application area by Strategen Environmental (Strategen, 2016). Of those four vegetation types covered greater than one hectare of the application area:

- Acacia saligna, Spyridium globulosum, Olearia axillaris shrubland / open shrubland over Pelargonium capitatum, Melaleuca systena open low heath over Lomandra maritima sedgeland (8.5 hectares);
- Spyridium globulosum closed / open heath over Trachyandra divaricata, Trachymene pilosa, Conostylis pauciflora ssp. herbland (3.8 hectares);
- Melaleuca cardiphylla, Acacia rostellifera, Spyridium globulosum, Olearia axillaris, Acacia saligna closed tall scrub / closed heath in swales and lower slopes (3.6 hectares); and
- Dryandra sessilis shrublands to tall closed scrub over Xanthorrhoea preissii scattered shrubs over Jacksonia calcicola, Hibbertia hypercoides, Pelargonium capitatum low open shrubland over Trachymene pilosa, Anagallis arvensis, Arctotheca calendula herbland (1.1 hectares) (Strategen, 2016).

The vegetation within the application area ranges from degraded to excellent (Keighery, 1994) condition (Strategen, 2016; DER, 2016). Vegetation degradation is mostly associated with repeated exposure to human disturbance such as 4WDing, walking tracks and fires. A total of 20 weed species were identified within the application area (Strategen, 2016), 10 of which have a high ecological impact (DER, 2009).

The application area includes vegetation which is representative of floristic community type 29a - Coastal shrublands on shallow dunes which is a priority ecological community (PEC). A survey of the vegetation within the application area recorded three priority flora within the application area (two P4 species and one P3 species) (Strategen, 2016). The proposed clearing of this PEC and priority flora is not likely to result in a significant residual impact.

Carnaby's cockatoo (*Calyptorhynchus latirostris*) are listed as 'rare or likely to become extinct' under the *Wildlife Conservation Act 1950* (WC Act) and Endangered under the EPBC Act. Carnaby's cockatoo have a preference for feeding 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. (SEWPAC 2012). Carnaby's cockatoo are known to use the application area for foraging and individuals were observed within the application area during a site inspection (Strategen, 2016; DER, 2016).

On this basis it is considered that the vegetation within the application area comprises a high level of biological diversity.

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

The impacts to Carnaby's cockatoo and a high level of biological diversity identified above have been offset through the Commonwealth EPBC Act. The offset approved by the former Commonwealth Department of the Environment (now Department of the Environment and Energy) required the applicant to contribute funds to Parks and Wildlife for the purchase of 635 hectares of native vegetation at Lot 24, Mimegarra Road, Lancelin and 34 hectares of native vegetation within Lot 102 Wannamal Road, Cullalla, which included Carnaby's cockatoo foraging habitat. The offset was based upon the clearing of 41 hectares of Carnaby's cockatoo foraging habitat which included the 19.638 hectares of native vegetation the subject of this application. The offset has been fully acquitted. It is identified that this environmental offset is sufficient to address the residual significant impacts to loss of a high level of biological diversity.

Methodology

References: DER (2009) DER (2016) Keighery (1994) Strategen (2016)

GIS databases: Heddle Vegetation complexes Pre European Vegetation - DA 01/01 NLWRA, Current Extent of Native Vegetation

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

Comments

Proposed clearing is at variance to this Principle

A fauna survey of the application area identified foraging habitat for Carnaby's cockatoo () (Strategen, 2016), listed as 'rare or likely to become extinct' under the *Wildlife Conservation Act 1950*. Carnaby's cockatoo have a preference for feeding 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. (SEWPAC 2012). Suitable foraging habitat for this species is located within the application area and Carnaby's cockatoo individuals were observed within the application area during a site inspection (DER, 2016).

The northern region of the Swan Coastal Plain is considered a particularly important area for Carnaby's cockatoo foraging throughout the season (Shah, 2006) and it is considered that the vegetation under application provides significant foraging habitat for this species.

The application area is in close proximity to the coast and is mapped as a potential fauna linkage. The vegetation within the application area will not fragment this linkage however the cumulative impact of clearing for the Jindee Innovation Project could degrade this linkage.

On this basis it is considered that the application area comprises significant habitat for Carnaby's cockatoo.

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

The impacts to Carnaby's cockatoo and a high level of biological diversity identified above have been offset through the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*. The offset approved by the former Commonwealth Department of the Environment (DotE) (now Department of the Environment and Energy) required the applicant to contribute funds to the Parks and Wildlife for the purchase of 635 hectares of native vegetation at Lot 24, Mimegarra Road, Lancelin and 34 hectares of native vegetation within Lot 102 Wannamal Road, Cullalla, which included Carnaby's cockatoo foraging habitat. The offset was based upon the clearing of 41 hectares of Carnaby's cockatoo foraging habitat which included the 19.638 hectares of native vegetation the subject of this application. The offset has been fully acquitted. It is identified that this environmental offset is sufficient to address the residual significant impacts to loss of Carnaby's cockatoo foraging habitat.

Methodology

References: SEWPAC (2012) Shah (2006) Strategen (2016)

GIS databases:

SAC Biodatasets (Accessed 15 August 2016)

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

Comments

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

Two records of rare flora are known from populations within 10 kilometres of the application area (Parks and Wildlife, 2007-).

The application area contains suitable habitat for one of these rare flora however none were recorded in a flora survey of the application area undertaken in 2005 (Strategen, 2016). This rare flora is a mallee growth form growing to 4 metres in height. A site inspection of the application area undertaken by DER officers did not identify any vegetation in the shrubland of similar growth form or height (DER, 2016).

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

Methodology

References:

DER (2016)

Parks and Wildlife (2007-)

Strategen (2016)

GIS databases:

Heddle Vegetation complexes

Pre European Vegetation - DA 01/01

SAC Biodatasets (Accessed 15 August 2016)

Soils, Statewide DA 11/99SAC Biodatasets (Accessed 15 August 2016)

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

Comments

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

One threatened ecological community (TEC) is mapped is close proximity to the application area: 'Melaleuca huegelii - Melaleuca acerosa shrublands on limestone ridges'. A site inspection of the application area undertaken by DER officers identified a number of Melaleuca sp. within the application area however no limestone ridges were observed (DER, 2016).

A survey of the application area did not infer any TEC's within the application area (Strategen, 2016).

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

Methodology

References:

DER (2016) Strategen (2016)

GIS databases:

Heddle Vegetation complexes

Pre European Vegetation - DA 01/01

SAC Biodatasets (Accessed 15 August 2016)

Soils, Statewide DA 11/99SAC Biodatasets (Accessed 15 August 2016)

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

Comments

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

The application area is located within the Swan Coastal Plain Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion has approximately 38 per cent of its pre-European vegetation extent remaining (Government of Western Australia, 2015).

The application area is mapped as Beard vegetation associations 949 and 1007, which retain approximately 57 and 69 per cent respectively of their pre-European extents within the Swan Coastal Plain IBRA bioregion (Government of Western Australia, 2015).

The application area is also mapped as Heddle vegetation Quindalup Complex and Cottesloe Complex-Central And\South, which retain approximately 62 and 33 per cent respectively of their pre-European extents remaining within the Swan Coastal Plain IBRA bioregion (Parks and Wildlife, 2015).

The City of Wanneroo retains approximately 44 per cent of its pre-European extent of native vegetation cover (Government of Western Australia, 2015).

The National Objectives and Targets for Biodiversity Conservation 2001-2005 include a target to have clearing controls in place that prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750 (Commonwealth of Australia, 2001), below which species loss appears to accelerate exponentially at an ecosystem level. Within constrained areas on the Swan Coastal Plain, the target for representation of the pre-clearing extent of a particular native vegetation complex is 10 per cent (EPA, 2008a). The application area is zoned within the Metropolitan Region Scheme and is therefore considered to be located within a constrained area.

Noting that the application area contains vegetation in excellent (Keighery, 1994) condition, significant foraging habitat for Carnaby's cockatoo, a PEC and three priority flora, it is considered that the application area is significant as a remnant. However noting vegetation extents are above the 10 and 30 per cent thresholds it is considered that the application area is not located within an area that has been extensively cleared.

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

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in Parks and Wildlife managed Iands (%)
IBRA Bioregion*				
Swan Coastal Plain	1,501,221	579,161	38	37
Shire*				
City of Wanneroo	67,516	29,884	44	53
Beard Vegetation Association Ir	n Bioregion*			
949	209,983	120,237	57	56
1007	30,109	20,772	69	12
Heddle Vegetation Complex **				
Quindalup Complex	52,250	32,885	62	9
Cottesloe Complex (Central and South)	45,299	15,026	33	13

Methodology

References:

Commonwealth of Australia (2001)

EPA (2008)

* Government of Western Australia (2015)

Heddle et al. (1980)

Keighery (1994)

** Parks and Wildlife (2015)

Shepherd et al. (2001)

Strategen (2016)

GIS databases:

Heddle Vegetation Complexes

Pre European Vegetation - DA 01/01

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

Comments

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

The application area, at its closest point, is within 50 metres from the Western Australian coastline. A site inspection of the application area undertaken by DER officers did not identify any vegetation within the application area growing in association with a watercourse or wetland (DER, 2016).

A survey of the application area did not identify any vegetation growing in, or in association with a watercourse (Strategen, 2016).

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

Methodology

References:

DER (2016)

Strategen (2016)

GIS databases:

Hydrography, Linear - DOE 1/2/04

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

Comments

Proposed clearing may be at variance to this Principle

The application area varies from 10 metres to 55 metres height above sea level and is mapped as two soil types:

- A13: Coastal dune formations backed by the low-lying deposits of inlets and estuaries: chief soils are calcareous sands on the dunes; and
- B24: Broad swales between units A13 and B24, and characterized by salt lakes: chief soils are shallow calcareous sands with aeolianite occurring as a continuous substrate within 12 inches of the surface (Northcote et al., 1960-68).

These soil types are prone to wind erosion which is exacerbated by the proximity of the application area to the Western Australian coast line. The proposed clearing is part of the Jindee Innovation Project to allow access around that site. The applicant advised that vegetation will be retained around the cleared areas to minimise the environmental impacts of wind erosion until such time as they are developed in accordance with a subdivision approval.

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

Methodology

References:

Northcote et al. (1960-68)

GIS databases:

Average Annual Rainfall Isohyets - WRC 29/09/98
Annual Evaporation Contours (Isopleths) - WRC 29/09/98
Hydrogeology, statewide - DOW 13/07/06
Hydrography, linear - DOW 13/7/06
Salinity Risk LM 25m - DOLA 00
Soils, Statewide DA 11/99
Tanagraphic contours estatewide - DOLA and ARMY 12/09/0

Topographic contours statewide - DOLA and ARMY 12/09/02

Hydrogeology, Statewide 05 Feb 2002

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

Comments

Proposed clearing may be at variance to this Principle

The western edge of the application area was previously part of Bush Forever site 397, a system 6 conservation reserve. This area was excised from Bush Forever in May 2016 and included in Lot 8000.

The western end of the application area is adjacent to the remaining areas of Bush Forever site 397 to the north, west and south. The vegetation within this portion of the application area is in excellent (Keighery, 1994) condition and has minimal weed invasion (Strategen, 2016).

Noting the extent of the proposed clearing, the condition of the vegetation within the application area and its proximity to Bush Forever site 397, it is considered that the proposed clearing may impact the environmental values of the Bush Forever site through the spread of weeds and dieback. Weed and dieback management practices will assist in minimising this risk.

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

Methodology

References:

Keighery (1994) Strategen (2016)

GIS databases: Bush Forever sites Parks and Wildlife Tenure

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Comments

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

The application area is within the Perth Coastal and Gwelup Underground Water Pollution Control Public Drinking Water Source Area (Priority 3). The Department of Water (DoW) advised that DoW has assessed the application to clear native vegetation and has no comments to provide (DoW, 2016).

The application area consists of coastal dune formations with chiefly shallow calcareous sands (Northcote et al., 1060-68) which do not retain surface water. The application area, at its closest point, is approximately 50 metres from the Western Australian coastline however it is unlikely that the quality of surface or underground water flowing to the coast will be significantly impacted by the proposed clearing.

The application is for access routes for the Jindee Innovation Project development site, and the applicant advised that large areas of Lot 8000 will retain native vegetation. On this basis it is considered that the proposed clearing is unlikely to cause deterioration in the quality of surface or underground water on or off site.

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

Methodology

References:

DoW (2016)

Northcote et al. (1960-68)

GIS databases:

Hydrographic Catchments - Catchments - DOE 23/03/05

Rainfall, Mean Annual - BOM 30/09/01 Groundwater Salinity, Statewide - 22/02/00 Evapotranspiration Areal Actual - BOM 30/09/01

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

Comments

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

The application is to clear 19.638 hectares of native vegetation within Lot 8000 on Deposited Plan 403862, Jindalee for the purpose of establishing access routes and undertaking works associated with the Jindee Innovation Project.

The soils within the application area are predominately coastal dune formations and chiefly shallow calcareous sands (Northcote et al., 1960-68) which characteristically do not retain surface water.

Given the size and dominant soil types of the application area, and noting the applicant's advice that native vegetation will be retained within Lot 8000, it is considered that the proposed clearing is unlikely to cause or exacerbate flooding.

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

Methodology

References:

Northcote, K. H. et al. (1960-68)

GIS databases:

Rainfall, Mean Annual - BOM 30/09/01

Evapotranspiration Areal Actual - BOM 30/09/01 Topographic Contours, Statewide - DOLA 12/09/02

Planning instruments and other relevant matters.

Comments

A restrictive covenant is in place over the application area. The proposed clearing is consistent with the restrictive covenant.

The MRS amendment 1152/41, of which the Jindee Innovation project was included, was referred to the Environmental Protection Authority (EPA) in March 2008. The EPA Chairman's determination in May 2008 was 'Scheme Amendment Not Assessed – Advice given' under Section 48A of the *Environmental Protection Act* 1986. A summary of the EPA's advice is detailed below:

- the EPA acknowledged that the rationalisation of parks and recreation (P&R) boundaries is part of the landowners efforts to develop a coastal node and an innovative coastal community that implements a range of sustainability principles;
- the EPA supports the MRS Amendment (1152/41) on the basis that the two areas of P&R reserve are being provided to offset the area of foreshore P&R reserve (Bush Forever site 397) proposed to be zoned Urban:
- the two P&R reserves will be linked with native vegetation retained on private lots; and
- the vegetated linkage was an important consideration by the EPA in agreeing to the reduced foreshore reserve offset (EPA, 2008b).

The EPA also advised that the regional vegetation values (ecological linkages) issue was not assessed as part of the MRS amendment. The issue of ecological linkage was deferred to ensure that an adequate mechanism is put in place during later stages of planning that will retain and protect the vegetation between the foreshore and inland area of P&R (EPA, 2008b).

Town Planning Scheme Amendment 115 to the City of Wanneroo District Planning Scheme 2 – Jindee was referred to the EPA and a decision was made under Section 48A(1)(a) in July 2011 and reiterated in May 2012. The EPA determined not to assess the scheme amendment, and gave public advice. In summary the advice states that the EPA is satisfied that the provisions for ensuring the vegetated linkage is provided on the private residential lots are set out in Clause 4.8 and Schedule 8B of Amendment 115 and on the basis the amendment is consistent with the EPA's requirements.

The Jindee Innovation Project was referred to the former DoE for assessment under the EPBC Act. The project was determined to be a controlled action, and was approved on 18 July 2013 (EPBC 2012/6631) subject to conditions including an offset for impacts to Carnaby's cockatoo habitat. The approved offset required the applicant to contribute funds to Parks and Wildlife for the purchase of 635 hectares of native vegetation at Lot 24, Mimegarra Road, Lancelin and 34 hectares of native vegetation within Lot 102 Wannamal Road, Cullalla. The offset was based upon the clearing of 41 hectares of Carnaby's cockatoo foraging habitat which included the 19.638 hectares of native vegetation the subject of this application. The offset has been fully acquitted. It is identified that this environmental offset is sufficient to address the residual significant impacts to loss of a high level of biological diversity.

The City of Wanneroo advised that the City has approved a Development Application (DA2016/933) for the purpose of bulk earthworks and a site compound in the area covered by the proposed clearing footprint, and that the City does not object to the removal of 19.638 hectares of native vegetation for the same purpose (City of Wanneroo, 2016).

The application area is within the Perth Coastal and Gwelup Underground Water Pollution Control Public Drinking Water Source Area (Priority 3). DoW advised that DoW has assessed the application to clear native vegetation and has no comments to provide (DoW, 2016).

Lot 8000 on Deposited Plan 403862, Jindalee, was created in May 2016 as part of the Jindee Innovation Project, by combining Lot 9036 on Plan 70682 and Lot 3054 on Plan 47953 (previously part of Bush Forever site 397).

Methodology

References:

City of Wanneroo (2016)

DoW (2016) Strategen (2016)

4. References

City of Wanneroo (2016) Advice from the City of Wanneroo to the Department of Environment Regulation in relation to clearing permit application CPS 7166/1, Jindee Innovation Project. DER Ref A1161614.

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.

Department of Environment Regulation (DER) (2009) Former Department of Environment and Conservation Swan Region Environmental Weeds List. Government of Western Australia. Available online:

www.dpaw.wa.gov.au/mamangementandprotection/plants/invasiveplants/invasiveplantprioritisationprocess.

Department of Environment Regulation (DER) (2016) Site Inspection Report for Clearing Permit Application CPS 7166/1, Westminster Estate Pty Ltd. Site inspection undertaken 6 September 2016. Department of Environment Regulation, Western Australia (DER Ref. A1166017).

Department of Parks and Wildlife (Parks and Wildlife) (2007-) NatureMap: Mapping Western Australia's Biodiversity.

Department of Environment and Conservation. URL: http://naturemap.dec.wa.gov.au/. (Accessed July 2016)

Department of Parks and Wildlife (Parks and Wildlife) (2015) 2015 South West Forest and Swan Coastal Plain Vegetation Complex Statistics: a report prepared for the Department of Environment Regulation. Current as of March 2015. Department of Parks and Wildlife, Perth, Western Australia.

Department of Sustainability, Environment, Water, Population and Communities (SEWPAC) (2012) EPBC Act Referral guidelines for three threatened black cockatoo species: Carnaby's cockatoo, Baudin's cockatoo and Forest red-tailed black cockatoo. Department of Sustainability, Environment, Water, Population and Communities, Canberra.

Department of Water (DoW) (2016) Advice from the Department of Water in relation to clearing permit application CPS 7166/1, Jindee Innovation Project, 18 August 2016. DER Ref A1155783.

Environmental Protection Authority (EPA) (2008a) Environmental Guidance for Planning and Development. Guidance Statement No. 33, dated May 2008. Government of Western Australia.

Environmental Protection Authority (EPA) (2008b). Public advice in relation to Metropolitan Region Scheme Amendment 1152/41 Jindalee (Jindee) Foreshore Rationalisation. CRN221515.

Government of Western Australia (2015). 2015 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2015. WA Department of Parks and Wildlife, Perth.

Heddle, E.M., Loneragan, O.W., and Havel, J.J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.

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

Northcote, K.H. with Beckmann, G.G., Bettenay, E., Churchward, H.M., van Dijk, D.C., Dimmock, G.M., Hubble, G.D., Isbell, R.F., McArthur, W.M., Murtha, G.G., Nicolls, K.D., Paton, T.R., Thompson, C.H., Webb, A.A. and Wright, M.J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.

Shah, B. (2006) Conservation of Carnaby's Black-Cockatoo on the Swan Coastal Plain, Western Australia. December 2006. Carnaby's Black-Cockatoo Recovery Project. Birds Australia, Western Australia.

Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.

Strategen (2016) Clearing permit application and supporting documentation for CPS 7166/1, Westminster Estate Pty Ltd - Jindee Innovation Project, DER Ref A1126014.