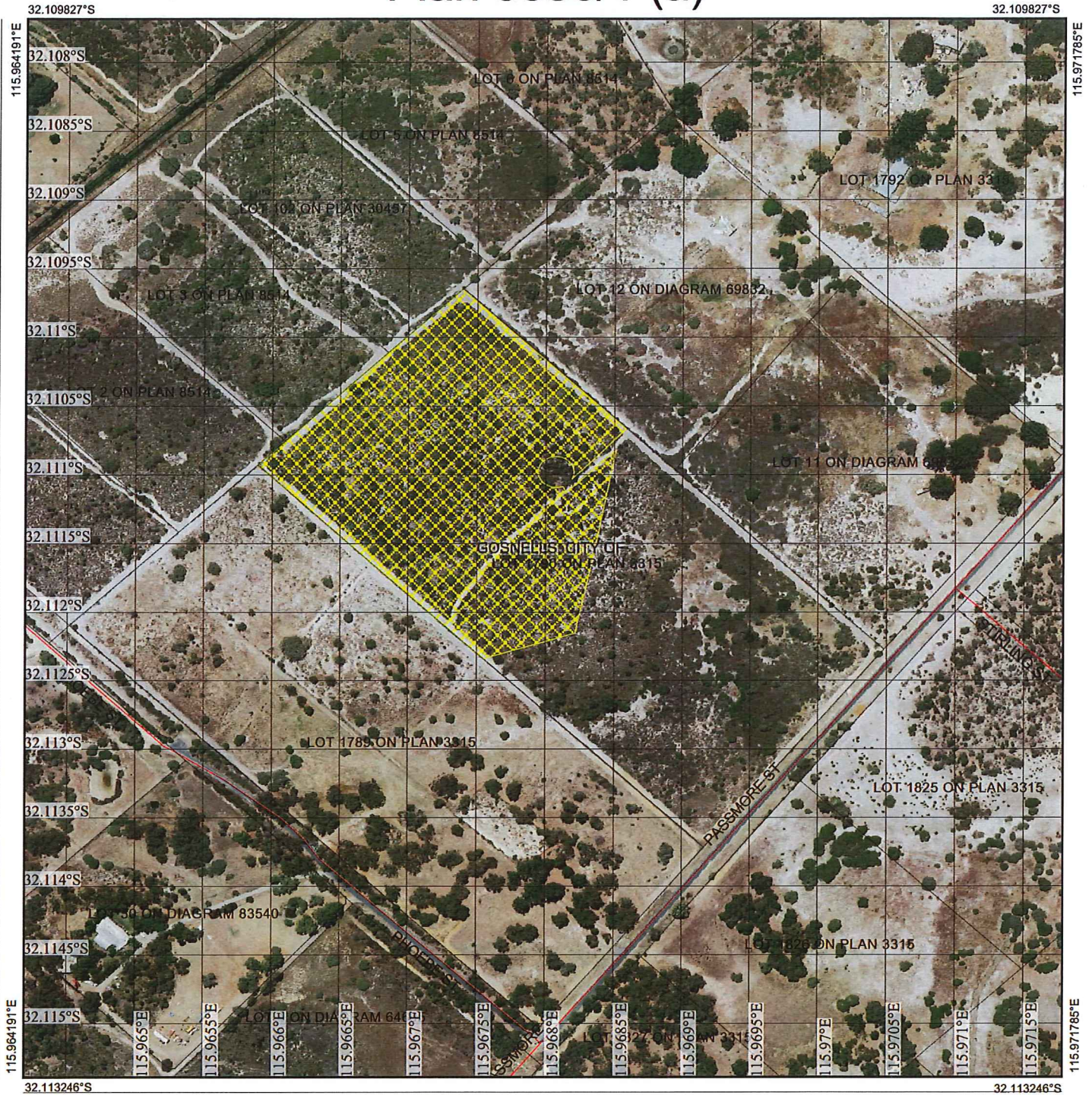
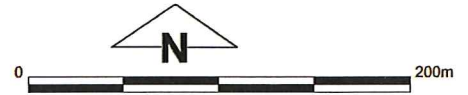


# Plan 6686/1 (a)



## Legend

-  Roads
-  Imagery
-  Clearing Instruments Activities
-  Local Government Authority
-  Cadastre



1:3,797  
 (Approximate when reproduced at A4)  
 GDA 94 (Lat/Long)  
 Geocentric Datum of Australia 1994

*[Signature]* Date *14/11/2017*

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





## CLEARING PERMIT

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

### PERMIT DETAILS

Area Permit Number: 6686/1

File Number: 2015/001739-1

Duration of Permit: From 12 December 2017 to 12 December 2019

### PERMIT HOLDER

Southernrae1 Pty Ltd

### LAND ON WHICH CLEARING IS TO BE DONE

Lot 1790 on Plan 3315, Southern River

### AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 4.51 hectares of native vegetation within the area cross hatched yellow on attached Plan 6686/1(a) and Plan 6686/1 (b).

### CONDITIONS

#### 1. Clearing Method

- (a) The permit holder shall clear only via the method of grazing within the area hatched yellow on attached Plan 6686/1 (a).
- (b) The permit holder shall clear via any method within the area hatched yellow on attached Plan 6686/1 (b).

#### 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. Stocking Rate

When determining the number of stock occupying the area hatched yellow on attached Plan 6686/1 (a), the permit holder must adhere to the Annexure 1 'Stocking rate guidelines for rural small holdings, Swan Coastal Plain and Darling Scarp and surrounds, Western Australia'.

## DEFINITIONS

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

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

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

*weed/s* mean 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; and
- (d) that is a species permitted for planting under a Pastoral Diversification Permit issued by the Department of Regional Development and Lands.



---

James Widenbar  
MANAGER  
CLEARING REGULATION

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

14 November 2017

**Annexure 1**

**Stocking rate guidelines for rural small holdings, Swan Coastal Plain and Darling Scarp and surrounds, Western Australia**



## 1. Application details

### 1.1. Permit application details

Permit application No.: 6686/1  
Permit type: Area Permit

### 1.2. Applicant details

Applicant's name: Southernrae 1 Pty Ltd

### 1.3. Property details

Property: Lot 1790 on Plan 3315, Southern River  
Local Government Authority: City of Gosnells  
DER Region: Greater Swan  
DPaW District: Swan Coastal  
Localities: Southern River

### 1.4. Application

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

### 1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 14 November 2017

Reasons for Decision: The application for a clearing permit was received on 4 August 2015 and was for 6.7 hectares of native vegetation for the purpose of livestock management and the establishment of a stock loading/unloading area and associated infrastructure. The application has been assessed against the clearing principles, planning instruments and other matters in accordance with section 51O of the *Environmental Protection Act 1986*. It has been concluded that the proposed clearing may be at variance to principles (a), (d), (f), (g) and (h) and is not likely to be at variance to the remaining clearing principles.

During the assessment of the application, the applicant has amended the application area on three separate occasions to minimise environmental impacts:

- On 18 May 2016 the applicant amended the application area from 6.7 hectares to 6.28 hectares to minimise impacts to a mapped dampland;
- On 28 September 2017 the applicant amended the application area to 5.41 hectares to provide a 50 metre buffer to the mapped damplands occurrence; and
- On 16 October 2017 and 10 November 2017 the applicant further amended the application area, with a final proposed clearing area of 4.51 hectares, to maintain a 50 metre buffer around the abovementioned dampland, noting the boundary of the damplands occurrence had been redefined since the previous amendment.

The Delegated Officer noted the above amendments and the applicants other efforts to avoid and minimise environmental impacts, which included:

- Undertaking targeted flora surveys and statistical analysis to determine impacts to conservation significant flora and ecological communities;
- Commissioning a Wetland Boundary Assessment to determine the extent of a wetland (dampland) mapped within the southern portion of Lot 1790;
- Providing a commitment to fencing the 50 metre dampland buffer to prevent stock access.

The Delegated Officer determined that:

- The application area may be representative of a State listed Priority Ecological Community (PEC) and a Commonwealth listed Threatened Ecological Community (TEC);
- The application area may comprise a high level of biological diversity;
- The proposed clearing may impact on nearby conservation areas and other areas of remnant vegetation via the spread of weeds and dieback; and
- The proposed clearing may result in appreciable land degradation via wind erosion.

The Delegated Officer noted the presence of areas of extensive nearby native vegetation within Bush Forever sites that are likely to be representative of the TEC and PEC, and the juvenile stature of the *Banksia* woodland within the application area, to conclude that the proposed clearing was unlikely to significantly impact on the local extent of the TEC or PEC or on the biological diversity of the local area.

The Delegated Officer has granted the clearing permit subject to conditions to address the identified environmental impacts:

- To mitigate the risk of wind erosion, the clearing permit will include a condition requiring the applicant to apply stocking rates in accordance with the former Department of Agriculture and Food Western Australia's (DAFWA) 'Stocking rate guidelines for rural small holdings, Swan Coastal Plain and Darling Scarp and surrounds, Western Australia';
- To mitigate the impact on nearby conservation areas and other areas of remnant vegetation the clearing permit is subject to dieback and weed management control actions; and
- To prevent direct impacts to terrestrial fauna as a result of mechanical clearing, the clearing permit requires that the clearing method for 4.17 hectares of the application area is undertaken only via stock grazing.

The Delegated Officer took into account the applicants development approval, which was handed down by the State Administrative Tribunal (SAT), and noted the conditions of the development approval which require the applicant to:

- Submit a wetland buffer management plan to the City of Gosnells; and
- Install a stock proof fence on the southern boundary of the portion of the application area depicted in Figure 1 to minimise impacts to a dampland (see clearing principle (a)).

To avoid duplication of approval requirements, the Delegated Officer determined not to include a clearing permit condition requiring the applicant to install stock fencing.

In determining to grant a clearing permit subject to conditions, the Delegated Officer noted the above and found that the proposed clearing is unlikely to lead to an unacceptable risk to the environment.

## 2. Site Information

### 2.1. Existing environment and information

#### 2.1.1. Description of the native vegetation under application

**Vegetation Description:** The application area is mapped as Heddle vegetation Southern River complex which comprises open woodland of *Corymbia calophylla* (marri) - *Eucalyptus marginata* (jarrah) - *Banksia* species with fringing woodland of *Eucalyptus rudis* (flooded gum) - *Melaleuca raphiophylla* (swamp paperbark) along creek beds (Heddle et al., 1980).

A level 2 flora and vegetation survey of the application area undertaken by RPS (2012a) identified that the application area comprises three vegetation types:

V1: Low open woodland of *Banksia menziesii* and *B. attenuata* over open heath to shrubland of *Adenanthos cygnorum* subsp. *cygnorum*, *Xanthorrhoea preissii* and *Eremaea pauciflora* over open low heath of *Scholtzia involucrata*, *Leucopogon conostephioides*, *Melaleuca trichophylla* and *Calytrix flavescens* over open to very open herbland of *Phlebocarya ciliata*, *Patersonia occidentalis*, *Blancoa canescens*, *Dasypogon bromeliifolius* and *Lomandra* spp. over open to very open sedgeland of *Lyginia barbata*, *Schoenus curvifolius* and *Hypolaena exsulca*. V1 is the most dominant vegetation type within the application area.

V4: Low woodland to low open woodland of *Banksia menziesii* and *B. attenuata* over tall open scrub to tall shrubland of *Jacksonia sternbergiana* and *Adenanthos cygnorum* subsp. *cygnorum* over shrubland of *Xanthorrhoea preissii* and *Stirlingia latifolia* over low shrubland of *Leucopogon conostephioides*, *Hibbertia hypericoides* over open to very open sedgeland of *Lyginia imberbis*, *Hypolaena exsulca*, *Mesomelaena pseudostygia* and *Lyginia barbata*.

V5: Open shrubland of *Xanthorrhoea preissii* and *Melaleuca thymoides* over low open shrubland of *Jacksonia gracillima* (Priority 3), *Bossiaea eriocarpa* and *Calytrix flavescens* over herbland of *Phlebocarya ciliata*, *Patersonia occidentalis* and *Dasypogon bromeliifolius* over open to very open sedgeland of *Hypolaena exsulca*, *Desmocladius fasciculatus*, *Lyginia imberbis* and *Lyginia barbata*.

(RPS, 2012a)

**Clearing Description:** The applicant proposes to clear 4.51 hectares of native vegetation within Lot 1790 on Plan 3315, Southern River, for the purpose of livestock management and the establishment of stock loading/unloading area.

The applicant intends on clearing the majority of the application area (4.17 hectares) via stock grazing with a smaller area on the north eastern boundary of the property (0.34 hectares) proposed to be cleared mechanically for a stock loading/unloading area.

**Vegetation Condition:** Excellent; Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994).  
To  
Completely Degraded: No longer intact; completely /almost completely without native species (Keighery, 1994)

**Comment:** The vegetation condition and description was determined via a level 2 flora and vegetation survey of the application area undertaken by RPS (2012a) and a site inspection of the application area undertaken by Officers of the former Department of Environment Regulation (DER, 2015).

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

The applicant proposes to clear 4.51 hectares of native vegetation within Lot 1790 on Plan 3315, Southern River, for the purpose of livestock management and the establishment of stock loading/unloading area. The applicant intends on clearing the majority of the application area (4.17 hectares) via stock grazing with a smaller area on the north eastern boundary of the property (0.34 hectares) proposed to be cleared mechanically for a stock loading/unloading area.



Figure 1. Stock grazing area.



Figure 2. Stock loading/unloading area

A level 2 flora and vegetation survey undertaken for a larger area within Lot 1790 identified three vegetation types within the application area (see Section 2.1.1 above) (RPS, 2012a). The survey identified 180 plant taxa, comprising 144 native species and 36 introduced species (RPS, 2012a). The application area ranges from excellent to completely degraded (Keighery, 1994) condition, with the majority of the vegetation in a very good to excellent (Keighery, 1994) condition (RPS, 2012a; DER, 2015).

The level 2 flora and vegetation survey identified three priority flora species within the property, being *Acacia lasiocarpa* var. *bracteolata* long peduncle variant (Priority 1, 25 specimens identified), *Jacksonia gracillima* (Priority 3, 258 specimens identified) and *Verticordia lindleyi* subsp. *lindleyi* (Priority 4, 24 specimens identified) (RPS, 2012a). The current amended application area does not include the identified occurrences of *Acacia lasiocarpa* var. *bracteolata* long peduncle variant, which was identified within the south eastern portion of the application area, and the proposed clearing is not likely to impact on this species.

A separate targeted flora survey of nearby Bush Forever sites which encompassed an area of approximately 81 hectares, identified 1646 individuals of *Jacksonia gracillima*, and 243 individuals of *Verticordia lindleyi* subsp. *lindleyi* (RPS, 2012b).

The results of the targeted flora survey indicate that *Jacksonia gracillima* is well represented at a local scale, and the proposed clearing is not likely to impact on the conservation status of this species.

*Verticordia lindleyi* subsp. *lindleyi* is known from numerous locations in the Perth metropolitan area, with 76 Western Australian Herbarium records between Cataby and the southern extent of the Perth metropolitan region. This species is considered locally common and the proposed clearing of 24 individuals is not likely to impact on the conservation status of this species.

As assessed under Principle (c), the level 2 flora and vegetation survey did not identify rare flora within the application area (RPS, 2012a). Two additional targeted flora surveys were undertaken to account for the varying flowering times of three rare flora species recorded within the local area (10 kilometre radius surrounding the application area).

These surveys were undertaken on 17 October 2013 and 26 September 2014 and did not identify rare flora (PGV Environmental 2013; PGV Environmental, 2014).



The applicant commissioned a statistical classification analysis of the quadrat data collected within the level 2 flora and vegetation survey, to provide a determination of the potential presence of the TEC known as 'Banksia attenuata woodland over species rich dense shrublands'. This TEC is commonly referred to as either Floristic Community Type 20a (FCT20a) or Swan Coastal Plain Community type 20a (SCP20a). The analysis of the quadrat data determined that the portion of the application area in question is unlikely to be representative of FCT20a and mostly resembles FCT23, known as 'Banksia dominated woodlands of the Swan Coastal Plain IBRA region' (Woodman Environmental, 2016). This community is listed by the Department of Biodiversity, Conservation and Attractions (DBCA) as Priority Ecological Community (PEC) (Priority 3), and is considered a potential sub-community of the Commonwealth recognised 'Banksia Woodlands of the Swan Coastal Plain ecological community' TEC, which is listed as endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Since the statistical classification analysis has been undertaken, the majority of the vegetation under application has been mapped by the Department of Biodiversity, Conservation and Attractions (DBCA) as the abovementioned Priority 3 PEC.

While the application area is mapped as a PEC and is potentially representative of the 'Banksia Woodlands of the Swan Coastal Plain ecological community' TEC (as discussed under principle (d)), noting the extent of surrounding vegetation within Bush Forever sites, the proposed clearing is not likely to significantly impact on the local extents of these communities.

As discussed under Principle (b), given the juvenile state of the regrowth *Banksia* woodland within the application area (DER, 2015), it is not likely to currently provide significant foraging habitat for Carnaby's cockatoo (*Calyptorhynchus latirostris*). Noting the extent of vegetation remaining within several nearby Bush Forever sites, the application area is considered unlikely to provide significant habitat for ground dwelling fauna.

As discussed under Principle (b), the majority of the application area is within a regional ecological linkage identified and mapped by the Perth Biodiversity Project. The applicant has amended the application area to retain conservation significant remnant native vegetation within the southern portion of Lot 1790, and the proposed clearing is not likely to significantly impact this linkage.

As discussed under Principle (f), the original application area included vegetation that was adjacent to a mapped dampland, with the dampland considered to have values commensurate with a conservation category wetland (Department of Parks and Wildlife (Parks and Wildlife), 2016). The applicant commissioned a wetland boundary assessment of Lot 1790 to identify the true boundary of the mapped dampland. Based on this mapping, the applicant has amended the original application area to ensure the maintenance of a 50 metre vegetative buffer to the determined boundary of the dampland, to avoid and minimise impacts to the dampland and its hydrological function.

The application area contains vegetation in excellent (Keighery, 1994) condition (RPS, 2012a) that is representative of, and mapped as a PEC and has the potential to contain vegetation that is representative of a Commonwealth listed TEC. Therefore the proposed clearing may be at variance to this Principle.

There are several nearby Bush Forever sites that are potential occurrences of the above mentioned threatened and priority ecological communities. Given this, and that the *Banksia* woodland within the application area is in a state of regrowth, and does not currently provide the same high value fauna habitat as established occurrences of both ecological communities, the proposed clearing is not likely to significantly impact on the biological diversity of the local area.

#### Methodology

##### References:

DER (2015)  
Keighery (1994)  
Parks and Wildlife (2016)  
PGV Environmental (2013)  
PGV Environmental (2014)  
RPS (2012a)  
RPS (2012b)  
Woodman Environmental (2016)

##### GIS Databases:

SAC Bio Datasets (Accessed October 2017)

**(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 not likely to be at variance to this Principle**

A fauna assessment of Lot 1790 identified that 32 fauna species of conservation significance have the potential to occur within the application area, based on recent nearby records (RPS, 2012a).

A further assessment of habitat suitability comparisons between these 32 species and the application area identified that ten species may occur within the application area (RPS, 2012a). These ten species include forest red-tailed black-cockatoo (*Calyptorhynchus banksii* subsp. *naso*), Baudin's cockatoo (*Calyptorhynchus baudinii*), Carnaby's cockatoo, peregrine falcon (*Falco peregrinus*), southern death adder (*Acanthophis antarcticus*), quenda (*Isoodon obesulus* subsp. *fusciventer*), carpet python (*Morelia spilota* subsp. *imbricata*), wood sandpiper (*Tringa glareola*), rainbow bee-eater (*Merops ornatus*) and black winged stilt (*Himantopus himantopus*) (RPS, 2012a).

No species of conservation significance were identified within the application area during a fauna field survey (RPS, 2012a).

The rainbow bee-eater, peregrine falcon, wood sandpiper and black winged stilt are considered to be highly mobile avian species with large home ranges and it is not likely that these species are reliant on the habitat within the application area. Therefore, the proposed clearing is not likely to impact on significant habitat for these species.

Forest red-tailed black-cockatoo, Baudin's cockatoo and Carnaby's cockatoo (colloquially known as black cockatoos) forage on the seeds, nuts and flowers of a large variety of plants including proteaceous species (*Banksia*, *Hakea*, *Grevillea*), as well as *Allocasuarina* and *Eucalyptus* species, *Corymbia calophylla* and a range of introduced species (Valentine and Stock, 2008). The native feeding records on the Swan Coastal Plain reveal that *Banksia* species account for nearly 50 per cent of Carnaby's cockatoo diet, with the majority of records from *Banksia attenuata* (Shah 2006). This species and the co-dominant *Banksia menziesii* are considered essential native food sources for Carnaby's cockatoo (Shah 2006). *Banksia* woodland is also utilised for foraging by forest red-tailed black-cockatoo and Baudin's cockatoo, although other flora species are generally utilised in favour of *Banksia* sp., for these species if available (Commonwealth of Australia, 2012).

The application area contains low open woodland of juvenile *Banksia attenuata* and *Banksia menziesii*, which is in a state of regeneration (DER, 2015).

While the vegetation under application may constitute significant habitat for Carnaby's cockatoo in the future, it does not currently provide a viable food source and is therefore not currently considered to provide significant foraging habitat for this species.

To be suitable as a black cockatoo breeding site trees require a suitable breeding hollow or be of a suitable diameter at breast height (DBH) to develop a breeding hollow. For most tree species, a suitable DBH is 500 millimetres (Commonwealth of Australia, 2012). The application area does not contain large primary habitat trees (DER, 2015) and therefore, does not provide suitable breeding habitat for black cockatoos.

The carpet python, southern death adder and quenda are ground dwelling indigenous fauna that may utilise the application area. Given that suitable habitat for these species exists within nine nearby (within four kilometres) Bush Forever sites (342, 413, 253, 125, 340, 465, 464, 255, 246), comprising 845.62 hectares of remnant vegetation, the application area is unlikely to be significant for these species. Further, fauna deaths as a result of clearing would be unlikely, given that the proposed clearing method is primarily stock grazing, whereby ground dwelling fauna would have ample opportunity to disperse into nearby remnant vegetation.

The majority of the application area is within a regional ecological linkage identified and mapped by the Perth Biodiversity Project. While this linkage isn't contiguous, it is likely to act as a stepping stone between Bush Forever sites, maintaining ecological processes by facilitating fauna movement across the landscape and between dryland and wetland vegetation types. Approximately four hectares of remnant vegetation within the southern portion of the property, of which three hectares is mapped as a wetland (dampland), has been excluded from the application area. This remnant vegetation would help to maintain landscape linkage values, therefore it is not expected that the proposed clearing will result in major impacts to this linkage.

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

#### Methodology

##### References:

Commonwealth of Australia (2012)  
DER (2015)  
RPS (2012a)  
Shah (2006)  
Valentine and Stock (2008)

##### GIS Databases:

Bush Forever Sites

#### **(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**

A level 2 flora and vegetation survey did not identify rare flora within the application area (RPS, 2012a). The survey was undertaken during two different stages, the first stage included the front portion of the property and the second included the remainder of the property.

Based on the nearby records of three rare flora species with habitat requirements that were consistent with the application area, it was deemed that the application area may include these species. The flowering periods of these species were such that they may not have been identified within the level 2 flora and vegetation survey and subsequently two additional flora surveys, targeted at these species were undertaken. The follow up targeted surveys did not identify rare flora (PGV Environmental 2013; PGV Environmental, 2014).

The former Parks and Wildlife (2016) advised that one additional rare flora species, which had been recently upgraded from Priority 1 to Critically Endangered, may occur within the mapped dampland in the southern portion of Lot 1790. This species has been recorded approximately 200 metres south of the application area and has a preference for low lying winter wet areas. The former Parks and Wildlife (2016) advised that the vegetation identified within the mapped dampland is consistent with the required habitat for this species.

The applicant commissioned a wetland boundary assessment of Lot 1790 to identify the true boundary of the dampland occurrence. Based on this mapping, the applicant has amended the application area to ensure the maintenance of a 50 metre vegetative buffer to the determined dampland boundary, and provided a commitment to fence the southern portion of the application area to prevent stock access.

The maintenance of a vegetative buffer will assist in minimising hydrological changes and impacts to the rare flora species habitat, should it occur within the dampland. Follow up advice from DBCA to the applicant regarding this species advised that potential habitat is unlikely to occur in the upland vegetation within Lot 1790 (DBCA, 2017).

Noting the above, the proposed clearing is not likely to include, or be necessary for the continued existence of rare flora and the proposed clearing is not likely to be at variance to this Principle.

#### Methodology

##### References:

DBCA (2017)  
Parks and Wildlife (2016)  
PGV Environmental (2013)  
PGV Environmental (2014)  
RPS (2012a)

##### GIS Databases:

SAC Bio Datasets (Accessed October 2017)

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

The former Parks and Wildlife advised that a small central portion of the application area, associated with the aforementioned vegetation type V4, may be an unmaped occurrence of a State listed TEC known as '*Banksia attenuata* woodlands over species rich dense shrublands' (FCT20a) (Parks and Wildlife, 2016).

The former Parks and Wildlife recommended that further statistical analysis be undertaken to verify the floristic community types within the application area so that impacts to this potential TEC could be determined (Parks and Wildlife, 2016).

The applicant commissioned a statistical classification analysis of the quadrat data collected within the level 2 flora and vegetation survey undertaken by RPS (2012a), to provide a determination of the potential presence of Floristic Community Type FCT20a. The analysis determined that "the average species richness recorded within the RPS quadrats (44) was significantly lower than recorded in SCP [FCT] 20a quadrats (67.4) indicating that the RPS quadrats are unlikely to represent SCP [FCT] 20a" (Woodman Environmental, 2016).

With regard to the statistical classification analysis the former Parks and Wildlife advised that "the conclusions regarding most likely FCT's present, for the quadrats that were analysed, are appropriate" (Parks and Wildlife, 2016a).

The former Parks and Wildlife (2016) advised that the southern portion of Lot 1790 (associated with the mapped dampland), may be representative of a State and Commonwealth listed TEC known by the State as 'Shrublands on dry clay flats' (FCT 10a) and by the Commonwealth as 'Claypans of the Swan Coastal plain'. The applicant commissioned a wetland boundary assessment of Lot 1790 to identify the true boundary of the dampland occurrence. Based on this mapping, the applicant has amended the original application area to ensure the maintenance of a 50 metre vegetative buffer to the determined dampland boundary, and provided a commitment to fence the southern portion of the application area to prevent stock access. The maintenance of a vegetative buffer will assist in minimising hydrological changes to the mapped dampland, and it is not likely that the proposed clearing will impact on FCT10a, if present.

On 16 September 2016, the Commonwealth Department of the Environment and Energy (DotEE) listed the *Banksia* Woodlands of the Swan Coastal Plain ecological community (the ecological community) as endangered under the EPBC Act. The ecological community is largely restricted to the Perth and Dandaragan subregions of the Swan Coastal Plain IBRA bioregion (Interim Biogeographic Regionalisation of Australia), stretching from Jurien Bay in the north to Dunsborough in the south (Threatened Species Scientific Committee,

2016). The ecological community also extends into adjacent areas on the Whicher and Darling escarpments to the south and east, where pockets of *Banksia* Woodland may also occur (Threatened Species Scientific Committee, 2016).

The application area is mapped by DotEE as a 'likely to occur' area for the ecological community. DotEE's mapping provides an indicative distribution of the ecological community, defining areas mapped as 'likely to occur' and 'may occur'. The approved conservation advice for this community states that "Ground-truthing (e.g. an on-ground survey) is required to verify if a particular site meets the required key diagnostic characteristics and minimum condition thresholds to be the described ecological community" (Threatened Species Scientific Committee, 2016).

The canopy of the ecological community is most commonly dominated or co-dominated by *Banksia attenuata* and/or *Banksia menziesii*. Other *Banksia* species that may dominate include *Banksia prionotes* or *Banksia ilicifolia* (Threatened Species Scientific Committee, 2016). The understorey of the community typically contains a high to very high diversity of shrub and herb species that often vary from patch to patch (Threatened Species Scientific Committee, 2016).

Noting the application area's condition and size, comprising low open woodland of *Banksia menziesii* and *B. attenuata*, over a suite of native understorey species (see Section 2.1.1 for full description), it is considered to be potentially representative of the ecological community.

The former Parks and Wildlife advised that "areas of *Banksia* woodlands on Lot 1790 that are in Excellent to Good Condition in the proposal area appear to meet the key diagnostic characteristics, condition and size thresholds of the *Banksia* Woodlands of the Swan Coastal Plain TEC..." (Parks and Wildlife, 2016a). The majority of the application area (approximately 3.8 hectares) is in a very good to excellent (Keighery, 1994) condition (RPS, 2012a) and therefore meets the minimum size and condition thresholds specified for this community.

The *Banksia* woodland within the application area is in a state of regeneration and does not currently provide high value fauna habitat.

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

The application area is contiguous with approximately 14 hectares of remnant native vegetation to the north and west (7.35 hectares mapped as Bush Forever site 340) which is mapped as a 'likely to occur' area for the ecological community. The application area comprises less than 35 per cent of this larger remnant and the proposed clearing will not fragment the remnant.

There are nine Bush Forever sites (340 (mentioned above), 342, 413, 253, 125, 465, 464, 255, 246) within a four kilometre radius of the application area, comprising a total area of approximately 845.62 hectares. The majority of the remnant vegetation within these Bush Forever sites is mapped as 'likely to occur' areas for the ecological community, with the remainder mapped as 'may occur' areas. Three of these Bush Forever sites mapped as 'likely to occur' areas are within 500 metres of the application area and comprise approximately 56.463 hectares.

Noting the numerous larger remnants that are likely to be representative of the ecological community (with the majority mapped as 'likely to occur' areas by DotEE), the application area comprises a relatively small patch of this communities extent, approximately 0.4 per cent of the community within a four kilometre radius. Given this, the proposed clearing is not likely to significantly impact on the local extent of the ecological community.

#### Methodology

##### References:

DER (2015)  
Keighery (1994)  
Parks and Wildlife (2016)  
Parks and Wildlife (2016a)  
RPS (2012a)  
Threatened Species Scientific Committee (2016)  
Woodman Environmental (2016)

##### GIS Databases:

Bush Forever sites  
SAC Bio Datasets (Accessed October 2017)

#### **(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 local area retains approximately 25 per cent (8750 hectares) of its pre-European vegetation extent. The application area represents approximately 0.051 per cent of the remaining native vegetation within the local area and the proposed clearing would reduce the extent of native vegetation within the local area to 24.98 per cent (8,745.53 hectares).

The vegetation under application is mapped as Heddle vegetation Southern River complex which retains approximately 18 per cent of its pre-European vegetation extent within the Swan Coastal Plain Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (Government of Western Australia, 2016; Parks and Wildlife, 2017). The City of Gosnells retains approximately 28 per cent of its pre-European vegetation extent.

The National Objectives and Targets for Biodiversity Conservation include a target that prevents the clearance of ecological communities with an extent below 30 per cent of that present pre-European settlement (Commonwealth of Australia, 2001). Within constrained areas (areas of urban development in cities and major towns) on the Swan Coastal Plain, the threshold for representation of the pre-clearing extent of a particular native vegetation complex is 10 per cent (EPA, 2008). The area under application is classified as a constrained area.

Noting that the local area, City of Gosnells and mapped vegetation type retain greater than the abovementioned 10 per cent vegetation threshold, the proposed clearing is not considered to be a significant remnant within an extensively cleared area and is not likely to be at variance to this Principle.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in Parks and Wildlife Managed Lands (%)
<b>IBRA Bioregion*</b>				
Swan Coastal Plain	1,501,222	578,432	38.5	38
<b>Shire*</b>				
City of Gosnells	12,715	3,566	28	16.7
<b>Heddle vegetation complex **</b>				
Southern River Complex	58,781	10,838	18	1.5

**Methodology**

References:  
 Commonwealth of Australia (2001)  
 EPA (2008)  
 Government of Western Australia (2016)  
 Heddle et al. (1980)  
 Parks and Wildlife (2017)

GIS Databases:  
 Remnant Vegetation, Swan Coastal Plain

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

The southern portion of Lot 1790 is mapped in the Geomorphic Wetlands Swan Coastal Plain dataset as part of an extensive multiple use category dampland (seasonally waterlogged basin) located in the Bennett Brook consanguineous suite (natural wetland group). The former Parks and Wildlife (2016) advised that based on the condition of the dampland and representativeness of its type and function, it may have values commensurate with a conservation category wetland.

The vegetative buffer surrounding a wetland helps to maintain the ecological processes and functions associated with the wetland, and aims to protect the wetland from potential adverse impacts (EPA, 2008). The Environmental Protection Authority's Guidance Statement 33 recommends a minimum 50 metre buffer be maintained for the protection of wetlands (EPA, 2008).

The applicant commissioned a wetland boundary assessment of Lot 1790 to identify the true boundary of the dampland occurrence. Based on this mapping, the applicant has amended the original application area to ensure the maintenance of a 50 metre vegetative buffer to the determined dampland boundary, and provided a commitment to fence the southern portion of the application area to prevent stock access. The maintenance of a vegetative buffer will assist in minimising hydrological changes, and impacts to riparian vegetation growing in association with the mapped dampland.

While a buffer has been provided to the mapped dampland, a small south western portion of the application area (approximately 0.04 hectares) includes one dominant species that is commonly associated with wetland environments, being *Melaleuca thymoides* (RPS, 2012a), and there is the potential that this species is growing in association with the dampland. Therefore, the proposed clearing may be at variance to this Principle.

Given the minimal extent of potential riparian vegetation proposed for clearing and the avoidance measures undertaken by the applicant, the proposed clearing is not likely to significantly impact on the dampland or large areas of riparian vegetation.

**Methodology**   References:  
EPA (2008)  
Parks and Wildlife (2016)  
RPS (2012a)  
GIS Databases:  
Hydrography, linear  
Hydrography, hierachy  
Geomorphic Wetlands, Swan Coastal Plain

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

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

The majority of the application area is mapped as Bassendean Map unit 212Bs\_B2, described as flat to very gently undulating sandplain with well to moderately well drained deep bleached grey sands with a pale B horizon or a weak iron-organic hardpan at a depth of one to two metres (Commissioner of Soil and Land Conservation (CSLC, 2013)).

A small portion of the application area has been mapped as Pinjarra Map unit 213Pj\_P1b, described as flat to very gently undulating plain with deep acidic mottled yellow duplex soils with deep pale sand to loamy sand over clay, imperfectly drained and moderately susceptible to salinity in limited areas (CSLC, 2013).

An additional soil map unit (Pinjarra Map unit 213Pj\_B1) also occurs within the southern portion of the property (CSLC, 2013), however the applicant has amended the application area to include only a small linear area of proposed clearing within this area, which largely follows an existing cleared firebreak.

A land degradation assessment of the application area identified that the risk of water erosion, waterlogging or flooding as a result of clearing is low (CSLC, 2013).

The CSLC (2013) advised that land degradation in the form of wind erosion is not likely to occur should the application area retain a full pasture or vegetative cover. However, the proposed grazing will gradually reduce the vegetative cover, which may eventually result in bare areas with exposed sandy soils susceptible to wind erosion.

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

Applying stocking rates in accordance with the former Department of Agriculture and Food Western Australia's (DAFWA) Stocking rate guidelines for small rural holdings on the Swan Coastal Plain and Darling Scarp (Stocking rate guidelines) would help to ensure that the application area is not over-grazed, and minimise the potential for wind erosion.

Given the requirement to apply stocking rates in accordance with the former DAFWA's Stocking rate guidelines, the proposed clearing is not likely result in appreciable land degradation.

**Methodology**   References:  
Commissioner of Soil and Land Conservation (2013)

**(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**

There are several conservation areas within the local area, the closest being Bush Forever site 340 which is adjacent to the northern boundary of the application area. Bush Forever sites 464 and 465 are approximately 500 metres from the application area and Bush Forever sites 255 and 413 are within two kilometres.

The majority of the application area is within a regional ecological linkage identified and mapped by the Perth Biodiversity Project. The applicant has amended the original application area, leaving approximately four hectares of remnant vegetation within the southern portion of Lot 1790, which will be fenced off to exclude stock. This remnant vegetation would help to maintain landscape linkage values, and it is not expected that the proposed clearing will result in major impacts to this linkage, or the movement of fauna between the surrounding Bush Forever sites.

The application area adjacent to Bush Forever site 340 is proposed to be cleared via grazing, and it is not expected for this clearing method to result in the spread of weeds and dieback into the Bush Forever site given that the property will be fenced to retain stock. However, the proposed mechanical clearing of the stock loading/unloading area may result in the incidental spread of weeds and dieback into the adjacent Bush Forever site 340, particularly should machinery traverse around the firebreak at the edge of the property, therefore, the proposed clearing may result in the incidental spread of weeds and dieback into the Bush Forever site.

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

Weed and dieback management measures will assist to minimise this risk of weeds and dieback spreading into Bush Forever site 340.

**Methodology** GIS Databases:  
Bush Forever Sites

**(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**

As assessed under Principle (f), the southern portion of Lot 1790 is mapped as a multiple use category dampland. Vegetated buffers are key strategic elements among a series of protection barrier options that reduce the risk of sediment impact on water quality. The minimum recommended vegetative buffer for the protection of wetlands is 50 metres (WAPC, 2005).

The applicant commissioned a wetland boundary assessment of Lot 1790 to identify the true boundary of the dampland occurrence. The applicant has amended the original application area to exclude the southern portion of Lot 1790, including the mapped dampland, and there is now a 50 metre vegetative buffer to the determined dampland occurrence. The maintenance of a 50 metre vegetative buffer will assist in minimising sediment run-off into the dampland, and it is considered that the proposed clearing is not likely to result in the deterioration of the damplands water quality. The maintenance of a vegetative buffer will assist in minimising sediment run-off into the dampland, and it is considered that the proposed clearing is not likely to result in the deterioration of the damplands water quality.

Groundwater salinity mapped within the application area ranges from 500 to 1000 milligrams per litre (measured as Total Dissolved Solids), which is marginal. The proposed gradual clearing through grazing is not likely to result in a rise in groundwater levels.

A land degradation assessment of the application area undertaken by DAFWA identified that the proposed clearing is not likely to result in changes to salinity levels (CSLC, 2013). Therefore, deterioration in the quality of surface and/or underground water via increased salinity is considered unlikely.

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

**Methodology** References:  
CSLC (2013)  
WAPC (2005)

GIS Databases:  
Hydrography, linear  
Hydrography, hierachy  
Geomorphic Wetlands, Swan Coastal Plain

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

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

A land degradation assessment of the application area identified that the risk of flooding as a result of the proposed clearing is low (CSLC, 2013).

The proposed clearing method of grazing will result in the progressive removal of native vegetation, and given that the applicant has amended the original application area to exclude a dampland and provide a 50metre buffer to its occurrence, it is considered unlikely that the proposed clearing will cause or exacerbate the incidence or intensity of flooding.

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

**Methodology** References:  
CSLC (2013)

GIS Databases:  
Geomorphic Wetlands, Swan Coastal Plain

## Planning instruments and other relevant matters.

**Comments** The application was advertised in *The West Australian* newspaper on 10 August 2015 by the former DER, inviting submissions from the public within a 21 day period. No public submissions were received.

### Historical Information

- On 25 June 2013 the applicant submitted a clearing permit application (CPS 5666/1) for the purpose of livestock grazing and management. The application was to clear 8.5 hectares of native vegetation and a preliminary assessment identified several environmental impacts.
- On 29 May 2014 the former DER determined that a number of impacts had not been adequately addressed, and subsequently refused the application.
- On 19 June 2014 the applicant appealed the decision, and on 15 December 2014 the Minister for Environment dismissed the appeal.
- On 4 August 2015 the applicant resubmitted a revised clearing permit application (CPS 6686/1, comprising 6.7 hectares) with additional flora survey information to support the application.
- On 13 January 2016 the former DER notified the applicant that a preliminary assessment of the revised application area determined that the proposed clearing had the potential to impact on an unmapped TEC occurrence, a dampland mapped within the southern portion of Lot 1790 and habitat (within the mapped dampland) for one species of rare flora.
- On 18 May 2016 the applicant amended the application area from 6.7 hectares to 6.28 hectares to minimise environmental impacts.
- On 5 August 2016 the former DER wrote to the applicant advising a preliminary assessment identified that the amended area may include an unmapped occurrence of a TEC, and was adjacent to and may impact on a mapped dampland and suitable habitat for a one rare flora species. The applicant was invited to provide additional information.
- On 29 September 2017 the applicant provided additional information to address the environmental impacts, including amending the application area to 5.41 hectares, undertaking analysis to determine the presence of TEC's, committing to the provision of a 50 metre buffer to the dampland (and fencing the buffer to prevent stock), and advised that stocking rates would be in accordance with the former Department of Agriculture and Food's document titled 'Stocking rate guidelines for rural small holdings, Swan Coastal Plain and Darling Scarp and surrounds, Western Australia'.
- On 8 February 2017 the former DER wrote to the applicant advising that the environmental impacts had been adequately addressed, however noted that a decision would be deferred until development approval had been issued by the City of Gosnells.
- On 16 October 2017 and 10 November 2017 the applicant further amended the application area, with a final proposed clearing area of 4.51 hectares. The amendment was necessary to maintain a 50 metre buffer around the abovementioned dampland, as the boundary of the damplands occurrence had been redefined within a Wetland Boundary Assessment commissioned by the applicant (see further discussion under Other Relevant Approvals section below).

### Other Relevant Approvals

The subject property lies within the Southern River Precinct 3 Local Structure Planning Cell. Lot 1790 is zoned Urban Deferred under the Metropolitan Region Scheme and General Rural under the City's Town Planning Scheme.

The applicant applied for development approval from the City of Gosnells for the proposed end land use. The City of Gosnells made a decision to not issue development approval. Two State Administrative Tribunal mediation sessions were subsequently held to progress the development application, with the applicant providing additional information in the form of a Wetland Boundary Assessment to support the development application. As a result of the mediation and follow up information, the State Administrative Tribunal (SAT) approved the development approval by consent order and advised that:

- The Application for Review is allowed; and
- The decision of the respondent is set aside and a decision is substituted that development approval is granted for Rural Pursuit on Lot 1790 Passmore Street, Southern River in accordance with amended plan dated 28 September 2017 subject to the following conditions:
- Prior to the commencement of works, a wetland buffer management plan is to be prepared and approved by the City's officers with appropriate delegated authority, with satisfactory arrangement to be made for its implementation.
- Prior to commencement of the Rural Pursuit land use, a stock proof fence is to be built in accordance with the amended rural pursuit site plan dated 28 September 2017.

(SAT, 2017).

A small portion of the application area is within an Aboriginal Site of Significance. It is the proponent's responsibility to comply with the Aboriginal Heritage Act 1972 and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

### **Methodology**

References:  
SAT (2017)

GIS Databases:  
Town Planning Scheme Zones  
Aboriginal Sites of Significance



#### 4. References

- Commissioner of Soil and Land Conservation (2013) Land Degradation Advice and Assessment Report for clearing permit application CPS 6686/1 received September, 2013; Department of Agriculture and Food Western Australia (TRIM Ref. DOCA677210).
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Commonwealth of Australia (2012) EPBC Act referral guidelines for three threatened black cockatoo species, Canberra.
- Department of Environment Regulation (DER) (2015) Site Inspection Report for Clearing Permit Application CPS 6686/1. Site inspection undertaken 19 August 2015. Department of Environment Regulation, Western Australia (DER Ref A1102603).
- EPA (2008) Environmental Guidance for Planning and Development Guidance Statement No 33. Environmental Protection Authority, Western Australia
- Government of Western Australia (2016) 2016 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2016. WA Department of Parks and Wildlife, Perth.
- Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Department of Parks and Wildlife (Parks and Wildlife) (2017) 2016 South West Vegetation Complex Statistics. Current as of December 2016. WA Department of Parks and Wildlife, Perth.
- Department of Parks and Wildlife (Parks and Wildlife) (2016) Direct Interest advice provided for Clearing Permit Application CPS 6686/1. Department of Parks and Wildlife, Perth, Western Australia (DER Ref A1095347).
- Department of Parks and Wildlife (Parks and Wildlife) (2016a) Direct Interest advice provided for Amended Clearing Permit Application CPS 6686/1. Department of Parks and Wildlife, Perth, Western Australia (DER Ref A1349992).
- PGV Environmental (2013) Lot 1790 Passmore Street, Southern River – Targeted Flora Survey. Letter report, dated 21 October 2013, Reference 10163\_001\_pvdm.
- PGV Environmental (2014) Lot 1790 Passmore Street, Southern River – Targeted Flora Survey. Letter report, dated 26 September 2014, Reference 10163\_005\_pvdm.
- RPS (2012a) Level 2 Flora and Vegetation Survey and Level 1 Fauna Assessment. Lot 1790 Passmore Street, Southern River. Unpublished report prepared for Castledine Gregory. Report No. L11410, Rev 0, December 2012. RPS Environment and Planning, Subiaco, Western Australia (DER Ref: A643812)
- RPS (2012b) Targeted Flora Survey – Bush Forever Sites 340,413,464 and 465, Southern River. RPS Environment and Planning, Subiaco, Western Australia (DER Ref A732181)
- 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.
- Valentine, L.E. and Stock, W. (2008) Food Resources of Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) in the Gngangara Sustainability Strategy Study Area. Edith Cowan University and Department of Environment and Conservation. December 2008.
- WAPC (2005) Guidelines for the Determination of Wetland Buffer Requirements. Western Australian Planning Commission, Albert Facey House, 469 Wellington Street, Perth Western Australia 6000.
- Woodman Environmental (2016) Statistical Analysis of Quadrat Data. Lot 1790 Passmore Street, Southern River. Additional Information for Clearing Permit Application CPS 6686/1. DER Ref A1177042.