



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 8776/1
File Number: DWERVT5105
Duration of Permit: From 8 August 2020 to 8 August 2022

PERMIT HOLDER

Mr Lachlan Guthrie

LAND ON WHICH CLEARING IS TO BE DONE

Lot 27 on Plan 33482, Yallingup

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 0.2 hectares of native vegetation within the area cross-hatched yellow on attached Plan 8776/1.

CONDITIONS

1. Application

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

2. 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.

3. 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.

4. Directional Clearing

The Permit Holder must conduct clearing activities in a slow, progressive manner to allow fauna to move into adjacent native vegetation.

5. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit, in relation to the clearing of native vegetation authorised under this Permit:

- (a) 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 or decimal degrees;

- (b) the date that the area was cleared;
- (c) the size of the area cleared (in hectares);
- (d) actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 2 of this Permit; and
- (e) actions taken to minimise the risk of the introduction and spread of *dieback* and *weeds* in accordance with condition 3 of this Permit.

6. Reporting

The Permit Holder must provide to the *CEO* the records required under condition 5 of this Permit, when requested by the *CEO*.

DEFINITIONS

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

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;

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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Ryan Mincham
MANAGER
NATIVE VEGETATION REGULATION

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

16 July 2020

Plan 8776/1

115°3'54.000"E

115°3'57.600"E

33°39'43.200"S

33°39'43.200"S

33°39'46.800"S

33°39'46.800"S



LOT 60 ON PLAN 22828

LOT 27 ON PLAN 33482


Shallows Loop

Porter Ct

115°3'54.000"E

115°3'57.600"E

Legend

 CPS areas approved to clear


 Road Centrelines

Cadastre - LGATE 218



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Officer delegated under section 20 of the
Environmental Protection Act 1986



GOVERNMENT OF
WESTERN AUSTRALIA



1. Application details

Permit application details

Permit application No.: 8776/1
Permit type: Area Permit

Applicant details

Applicant's name: Lachlan Guthrie
Application received date: 24 December 2020

Property details

Property: Lot 27 on Plan 33482, Yallingup
Local Government Authority: City of Busselton
Localities: Yallingup

Application

| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
|--------------------|-----------|--------------------|-----------------------|
| 0.2 | | Mechanical Removal | Building or Structure |

Decision on application

Decision on Permit Application: Grant
Decision Date: 16 July 2020

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 may be at variance to principle (a), (b) and (c), and is not likely to be at variance with the remaining clearing principles.

Through assessment it was identified that the application area contains high quality foraging habitat and potential breeding habitat for black cockatoos, with threatened flora having also been previously recorded within the application area. Surveys within the Lot confirmed that the hollows within the application area are not presently suitable for black cockatoo use, and other suitable hollows are present within the Lot that are not subject to this clearing permit. The application area also contains suitable habitat for a range of other conservation significant flora and fauna species, although this was determined to not be significant for these species.

In determining to grant a clearing permit, the Delegated Officer determined that adequate surveys had been undertaken for threatened flora and fauna species and that the clearing would not result in a significant loss of foraging habitat within the local area. Conditions have been imposed requiring the Permit Holder to conduct slow, directional clearing within the application area to allow fauna that may be present to move into adjacent vegetated areas. The Delegated Officer determined that, subject to implementation of permit conditions, the proposed clearing is unlikely to lead to any unacceptable risk to the environment.

2. Site Information

Clearing Description: The original application was to clear 0.7594 hectares of native vegetation within Lot 27 on Plan 33482, Yallingup for the purpose of a building a house and reducing fire risk (Figure 1). The application area was subsequently revised to encompass the building envelope only, with the total amount of clearing proposed being 0.2 hectares.

Vegetation Description: The vegetation has been mapped as Cowaramup Cd: Woodland of *Eucalyptus marginata* subsp. *marginata*-*Corymbia calophylla*-*Banksia ilicifolia* on sandy rises and low woodland of *Melaleuca preissiana* on lower slopes in the hyperhumid to humid zones (Mattiske and Havel, 1998).

A targeted flora survey undertaken by Ecosystem Solutions on 10 September 2019 within the Lot described the vegetation within the application area as mostly vegetated with species including *Agonis flexuosa*, *Corymbia calophylla* and *Eucalyptus marginata* subsp. *marginata* (Ecosystem Solutions, 2019).

Vegetation Condition: Based on the photographs provided in the targeted survey undertaken by Ecosystem Solutions (2019) and a site inspection undertaken by DWER staff (DWER, 2020), the condition of the application area is: Very Good; vegetation structure altered, obvious signs of disturbance; to Excellent; vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species (Keighery, 1994).

Soil and Landform Type:

The application area is mapped as Cowaramup deep sandy rises phase (216CoCOd2): flats and gently sloping rises (gradients 0-5%), with deep bleached sands. Some areas of low and moderate slopes (gradients 5-15%) (Schoknecht *et al.* 2004).

Comments:

The local area referred to in the assessment of this application is defined as a 10 kilometre radius measured from the perimeter of the application area.





Figure 2: Photographs of application area (Ecosystems Solutions, 2019).

3. Avoidance and minimisation measures

The applicant has stated that “BAL report has been done and minimum amount of clearing noted on the report.”

4. Assessment of application against clearing principles

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

Proposed may be at variance with this principle

A NatureMap report indicated 1,002 flora, 414 fauna, seven fungi and six lichen species have been recorded within the local area (DBCA, 2007-). Although the application area is small (<1 ha), the vegetation was determined to be in Very Good to Excellent condition (Keighery, 1994), indicating that the application area may contain a high diversity of flora and fauna.

According to available databases 32 conservation significant flora species have been recorded within the local area, including 23 priority species and nine threatened flora. Based on the desktop assessment the application area may provide suitable habitat for three species:

- *Acacia semitrullata* (Priority 4)
- *Boronia capitata* subsp. *gracilis* (Priority 3)
- *Thysanotus glaucus* (Priority 4)

Additionally, the site provides suitable habitat for two species:

- *Caladenia excelsa* (Threatened)
- *Stylidium lowrieianum* (Priority 3)

As outlined in principle (c), a population of *Caladenia excelsa* (pop. N° 15B) has been recorded within the application area, however, a targeted flora survey undertaken in September 2019 did not locate any individuals (Ecosystem Solutions, 2019). DBCA advice indicates that individuals at this population have not been recorded since 1997 and unless the area was subject to a fire at an appropriate time of year it is unlikely that any individuals will be located if subsequent surveys are undertaken (DBCA, 2020a, DBCA 2020b). Based on the small size of the application area and previous surveys undertaken of the area during an appropriate season, it was determined that the proposed clearing was not likely to impact on the conservation status of the other species outlined above (DBCA, 2020a).

A total of 12 conservation significant ecological communities have been recorded in the local area; however, the application area does not comprise vegetation and/or soil types consistent with the listing information of these communities.

As outlined in principle (b), the application area provides suitable habitat for conservation significant fauna including black cockatoos and western ringtail possums.

Based on the information available, the application area likely contains high biodiversity. However, comparable biodiversity values are likely to exist within the remainder of the Lot which will be retained.

(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 may be at variance with this principle

According to available databases, a total of 50 conservation significant fauna species have been recorded in the local area, of which the application area may provide suitable habitat for two (Coastal Plains skink (*Ctenotus ora*) and western brush wallaby (*Notamacropus irma*)), and is likely to provide suitable habitat for six:

- Baudin's cockatoo (*Calyptorhynchus baudinii*) - Within the known breeding area, Marri mentioned as a tree species for breeding. Jarrah and Marri are night roosting species, however roosting occurs typically near permanent water sources. Marri is the predominant food source of this species. Concerns have been raised in public submissions.

- Carnaby's cockatoo (*Calyptorhynchus latirostris*) - Jarrah and Marri mentioned as a potential breeding tree species although lies just outside the mapped breeding range; roosting trees associated with water sources, eucalyptus species mentioned as food source. Concerns have been raised in public submissions.
- Forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*) - Jarrah and Marri are breeding trees, night roosting trees and important foraging species for this species. Concerns have been raised in public submissions.
- quenda, southern brown bandicoot (*Isodon fusciventer*) – Recorded throughout the region, ground cover looks sufficiently dense to support this species.
- south-western brush-tailed phascogale, wambenger (*Phascogale tapoatafa wambenger*) – Habitat likely suitable, has been recorded in bush block subdivisions previously. Habitat consists of dry sclerophyllous forest. Has been recorded <1 km from application area. Concerns have been raised in public submissions.
- western ringtail possum, ngwayir (*Pseudocheirus occidentalis*) – Habitat suitable, recorded < 1 km from application area. Diet almost exclusively comprises the dominant or co-dominant upper and midstorey myrtaceous plants: peppermint, marri and jarrah (DPaW, 2017). Within SCP critical habitat area; habitat critical to survival comprises long unburnt mature remnant peppermint woodlands with high canopy continuity and high nutrient foliage with minimal periods of summer moisture stress, and habitat connecting patches of remnants (DPaW, 2017). Concerns have been raised in public submissions.

Based on the size of the application, the level of vegetation in the surrounding landscape, and the conservation status of Quenda (Priority 4), south-western brush-tailed phascogale (Conservation Dependent), western brush wallaby (Priority 4) and Coastal Plain skink (Priority 3), it was determined that the proposed clearing is unlikely to have a significant impact on these species.

A fauna assessment of significant species was undertaken within the Lot in which the proposed clearing is to be undertaken (Ecosystem Solutions, 2020). Although the habitat was suitable for Western Ringtail Possum and old scats were noted on site, there was no evidence of recent use by this species; no dreys were observed and no individuals were sighted during a spotlight survey (Ecosystem Solutions, 2020). Based on the size of the application area, the lack of recent use, the abundance of habitat within the Lot that will not be impacted and the remnant vegetation cover within the local area, the proposed clearing was determined to be unlikely to significantly impact upon Western Ringtail Possums.

Based on the information provided in the fauna survey and a site inspection undertaken by DWER staff, the application area provides high quality foraging habitat for black cockatoos (Ecosystem Solutions, 2020; DWER, 2020). Based on the size of the application area and level of remnant vegetation remaining within the local area (outlined in principle (e)), the majority of which is mapped as potential foraging habitat, it was determined that the proposed clearing would not significantly impact on black cockatoo foraging capacity in the local area. The Leeuwin-Naturaliste National Park, a 19,000 hectare area of remnant vegetation is located approximately 2.2 kilometres west of the application area, with remnant vegetation connecting the two areas. The majority of this remnant is mapped as potential foraging habitat for black cockatoos.

The fauna survey included a Black Cockatoo habitat assessment, during which 26 trees with a diameter at breast height over 500 mm with either hollows, or potential hollows were identified (Ecosystem Solutions, 2020). Of these, three are located within the proposed clearing area. The trees within the proposed clearing area were inspected with a drone; it was determined that the hollows were not suitable for black cockatoo use (Figure 3). Other hollows within the Lot were also inspected which identified there are multiple trees with suitable hollows outside of the application area (Figure 4).



Figure 5 Tree A showing shallow depth of hollow



Figure 6 Tree B showing hollow is too small for Black Cockatoo species

Figure 3: Hollows proposed to be cleared



Figure 4: Suitable hollows within the Lot outside of the application area which will be retained

(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 with this principle

There are records of nine flora species listed as threatened under the *Biodiversity Conservation Act 2016 (WA)*, of which the habitat was determined to be suitable for one, *Caladenia excelsa*. This species has previously been recorded within the Lot.

A targeted flora survey undertaken in September 2019 did not locate any individuals (Ecosystem Solutions, 2019). One of the main threats to *C. excelsa* is grazing, most notably by kangaroos (*Macropus fuliginosus*) (DEWHA, 2008). The long unburnt fire history of the application area may also influence species emergence (DBCA 2020a). Although vegetative material may be absent, it is not necessarily contraindicative of the presence of this species. Advice received from DBCA indicates no individuals have been recorded in this location since 1997, when a single plant was recorded (DBCA, 2020b). DBCA also advised that the likelihood of recording this species again was low without the area being subject to a fire at an appropriate time of year, and therefore did not recommend surveying in subsequent seasons (DBCA, 2020a; DBCA, 2020b). Based on the above information, the proposed clearing may be necessary for the continued existence of a Threatened flora species, however the applicant has minimised the clearing of vegetation as far as practicable.

(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 not likely to be at variance with this principle

A total of five threatened ecological communities (TECs) listed under the *Biodiversity Conservation Act 2016* been recorded within the local area. The application area does not comprise vegetation or soils consistent with the listing information for any of these TECs; the proposed clearing is not likely to be considered, or associated with, a threatened ecological community.

(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 with this principle

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

In assessing the risk of further loss and subsequent cumulative effects, consideration has been given to the extent of native vegetation remaining and what is currently managed as conservation estate. As indicated in Table 1, the current vegetation extents for the bioregion, the mapped vegetation complex within the application area, and the local area all above the 30 per cent threshold.

Given the above, the application area is not likely to be significant as a remnant of native vegetation in an area that has been extensively cleared.

Table 1: Vegetation representation statistics (Government of Western Australia, 2018)

| | Pre-European (ha) | Current Extent (ha) | Remaining (%) | Current Extent in DBCA Managed Lands | |
|-------------------------------------|-------------------|---------------------|---------------|--------------------------------------|-------|
| | | | | (ha) | (%) |
| IBRA Bioregion | | | | | |
| Victoria Bonaparte | 4,506,656.99 | 2,514,549.90 | 55.80 | 1,689,684.2 | 67.20 |
| Hedde vegetation association | | | | | |
| Cowaramup Cd | 4,067.16 | 2,362.61 | 58.09 | 669.17 | 16.45 |
| Local area | | | | | |
| 10 kilometre radius | 24,245.15 | 10,457.72 | 43.13 | - | - |

(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 with this principle

The application area does not contain any mapped watercourses or wetlands. The nearest mapped watercourse is a natural, non-perennial watercourse located approximately 140 metres to the east of the application area. Based on the landscape position and vegetation composition, the vegetation within the application area is not likely to be associated with this watercourse.

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

Proposed clearing is not likely to be at variance with this principle

The application area is mapped as Cowaramup deep sandy rises phase (216CoCOd2): flats and gently sloping rises (gradients 0-5%), with deep bleached sands. Some areas of low and moderate slopes (gradients 5-15%) (Schoknecht *et al.* 2004). The application area has a high to extreme risk of wind erosion, subsurface acidification and phosphorus export, and a moderate risk of waterlogging. Based on the small size of the application area and the landscape position, the proposed clearing is not likely to cause appreciable land degradation.

(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 not likely to be at variance with this principle

The nearest DBCA conservation area is located 2.16 kilometres west north-west of the application area. The surrounding area is predominately zoned as rural residential, rural, recreation and tourism/viticulture. The proposed clearing is not likely to impact on this nearby conservation areas.

(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 not likely to be at variance with this principle

Due to the small size and distance from the nearest watercourse, the proposed clearing is not likely to cause water quality deterioration.

(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 not likely to be at variance with this principle

Due to the small size of the application area, the proposed clearing is not likely to cause or exacerbate flooding.

Planning instruments and other relevant matters.

The area originally proposed to be cleared for the Building Protection Zone (BPZ) is required to be cleared under another law, namely under Section 33 of the *Bush Fires Act 1954*. This is stipulated through the City of Busselton's firebreak and fuel hazard reduction notice, which notes that building in rural residential Lots must have a minimum BPZ of 25 metres. As such, it has been determined that an exemption under Schedule 6, Clause 1 of the EP Act can be utilised for this area to clear for the extent required to implement a BPZ. The extent of native vegetation removal to comply with the BPZ is not wholesale clearing, with stipulations outlined in the City's firebreak and fuel hazard reduction notice.

DBCA have advised that a permit to remove threatened flora for the purpose of clearing under section 40 of the *Biodiversity Conservation Act* is needed, despite no plants recorded during the survey, due to the potential for underground tubers and seeds (DBCA, 2020). This authorisation form was submitted to DBCA on 19 March 2020 and DWER has been advised it will be authorised once the clearing permit has been granted.

Development Approval (DA) for the proposed buildings was applied for in October 2019 (DA19/0674). The City are supportive of the application to clear native vegetation for the purpose of building the proposed single house, and the application is consistent with local planning schemes and policies (City of Busselton, 2020). The determination of the DA is pending the outcome of the clearing permit application (City of Busselton, 2020).

The clearing permit application was advertised on the DWER website on 13 January 2020 with a 14 day submission period. Two public submissions were received (Submission, 2020a; Submission 2020b); the concerns raised are outlined in the below table. It is noted that a fauna assessment for significant species has subsequently been undertaken.

| Submission | Concerns raised | Comments |
|------------|--|--|
| A | A known occurrence of <i>Caladenia excelsa</i> within the application area; one survey should not be considered adequate as wildlife can predate shoots. | Advice received from DBCA indicate that a single survey for <i>Caladenia excelsa</i> was sufficient to inform this clearing permit based on the age of the record and the fire history of the site. See principle (a) and (c). |

| | | |
|------|--|--|
| A, B | No fauna survey has been conducted; the application area is highly likely to support Western Ringtail Possum (WRP). | It was determined the application area is likely to support WRP, with scats noted on site. A fauna survey did not note any dreys, or any individuals during a night survey. Directional clearing will be conditioned on the Permit to allow individuals that may be present to move into adjacent vegetated areas with the onset of clearing. |
| A, B | No fauna survey has been conducted; the application area is highly likely to support the Vulnerable Brush-tailed Phascogale. | Brush-Tailed Phascogale is listed as conservation dependent under the <i>Biodiversity Conservation Act 2016</i> , not Vulnerable. It was determined that the habitat within the proposed clearing is not considered significant to this species. Directional clearing will be conditioned on the Permit to allow individuals that may be present to move into adjacent vegetated areas with the onset of clearing. |
| A, B | No fauna survey has been conducted; the locality is a breeding area for Baudin's cockatoo and known habitat for Carnaby's and Forest Red-tailed black cockatoos. | The application area provides suitable foraging habitat for all three species. The trees within the application area were inspected for nesting and roosting; hollows were determined to be unsuitable for black cockatoo use. There are trees within the Lot outside of the application area that provide suitable breeding hollows. |
| A | The bushfire hazard associated with a dwelling with a BAL 29 in the middle of dense bushland with only one access driveway in and out. | Not within DWER's scope of assessment. |

No registered aboriginal heritage sites are present within the application area, with the nearest registered site located 2.3 kilometres from the application area.

4. References

- City of Busselton (2020) Supporting Information for clearing permit application CPS 8776/1. City of Busselton. Received by DWER on 19 February 2020 (DWER Ref: A1869430).
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Department of Biodiversity, Conservation and Attractions (DBCA) (2020a) Regional advice from the South West Region for Clearing Permit application CPS 8776/1. Western Australia. Received by DWER on 02 March 2020 (DWER Ref: A1873598).
- Department of Biodiversity, Conservation and Attractions (DBCA) (2020b) Species and Communities Branch flora advice for Clearing Permit application CPS 8776/1, received 12 March 2020. Western Australia (DWER Ref: A1876498).
- Department of the Environment, Water, Heritage and the Arts (DEWHA) (2008). Approved Conservation Advice for *Caladenia excelsa* (Giant Spider-orchid). Canberra: Department of the Environment, Water, Heritage and the Arts.
- Department of Parks and Wildlife (2017). Western Ringtail Possum (*Pseudocheirus occidentalis*) Recovery Plan. Wildlife Management Program No. 58. Department of Parks and Wildlife, Perth, WA.
- Department of Water and Environment Regulation (DWER) (2020) Site Inspection Report for Clearing Permit Application CPS 8776/1. Site inspection undertaken 15 April 2020. Department of Water and Environment Regulation, Western Australia (DWER Ref: A1885788).
- Ecosystem Solutions (2019) Targeted Rare Flora Assessment: Lot 27 Shallows Loop, Yallingup. Unpublished report prepared for Lachlan Guthrie.
- Government of Western Australia. (2018) 2017 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of December 2017. WA Department of Biodiversity, Conservation and Attractions. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.
- Schoknecht, N., Tille, P. and Purdie, B. (2004) Soil-landscape mapping in South-Western Australia – Overview of Methodology and outputs' Resource Management Technical Report No. 280. Department of Agriculture.
- Submission (2020a) Public submission received in relation to clearing permit application CPS 8776/1 (DWER ref: A1864994).
- Submission (2020b) Public submission received in relation to clearing permit application CPS 8776/1 (DWER ref: A1864997).

5. GIS Datasets

Publicly available GIS Databases used (data.wa.gov.au):

- Aboriginal Heritage Places (DPLH-001)
- Black Cockatoo Breeding Sites – Buffered (DBCA-063)
- Cadastre Address (LGATE-002)
- Carnaby's Cockatoo Areas requiring investigation as feeding habitat in the Swan Coastal Plain (SCP) IBRA Region (DBCA-057)

- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- IBRA Vegetation Statistics
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Regional Parks (DBCA-026)
- Regional Scheme – Special Areas (DPLH-022)
- Soil and Landscape Mapping – Best Available
- Soil and Landscape Quality – Wind Erosion Risk (DPIRD-016)
- Soil and Landscape Quality – Water Erosion Risk (DPIRD-013)
- Soil and Landscape Quality – Waterlogging Risk (DPIRD-015)
- Soil and Landscape Quality – Water Repellence Risk (DPIRD-014)
- Soil and Landscape Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil and Landscape Quality – Phosphorus Export Risk (DPIRD-010)
- Soil and Landscape Quality – Salinity Risk (DPIRD-009)

Restricted GIS Databases used:

- Black Cockatoo Roost Sites
- Black Cockatoo Records
- ICMS (Incident Complaints Management System)– Points and Polygons
- Gnaragala Mound Ecological Linkages (GSS Ecological Linkages)
- SCP Vegetation Complex Statistics
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)