



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

| | |
|-------------------------------|------------------------------------|
| Purpose Permit number: | CPS 7918/1 |
| Permit Holder: | City of Busselton |
| Duration of Permit: | 7 November 2018 to 7 November 2025 |

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I – CLEARING AUTHORISED

1. Purpose for which clearing may be done

Clearing for the purpose of constructing sport playing fields, car parking and associated infrastructure.

2. Land on which clearing is to be done

Lot 10 on Diagram 67195, Dunsborough
Lot 9064 on Deposited Plan 62623, Dunsborough
Diamante Boulevard road reserve (PIN 12304797), Dunsborough

3. Area of Clearing

The Permit Holder shall not clear more than 1 hectare within the area highlighted yellow on attached Plan 7918/1.

4. 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.

PART II – MANAGEMENT CONDITIONS

5. 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:

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

6. 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*:

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

7. Fauna Management

- (a) In relation to the area cross-hatched yellow on attached Plan 7918/1, the Permit Holder must engage a *fauna specialist* to inspect that area immediately prior to, and for the duration of clearing, for the presence of *Phascogale tapoatafa* subsp. *wambenger* (South-western brush-tailed phascogale) and *Pseudocheirus occidentalis* (Western Ringtail Possum(s)).
- (b) Clearing must cease in any area where fauna referred to in condition 7(a) above are identified until either:
 - (i) the South-western brush-tailed phascogale and Western Ringtail Possum(s) individual has been removed by a *fauna specialist*; or
 - (ii) the South-western brush-tailed phascogale and Western Ringtail Possum(s) individual has moved on from that area to adjoining *suitable habitat*.
- (c) Any Western Ringtail Possum or South-western brush-tailed phascogale individuals removed in accordance with condition 7(b)(i) of this Permit must be relocated by a *fauna specialist* to *suitable habitat*.
- (d) Where fauna is identified under condition 7(a) of this Permit, the Permit Holder must provide the following records to the *CEO* as soon as practicable:
 - (i) the number of individuals identified;
 - (ii) the date each individual was identified;
 - (iii) the location where each individual was identified 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;
 - (iv) the number of individuals removed and relocated;
 - (v) the date each individual was removed;
 - (vi) the date each individual was relocated;
 - (vii) the location where each individual was relocated to, recorded using a GPS unit set to GDA94, expressing the geographical coordinates in Eastings and Northings or decimal degrees; and
 - (viii) details pertaining to the circumstances of any death of, or injury sustained by, an individual.

PART III - RECORD KEEPING AND REPORTING

8. 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 5 of this Permit;
- (e) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with condition 6 of this Permit; and
- (f) activities in relation to condition 7 of this Permit.

9. Reporting

The Permit Holder must provide to the *CEO* the records required under condition 8 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;

fauna specialist means a person who holds a tertiary qualification specializing in environmental science or equivalent, and has a minimum of 2 years work experience in fauna identification and surveys of fauna native to the region being inspected or surveyed, or who is approved by the CEO as a suitable fauna specialist for the bioregion, and who holds a valid fauna licence issued under the *Wildlife Conservation Act 1950*;

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;

suitable habitat: means habitat known to support Western Ringtail Possums (*Pseudocheirus occidentalis*) and South-western brush-tailed phascogale (*Phascogale tapoatafa* subsp. *wambenger*) within the known current distribution of the species. For Western Ringtail Possums, this often includes stands of myrtaceous trees (usually Peppermint Tree (*Agonis flexuosa*)) growing near swamps, watercourses or floodplains, and at topographic low points which provide cooler, often more fertile, conditions. For South-western brush-tailed phascogale, this includes dry sclerophyll forests and open woodlands that contain hollow-bearing trees; 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 Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or
- (c) not indigenous to the area concerned.

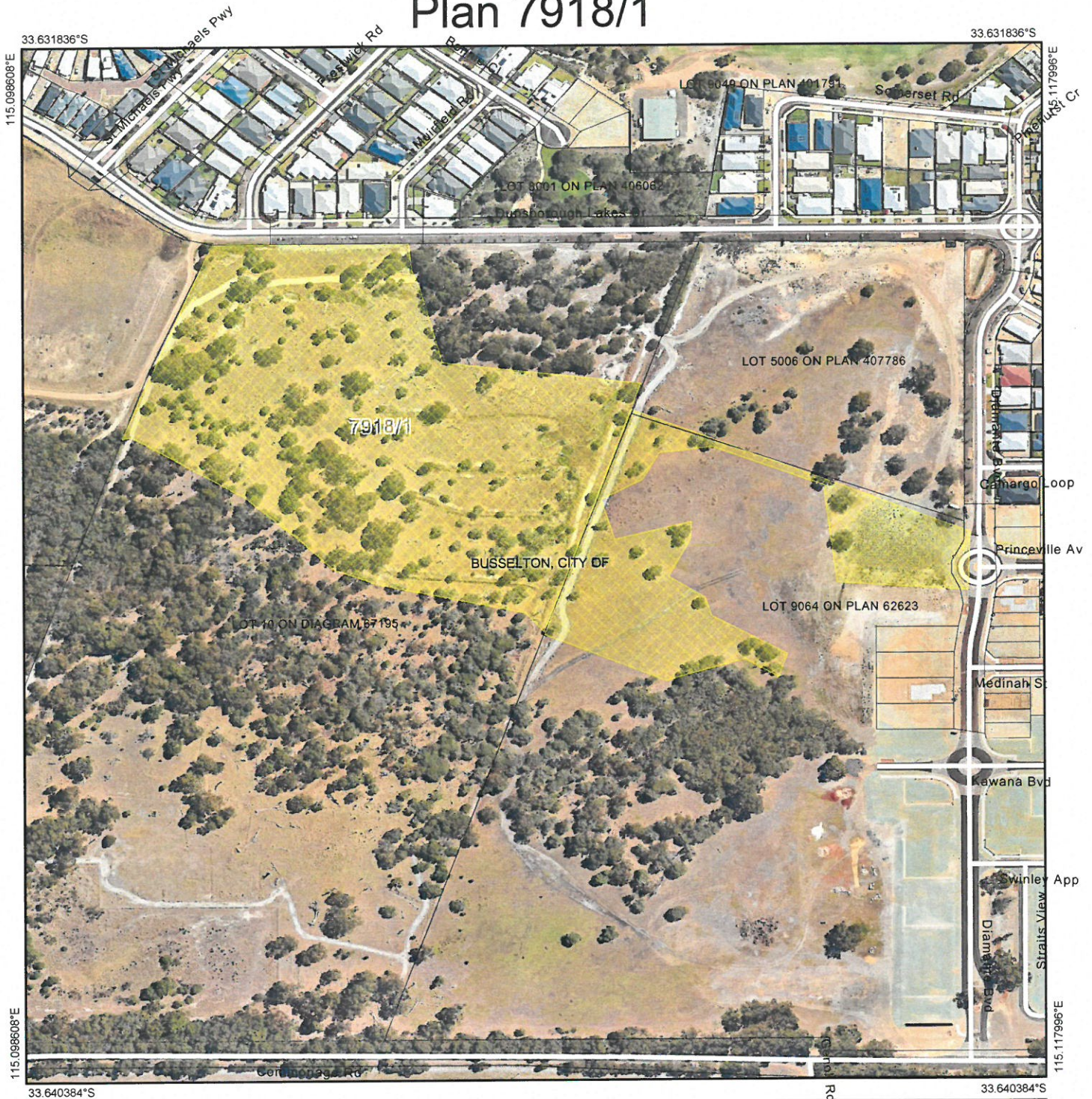


Mathew Gannaway
MANAGER
NATIVE VEGETATION REGULATION

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

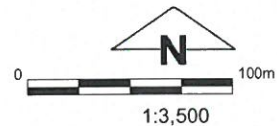
8 October 2018

Plan 7918/1



Legend

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



1:3,500

(Approximate when reproduced at A4)

GDA 94 (Lat/Long)

Geocentric Datum of Australia 1994

Date 08/10/2018

Mathew Gannaway

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



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1. Application details

1.1. Permit application details

Permit application No.: 7918/1
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: City of Busselton
Application received date: 14 December 2017

1.3. Property details

Property: Lot 10 on Diagram 67195, Dunsborough
Lot 9064 on Deposited Plan 62623, Dunsborough
Diamante Boulevard road reserve (PIN 12304797), Dunsborough
Local Government Authority: City of Busselton
Localities: Dunsborough

1.4. Application

| Clearing Area (ha) | No. Trees | Method of Clearing | Purpose category: |
|--------------------|-----------|--------------------|-------------------|
| 1 | | Mechanical Removal | |

Decision on Permit Application: Grant

Decision Date: 8 October 2018

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

Through the assessment it was determined that the application area contains suitable habitat for south-western brush-tailed phascogales and western ringtail possums. The Delegated Officer noted that the application area is predominantly parkland cleared and that suitable habitat occurs adjacent to the southern boundary of the application area within vegetation in better condition than that of the application area, the proposed clearing is not likely to comprise significant habitat for these species. A fauna management condition requiring a fauna spotter to be present during clearing operations will ensure that no direct impacts to individuals occurs.

The proposed clearing may increase the risk of weeds and dieback spreading into adjacent vegetated areas. A weed and dieback management condition has been placed on the permit to mitigate the impact of spreading weeds and dieback.

In determining to grant a clearing permit, the Delegated Officer took in consideration the completed degraded to degraded condition of the native vegetation within the application area, and considers that the proposed clearing is unlikely to lead to an unacceptable risk to the environment.

2. Site Information

Clearing Description

The application is to clear one hectare of native vegetation within Lot 10 on Diagram 67195, Lot 9064 on Deposited Plan 62623 and Diamante Boulevard road reserve (PIN 12304797), Dunsborough, for the purpose of constructing sport playing fields, car parking and associated infrastructure (Figure 1).

Vegetation Description

The vegetation within the application area is mapped as the South West Vegetation Complex, Abba Complex which is described as: 'a mixture of open forest of *Corymbia calophylla* (Marri) - *Eucalyptus marginata* (Jarrah) - *Banksia* species and woodland of *Corymbia calophylla* (Marri) with minor occurrences of *Corymbia haematoxylon* (Mountain Marri). Woodland of *Eucalyptus rudis* (Flooded Gum) - *Melaleuca* species along creeks and on flood plains (Mattiske and Havel, 1998).

A site inspection undertaken by officers from the Department of Water and Environmental Regulation (DWER) identified that the application area is predominately parkland cleared with an open canopy of scattered *Eucalyptus* sp., *Corymbia calophylla*, *Banksia* sp., *Melaleuca* sp. and *Agonis flexuosa* with sporadic occurrences of native reed species. The understorey is predominantly pasture grasses (DWER, 2018).

The eastern portion of Lot 10 comprises of degraded (Keighery, 1994) wetland vegetation with a varying open to closed canopy of paperbark (*Melaleuca* sp.) and scattered *Eucalyptus* sp. with ground cover dominated by pasture weeds and sporadic scattering of native wetland reed species (DWER, 2018).

Vegetation Condition

The vegetation condition was determined based on the site inspection undertaken by DWER officers (DWER, 2018) and described as:

- Degraded, basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management (Keighery, 1994); to
- Completely Degraded, no longer intact; completely/almost completely without native species (Keighery, 1994)



Figure 1: Application area

3. Assessment of application against clearing principles

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

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

According to available databases, eight rare flora species and 23 priority flora species have been recorded within the local area (10 kilometre radius). The application area is in a completely degraded to degraded (Keighery, 1994) condition with a completely degraded (Keighery, 1994) understorey that predominantly consists of weeds. The Department of Biodiversity, Conservation and Attractions (DBCA) has advised that the application area is not likely to support any flora that is threatened (DBCA, 2018). Considering this, the proposed clearing is not likely to impact upon any rare or priority flora or comprise a high level of biological diversity.

As assessed under principle (b), the application area may provide habitat for south-western brush-tailed phascogale (*Phascogale tapoatafa* subsp. *wambenger*) and western ringtail possum (*Pseudocheirus occidentalis*). However, given the completely degraded to degraded (Keighery, 1994) condition of the application area and that suitable habitat for these species is located adjacent to the southern boundary of the application area in a better condition, the application area is not likely to comprise of significant habitat for these species. Fauna management practices requiring a fauna spotter to be present during clearing operations will ensure no direct impact to western ringtail possums or south-western brush-tailed phascogales occurs.

As assessed under principle (d), the vegetation proposed to be cleared is not likely to be representative of a threatened ecological community (TEC). Given the completely degraded to degraded (Keighery, 1994) condition of the application area, the proposed clearing area does not resemble a priority ecological community.

Given the above, the application area is not likely to be at variance to this Principle.

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

Proposed clearing may be at variance to this Principle

There are seventeen species listed as rare or likely to become extinct under the *Wildlife Conservation Act 1950* within the local area (10 kilometre radius) being: Cape Leeuwin freshwater snail (*Austroassiminea lethra*), curlew sandpiper (*Calidris ferruginea*), forest red-tailed black-cockatoo (*Calyptorhynchus banksii* subsp. *naso*), Baudin's cockatoo (*Calyptorhynchus baudinii*), Carnaby's cockatoo (*Calyptorhynchus latirostris*), lesser sand plover (*Charadrius mongolus*), chuditch (*Dasyurus geoffroyi*), Dunsborough burrowing crayfish (*Engaewa reducta*), malleefowl (*Leipoa ocellata*), eastern curlew (*Numenius madagascariensis*), south-western brush-tailed phascogale, western ringtail possum, quokka (*Setonix brachyurus*), Indian yellow-nosed albatross (*Thalassarche carteri*), black-browed albatross (*Thalassarche melanophris*) and Carter's freshwater mussel (*Westralunio carteri*) (DBCA, 2007-).

A site inspection undertaken by DWER officers identified that the application area predominantly consists of scattered native trees consisting of *Eucalyptus* sp., *Corymbia calophylla* (marri), *Banksia* sp., *Agonis flexuosa* and *Melaleuca* sp. over weeds and grasses (DWER, 2018).

Carnaby's cockatoo is listed as endangered and Baudin's cockatoo and forest red-tailed black cockatoo are listed as vulnerable under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Black cockatoos breed in large hollow-bearing trees, generally within woodlands or forests or former woodland or forest now present as isolated trees, including hollows in live or dead trees of jarrah, marri, *Eucalyptus diversicolor* (karri), *Eucalyptus wandoo* (wandoo), *Eucalyptus gomphocephala* (tuart), *Eucalyptus salmonophloia* (salmon gum), *Eucalyptus rudis* (flooded gum), *Eucalyptus loxophleba* (York gum), *Eucalyptus accedens* (powderbark), *Eucalyptus megacarpa* (bullich) and *Eucalyptus* sp. (blackbutt). Criteria for black cockatoo breeding habitat include trees having a diameter at breast height of more than 50 centimetres (Commonwealth of Australia, 2012). A number of *Eucalyptus* sp. and marri of suitable size to be considered to be habitat trees were identified within the application area, however no hollows suitable for breeding were observed (DWER, 2018). The application area contains potential breeding habitat, however given no hollows of suitable size for breeding were identified the application area is not likely to comprise of significant breeding habitat for this species.

Black cockatoos 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. (Commonwealth of Australia, 2012). The vegetation present within the application area is likely to comprise of foraging habitat for this species. However, given that the vegetation proposed to be cleared is consists predominantly of scattered individual trees the application area is not likely to comprise of significant foraging habitat for these species. Suitable habitat in better condition is located directly south of the application area that will provide foraging habitat for this species.

The current distribution of the western ringtail possum is patchy and largely restricted to the moister south-western corner of Western Australia, especially near coastal areas of peppermint woodland and peppermint/tuart associations from the Australind/Eaton area to the Waychinicup National Park (DEC, 2012b). Approximately eight *Agonis flexuosa* (peppermint trees) were identified within the application and may provide suitable habitat for this species. Given the application area is predominantly parkland cleared and that numerous *Agonis flexuosa* were identified adjacent to the southern boundary of the application area within vegetation in better condition than that of the application area, the proposed clearing is not likely to comprise significant habitat for this species. Fauna management practices requiring a fauna spotter to be present during clearing operation will ensure that no direct impact to fauna occurs.

The southern western brush-tailed phascogale inhabits dry sclerophyll forests and open woodlands that contain hollow-bearing trees (DEC, 2012a). Suitable habitat for this species may be located within hollow bearing trees if present within the application area. Fauna management practices requiring a fauna spotter to be present during clearing operation will ensure that no direct impact to fauna occurs.

The curlew sandpiper, lesser sand plover, eastern curlew, Indian yellow-nosed albatross and black browed albatross are waterbirds and therefore significant habitat for these species is not likely to occur within the application area.

The understorey within the application area is completely degraded (Keighery, 1994) and consists of weeds and grasses. Therefore the application area is not likely to comprise of significant habitat for ground dwelling fauna including the quokka and chuditch or is it likely to comprise of significant habitat for malleefowl.

A watercourse is mapped along the north western boundary of the application area, however given the completely degraded to degraded (Keighery, 1994) condition of the application area, the proposed clearing is not likely to significantly impact upon this watercourse or significant habitat for Cape Leeuwin freshwater snail or Carter's freshwater mussel.

Given the above, the proposed clearing may impact upon western ringtail possum and southern western brush-tailed phascogale habitat and therefore the application may be at variance to this Principle. Fauna management condition will mitigate potential impacts to western ringtail possum and southern western brush-tailed individuals.

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

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

According to available databases, eight rare flora species have been recorded within the local area (10 kilometre radius).

The application area is in a completely degraded to degraded (Keighery, 1994) condition with a completely degraded (Keighery, 1994) understorey that predominantly consists of weeds. The DBCA has advised that the application area is not likely to support any flora that is threatened (DBCA, 2018).

As the application area is not likely to comprise or be necessary for the maintenance of rare flora, the proposed clearing is not likely to be at variance to this Principle.

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

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

According to available databases, no TECs have been recorded within the application area. The closest TEC is the commonwealth listed 'Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region' TEC located approximately 750 metres west of the application area.

Given the composition and condition of the vegetation proposed to be cleared, the vegetation proposed to be cleared is not likely to be necessary for the maintenance of this TEC.

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

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

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

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

The local area (10 kilometre radius) retains approximately 37 per cent native vegetation. The application area is located within the Swan Coastal Plain IBRA bioregion which retains approximately 39 per cent pre-European vegetation extent (Government of Western Australia, 2017).

The application area is mapped as South West complex 'Abba Complex' which retains 7 per cent of its pre-European vegetation extents within the Swan Coastal Plain IBRA bioregion (Government of Western Australia, 2017).

Given the mapped vegetation complex retains well below the recommended threshold, the application area is considered to be located within an extensively cleared landscape. However, the vegetation proposed to be cleared is predominantly parkland cleared, does not comprise a high biological diversity, significant habitat for fauna, rare or priority flora or threatened ecological communities and therefore is not considered to be significant as a remnant of native vegetation.

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 DBCA Managed Lands (%) |
|---|----------------------|---------------------------|------------------|--|
| IBRA Bioregion | | | | |
| Swan Coastal Plain | 1,501,222 | 578,997 | 39 | 39 |
| South West Vegetation Complex in Bioregion** | | | | |
| Abba Complex | 50,893 | 3,326 | 7 | 0.17 |

(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 at variance to this Principle

A minor watercourse is mapped along the south western boundary of the application area. A site inspection undertaken by DWER officers identified riparian vegetation in the form of a number of *Melaleuca* sp. throughout the application area (DWER, 2018). A drainage channel leading from the wetland area in the east extends partway along the southern boundary (DWER, 2018).

Given the above, the application area is considered to be growing in association with a watercourse and the proposed clearing is at variance to this Principle. However, as the vegetation within application area is in a completely degraded to degraded (Keighery, 1994) condition, the proposed clearing is not likely to have a significant impact on the environmental values of 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 to this Principle

The application area has been mapped as soil type 'MT7' which is described as plain: chief soils are acid Fey earths often in fairly intimate association with leached sands, that have a clay at depths of 3-8 feet (Northcote et al., 1960 – 1968).

The sandy soils present within the application may be prone to wind erosion. However, given the completely degraded to degraded (Keighery, 1994) condition of the vegetation, consisting of scattered native trees over weeds, the proposed clearing is not likely to cause appreciable land degradation in addition to what current exists on site.

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

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

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

According to available databases, the closest conservation area is Leeuwin-Naturaliste National Park located approximately 4.4 kilometres west of the application area. Given the distance to this conservation area the proposed clearing is not likely to have an impact on this conservation area.

No ecological linkages will be severed by the proposed clearing and therefore it is unlikely that the proposed clearing will impact upon fauna movement across the landscape.

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

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

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

A minor watercourse is mapped along the south western boundary of the application area. A site inspection undertaken by DWER officers identified riparian vegetation in the form of a number of *Melaleuca* sp. throughout the application area (DWER, 2018). The proposed clearing may increase run-off and sedimentation into this watercourse, however this impact is likely to be minimal and short term. The proposed clearing is not likely to cause deterioration in the quality of surface water.

Groundwater salinity is mapped between 500 - 1000 milligrams per litre total dissolved solids which is considered to be marginal. Given the low salinity levels and the completely degraded to degraded (Keighery, 1994) condition of the application area, the proposed clearing is not likely to cause deterioration in the quality of underground water.

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

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

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

Given the mapped soil types present and the completely degraded to degraded (Keighery, 1994) condition of the vegetation the proposed clearing is not likely to cause or exacerbate the incidence or intensity of flooding.

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

Planning instruments and other relevant matters.

The application area is located within the Busselton –Capel Ground Water Areas as proclaimed under the *Rights in Water and Irrigation Act 1914*. The City of Busselton (2018) has advised that the developers will be providing water for the playing fields and that water will also be sourced from Dunsborough's non-potable water supply project

A small portion of the south eastern boundary of the application area is mapped as an Aboriginal site of significance, 'DL2/02 - Marked Tree'. The applicant will be notified of their obligations under the *Aboriginal Heritage Act 1972*.

The clearing permit application was advertised on the DWER website on 17 January 2018 with a 21 day submission period. No public submissions have been received in relation to this application.

4. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
Commonwealth of Australia (2012). EPBC Act referral guidelines for three threatened black cockatoo species. Department of Sustainability, Environment, Water, Populations and Communities, Canberra
City of Bayswater (2018) Information in support of clearing permit application (DWER Ref: A1715863)
Department of Biodiversity, Conservation and Attractions (DBCA) (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dpaw.wa.gov.au/>.

- Department of Biodiversity Conservation and Attractions (DBCA) (2018) Regional Advice for Clearing Permit Application CPS 7918/1. South West Region. Western Australia (DER Ref: A1657595).
- Department of Environment and Conservation (DEC) (2012a) Fauna Profiles – Brush-tailed Phascogale (*Phascogale tapoatafa*). Department of Environment and Conservation. Western Australia
- Department of Environment and Conservation (DEC) (2012b). Fauna profile, western ringtail possum *Pseudocheirus occidentalis* (Thomas, 1888). (Western Australia)
- Department of Water and Environmental Regulation (DWER) (2017) Site inspection for CPS 7918/1 undertaken on 18 January 2018. DWER Ref: A1657601
- 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.
- Government of Western Australia (2018). 2017 South West Vegetation Complex Statistics. Current as of October 2017. WA Department of Biodiversity, Conservation and Attractions, Perth, <https://catalogue.data.wa.gov.au/dataset/dbca>
- 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.
- 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

GIS Databases:

- Aboriginal Sites of Significance
- Department of Biodiversity, Conservation and Attractions, Tenure
- Groundwater salinity
- Hydrography, General Hydro
- Hydrography, Wetlands
- SAC bio datasets
- TPFL Data
- WAHerb Data
- WA TEC PEC Boundaries
- Virtual Mosaic Landgate / Aerial imagery (accessed August 2018)