GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 8269/1
Permit Holder:	Shire of Plantagenet
Duration of Permit:	26 June 2020 to 26 June 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 public open space

2. **Land on which clearing is to be done**
   Lot 564 on Plan 167886, Mount Barker

3. **Area of Clearing**
   The Permit Holder must not clear more than 4.4 hectares of native vegetation within the area cross-hatched yellow on attached Plan 8269/1.

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.

5. **Type of clearing authorised**
   This Permit authorises the Permit Holder to clear native vegetation for the activities described in condition 1 of this Permit to the extent that the Permit Holder has the power to carry out works involving clearing for those activities under the *Local Government Act 1995* or any other written law.

PART II – MANAGEMENT CONDITIONS

6. **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.

7. 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 known *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.

8. Fauna management

The Permit Holder shall not clear *Corymbia calophylla* (marri) and *Eucalyptus marginata* (jarrah) *black cockatoo habitat trees* found within the area cross hatched yellow on attached Plan 8269/1.

9. Direction of clearing

The Permit Holder shall conduct clearing in a slow progressive manner from one direction to the other (e.g. west to east) to allow fauna to move into adjacent native vegetation ahead of the clearing activity.

PART III – RECORD KEEPING AND REPORTING

10. Record keeping

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

(a) In relation to the clearing of native vegetation authorised under this Permit:

(i) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;

(ii) the date(s) that the area was cleared;

(iii) the size of the area cleared (in hectares);

(iv) actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 6 of this Permit; and

(v) actions taken to minimise the risk of the introduction and spread of *dieback* and *weeds* in accordance with condition 7 of this Permit.

11. Reporting

The Permit Holder must produce the records required under condition 10 of this Permit when required by the *CEO*.

DEFINITIONS

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

black cockatoo habitat tree(s): means trees that have a diameter, measured at 1.5 metres from the base of the tree, of 50 centimetres or greater.

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 species-led ecological impact and invasiveness ranking 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

3 June 2020

Plan 8269/1

Legend

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

N

0 100m

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(Approximate when reproduced at A4)

GDA 94 (Lat/Long)

Geocentric Datum of Australia 1994

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

GOVERNMENT OF WESTERN AUSTRALIA

Clearing Permit Decision Report

3. Application details

3.1. Permit application details

Permit application No.: 8269/1
Permit type: Purpose Permit

3.2. Applicant details

Applicant's name: Shire of Plantagenet

3.3. Property details

Property: Lot 564 on Plan 167886, Mount Barker
Local Government Authority: Shire of Plantagenet
Localities: Mount Barker

3.4. Application

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

3.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 3 June 2020
Reasons for Decision: The clearing permit application was received on 26 November 2018 and 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 principle (e) and is not likely to be at variance with the remaining clearing principles.

The Delegated Officer considered that while the vegetation proposed to be cleared is within an extensively cleared landscape, it is does not have significant environmental values.

The Delegated Officer noted that the application will result in the loss of 29 individuals of Priority 4 flora species *Banksia porrecta,* however, determined that the impacts of the proposed clearing will not impact on the conservation status of the species.

The Delegated Officer considered that the proposed clearing may increase the risk of weeds and dieback being introduced or spread into adjacent areas. Weed and dieback management measures will minimise this risk.

2. Site Information

Clearing Description: The application is to clear 4.4 hectares of native vegetation within Lot 564 on Plan 167886, Mount Barker, for the purpose of developing Public Open Space (POS). The application area is indicated in Figure 1 and has been identified by the Shire of Plantagenet as an area for development of POS, comprising of firebreaks, walk trails and potentially seating in some areas.

Vegetation Description: The application area is mapped as Narrikup (3) Beard vegetation association described as:

- Medium forest; jarrah-marri (Shepherd et al, 2001).

A targeted flora and vegetation survey undertaken by Bio Diverse Solutions (2019) on 15 October 2019, identified the vegetation under application to comprise of a marri/jarrah woodland (Bio Diverse Solutions, 2019). This vegetation unit is dominated by an overstorey of *Eucalyptus marginata* and *Corymbia calophylla*. The dominant understorey and ground cover species consist of *Xanthorrhoea platyphylla, Banksia grandis, Billardiera variifolia, Conostylis setigera* and *Tetraria octandra*. Other common understorey species consist of *Hakea amplexicaulis, Banksia dallanneyi, Pimelea suaveolens, Acacia drummondii, Agonis theiformis, Hibbertia gracilipes, Bossiaea ornata, Kennedia coccinea, Sphaerolobium medium, Briza maxima** and *Briza minor** (* denotes weed species) (Bio Diverse Solutions, 2019).

Vegetation Condition: The condition of the vegetation within the application area is considered to be:

Very Good; Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).

Vegetation condition was determined by the site inspection undertaken by DWER Environmental Officers (DWER, 2019) and a targeted flora and vegetation survey undertaken by Bio Diverse Solutions (2019) on 15 October 2019.

Soil and Landform Type: The application area is mapped within the following land subsystems:

- Pillenorup subsystem is described as Hills of granite with a fringe of sedimentary rocks <60 metres relief, rounded crests and smooth gentle slopes, some granite, gravelly yellow duplex soils, sands and laterite; Jarrah-marri-yate low forest (Schoknecht et al., 2004).

Comment: The local area considered in the assessment of this application is defined as a 10 kilometre radius around the perimeter of the application area. According to available aerial imagery, the local area retains approximately 20 per cent native vegetation cover.

Figure 1: Map of the application area

Photographs of vegetation within the application area

Photo 1: Shows the size of the trees (predominantly Jarrah) proposed to be cleared. The trees appear to be regrowth which have been impacted upon by the frequent fire regimes within the application area.

Photo 2: Typical structure of the vegetation within the application area

Photo 3: The trees in the foreground provide an indication of the size of the majority of the trees within the application area.

Photo 4: Tree in the foreground showing the effects of fire, with a lot of juvenile vegetation starting to re-sprout.

3. Minimisation and mitigation measures

The applicant will endeavour to retain larger and better looking trees that have not been too affected from the frequent burning patterns within the reserve. This is likely to consist of trees being retained every 300 to 400 square metres within the 2.9 hectare area outlined in blue in Figure 2 below.

Figure 2. The area outlined in red (1.5 hectares) is proposed to be completely cleared. Within the area outlined in blue (2.9 hectares), the applicant intends to retain the larger trees where practicable

4. 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 with this Principle

As discussed in Section 2, the application area consists predominantly of open woodland *Eucalyptus marginata* and some *Corymbia callophylla* (Marri) over an intact understorey. The trees within the application area appear to be regrowth which have been impacted upon by the frequent fire regimes within the application area (DWER, 2019).

According to available databases, four threatened flora species and 13 priority flora species have been recorded within the local area. Threatened flora are discussed further under Principle (c). Of the 13 priority flora recorded, it is considered that eight of these species are unlikely to occur within the application area, as the preferred habitat of these species is associated with creeks, winter wet flats and sandy loam clay soils. The site inspection did not detect this type of habitat within the application area (DWER, 2019).

The following species have the potential to occur within the application area based on the habitat and soil type recorded during the site inspection;

Gastrolobium ferrugineum (P2) generally associated with eucalypt woodlands (*Eucalyptus marginata*; *Eucalyptus calophylla*) (WA Herbarium, 1998). The species is only known from two confirmed locations south-west of Mt Barker. The record plotting close to the area under application is a historical record with the location description of “Mt Barker area” and it is most likely the coordinates were manually generated and therefore not plotting where the actual collection was made. The habitat however appears to possibly be suitable for the species and therefore has the potential to occur within the area under application (DBCA, 2019).

Banksia sphaerocarpa var. latifolia (P2) generally associated with *Eucalyptus marginata* woodlands within sandy clay loam on laterite soils (WA Herbarium, 1998). The species is only known from two confirmed locations in the Mt Barker area including less than two kilometres west of the area under application. The habitat appears to possibly be suitable for the species and therefore has the potential to occur within the area under application (DBCA, 2019).

Pimelea rosea subsp. Annelsii (P3) is known from 18 locations associated with woodlands of *Eucalyptus marginata* and *Eucalyptus calophylla,* soils are sandy, with gravel and laterite (WA Herbarium, 1998). The habitat appears to possibly be suitable for the species and therefore has the potential to occur within the area under application.

Melaleuca micromera (P3) is known from 17 locations and is associated with variety of vegetation types, including woodlands of *Eucalyptus marginate* and *Eucalyptus calophylla.* It prefers gravelly sandy loam or clay soils (WA Herbarium, 1998). The habitat appears to possibly be suitable for the species and therefore has the potential to occur within the area under application.

Banksia porrecta (P4) is known from 51 locations and is associated with variety of vegetation types. The species prefers white/grey sand and sandy loam soils (WA Herbarium, 1998). The habitat appears to possibly be suitable for the species and therefore has the potential to occur within the area under application.

A targeted survey for conservation significant flora was undertaken within the application area. This survey recorded 92 flora species within the application area, of which 19 are introduced (Bio Diverse Solutions, 2019). Of the priority flora listed above, *Banksia porrecta* (P4) was the only species identified within the application area (Bio Diverse Solutions, 2019). A total of 29 individuals were recorded of which 24 plants were identified in the same concentrated area in the south-west of the site. The remaining five were recorded within the central-northern section of the application area (Bio Diverse Solutions, 2019). The 29 individuals will be removed as a part of the proposed clearing. Priority 4 flora species are species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands (Jones, 2015). The population of *Banksia porrecta* identified within the application area is within its known range and whilst the clearing will impact on the species at a local level, it will not impact on the conservation status of the species as it is well represented.

A number of conservation significant fauna have been recorded in the local area, including six threatened species. As outlined under Principle (b), the application area is unlikely to represent significant fauna habitat.

According to available databases, the nearest threatened or priority ecological community (PEC) is located 7920 metres from the application area, that being the Eucalypt woodlands of the Western Australian Wheatbelt (Priority 3). The ecological community is listed as a threatened ecological community (TEC) under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The Approved Conservation Advice for this TEC specifies that the Jarrah-Marri woodlands that are mostly west of the Wheatbelt, with the exception of a few patches that occur within the Wheatbelt, are not part of the Eucalyptus Woodlands TEC (Department of the Environment, 2015). Noting the location of the proposed clearing and that the application area comprises of Jarrah-Marri woodlands, it is not considered a representation of the nearby Eucalyptus Woodlands TEC. There are no state listed TEC's that occur within the local area. TEC's are discussed further under Principle (d).

Whilst it is acknowledged that vegetation represented within the application area is in a very good (Keighery, 1994) condition (DWER, 2019) and contains Priority 4 flora species *Banksia porrecta,* it is not considered that the application area comprises high biological diversity values. In determining this, the delegated officer noted that the application area is not representative of a PEC or TEC, did not contain threatened flora, did not comprise significant fauna habitat values or any watercourses or wetlands of conservation value.

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

According to available databases, six threatened fauna species, two priority fauna species, two specially protected fauna species, and one fauna species protected under international agreement have been recorded within the local area. These conservation significant species are:

- Carnaby's cockatoo (*Calyptorhynchus latirostris*);
- forest red-tailed black cockatoo (*Calyptorhynchus banksii subsp. Naso);*
- Baudin's cockatoo *(Calyptorhynchus baudinii);*
- Malleefowl *(Leipoa ocellata);*
- Bilby *(Macrotis lagotis);*
- Numbat *(Myrmecobius fasciatus);*
- southwestern brown bandicoot (*Isoodon fusciventer*) (Priority 4);
- water rat (*Hydromys chrysogaster*) (Priority 4);
- Muir's corella (*Cacatua pastinator subsp. pastinator*) (specially protected);
- South-western brush-tailed phascogale (*Phascogale tapoatafa subsp. wambenger*) (specially protected); and
- common greenshank (*Tringa nebularia*) (migratory bird protected under an international agreement).

In relation to the fauna species listed above, the application area is unlikely to represent significant habitat for the reasons stated below.

As discussed under section 2, the application area consists predominantly of open woodland Jarrah and some Marri (DWER, 2019). The nearest confirmed breeding site for Carnaby's cockatoo is approximately 35 kilometres north-west of the application area. Based on observations from a site inspection of the application area, the trees are not suitable for breeding or night roosting purposes for black cockatoos (DWER, 2019), due to their small size as indicated by the photographs under Section 2. Potential nesting trees for black cockatoos are defined as "trees of species known to support breeding within the range of the species which either have a suitable nest hollow or are of a suitable diameter at breast height (DBH) to develop a nest hollow. For most tree species, suitable DBH is 500 millimetres". The site inspection of the application area conducted by DWER did not observe any

native trees that appeared to meet this criteria (DWER, 2020). Although the site inspection did not observe any trees of an appropriate size for breeding or roosting, it is noted that a targeted black cockatoo habitat assessment has not been conducted over the application area. To prevent the possibility of potential breeding trees being cleared, a condition will be placed on the permit which requires the applicant to avoid clearing trees with a DBH of 500 millimetres.

During the site inspection by DWER officers, there was no evidence of foraging by black cockatoos observed within the application area (DWER, 2019). The application area has been subjected to regular fire regimes (burnt approximately every five years) and comprises of predominantly immature jarrah trees which provide limited foraging material for black cockatoos. While a confirmed black cockatoo roosting site occurs approximately eight kilometres south-west of the application area, riparian zones and much larger areas of intact vegetation can be found within approximately 1.5 kilometres of this roosting site. The area proposed to be cleared does not contain any water sources and is not likely to represent significant foraging habitat for black cockatoos.

South-western brush-tailed phascogale occurs in dry sclerophyll forests and open woodlands that contain hollow-bearing trees. This type of habitat is present within the application area, however, based upon the size of the trees and given the area is frequently burnt, it is unlikely to provide significant breeding habitat. The species may from time to time utilise the application area for foraging and traversing, however, habitat for this species is not limited to the application area and is represented directly adjacent to the application area. Permit conditions requiring the avoidance and minimisation of the impacts of clearing, as well as a directional clearing condition will mitigate and minimise the potential risk to individuals.

Bilbies were once common in many habitats throughout Australia, from the dry interior to temperate coastal regions. Changes to the bilbies habitat have seen their numbers greatly reduced and today now occur in fragmented populations in mulga shrublands and spinifex grasslands in the Tanami Desert of the Northern Territory; in the Gibson and Great Sandy Deserts and the Pilbara and Kimberley regions of Western Australia; and the Mitchell Grasslands of southwest Queensland (DotEE, 2019). The application area does not occur within the current distribution of the bilby and therefore no impacts to the species are expected.

The malleefowl occurs in shrublands and low woodlands that are dominated by mallee vegetation (Department of the Environment and Energy [DotEE], 2015a). The site inspection did not record this type of vegetation within the application area (DWER, 2019).

Although the numbat has been recorded within close proximity, it is unlikely to occur within the application area. This is based on the species number having declined significantly with the only remaining original population being at the Dryandra Woodland (Parks and Wildlife, 2015). Since 1985 there have been translocations of the numbat to 12 different sites within its former range, the application area is not one of these sites (Parks and Wildlife, 2015).

The southwestern brown bandicoot, water rat and common greenshank are all known to utilise wetland habitats. The application area does not include this type of habitat and it is unlikely the proposed clearing will impact on these species.

Noting the location of the area proposed to be cleared (within the Mount Barker township) and that there is approximately 20 per cent native vegetation cover remaining within the local area, the vegetation within the application area could provide an ecological linkage to adjacent vegetation to facilitate the movement of arboreal fauna across the landscape. However, the 4.4 hectares of native vegetation proposed to be cleared is part of a larger vegetation patch of approximately 19.4 hectares, and should the clearing occur, approximately 15 hectares of the adjacent vegetation will remain intact.

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

(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 with this Principle

According to available databases, four threatened flora species have been recorded within the local area. These species are *Caladenia christineae*, *Banksia brownii*, *Banksia verticillata* and *Conostylis misera*.

Caladenia christineae is known from 55 records and is generally associated with sand, clayey loam and laterite soils on the margins of winter-wet flats, swamps and freshwater lakes (WA Herbarium, 1998). The species has been recorded less than 500 metres of the application area adjacent to the Mt Barker sewage records. The habitat in which it was recorded was described as *Corymbia calophylla* and *Eucalyptus marginata* woodland, with *Hakea prostrata*, *Stylidium crassifolium* and *Banksia dallanneyi*, with the population occurring on a gentle slope, with soils described as sandy clay loam on laterite (DBCA, 2019). Whilst the species generally, favour winter-wet flats and freshwater lakes, the Mt Barker populations do not appear to be as dependant on hydrology as the other known populations (DBCA, 2019). The habitat described in the site inspection report is very similar to the known adjacent population and therefore it is possible that the threatened orchid occurs within the area under application (DBCA, 2019).

Banksia brownii is known from 56 records and is associated with sandy, gravel, loam soils over laterite within gullies (WA Herbarium, 1998). The species was recorded within one kilometre of the area under application, however, it is not a natural occurring population and is considered to be cultivated (not threatened flora) (DBCA, 2019). The species is unlikely to occur within the application area (DBCA, 2019).

Banksia verticillata is known from 60 records and is associated sandy loam soils on or beside granite outcrops (WA Herbarium, 1998). The site inspection did not identify granite outcrops within the application area (DWER, 2019). Noting this it is unlikely that the application area provides suitable habitat for this species.

Conostylis misera is known from 32 records and is associated white or grey, sandy soils on winter wet flats (WA Herbarium, 1998). This type habitat was not recorded during the site inspection therefore it is unlikely the species would occur within the application

area.

Of the above threatened flora species, the application area provides suitable habitat for *Caladenia christineae*. A targeted flora survey was undertaken by Bio Diverse Solutions to identify the presence of *Caladenia christineae* within the application area. The species is known to appear after fire, and as the site has been previously burnt, the presence of the species would have likely been recorded if present during the survey (Bio Diverse Solutions, 2019). Prior to undertaking the survey, the nearby population of the species was visited, however, no specimens were recorded as it appears the site has not been burnt in several years. Of the 92 flora species identified within the application area, none of them were threatened flora and the presence of *Caladenia christineae* was not detected within the application area (Bio Diverse Solutions, 2019). Noting this, the proposed clearing is unlikely to impact on threatened flora within the local area

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

According to available databases, there are no known state listed TEC's that occur within the local area.

The closest known state listed TEC to the application area is approximately 37 kilometres south-west of the application area known As the Mount Lindesay – Little Lindesay Vegetation Complex. The vegetation observed during the site inspection is not representative of the TEC.

Given the above, the proposed clearing is not likely to be at variance with 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 may 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).

As indicated in Table 1, the remaining extents of native vegetation within the bioregion and mapped vegetation associations are above the 30 per cent threshold.

Aerial imagery indicates that the local area retains approximately 20 per cent native vegetation cover, on which basis the proposed clearing is considered to occur within an extensively cleared landscape. While the vegetation representation within the local area is below the 30 per cent threshold, the application area is not considered to be a significant remnant as it does not comprise high biodiversity values and is unlikely to comprise significant habitat for threatened flora or fauna. While it is acknowledged under principle (b) that the vegetation proposed to be cleared could act as an ecological linkage, approximately 15 hectares of similar vegetation will be retained adjacent to the application area.

There is approximately 6,621 hectares of native vegetation remaining within the local area, including a larger area of vegetation adjacent to the application area being retained. The clearing as proposed would result in a reduction of 0.066 per cent of vegetation remaining in the local area.

Given the above, the proposed clearing may be at variance with this principle.

Table 1: Vegetation extents

	Pre-European	Current Extent	Remaining	Current Extent in DCBA Managed Lands
	(ha)	(ha)	(%)	(%)
IBRA Bioregion				
Jarrah Forest	4,506,660	2,406,938	53	69.5
Local government authority				
Shire of Plantagenet	487,973	218,134	45	
Beard vegetation association				
3	2,390,591	1,606,736	67	81

(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

According to available databases, the following watercourses and wetlands occur within the local area:

- Geodata lake located approximately 6027 metres from the application area; and
- Mainstream River is located approximately 7628 metres from the application area.

A site inspection did not identify any watercourses or wetlands occurring within the application area (DWER, 2019).

Given the above, the application area is not likely to contain vegetation growing in, or in association with, an environment associated with a watercourse or wetland. The proposed clearing is not likely to be at variance with this Principle.

(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

As discussed in Section 2, the application area is mapped as hills of granite with a fringe of sedimentary rocks relief, rounded crests and smooth gentle slopes, some granite, gravelly yellow duplex soils, sands and laterite; Jarrah-marri-yate low forest (Schoknecht et al., 2004). The site inspection undertaken noted that the soils present within the application area are of a gravelly nature, predominately lateritic gravel as indicated within the below photo (DWER, 2019)

The land degradation risk categories that apply to this subsystem indicate the following;

- Water Erosion:
  - 3-10% of map unit has a high to extreme water erosion risk.
- Wind Erosion:
  - 30-50% of map unit has a high to extreme wind erosion risk
- Salinity:
  - 30-50% of map unit has a moderate to high salinity risk or is presently saline

- Subsurface Acidification:
  - 10-30% of map unit has a high subsurface acidification risk or is presently acid
- Flood risk:
  - <3-% of the map unit has a moderate to high flood risk
- Water logging:
  - o <3-% of map unit has a moderate to very high waterlogging risk

Noting the absence of any wetland or watercourses within the application area, the proposed clearing is unlikely to increase the further risk of salinity levels in the local area.

Noting the soil type present and its lateritic gravely nature, in conjunction with frequent fire regimes that occur within the application area and the site inspection noted a number of tracks leaving bare areas of ground already exposed to wind (DWER, 2019), the proposed removal of vegetation is unlikely to significantly increase the risk of wind erosion. Additionally, noting the purpose of the application, the risk of wind erosion would also be mitigated once the recreational area has been developed.

Based on the above, the proposed clearing is not likely to be at variance with 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 with this Principle

According to available datasets, two conservation areas are within the local area:

- Unnamed nature reserve located approximately 4063 metres from the application area;
- Ongerup Nature Reserve located approximately 9875 metres from the application area;

None of these conservation areas are directly adjacent to the application area and are separated from the application area by other areas of remnant vegetation, roads and farmland. Noting this, the proposed clearing is not likely to impact on the environmental values of these conservation areas

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

As discussed under Principle (f), no watercourses or wetlands occur within the application area.

As discussed under Principle (g), 30-50 percent of the map unit within the application area has a moderate to high salinity risk or is presently saline. Noting the extent of the proposed clearing and the absence of watercourses or wetlands within the application area, the proposed clearing is unlikely to cause deterioration in the quality of surface or underground water.

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

As discussed under Principle (f), no watercourses or wetlands occur within the application area.

Given the above, the proposed clearing is unlikely to cause, or exacerbate, the incidence or intensity of flooding. The proposed clearing is not likely to be at variance with this Principle.

Planning instruments and other relevant matters.

No Aboriginal sites of significance have been mapped within the application area.

The clearing permit application was advertised on the Department of Water and Environmental Regulation website on 14 December 2018 with a 21 day submission period. Seven public submissions have been received in relation to this application. The main issues and concerns raised were:

- the application provides habitat for black cockatoos, phascogales and other fauna;
- lack of requirement for any further public open space in the town of Mount Barker and that the area is already utilised for public recreation in the form of bird watching and bush walking;
- concern around weeds and phytophthora spreading into adjacent vegetation as a result of clearing;
- the application area may contain priority and threatened flora.

In relation to dot point 1, the assessment considered the known conservation significant fauna species that occur in the local area and based on a desktop assessment considered that the application area may provide habitat for black cockatoos and the South-western brush-tailed phascogale, however, the habitat was not considered significant for these species. A site inspection of the application area determined the trees were not of an appropriate size for breeding or roosting purposes for black cockatoos. However, as acknowledged under principle (b), although the site inspection did not observe any trees of an appropriate size for breeding or roosting, a targeted black cockatoo habitat assessment has not been conducted over the application area. To prevent the possibility of potential breeding trees being cleared, a condition will be placed on the permit which requires the applicant to avoid clearing trees with a DBH of 500 millimetres. It was also noted the area is frequently burnt (approximately every five years). Taking this into consideration, along with the size and immaturity of the trees (predominantly jarrah) and lack of evidence of black cockatoo foraging, it is unlikely the application area comprises of significant foraging habitat for cockatoos. The South-western brush-tailed phascogale may utilise the application area for traversing and foraging and this was noted in the assessment. To avoid potential impacts to the South-western brush-tailed phascogale from the proposed clearing, an avoid and minimise condition, along with a directional clearing condition has been placed on the permit.

In relation to dot point 2, the applicant has advised that the Shire of Plantagenet has a Mount Barker Public Open Space (POS) Strategy, initially approved in November 2007 and most recently updated in January 2015. This plan identifies an integrated corporate approach to the provision of POS for the urban area of Mount Barker. The plan also identifies a strategic direction to ensure all developer contributions are managed and utilised effectively. It is also recognised that in respect to the provision of local POS, it is accepted that such areas should be within 400 metres distance to housing and residents. The strategy specifically identifies Lot 564 as an area for passive POS of firebreaks, walk trails and possible seating in some areas as it is acknowledged that there is limited existing formal public open spaces within the eastern section of town.

In relation to dot point 3, it is acknowledged that the proposed clearing may increase the risk of weeds and dieback spreading into the adjoining vegetation. A weed and dieback condition have been placed on the permit to mitigate this risk.

In relation to dot point 4, it was determined during a preliminary assessment that the proposed clearing area may provide suitable habitat for priority and threatened flora. The applicant was requested to provide further information in the form of a targeted flora and vegetation survey. The applicant undertook the survey and provided the results to DWER on 4 November 2019. No threatened flora or Priority 1, 2 and 3 flora species were recorded within the application area. A total of 29 individuals of Priority 4 species *Banksia porrecta* was identified as occurring within the application area. The occurrence of this species within the application area is within its known range and although the species will be impacted upon at a local level, the clearing of 29 individuals will not impact on the conservation status of the species as it is well represented across its known range.

5. References

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GIS Databases:

- Aboriginal Sites of Significance
- Acid Sulfate Soil Risk Map, Swan Coastal Plain
- DBCA Managed Estate
- Directory of Important Wetlands
- Groundwater salinity, Statewide
- Hydrography, hierarchy
- Hydrography, linear
- Land Degradation datasets
- NLWRA, Current Extent of Native Vegetation
- SAC Bio Datasets
- Soils, Statewide
- Topographic contours