



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: CPS 7910/1
File Number: DER2016/000090-1
Duration of Permit: From 26 May 2018 to 26 May 2020

PERMIT HOLDER

Shire of Dandaragan

LAND ON WHICH CLEARING IS TO BE DONE

Lot 323 on Deposited Plan 55939, Jurien Bay.

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 0.5 hectares within the area cross-hatched yellow on attached Plan 7910/1.

CONDITIONS

1. 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.

2. Dieback and weed control

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

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

3. 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 1 of this Permit; and
- (e) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with condition 2 of this Permit.

4. Reporting

The Permit Holder must provide to the *CEO* the records required under condition 3 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;

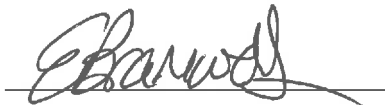
mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

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 species-led ecological impact and invasiveness ranking summary, regardless of ranking; or

(c) not indigenous to the area concerned.



Emma Bramwell
A/MANAGER
CLEARING REGULATION

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

27 April 2018

Plan 7910/1

115°0'18"

115°0'36"



115°0'18"

115°0'36"

Legend

-  Areas approved to clear
-  Roads
-  Cadastre

200



200 m



MGA 94
Geocentric Datum of Australia 1994

E Bramwell Date *27/04/18*
E BRAMWELL

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



**GOVERNMENT OF
WESTERN AUSTRALIA**



1. Application details

1.1. Permit application details

Permit application No.: 7910/1
Permit type: Area Permit

1.2. Applicant details

Applicant's name: Shire of Dandaragan
Application received date: 8 December 2017

1.3. Property details

Property: LOT 323 ON PLAN 55939, JURIE BAY
Local Government Authority: DANDARAGAN, SHIRE OF
Localities: JURIE BAY

1.4. Application

| Clearing Area (ha) | No. Trees | Method of Clearing | Purpose category: |
|--------------------|-----------|--------------------|-------------------------------|
| 0.5 | | Mechanical Removal | Road construction or upgrades |

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 27 April 2018

Reasons for Decision: The clearing permit application was received on 8 December 2017 and 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 principles (a), (h) and (g), and is not likely to be at variance to the remaining principles.

The Delegated Officer determined that the proposed clearing may impact on priority flora species, and may impact on nearby Beekeepers Nature Reserve and adjacent vegetation through the introduction or spread of weeds and dieback, and may cause land degradation in the form of wind erosion. In determining to grant a clearing permit with dieback and weed mitigation conditions, the Delegated Officer determined that the proposed clearing is unlikely to lead to any unacceptable risk to the environment.

2. Site Information

Clearing Description: The application for the proposed clearing of 0.5 hectares of native vegetation along a 25 metre wide by 200 metre long corridor within Lot 323 on Plan 55939, Jurie Bay, is for the purpose of road re-alignment. Specifically, the proposed clearing is within a corridor of approximately 25 metres wide and 200 metres long to facilitate the re-alignment of an existing access track to the Sandy Cape campground for safety reasons.

Vegetation Description: The vegetation within the application area is mapped as Beard vegetation association 1026, which is described as mosaic: shrublands; *Acacia rostellifera* (Summer-scented Wattle), *Acacia cyclops* (Coastal Wattle) (in the south) and *Melaleuca cardiophylla* (Tangling Melaleuca) (in the north) thicket / shrublands; *Acacia lasiocarpa* (Panjang) and *Melaleuca systena* (Coastal Honey Myrtle) heath (Shepherd et al., 2001).

Vegetation Condition: Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).
To
Degraded: Structure severely disturbed; regeneration to Good condition requires intensive management (Keighery, 1994).

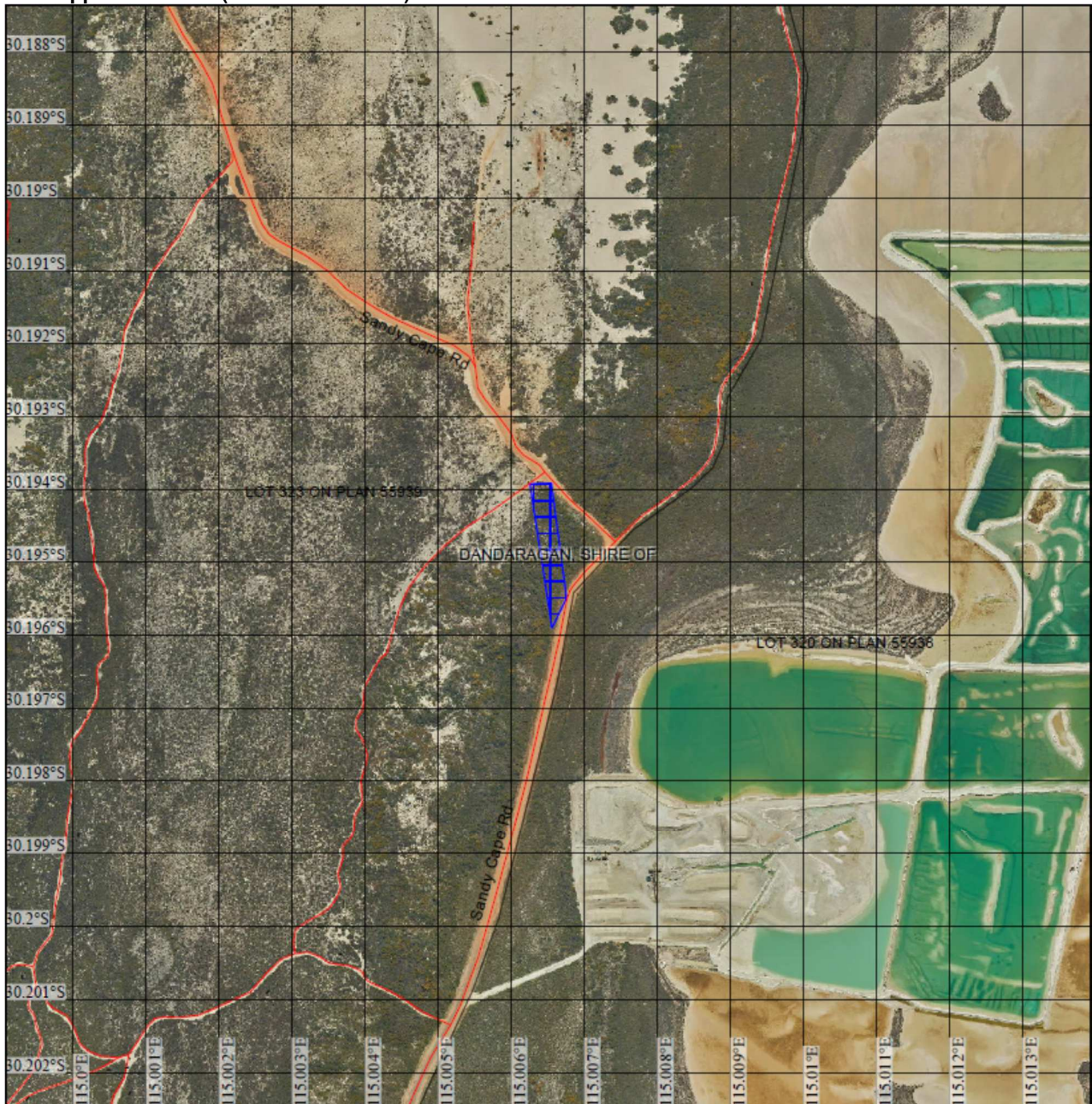
Aerial imagery indicates that approximately 0.25 hectares of the vegetation in the southern portion of the application area is in Very Good (Keighery, 1994) condition, and that approximately 0.25 hectares of the vegetation in the northern portion of the application area is in Degraded (Keighery, 1994) condition.

Soil/Landform type: The application area is mapped as calcareous deep sands and shallow calcareous sands over calcrete (DPIRD, 2017).

Available datasets indicate that approximately 70 per cent of the application area contains deep, poor calcareous sands and that approximately 30 of the application area contains shallow, poor calcareous sands.

Comments: The local area considered in the assessment of the application is described as a 10 kilometre radius measured from the application area. The local area retains approximately 70 per cent native vegetation cover.

Figure 1: Application area (blue-hatched area)



3. Assessment of application against clearing principles

As outlined in Section 2, the vegetation within the application area is comprised of mixed coastal scrub and/or coastal heath of *Melaleuca* sp. and associated species with a mosaic of tall shrubland of *Acacia* sp. and associated species (Shepherd et al., 2001).

According to available databases, five Priority 2, eight Priority 3 and six Priority 4 listed flora species have been recorded within the local area. No priority listed flora species have been recorded within the application area. Noting the preferred habitats of these species, including soil and vegetation types, the majority of these species are unlikely to occur within the application area. Notwithstanding, noting the proximity of records, the similarity in habitat preferences, and the mapped soil and vegetation types within the application area, the application area may contain suitable habitat for the following species:

- *Beyeria cinerea* subsp. *cinerea* (Priority 3) is known from a total of 50 records from Geraldton to Mandurah, and is typically associated with sandy or sandy loam soils on limestone or dunes (FloraBase website). The nearest record of this species is approximately 330 metres from the application area.
- *Styldium maritimum* (Priority 3) is known from a total of 41 records from Jurien Bay to Preston Point, and is typically associated with sandy or sandy loam soils on limestone or dunes (FloraBase website). The nearest record of this species is approximately 540 metres from the application area.
- *Thryptomene* sp. Lancelin (Priority 3) is known from a total of 28 records from Jurien Bay to Lancelin, and is typically associated with sandy or sandy loam soils on limestone or dunes (FloraBase website). The nearest record of this species is approximately 2.37 kilometres from the application area.
- *Grevillea olivacea* (Priority 4) is known from a total of 31 records from Geraldton to Woodman Point, typically associated with white and grey sands, sand over limestone and road verges (FloraBase website). The nearest record of this species is approximately 3.49 kilometres from the application area.

Priority 3 and Priority 4 flora species occur over a wide geographical area and are known from several populations, some within conservation reserves, and so their conservation status is not considered to be under any immediate threat (Jones, 2015). Noting this, and the number of records and the distribution of the above listed species, the proposed clearing is not likely to impact the conservation status of these species should any individuals occur within the application area.

According to available databases, no rare flora have been recorded within the local area. No rare flora species have been recorded within the application area. Noting this, the survey effort in the local area recording priority flora, and the extent of the proposed clearing, the application area is unlikely to include, or be necessary for the continued existence of, rare flora.

According to available databases, five threatened, one Priority 3 and one Priority 4 fauna species, and 10 fauna species protected under an international agreement, have been recorded within the local area (DBCA, 2007-). Two threatened fauna species and the 10 fauna species protected under an international agreement are largely associated with marine and/or aquatic environments, which do not occur within the application area. The application area is not likely to contain suitable habitat for the two priority fauna species. Notwithstanding, the application area may contain suitable habitat for the following species:

- Jurien Bay Skink (*Liopholis pulchra* subsp. *longicauda*);
- Ghost Bat (*Macroderma gigas*); and
- Lancelin Island Ctenotus (*Ctenotus lancelini*).

The Jurien Bay Skink inhabits islands off Jurien Bay, and the Ghost Bat inhabits limestone caves. The Lancelin Island Skink Recovery Plan states that populations of the Lancelin Island Skink are known from Lancelin Island and the adjacent mainland, associated with shrubland with introduced annual grasses on sand dunes, swales and limestone outcrops (Pearson and Jones, 2000). Noting the habitat preferences of these species, and the mapped vegetation type and absence of limestone caves within the application area, the application area is unlikely to contain suitable habitat for these species.

The application area is also mapped as a potential feeding area for the threatened species Carnaby's Cockatoo (*Calyptorhynchus latirostris*). Black cockatoos have a preference for foraging habitat that includes jarrah and marri woodlands and forest heathland and woodland dominated by proteaceous plant species such as *Banksia* spp., *Hakea* spp. and *Grevillea* spp. (Commonwealth of Australia, 2012). Noting the mapped vegetation type within the application area, the extent of the proposed clearing, and the extent of remnant vegetation cover in the local area, the application area is unlikely to comprise significant habitat for this species.

Noting the extent and linear shape of the proposed clearing, and that the dominant mapped vegetation type within the application area is well represented within the local area, the proposed clearing is not likely to impact on significant habitat for fauna species indigenous to Western Australia.

According to available databases, no threatened ecological communities (TEC) or priority ecological communities (PEC) occur within the local area. The nearest occurrence of an ecological community of conservation significance is the 'Banksia dominated woodlands of the Swan Coastal Plain IBRA region', located approximately 11 kilometres east of the application area. This ecological community is listed as a 'Priority 3(iii)' PEC by the Department of Biodiversity, Conservation and Attractions, and as an 'Endangered' TEC under the *Environment Protection and Biodiversity Conservation Act 1999*. Noting this, and the mapped vegetation type within the application area, the application area is unlikely to comprise the whole or a part of, or be necessary for the maintenance of a TEC.

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 application area is located within the Swan Coastal Plain Interim Biogeographic Regionalisation of Australia bioregion, which retains approximately 38.5 per cent of the pre-European vegetation extent, and the mapped Beard vegetation association 1026 retains approximately 93.8 per cent of its pre-European vegetation extent within the Swan Coastal Plain bioregion (Government of Western Australia, 2018). As outlined under Section 2, the local area retains approximately 70 per cent native vegetation cover. On this basis, and noting the extent and linear shape of the proposed clearing, the application area is unlikely to be significant as a remnant in an area that has been extensively cleared.

According to available databases, the nearest conservation areas are Beekeepers Nature Reserve located approximately 10 metres from the application area, and Jurien Bay Marine Park located approximately 1.2 kilometres north-west of the application area. The application area is separated from Beekeepers Nature Reserve by remnant vegetation and the existing road, and from the Jurien Bay Marine Park by dunes and remnant vegetation. Noting the proximity to Beekeepers Nature Reserve, the proposed clearing may impact on the environmental values of this conservation area, and adjacent remnant vegetation, through the spread of weeds and dieback. Weed and dieback management practices will help to address this risk.

According to available databases, there are no watercourses or wetlands within the application area. The closest is a palusplain wetland located up to two kilometres east of the application area, an east of the mining activities. The proposed clearing will not impact this wetland.

Noting the soil type within the application area, the small size of the application area, and the absence of wetlands and watercourses within the application area, the proposed clearing is not likely to cause a deterioration in the quality of surface or underground water, and is not likely to cause or exacerbate the incidence or intensity of flooding.

As outlined under Section 2, the chief soil type within the application area is calcareous sands (DPIRD, 2017). This soil type has a high risk of water and wind erosion if left exposed, particularly if subject to strong prevailing winds. The application area is partially protected by a dune system to the west affording some protection from the prevailing coastal winds. However, the proposed clearing may cause land degradation in the form of soil erosion, however noting the extent of the proposed clearing this impact is expected to be minimal. The applicant advised that the risk of soil erosion during construction (including during the proposed clearing) will be managed through the spraying of water (Shire of Dandaragan, 2018b).

Given the above, the proposed clearing may be at variance to principle (g), and is not likely to be at variance to the remaining principles.

Planning instruments and other relevant matters.

Lot 323 on Deposited Plan 55939 (part reserve 19206) reserved for the purposes of "Parkland, Recreation and the letting of cottages" and is managed by the Shire of Dandaragan.

The application area is not a gazetted road reserve but has historically provided access to the Sandy Cape campground and nearby mining tenements (from which lime, sand and gypsum are extracted by private contractors). The realignment of the road, creating a gradual bend and removing an existing elbow, is for road safety reasons. Rehabilitation of the section of by-passed road is proposed (Shire of Dandaragan, 2018a).

Given the wind and water erosion risks posed by the calcareous sands onsite, The applicant advised that the risk of soil erosion post-construction will be managed through rehabilitation, and that natural vegetation will be allowed to regrow with an expectation that vegetation cover is expected to return within one month during the winter months (Shire of Dandaragan, 2018b).

The Department of Planning, Lands and Heritage (DPLH) have advised the applicant that the "...current purpose of the reserve being 'Recreation, Parkland...' does not preclude the road construction and re-alignment as it would be considered ancillary to the reserve purpose, i.e. providing public access, access for emergency services etc. As discussed the re-alignment of the existing road for safety reasons would be beneficial to this. The current reserve situation can be maintained but the Shire may also wish to consider the excision of the road from the reserve and creation/dedication in the future." (DPLH, 2018).

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 6 February 2018 with a 21 day submission period. One public submission was received in relation to this application. The submission raised a number of concerns in relation to the proposed clearing, including justification for the proposed clearing from a safety perspective, demonstration of how the proposed clearing has been avoided and/or minimised, potential impacts to 19 species of rare or priority listed flora and three species of threatened or priority listed fauna, and the road realignment design (Submission, 2018). These matters have been considered through the assessment and addressed in this report. The submission also made comment concerning matters including alternative road configuration designs, installation of road safety barriers, signage, and reducing speed limits (Submission, 2018). These matters are beyond the scope of the assessment of clearing impacts and have not been addressed.

4. References

- Commonwealth of Australia (2012) EPBC Act referral guidelines for three threatened black cockatoo species. Department of Sustainability, Environment, Water, Populations and Communities, Canberra. Available from: <https://www.environment.gov.au/system/files/resources/895d4094-af63-4dd3-8dff-ad2b9b943312/files/referral-guidelines-wa-black-cockatoo.pdf>
- 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 Planning, Lands and Heritage (DPLH) (DPLH, 2018) Advice received concerning end land use and land tenure resolved (DWER Ref: A1604422)
- Department of Primary Industries and Regional Development (DPIRD) (2017) (DPIRD, 2017) NRInfo Digital Mapping. Department of Primary Industries and Regional Development. Government of Western Australia. URL: <https://maps.agric.wa.gov.au/nrm-info/> (accessed January 2018).
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Government of Western Australia (2018). 2017 State-wide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of December 2017. WA Department of Biodiversity, Conservation and Attractions.
- Jones, A. (2015) Threatened and Priority Flora List, 11 November 2015. Department of Parks and Wildlife: Kensington, WA.
- Pearson, D. and Jones, B. (2000). Lancelin Island Skink Recovery Plan. Prepared for the Lancelin Island Skink Recovery Team. Wildlife Management Program No. 22. Department of Conservation and Land Management, Perth, Western Australia. Available from: https://www.dpaw.wa.gov.au/images/documents/plants-animals/threatened-species/recovery_plans/liskink_wmp22.pdf
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- Shire of Dandaragan (2018a) Advice concerning rehabilitation of closed track (DWER Ref: A1634077)
- Shire of Dandaragan (2018b) Advice concerning water and wind soil erosion minimisation (DWER Ref: A1646758)
- Submission (2018) Public submission received in relation to clearing permit application CPS 7910/1 (DWER ref. A1626758).

GIS Databases:

- Aboriginal Sites of Significance
- Aerial imagery (accessed February 2018)
- Department of Biodiversity, Conservation and Attractions Estate
- Groundwater salinity
- Hydrography, linear
- SAC bio datasets (accessed February 2018)
- Soils, Statewide
- Wetlands