GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 8264/1
Permit Holder:	Shire of Shark Bay
Duration of Permit:	10 April 2019 to 10 April 2024

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 a landfill facility.

2. Land on which clearing is to be done
Lot 357 on Deposited Plan 221215, Denham

3. Area of Clearing
The Permit Holder must not clear more than 38.6 hectares of native vegetation within the area cross hatched yellow on attached Plan 8264/1.

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. 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:*

(a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;

(b) ensure that no *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. Malleefowl habitat management

(a) Immediately prior to undertaking any clearing authorised under this Permit, the Permit Holder shall engage a *fauna specialist* to conduct a *fauna survey* of any areas to be cleared within the area cross-hatched yellow on attached Plan 8264/1, to identify active *Leipoa ocellata* (malleefowl) mounds;

(b) where active malleefowl mounds are identified in relation to condition 8(a), the Permit Holder shall ensure that no clearing occurs within 50 metres of the identified active malleefowl mounds; and

(c) where active malleefowl mounds are identified under condition 8(b), the Permit Holder shall document the location of any active malleefowl mounds identified and submit to the *CEO*.

PART III - RECORD KEEPING AND REPORTING

9. 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 6 of this Permit;

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

(f) actions taken in accordance with condition 8 of this Permit.

8. Reporting

The Permit Holder must provide to the CEO the records required under condition 9 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*;

fauna specialist means a person who holds a tertiary qualification specialising 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 *Biodiversity Conservation Act 2016*;

fauna survey means a field-based investigation, including a review of established literature, of the biodiversity of fauna and/or fauna habitat of the Permit Area. Where conservation significant fauna are identified in the Permit Area, the survey should also include sufficient surrounding areas to place the Permit Area into local context;

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

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

weed/s means any plant -

(a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
(b) published in a Department of Biodiversity, Conservation and Attractions Regional Weed Rankings Summary, regardless of ranking; or
(c) not indigenous to the area concerned.

Samara Rogers
MANAGER
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

18 March 2019

Plan 8264/1

Legend

- CPS areas approved to clear
- base layers
- Local Government Authorities
- Road Centrelines
- Cadastre
- Image

N

0 150 300 450 600 m

MGA 94
Geocentric Datum of Australia 1994

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

GOVERNMENT OF
WESTERN AUSTRALIA

Government of Western Australia
Department of Water and Environmental Regulation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 8264/1
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: Shire of Shark Bay
Application received date: 21 November 2018

1.3. Property details

Property: LOT 357 ON PLAN 221215, DENHAM
Local Government Authority: SHARK BAY, SHIRE OF
Localities: DENHAM

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	Purpose category:
38.6		Mechanical Removal	Landfill

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 18 March 2019

Reasons for Decision:

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

Through the assessment it was determined that the application area may contain suitable breeding habitat for the malleefowl *(Leipoa ocellata*). The Delegated Officer determined that a condition on the permit to undertake pre-clearance surveys to identify active malleefowl mounds within the application area, with no clearing to occur within 50 metres of any active malleefowl mounds identified, would minimise any potential impacts to malleefowl breeding habitat.

The Delegated Officer determined that the proposed clearing may impact surrounding native vegetation. A weed management condition has been placed on the clearing permit to minimise the risk of weeds spreading into adjacent areas of remnant vegetation.

In determining to grant a clearing permit subject to conditions, the Delegated Officer determined that the proposed clearing is not likely to lead to an unacceptable risk to the environment.

2. Site Information

Clearing Description

The application is to clear 38.6 hectares of native vegetation at Lot 357 on Deposited Plan 221215, Denham, for the purpose of a landfill facility (Figure 1).

Vegetation Description

The application area is mapped as Carnarvon Beard 112 vegetation association, which is described as "Hummock grasslands, shrub steppe; *Acacia ligulata* over *Triodia plurinervata*" (Shepherd, 2001).

Vegetation Condition

Good: Vegetation structure significantly altered with obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate (Keighery, 1994).

To

Degraded: Basic vegetation structure severely impacted by disturbance, scope for regeneration but not to a state approaching good condition without intensive management (Keighery, 1994).

Soil type

The application area is mapped as the following land systems:

Peron Land System which is described as "Undulating plains of calcareous sand supporting low acacia shrublands and *Lamarchea hakeifolia* heaths" (Department of Primary Industry and Regional Development, 2018a); and

Taillefer Land System which is described as “Plains of calcareous sand, minor limestone ridges, low coastal dunes and sea cliffs; Hard Spinifex (HASP) hummock grasslands with numerous shrubs; a minor land system confined to southern parts of the Peron Peninsula” (Department of Primary Industry and Regional Development, 2018b).

Comments

The local area is defined as a 10 kilometres radius from the application area.

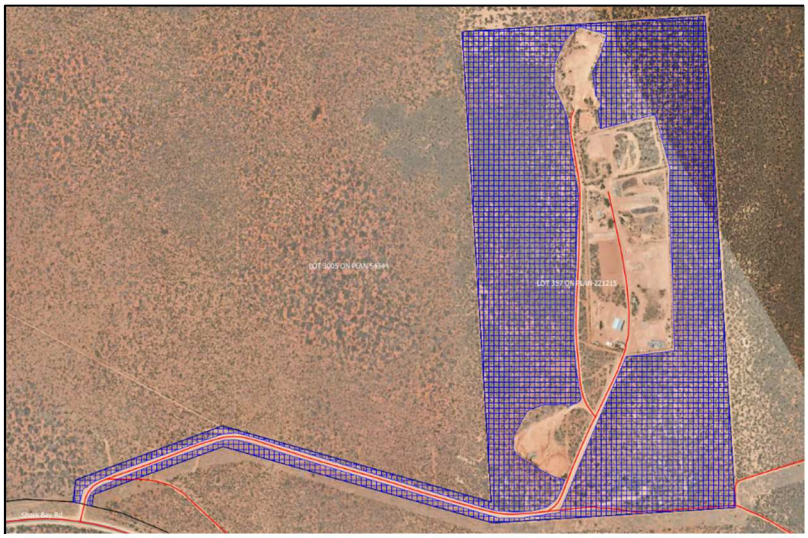

Figure 1: Application area hatched in blue.

3. Minimisation and mitigation measures

The Shire of Shark Bay will avoid clearing areas for purposes other than land fill and material stockpiling sites (Shire of Shark Bay, 2018).

4. Assessment of application against clearing principles

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

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

According to available databases, no threatened flora and 13 priority flora species have been mapped within the local area. These are *Sondottia glabrata* (Priority 2), *Abutilon sp. Hamelin (A.M. Ashby 2196)* (Priority 2), *Triodia plurinervata* (Priority 3), *Acanthocarpus parviflorus* (Priority 3), *Grevillea rogersoniana* (Priority 3), *Olearia occidentissima* (Priority 2), *Anthocercis intricata* (Priority 3), *Bossiaea calcicola* (Priority 3), *Chthonocephalus tomentellus*, (Priority 2), *Physopsis chrysophylla* (Priority 3), *Grevillea sp. Shark Bay (N.H. Speck 24/09/1953)* (Priority 1), *Chthonocephalus muellerianus* (Priority 2), *Stenanthemum divaricatum* (Priority 3).

The Department of Biodiversity, Conservation and Attractions (DBCA) (2019), advised that *Triodia plurinervata, Grevillea rogersoniana, Anthocercis intricata, Bossiaea calcicola, Chthonocephalus tomentellus*, *Physopsis chrysophylla* and *Chthonocephalus muellerianus* occur in habitats which may be present or similar to that within the application area. DBCA also advised that these priority flora are not highly restricted and are all known from 30 or more records and clearing a small amount of habitat for these species is not likely to impact on their conservation status (DBCA, 2019). In regards to *Grevillea sp.* Shark Bay (N.H. Speck 24/09/1953), only one record has been collected in one location in 1953, and the likelihood of it being present within the application area is very low, based on the infrequent collection history (DBCA, 2019). The remaining priority flora occur in different soil and vegetation types than that mapped within the application area, and are not likely to occur within the application area (DBCA, 2019).

According to available databases, no threatened ecological communities (TEC) or priority ecological communities (PEC) have been mapped within the local area.

According to available databases, seven threatened fauna species, 17 fauna species protected under international agreement, three Priority 4, one Priority 3 and one Priority 1 fauna species have been mapped within the local area. Of these, the application area may comprise breeding habitat for malleefowl (*Leipoa ocellata*). Fauna is discussed in more detail under Principle (b).

Given the above, the application area does not comprise a high level of biological diversity.

The proposed clearing is not likely 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.

Proposed clearing may be at variance to this Principle
As discussed under Principle (a), seven threatened fauna species, 17 fauna species protected under international agreement, three Priority 4, one Priority 3 and one Priority 1 fauna species have been mapped within the local area. Of these, the application area may comprise of breeding habitat for malleefowl (*Leipoa ocellata*).

Malleefowl is listed as vulnerable under the *Environmental Protection Biodiversity Conservation Act 1999* (EPBC Act). This species has been reintroduced to the Shark Bay area, where they have continued to persist. According to DBCA (2007), nine records of this species has occurred within the local area. Malleefowl tend to occur in arid and semi-arid areas dominated by mallee eucalypts on sandy soils. They are also know to occur in *Acacia sp*. woodlands. For breeding, they require abundant leaf litter and sandy substrate for the construction of nest mounds. While this species commonly occurs in the wheatbelt region, given that the application area contains sandy soils, similar vegetation types as where they have been previously recorded, and have been reintroduced in the Shark Bay area, the application area may contain suitable breeding malleefowl habitat. Advice provided by DBCA (2019), state that if malleefowl were breeding in the area, a survey would identify the presence of any mounds. A malleefowl management condition has been placed on the permit to minimise any potential impacts to breeding habitat.

According the available databases and advice provided by DBCA, the remaining fauna are unlikely to occur within the application area (DBCA, 2019).

Given the above, the application area may comprise the whole or part of, or is necessary for the maintenance of a significant habitat for fauna.

The proposed clearing may be at variance to this Principle.

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

Proposed clearing is not likely to be at variance to this Principle
According to available databases, no threatened flora have been recorded within the local area. Therefore, the application area is not likely to not include, or is necessary for the continued existence of threatened 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 threatened ecological communities have been recorded within the application area. Therefore the application area does not comprise the whole or part of, or is necessary for the maintenance of a threatened ecological community.

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 Objective for the Targets for Biodiversity Conservation include a target to prevent the clearance of ecological communities with an extent below 30 per cent of that present pre-European settlement (Commonwealth of Australia, 2001).

The local area retains approximately 71 per cent (approximately 25308.92 hectares) or remnant vegetation.

The application area falls within the Carnarvon Interim Biogeographic Regionalisation of Australia (IBRA) bioregion and is mapped as Beard 112 vegetation association, retaining 99 per cent and 95 per cent respectively. The Shire of Shark Bay retains 99 per cent of its pre-European extent (Table 1) (Government of Western Australia, 2018).

Given that these mapped vegetation associations are above the 30 per cent threshold, the application area is not considered a significant remnant in an area that has not been extensively cleared.

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

Table 1: Bioregion, beard vegetation association, and local government statistics (Government of Western Australia, 2018).

	Pre-European extent	Current Extent Remaining		Current Extent Remaining in DBCA Managed Lands
	(ha)	(ha)	(%)	(%)
IBRA Bioregion				
Carnarvon	8,382,890.4	8,360,801.3	99	12.2
Vegetation Association				
112	26,454.2	25,150.1	95	4.6
Local Government Authority				
Shire of Shark Bay	2,410,758.1	2,403,083.9	99	39.0

(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 to this Principle
According to available databases, no wetlands or watercourses have been mapped within the application area. The closest watercourse is the ocean which occurs 1193 metres west of the application area.

Given the above, the application area is not growing in, or in association with, an environment associated with a watercourse of wetland.

The proposed clearing is not likely to be at variance to 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 to this Principle
The application area is mapped as the following two land systems (Department of Primary Industry and Regional Development, 2018a, Department of Primary Industry and Regional Development, 2018b):

- Peron land System: Undulating plains of calcareous sand supporting low acacia shrublands and Lamarchea hakeifolia heaths; and
- Taillefer Land System: Plains of calcareous sand, minor limestone ridges, low coastal dunes and sea cliffs; Hard Spinifex (HASP) hummock grasslands with numerous shrubs; a minor land system confined to southern parts of the Peron Peninsula.

The land degradation reports supplied by the Department of Primary Industry and Regional Development (2018a, 2018b), suggests that soils for both land systems are slightly susceptible to wind erosion when exposed through a loss of vegetation. However the vegetation associations mapped surrounding the application area are relatively dense and contain many unpalatable wood species that are resistant to degradation. Additionally, based on these reports soil within the application area have a relatively low likelihood of water erosion, salinity, flood risk and waterlogging risk.

Given the above, the application area is not likely to lead to appreciable land degradation through with erosion.

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, four conservation areas have been mapped within the local area. The closest conservation area is an un-named reserve located approximately 1.8 kilometres south west from the application area. The remaining conservation areas are located approximately greater than 2,300 metres from the application area. Noting the distance between this conservation area and the application area, the application area is not likely to have an impact on the environmental values of this conservation area.

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
Groundwater salinity within the application area is mapped between 7000 and 14000 total dissolved solids, milligrams per litre. This level of groundwater salinity is classified as 'saline to highly saline'. However, given that the application area is surrounded by substantial remnant vegetation in similar to better condition, the proposed clearing is not likely to increase groundwater salinity.

As discussed under Principle (f), the application area does not contain wetlands or vegetation growing in association with a watercourse.

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

As discussed under Principle (g), given the mapped land systems are mapped with a low flood risk (Department of Primary Industry and Regional Development, 2018a; Department of Primary Industry and Regional Development, 2018b), and the application area being surrounded by intact 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 Shire of Shark Bay have a Part V registration for a landfill over Lot 357 on Deposited Plan 221215, Denham, since 2006 – Number R1691 (DWER A224321).

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

Potential unauthorised clearing adjacent to the application area is currently under investigation (DWER A1747539).

The application area is located within the environmental sensitive area (ESA) buffer zone for the Australian Heritage natural estate - Denham Sound Freycinet Reach, Hopeless Reach and Lharidon Bright, Shark Bay.

The application area is located within the Gascoyne Groundwater Area which is an area proclaimed under the Rights in Water and Irrigator Act 1914. If the applicant require a permit to take groundwater, they are advised to contact DWER's Regional Delivery section (DWER, 2019).

The clearing permit application was advertised on the DWER website on 22 December 2018 with a 21 day submission period. No public submissions have been received in relation to this application.

5. References

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.

Shire of Shark Bay (2018) Application Form Excerpt, Shire of Shark Bay, Western Australia, DWER A1751206.

Department of Primary Industry and Regional Development (DPIRD) (2018a) Peron system land degradation report, Department of Primary Industry and Regional Development, Western Australia.

Department of Primary Industry and Regional Development (DPIRD) (2018b) Taillefer system land degradation report, Department of Primary Industry and Regional Development, Western Australia

Department of Environment and Conservation (2012) Western Australian wildlife management program No. 53 - Western spiny-tailed skink recovery plan, Government of Western Australia, Western Australia

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/ . Accessed January 2019

Department of Biodiversity, Conservation and Attractions (DBCA) (2019) Regional advice received 14 March 2019. Western Australia, DWER (A1772432).

Department of Water and Environmental Regulation (DWER) (2019) Water licencing advice from Mid West Gascoyne Region, Government of Western Australia, DWER (A1772960).

Government of Western Australia (2018) 2017 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of February 2018. WA Department of Parks and Wildlife, Perth.

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

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.

6. GIS databases

- Aboriginal sites of significance
- Department of Biodiversity, Conservation and Attractions
- Sac bio datasets accessed January and February 2019