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.: 7721/1
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: Shire of Jerramungup

1.3. Property details

Property: Lot 1485 on Plan 207495, Gairdner
Lot 151 on Plan 49841, Bremer Bay
Meechi Road reserve (PIN 11541659), Gairdner
Meechi Road reserve (PIN 11541632), Bremer Bay
Local Government Authority: JERRAMUNGUP, SHIRE OF
DWER Region: South Coast
DBCA District: GREAT SOUTHERN
Localities: JACUP

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.3		Mechanical Removal	Road reconstruction and culvert Installation

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 15 February 2018
Reasons for Decision: The clearing permit application was received on 9 August 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*. It has been concluded that the proposed clearing is at variance to clearing principle (f) and is not likely to be at variance to the remaining clearing principles.

The Delegated Officer noted that the proposed clearing may impact on riparian vegetation growing in association with nearby watercourses, however determined that the proposed clearing is unlikely to have any significant environmental impacts. The Delegated Officer also noted the that the proposed clearing may increase the risk of weeds being introduced or spread into adjacent areas. Weed management measures will minimise impacts to adjacent areas.

2. Site Information

Clearing Description: The application is to clear up to 1.3 hectares of native vegetation within Lot 1485 on Plan 207495, Gairdner, Lot 151 on Plan 49841, Bremer Bay, Meechi Road reserve (PIN 11541659), Gairdner, and Meechi Road reserve (PIN 11541632), Bremer Bay, for the purpose of road reconstruction.

Vegetation Description: The application area is mapped as Beard vegetation association:

- 47 described as shrublands; Shrublands; tallerack mallee-heath (Shepherd et al., 2001)

A flora and vegetation survey report, *Flora and Vegetation surveys of the Boxwood Hill-Ongerup and Meechi Road* provided as supporting information with the application, states that the majority of the vegetation within the application area is comprised of an open mallee woodlands of *Eucalyptus pleurocarpa* and *Eucalyptus adesmophloia* over sparse mid shrubland of *Calothamnus gibbosus, Hakea marginata* and *Petrophile squamata* supsp. northern (J. Monks 40) over a sedgeland of *Anarthria* spp. and *Lepidosperma* spp. (Great Southern Bio Logic, 2016).

Vegetation Condition: Excellent; Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).

The condition of the vegetation was determined from the flora and vegetation survey report, which states that the vegetation condition is excellent with very limited weed invasion or soil disturbance (Great Southern Bio Logic, 2016).

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

- Chillinup 8 Subsystem (Map Unit 242CH_8), described as gently undulating sandplain. Soils developing on Tertiary marine sediments (Schoknecht et al., 2004).

Comment: The local area referred to in this assessment is defined as the area within a 10 kilometre radius of the application area. Aerial imagery indicates that the local area retains approximately 30 per cent native vegetation cover.

Figure 1: Map of application area

Figure 2: Photographs of vegetation within the application area

Photo 1: The Western section of the Meechi Road creek crossing will require the removal *Eucalyptus occidentalis* (flat-topped yate) trees and several small shrubs and sedges.

Photo 2: Vegetation type likely to be represented within the 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

The application is to clear up to 1.3 hectares of native vegetation within a linear footprint of approximately six kilometres in length, up to one metre from the existing back slope on both sides of the road.

As discussed in Section 2, the vegetation within the application area comprises mainly of an open mallee woodlands of *Eucalyptus pleurocarpa* and *Eucalyptus adesmophloia* in an excellent (Keighery, 1994) condition (Great Southern Bio Logic, 2016).

According to available databases, the greater bilby (*Macropus lagotis*), quenda (*Isoodon obesulus* subsp. *fusciventer*) and western brush wallaby (*Macropus irma*) have been recorded within the local area (DBCA, 2007-). Fauna habitat and conservation significant fauna species are discussed under Principle (b).

According to available databases and advice received from the Department of Biodiversity, Conservation and Attractions (DBCA), two priority 3 flora species and one rare flora species have been recorded within the local area. Priority 3 flora species (being species that are known from several locations and do not appear to be under imminent threat (Jones, 2015)) have been recorded from the same soil and vegetation types as found within the application area, as discussed below. Rare flora are discussed under Principle (c).

- *Lasiopetalum parvuliflorum* (Priority 3) is known from 16 records at sites generally associated with and, gravelly loam along creeks, seasonal swamps (FloraBase website, January 2018). The nearest record of this species is approximately 5.8 kilometres south-east of the application area. Noting the vegetation and soil type discussed in Section 2, it is unlikely the application area provides habitat for this species.
- *Stylidium pseudohirsutum* (Priority 3) is known from 15 records at sites generally associated with lower landscape positions supporting sandy or clayey soils (FloraBase website, January 2018). The nearest record of this species is approximately 7.7 kilometres south-east of the application area. Noting the distance to this record, it is unlikely that this species occurs within the application area.

According to available databases, the priority ecological community (PEC) 'Proteaceae dominated kwongkan shrublands of the southeast coastal floristic province of Western Australia', listed as Priority 3 by DBCA, occurs within the application area. This PEC is also listed as a threatened ecological community (TEC) under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). TECs are discussed under Principle (d).

Given the above, the application area is unlikely to comprise a high level of biological diversity. The proposed clearing is not likely to be at variance to this Principle.

GIS Databases:
SAC bio datasets (accessed January 2017)

(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 to this Principle

As discussed in Section 2, the vegetation within the application area comprises mainly of an open mallee woodlands of *Eucalyptus pleurocarpa* and *Eucalyptus adesmophloia* in an excellent (Keighery, 1994) condition (Great Southern Bio Logic, 2016).

As discussed under Principle (a), the greater bilby (listed as rare or likely to become extinct), quenda (listed as Priority 4 by DBCA) and western brush wallaby (listed as Priority 4 by DBCA) have been recorded within the local area.

Noting the extent and linear shape of the proposed clearing and that the vegetation types within the application area are well represented within the local area, including within the Lake Magenta Nature Reserve and Fitzgerald River National Park, the proposed clearing is not likely to comprise significant habitat for the abovementioned conservation significant species.

A field survey report, *Proposed Culvert Installation Site – Meechi Road* provided as supporting information with the application, recorded a small hollow actively being used by a pair of red-capped parrot (*Purpureicephalus spurius*) (Elson, 2016). The red-capped parrot is indigenous to south west of Western Australia and normally inhabits mallee woodlands within 100 kilometres of the coastline. The species is fairly common and currently not under threat or danger to its population, given this is has not been assigned a conservation status. However, the proposed clearing could lead to impacts to individuals during the breading season. To mitigate potential harm on individuals during the clearing, a condition on the permit has been placed requiring the applicant to avoid clearing during the breeding season.

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

GIS Databases:
SAC bio datasets (accessed November 2017)

(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, one rare flora species has been recorded within the local area.

The species is known from nine populations within the Albany and Esperance Districts , consisting of a total of 751 mature plants. The species has been recorded along creeklines and rivers, as well as floodplains (DCBA, 2017). Populations have been recorded in the Fitzgerald River National Park and Cape Arid National Park, and populations outside of these conservation reserves occur largely within other Crown reserves along creeklines (DCBA, 2017). There is a substantial disjunct between the Albany and Esperance District populations.

The application area may support potential habitat for this species in the Devil Creek crossing portion, as populations of this species have been recorded downstream. The proposed level of impact within the potential area of habitat would appear to be low, as the area of vegetation to be impacted is a narrow portion of the broader vegetated extent of the available creekline habitat. The proponent also notes that there is weed invasion in this location which will be managed. Assuming the hydrology of the creekline is to be maintained and potential downstream impacts minimised, then proportional impacts to any potential habitat and the broader conservation of this species are unlikely to be significant (DCBA, 2017). The applicant is installing a larger culvert to aid the flow of Devil Creek and avoid surface water on the road as indicated within Photo 1. Noting this, the hydrology of the creek will be maintained.

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

GIS Databases:
SAC bio datasets (accessed November 2017)

(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

As discussed under Principle (a), the application area occurs within a mapped occurrence of the Commonwealth-listed TEC 'Proteaceae dominated kwongkan shrublands of the southeast coastal floristic province of Western Australia'.

The Approved Conservation Advice for this TEC specifies a number of criteria for vegetation to be considered representative of this TEC (Department of the Environment, 2014). Noting the vegetation type within the application area (as described in Section 2), the application area is unlikely to comprise the whole or part of, or be necessary for the maintenance of, a TEC including the abovementioned Commonwealth-listed TEC.

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

GIS Databases:
SAC bio datasets (accessed November 2017)

(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).

As indicated in Table 1, the remaining extents of native vegetation within the bioregion, local government authority and mapped vegetation associations are above the 30 per cent threshold (Government of Western Australia, 2016).

As discussed in Section 2, the local area retains approximately 30 per cent native vegetation cover. Noting this, the application does not occur in an extensively cleared landscape.

Given local area retains approximately 30 per cent native vegetation cover, and that the application area does not contain significant habitat for fauna or flora including species of conservation significance, it is considered that the application area is unlikely to be significant as a remnant.

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

Table 1: Vegetation extents

	Pre-European	Current Extent	Remaining	Current Extent in DCBA Managed Lands	
	(ha)	(ha)	(%)	(ha)	(%)
IBRA Bioregion*					
Esperance Plains	2 899 941	1 495 049	52	820 474	10
Local government authority*					
Shire of Jerramungup	648 534	286 515	44	138 650	48
Beard vegetation association*					
47	959 935	336 782	35	177 480	52

GIS Databases:
Remnant vegetation

(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

According to available databases and as indicated in Figure 1, one watercourse intersects with the application area. The watercourse is a major drain (Devil Creek) supported by a culvert/drain channel that is constructed underneath the road.

The native vegetation within this portion of the application area is likely to be growing in association with this creek.

Given the above, the proposed clearing is at variance to this Principle.

Noting the extent of the application area in the vicinity of this creek (as indicated in Figure 1), the proposed clearing is unlikely to significantly impact on native vegetation growing in association with the creek.

GIS Databases:
Hydrography, linear

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

Proposed is not likely to be at variance to this Principle

As discussed in Section 2, the application area is located within the Chillinup 8 Subsystem (Schoknecht et al., 2004).

As discussed under Principle (f), a major drain intersects with the application area.

According to available databases, the application area has relatively flat topography, an average rainfall of 500 millimetres per annum, and saline to highly saline groundwater mapped at 7,000-14,000 total dissolved solids (milligrams per litre).

Noting the above, the extent of the proposed clearing, and the long linear shape of the application area, the proposed clearing is unlikely to cause appreciable land degradation in the forms of wind and water erosion or salinity.

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

GIS Databases:
Soils, Statewide
Groundwater salinity
Topographic contours

(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 datasets, a number of privately-managed conservation areas occur within the local area, however are not directly adjacent or connected to the application area. No DBCA-managed conservation estate is located within the local area, the nearest being Fitzgerald River National Park located approximately 14 kilometres east of the application area. Given the distance between these conservation areas and the application area, 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 to this Principle.

The application area is adjacent to vegetation contiguous with approximately 2,130 hectares of native vegetation on Crown Reserve 33258, vested with the (now) Department of Planning, Lands and Heritage for the purpose of 'Parklands; Recreation', and to a watercourse. The proposed clearing may increase the risk of weeds being introduced or spread into adjacent areas. Weed management measures will minimise impacts to adjacent areas.

GIS Database:
DBCA Estate

SAC bio datasets (accessed January 2017)

(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

As discussed under Principle (f), a major drain intersects the application area.

As discussed under Principle (g), groundwater salinity is mapped at 7,000-14,000 total dissolved solids.

Noting the extent of the proposed clearing, and the long linear shape of 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 to this Principle.

GIS Databases:
Groundwater salinity
Hydrography, linear

(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

Noting the extent of the proposed clearing and the linear shape of the application area, the proposed clearing is not likely to cause or exacerbate the incidence or intensity of flooding.

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

GIS Databases:
Hydrography, Linear
Hydrography, Hierarchy

Planning instruments and other relevant matters.

The application was advertised on the Department of Water and Environmental Regulation's website on 10 August 2017 for a 21 day public submission period. Following revision of the application footprint by the applicant, the application was advertised on 2 October 2017 for a further seven days. No submissions were received during these periods.

No registered Aboriginal Sites of Significance occur within the application area.

GIS Databases:
Aboriginal Sites of Significance

4. References

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

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 November 2017

Department of Biodiversity Conservation and Attractions (DBCA) (2017) Advice provided in relation to clearing permit application CPS 7721/1, received 9 November 2017 (DWER Ref: A1611140).

Department of the Environment (2014) Approved Conservation Advice for Proteaceae Dominated Kwongkan Shrublands of the southeast coastal floristic province of Western Australia. Canberra: Department of the Environment and Energy. Available from: http://www.environment.gov.au/biodiversity/threatened/communities/pubs/126-conservation-advice.pdf. In effect under the EPBC Act from 1 February 2014.

Elson, S. (2017) Proposed Culvert Installation Site – Meechi Road. Field survey conducted September and October 2016, and June and July of 2017 (DER Ref: A1502266).

Government of Western Australia (2016). 2016 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2016. WA Department of Parks and Wildlife, Perth.

Great Southern Bio Logic (2016) Flora and Vegetation surveys of the Boxwood Hill-Ongerup and Meechi Road. Supporting information within Clearing Permit Application CPS 7721/1 – Shire of Jerramungup (DWER Ref:A1502266).

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

Schoknecht, N., Tille, P. and Purdie, B. (2004) Soil-landscape mapping in South-Western Australia – Overview of Methodology and outputs' Resource Management Technical Report No. 280. Department of Agriculture.

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.