



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 5145/1
Permit Holder:	Warrago Pty Ltd
Duration of Permit:	5 October 2012 – 5 October 2017

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 dune reconstruction.

2. Land on which clearing is to be done

Lot 45 on Deposited Plan 215007, Coral Bay

3. Area of Clearing

The Permit Holder must not clear more than 0.6235 hectares of native vegetation within the area hatched yellow on attached Plan 5145/1.

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. Compliance with Assessment Sequence and Management Procedures

Prior to clearing any native vegetation under conditions 1, 2, and 3 of this Permit, the Permit Holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

PART II – MANAGEMENT PROCEDURES

6. Weed

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*:

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

7. Wind erosion management

The Permit Holder shall not clear native vegetation unless revegetation work begins within one month of the clearing being undertaken.

Definitions

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

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 a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*.

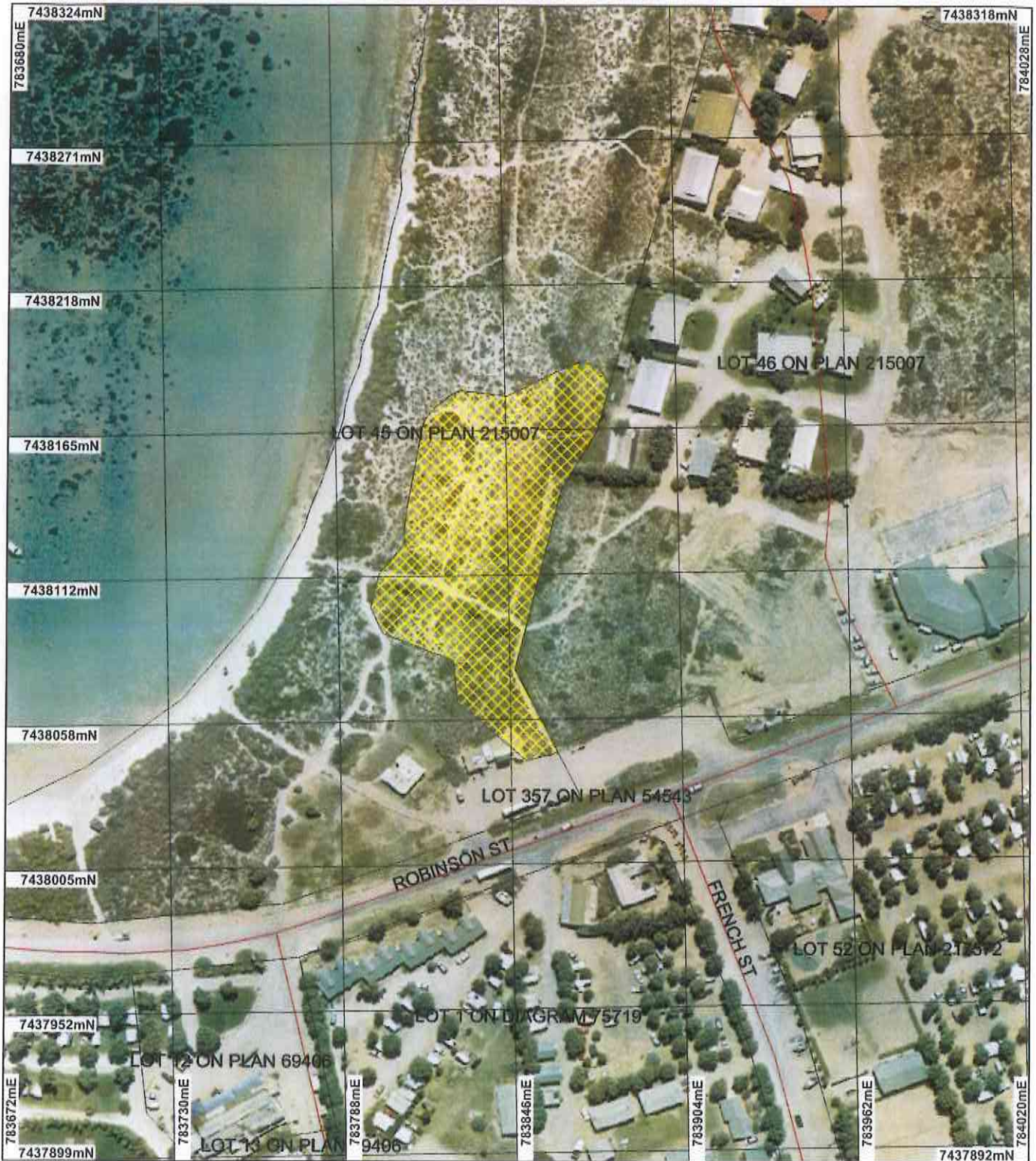


Roxane Shadbolt
A/MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

13 September 2012

CPS 5145/1 - Plan



LEGEND

Clearing instruments

-  Areas Approved to Clear
-  Road Centrelines
-  Cadastre

Loral Bay 50cm UTMphoto -
Landgate 2001



0 50 m

Scale 1:1939

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

R. Shadbolt Date 11/9/12

R Shadbolt

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

Information derived from this map should be
confirmed with the data custodian acknowledged
by the agency acronym in the legend.



Department of
Environment and Conservation

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1. Application details

1.1. Permit application details

Permit application No.: 5145/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Warrago Pty Ltd

1.3. Property details

Property: LOT 45 ON PLAN 215007 (House No. 41 ROBINSON CORAL BAY 6701)
Local Government Area: Shire of Carnarvon
Colloquial name:

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 10 September 2012

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Mapped Beard vegetation association 662 (Coastal Dunes) is described as Hummock grassland; shrub steppe; mixed acacia scrub & dwarf scrub with soft spinifex & T. basedowii. (Shepherd et al, 2001).	The application is to clear 0.62 hectares of coastal dune vegetation. A report by Ecoscape (2010) described the vegetation as; Arid perennial shrubs of coastal communities, the dominant species are represented within only a small number of families, such as Acacia, Eremophila, Cassia, Atriplex, Triodia and Eucalyptus.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994). To Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The clearing description and vegetation condition were ascertained through a management plan prepared by Ecoscape (2012) across the application area.

3. Assessment of application against clearing principles

Comments

The application is to clear 0.62ha of native vegetation within the Coastal Dune environment of Coral Bay (Lot 45 on deposited Plan 215007), a class C conservation reserve located adjacent to the Ningaloo Marine Park.

Vegetation surveys undertaken by DAL Science and Engineering Pty Ltd in 2002 and the Western Australian Herbarium in 2004 recorded two priority flora within the local dune system, neither of these were located within the application area (Ecoscape 2010). A search of Department of Environment and Conservation databases recorded no priority flora within a 10 kilometre radius. Sixteen migratory bird species of international significance, one priority four species and one threatened species (the Green Turtle) were recorded in the local area (10km radius). Given this low number of species and the high level of disturbance within the application area, is not thought to contain a high degree of biodiversity and is not likely to be at variance to principle (a).

The application area is located 35m from the coastline and is made up of coastal calcareous sands (Northcote et al 1960 - 1968). As coastal systems are vulnerable to wind erosion due to their exposed nature, the application may be at variance to principle (g). As the purpose for clearing is coastal landscaping, the extent of erosion will be limited by the amount of time before landscape and fringe vegetation re-establishes.

The application area falls within a C class reserve for the purpose of foreshore management and will alter the vegetation structure and function of the area. It is however being designed in conjunction with regional

Department of Environment and Conservation (DEC) staff to help manage the foreshore area and impacts in a high use area (DEC 2011). The disturbance caused by the proposed clearing will increase the spread of weed species within the reserve, weed management practices will seek to limit these impacts.

The application area falls within 30m of the A class, Ningaloo Marine Park. This Marine Park is famous for its fringing reef and diverse coral communities at very close distances from the shore line (Ecoscape 2010). Given the tendency of the coastal calcareous sands to be transported quickly through an area, sedimentation during the clearing and revegetation phase of the proposal have the potential to increase turbidity in these sensitive areas and therefore, this proposal may be at variance to principle (h). The application is however, part of a broader management plan developed for the area and designed to limit detrimental environmental impacts in a high use area (Ecoscape 2010). Implementation of this management plan will ensure that impact to these conservation reserves are minimised.

As no rare flora or priority ecological communities were mapped within a 10km radius, up to 99% of native vegetation is remaining in the local area (Government of Western Australia 2011), the nearest watercourse is 161 kilometres from the application area, this application is not likely to be at variance to principles (c), (d), (e), (f) and (i).

The application to clear 0.62 hectares of native vegetation may be at variance to principle (g) and (h) and is not likely to be at variance to the remaining clearing principles.

Methodology

References

- Keighery (1994)
- Government of Western Australia (2011)
- Northcote et al (1960 1968)
- DEC (2011)
- Ecoscape (2010)
- Shepherd et al (2001)

GIS Databases

- Coral Bay 50cm Orthomosaic (DLI 2001)
- SAC Biodatasets (accessed Aug 2012)
- Existing DEC Managed Lands and Waters (2011)
- Pre European Vegetation (DA 2001)
- Current Extent of Native Vegetation (NLWRA 2001)
- Soils Statewide (DA 99)

Planning instrument, Native Title, Previous EPA decision or other matter.

Comments

The application is part of a larger resort development which will replace existing infrastructure. The proposed works are also part of a broader coastal management plan developed for the area by Ecoscape (2010). All actions within the Coral Bay Foreshore Management Plan Zone 1B should be undertaken within 12 months of any proposed clearing (DEC 2012).

DEC requested that the applicants obtain a clearing permit as part of broader management and acceptance of the site and resort development. The conservation commission has noted and accepted the concept plan and development proposal including re-contouring of the application area (DEC 2011).

The application area falls within the Pilbara Surface Water and Pilbara ground water areas. No advice was received from the Department of Water regarding this clearing application.

The applicant is required to submit an expert coastal stabilisation and revegetation plan to district DEC staff before works commence.

Methodology

References

- DEC (2011)
- DEC (2012)

GIS Databases

- Existing DEC Managed Lands and Waters (2011)
- Town Planning Scheme (Regional) (2012)
- RIWI Act, Groundwater Areas (DoW 13/07/06)

4. References

- DEC (2011) Letter from Department of Environment and Conservation Exmouth District to TME Group advising on management actions required. 15/March/2012. Department of Environment and Conservation, Western Australia.
- DEC (2012) DEC Pilbara Region comments on clearing application CPS 5145/1, 07/September/2012. Department of Environment and Conservation, Western Australia (TRIM Ref. DOCA543044).

- Ecoscape (2010) Coral Bay Foreshore Management Plan, Department of Environment and Conservation. Ecoscape Australia Pty Ltd. North Fremantle.
- Government of Western Australia (2011); 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, 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.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.

5. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now BCS)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)