



1. Application details

1.1. Permit application details

Permit application No.: 2152/1
 Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: LandCorp

1.3. Property details

Property: LOT 2547 ON PLAN 214664 (KARRATHA INDUSTRIAL ESTATE 6714)
 ROAD RESERVE (KARRATHA INDUSTRIAL ESTATE 6714)
 ROAD RESERVE (KARRATHA INDUSTRIAL ESTATE 6714)
 LOT 2567 ON PLAN 214664 (Lot No. 2567 AUGUSTUS KARRATHA INDUSTRIAL ESTAT 6714)

Local Government Area: Shire Of Roebourne

Colloquial name: Industrial estate infrastructure

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
5		Mechanical Removal	Infrastructure Maintenance

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
The vegetation applied to be cleared is part of Beard Vegetation association 589 which is described as follows; Mosaic: Short bunch grassland - savanna /grass plain (Pilbara) /Hummock grasslands, grass steppe; soft spinifex soft spinifex (Shepherd et al., 2001). This association contains Roebourne Plains Grassland .	The vegetation to be cleared is in excellent condition except for some areas that have been degraded due to tracks.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	Condition of vegetation gathered from Google Earth (2007 Image DigitalGlobe) and GIS Data Base orthomosaic photograph (Dampier Legendre 50cm Orthomosaic - DLI04).

3. Assessment of application against clearing principles

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

Comments Proposal may be at variance to this Principle

The area to be cleared is located within a light industrial area, surrounded by roads and infrastructure and is partially disturbed. The native vegetation consists of Horseflat Land System which includes species that represent Roebourne Plains Grassland (Van Vreeswyk et al., 2004). The Roebourne Plains Grasslands have been highly degraded by overgrazing and should be considered for further reservation (Van Vreeswyk et al., 2004).

The Roebourne Plains vegetation on site may represent an area of higher biodiversity value than similar vegetation located in the local area or wider bioregion as it has not been degraded by overgrazing, however it is prone to further degradation due to it's location in the immediate vicinity of a highly accessed light industrial area.

Clearing under this application will include areas of a community that is considered at risk, the Roebourne Plains Grassland. This proposed clearing will reduce the extent of this vulnerable community consequently lowering biodiversity of the area and therefore this proposal may be at variance to this principle.

Methodology Van Vreeswyk et al., (2004)
 GIS Database;
 ~Dampier Legendre 50cm Orthomosaic - DLI04

Officer ~Rangeland Land System Mapping DA
Misty Shipway

(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.

Comments Proposal is not likely to be at variance to this Principle

The vegetation to be cleared is located in a built up area surrounded by roads and infrastructure and as such would not be habitat highly suitable for fauna rare or otherwise.

There are no records of Threatened fauna within the application area however the vegetation on site would provide habitat for other non-conservation significant reptiles, birds and small mammals. There are land snails existing within area proposed to be cleared which have the potential to be regarded as short range endemics.

The vegetation is partially disturbed due to the existence of vehicle tracks and given that the area to be cleared is small and is not required to maintain ecological function or an ecological linkage necessary for the maintenance of fauna this application is not likely to be at variance to this principle.

Methodology GIS Database;
~Dampier Legendre 50cm Orthomosaic - DLI04
SAC BioDatasets 071207

Officer Misty Shipway

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

Comments Proposal is not likely to be at variance to this Principle

The vegetation to be cleared under this application is partially degraded . There are no previously recorded priority or declared rare flora species in the area applied to be cleared. Therefore it is not likely that this application is at variance to this principle.

Methodology SAC Biodatasets 071207

Officer Misty Shipway

(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.

Comments Proposal is not likely to be at variance to this Principle

There are no known Threatened Ecological Communities (TECs) within a 50km radius of the proposed clearing area (GIS Database). The nearest Ministerially endorsed TECs are the Themeda Grassland Communities, located approximately 180 kilometres south from the clearing permit application area (SAC Bio dataset 061207).

The Biodiversity Audit of the Pilbara (McKenzie et al., 2003) classifies the Roebourne Plains coastal grasslands, which occur within the application area as being part of an ecosystem at risk, of vulnerable status with a declining condition rating. Though the tussock grassland on site is in a partially degraded state due to disturbance by vehicular tracks, and road and industry activity, there is a concern that future clearing and development of the area will add to the decline in this vulnerable community.

Two studies conducted in the early 1990's (McKenzie et al., 2003 & Beard, 1990) indicated that there is increasing pressure on the Roebourne Plains coastal grasslands and Sherlock Station areas from grazing and industry. The Roebourne Plains coastal grassland, including those near 7 Mile Creek is listed as "ecosystems at risk" according to McKenzie et al., (2003).

Given the extent of remnant vegetation within the local area, the proposed area may not be considered to be a significant remnant in an extensively cleared area, however, ongoing approvals make it difficult to assess the actual extent of the remaining Roebourne Plains grasslands area and therefore make it highly susceptible to decline.

The Roebourne Plains grassland community is represented in future DEC estate under the 2015 Pastoral Land Relinquishment and therefore due to the small area to be cleared this proposal is not likely to be at variance to this principle.

Methodology McKenzie et al., (2003)
Beard (1990)
Van Vreeswyk et al., (2004)
SAC Bio dataset 061207
GIS Database:
- Threatened Ecological Communities - CALM.

Officer Misty Shipway

(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.

Comments Proposal is not at variance to this Principle

The vegetation applied to be cleared is part of Beard Vegetation association 589 which is described as follows; Mosaic: Short bunch grassland - savanna /grass plain (Pilbara) /Hummock grasslands, grass steppe; soft spinifex soft spinifex (Shepherd et al., 2001). There is approximately 100% of the Pre-European extent remaining of association 589 and therefore the 5 ha area proposed to be cleared is not considered to be a significant remnant of native vegetation within an extensively cleared area.

Having said this, the area to be cleared consists of Horseflat Land System which includes species that represent Roebourne Plains Grassland (Van Vreeswyk et al., 2004). The Roebourne Plains Grasslands have been highly degraded by overgrazing and should be considered for further reservation (Van Vreeswyk et al., 2004).

Based on the small area and current large extent of vegetation association 589, the proposed clearing is not at variance to this Principle.

Methodology Shepherd et al. (2001).

GIS Database:

- Interim Biogeographic Regionalisation of Australia (subregions) - EA 18/10/00.
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00.

Officer Misty Shipway

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments Proposal is not at variance to this Principle

The clearing of native vegetation under this application is not at variance to this principle as the vegetation is not associated with a water course or wetland.

Methodology GIS Database;

- Hydrology, linear - DOE 1/02/04;
- Lakes 250K - GA;
- Rivers 250K - GA;
- EPP Areas - DEP 06/95;
- EPP Lakes - DEP 28/07/03;
- ANCA Wetlands - CALM 08/01;
- Ramsar Wetlands - CALM 21/10/02;
- Hydrographic Catchments - Catchments DoE 3/4/03
- Lakes 250K - GA;
- Rivers 250K - GA;

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

Comments Proposal is not at variance to this Principle

The area to be cleared is within a developed area and already displays a high level of disturbance. Clearing of the remaining vegetation on the partly cleared site will not lead to land degradation issues such as salinity, waterlogging or acidic soils. Therefore the proposal is not at variance to this principle.

Methodology GIS Database;

Acid Sulphate Soil Risk Map; Pilbara Coastline - DEC (Riskclass)

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(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.

Comments Proposal is not at variance to this Principle

The area to be cleared lies within a Schedule One area as it is located within a townsite (GIS Database). Clearing under this application will not impact on any conservation reserves and therefore the proposal is not at variance to this principle.

Methodology GIS Database:

- Clearing Regulations - Schedule One Areas - DOE 10/03/05

- Cadastre - DLI
- ANCA, Wetlands - CALM 08/01.
- CALM Managed Lands and Waters - CALM 1/07/05.
- CALM proposed 2015 pastoral lease exclusions.
- CALM Regional Parks - CALM 12/04/02.
- Proposed National Parks, FMP - CALM 19/03/03.
- Register of National Estate - EA 28/01/03.
- System 1 to 5 and 7 to 12 Areas - DEP 06/95.

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(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.

Comments Proposal is not at variance to this Principle

Clearing of vegetation under this permit will not impact on surface or ground water quality due to the small area for clearing and the location of the site within a developed area that has adequate drainage. The vegetation consists of shallow rooted grass and shrub species and clearing of these will not impact ground water levels. Given the above, this proposal is not at variance to this principle.

- Methodology** GIS Database;
- Hydrology, linear - DOE 1/02/04;
 - Lakes 250K - GA;
 - Rivers 250K - GA;
 - EPP Areas - DEP 06/95;
 - EPP Lakes - DEP 28/07/03;
 - ANCA Wetlands - CALM 08/01;
 - Ramsar Wetlands - CALM 21/10/02;
 - Hydrographic Catchments - Catchments DoE 3/4/03
 - Lakes 250K - GA;
 - Rivers 250K - GA;

Officer Misty Shipway

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Comments Proposal is not at variance to this Principle

The area surrounding the site applied to be cleared is already largely cleared and has been developed into a light industrial area with roads and drainage. Clearing of the small amount of vegetation under this permit will not significantly change the incidence or intensity of flooding and therefore this proposal is not at variance to this principle.

- Methodology** GIS Databases;
- Evapotranspiration, Point Potential - BOM 30/09/01
 - Rainfall, Mean Annual - BOM 30/09/01
 - Topographic Contours, Statewide - DOLA 12/09/02

Officer Misty Shipway

Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.

Comments

The Department for Planning and Infrastructure and the Roebourne Shire Council have no objections to the proposed clearing.
Two Native Title Claims lie over the area, namely the Yaburara/Mardudhunera and the Wong-goo-tt-oo. There has been no objection raised by the Claimants.
There are no other planning matters relevant to this proposal.

Methodology

Officer Misty Shipway

4. Assessor's recommendations

Purpose	Method Applied	Decision	Comment / recommendation
Infrastructure Maintenance	Mechanical Removal	5	Assessable criteria have been addressed and no objections have been raised. The assessment found the application may be at variance to principle (a), is not likely to be at variance to principles (b), (c), and (d), and not at variance to all

other principles.

5. References

- Beard, J. S., 1990, Plant Life of Western Australia. Kangaroo Press, Kenthurst NSW
- McKenzie N. L, May J. E and McKenna S, 2003. Bioregional Summary of the 2002 Bioregional Audit for Western Australia. CALM 2003.
- 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.
- Van Vreeswyk, A.M.E., Payne, A.L, Leighton, K.A., and Henning, P. (2004) An inventory and condition survey of the Pilbara region, Western Australia, Technical Bulletin No.92, South Perth, Western Australia

6. 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)