



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit CPS 3719/1
File Number: 2010/002728
Duration of Permit: From 17 July 2010 to 17 July 2012

PERMIT HOLDER

Western Australian Land Authority on behalf of Minister for Lands

LAND ON WHICH CLEARING IS TO BE DONE

Lot 507 on Deposited Plan 61040 (Baynton 6714)

AUTHORISED ACTIVITY

Clearing of up to 4.5 hectares of native vegetation within the area cross-hatched yellow on attached Plan 3719/1.

CONDITIONS

Nil

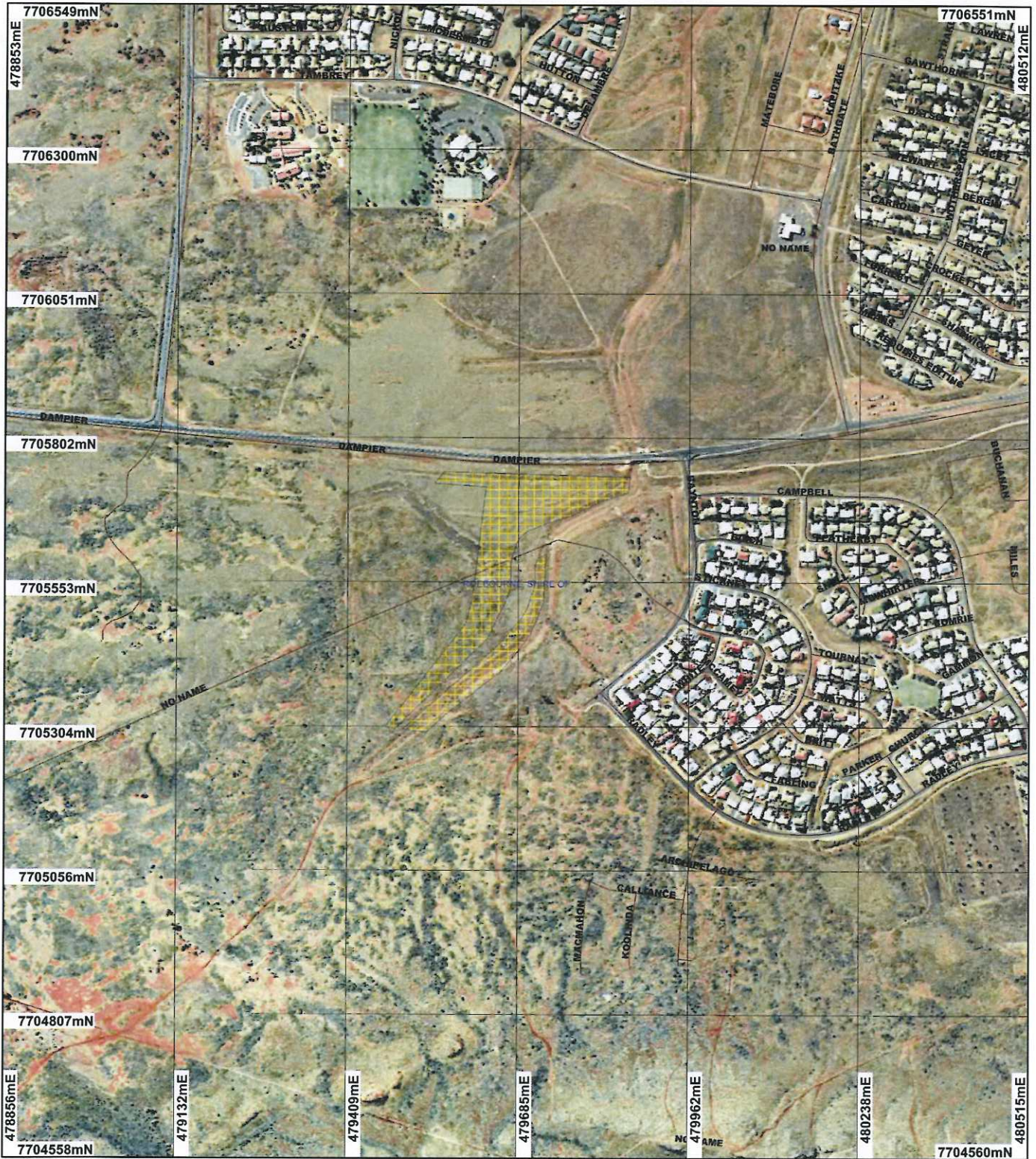
A handwritten signature in black ink, appearing to read "Kelly Faulkner", written over a horizontal line.

Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

17 June 2010

Plan 3719/1



LEGEND

-  Local Government Authorities
-  Road Centrelines
-  Clearing Instruments
-  Areas Approved to Clear

Dampier Preston 1.4m
Orthomosaic - Landgate
2000



0  250 m

Scale 1:9151
(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.

 Date 17/6/10

K Faulkner

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.: 3719/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Western Australian Land Authority on behalf Minister for Lands

1.3. Property details

Property: LOT 507 ON PLAN 61040 (BAYNTON 6714)
Local Government Area:
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
4.5		Mechanical Removal	Building or Structure
		Mechanical Removal	Building or Structure

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
Beard Vegetation Association: 157 - Abydos Plain-Roebourne (Hummock grass); southern section.	Few scattered shrubs; sparse grass cover, bare in some areas lacking any visible structure; somewhat degraded.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Vegetation description determined from aerial photography and proponent's advice (DEC Ref A308377).
589 - Abydos Plain-Roebourne (Mosaic grass); northern section.	As above.		As above.

(Shepherd, 2007)

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 is not likely to be at variance to this Principle

The area of vegetation assessed historically consists of two types of Beard Vegetation Associations: '157 - Abydos Plain-Roebourne - Hummock grass' on the southern section of the area being assessed, and '589 - Abydos Plain-Roebourne - Mosaic grass' on the northern section (Shepherd, 2007).

The area of vegetation assessed occurs within the Shire of Roebourne and Pilbara Bioregion where the extent of vegetation remaining, for each of the Beard vegetation associations mentioned above, is close to 100% (Shepherd, 2007).

However, the vegetation being assessed appears to consist of scattered hummock grass and occasional shrubs, to be in a degraded to good (Keighery, 1994) condition, lacking suitable structure and suffering minor man made disturbances (Dampier Preston 1.4m Orthomosaic imagery and DEC Ref A308377).

Five mammal species, four avian fauna species and one reptilian species have been recorded within the local area (20km radius) of the vegetation assessed.

Two priority listed flora species, *Acacia glaucocaesia* (Priority 3) and *Tephrosia bidwillii* (Priority 3), do occur on the same soil type and same vegetation association (157 - Abydos Plain-Roebourne - Hummock grass) as the assessed vegetation. *Acacia glaucocaesia* is a dense shrub or tree, between 1.8 and 6m high and grows on red loam-sandy loam and clay soils. *Tephrosia bidwillii* is a shrub between 0.3 and 0.9m high (WA Herbarium

1998-)

Two other priority flora, *Themeda* sp. Hamersley Station (Priority 3) and *Rhynchosia bungarensis* (Priority 4) occur on the same vegetation association only (589 - Abydos Plain-Roebourne - Mosaic grass).

The degraded to good (Keighery, 1994) condition of the vegetation assessed is unlikely to provide suitable, long-term habitat for any avian or mammalian fauna species.

Given these factors, and the near to 100% extent of vegetation remaining in the region, the native vegetation being assessed is unlikely to comprise a high level of biodiversity and is therefore not likely to be at variance to this clearing Principle.

Methodology References:
-Keighery (1994)
-Shepherd (2007)
- WA Herbarium (1998-)

GIS database:
- Interim Biogeographic Regionalisation of Australia
-SAC Biodatasets (accessed May 2010)
- Dampier Preston 1.4m Orthomosaic imagery

(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 Shire of Roebourne has close to 100% of its native vegetation remaining. Each of the Beard's vegetation associations occurring over the proposed area also are well represented in the Pilbara IBRA Region, also having close to 100% of their vegetation types remaining (Shepherd, 2007).

Two threatened fauna species occur in the local area (20km radius) of the vegetation assessed: the Northern Quoll and the Pilbara Olive Python.

Priority list fauna include: mammal species - Western Pebble-mound Mouse, Little North-western Mastiff Bat, Ghost Bat and Lakeland Downs Mouse and avian fauna species - Eastern Curlew, Flock Bronzewing, Peregrine Falcon and Bush Stonecurlew.

Given the extent of native vegetation remaining in the region and the degraded to good (Keighery, 1994) condition of the vegetation, it is not likely the vegetation is significant fauna habitat.

Methodology References:
-Shepherd (2007)
GIS database:
- Interim Biogeographic Regionalisation of Australia
-SAC Biodatasets (accessed May 2010)

(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

There are no known rare flora recorded within the vegetation assessed, nor within the local area (20km radius).

Therefore, it is considered the loss of the vegetation assessed is not likely to be at variance to this Principle.

Methodology SAC Bio Datasets (accessed May 2010)

(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 recorded within the vegetation assessed, nor within the local area (20km radius).

Therefore, it is considered the loss of the vegetation assessed is not likely to be at variance to this Principle.

Methodology SAC Bio datasets (accessed May 2010)

(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 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 vegetation within the Bioregion and Shire retains more than this 30% threshold level.

Given the extent of vegetation remaining in the Shire and Bioregion (each close to 100%), it is not considered likely that the vegetation assessed is located in an area that has been extensively cleared.

	Pre-European (ha)	Current extent (ha)	Remaining (%)
IBRA Bioregion*			
Pilbara	17,804,187	17,794,646	99.9
Shire of Roebourne*	1,535,622	1,515,551	98.6

* (Shepherd, 2007)

Methodology

References:

- Commonwealth of Australia (2001)
- Shepherd (2007)

GIS Databases:

- Interim Biogeographic Regionalisation of Australia
- Pre-European 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.

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

No mapped wetlands occur within the local area (20km radius).

A perennial, undefined watercourse occurs within 125-175m on either side of the vegetation being assessed. However using aerial photography it is noted that the natural flow regime of the watercourse east of the area has been altered by residential development, whilst that of the western watercourse appears partially altered by a man made drainage channel (Orthomosaic map reference Dampier Preston 1.4m). A man made drainage channel also occurs immediately adjacent to the eastern side of, and forms part of, the vegetation being assessed. Minor reworking of this channel is proposed to provide a drainage outfall.

Given these factors it is considered that the removal of the vegetation assessed is not growing in, or associated with, a watercourse or wetland and hence is not likely to be at variance to this Principle.

Methodology

GIS Databases:

- Hydrography linear
- RAMSAR
- Orthomosaic map reference Dampier Preston 1.4m

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

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

The topography of the area within which the vegetation being assessed occurs has a low relief, with the contour of the land dropping 10m over 2.5km from south of the proposed clearing area. This area is near-to the head-waters of a perennial watercourse, however the natural flow regime would be directed to this watercourse instead, and not to the area of the vegetation being assessed. Also, man made drainage channels occur in the immediate vicinity of the vegetation being assessed.

The soil is classified as generally shallow and stony with extensive areas without soil cover: chief soils are shallow stony earthy loams (Northcote, 1960-68). Such soils have a low wind erodibility and similar water erodibility (Department of Agriculture, 2002).

Given the topography of the land and the soil types, waterlogging and/or increased surface run-off are unlikely to occur.

Given these factors, the clearing of the vegetation assessed is not likely to be at variance to this Principle.

Methodology References:
Department of Agriculture (2002)
Northcote et al (1960-68)

GIS database:
- Hydrography, linear
- Soils

(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**
No DEC managed lands, nor any other conservation estates occur within the local area (20km radius). Therefore the clearing of the vegetation assessed is not at variance to this Principle.

Methodology GIS dataset:
- DEC tenure

(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 may be at variance to this Principle**
No mapped water bodies occur within the local area.

A perennial, undefined watercourse occurs within 125-175m on either side of the vegetation being assessed. Using aerial photography it is noted that the watercourse east of the area has been altered by residential development, whilst the western watercourse appears altered by a man made drainage channel (Orthomosaic map reference Dampier Preston 1.4m). A man made drainage channel also occurs immediately adjacent to the eastern side of, and forms part of, the vegetation being assessed. Minor reworking of this channel is proposed to provide a drainage outfall.

Given the occurrence of the drainage channel, clearing of vegetation associated with it could cause short term deterioration to the quality of the surface water through sedimentation, should clearing occur during the wet season and run-off from the cleared area occur. Therefore, the clearing of the vegetation assessed may be at variance to this Principle.

Methodology GIS Databases:
- Hydrography linear
- Orthomosaic map reference Dampier Preston 1.4m

(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 likely to be at variance to this Principle**
The topography of the area within which the vegetation being assessed occurs has a low relief. This area is near-to the head-waters of a perennial watercourse, however the natural flow regime would be directed to this watercourse instead, and not to the area of the vegetation being assessed. Also, man made drainage channels occur in the immediate vicinity of the vegetation being assessed.

The soil is classified as generally shallow and stony with extensive areas without soil cover: chief soils are shallow stony earthy loams (Northcote, 1960-68). Such soils are unlikely to experience water logging.

Given the topography of the land and the soil types, localised flooding is unlikely to occur and hence the clearing of the vegetation assessed is not likely to be at variance to this Principle.

Methodology References:
Northcote et al (1960-68)

GIS database:
- Hydrography, linear
- Topographic contours, Statewide

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

Comments
Clearing is required for earth and drainage works in an area of land outside of the adjacent WAPC approved subdivision.

A land use agreement has been entered into between the Ngarluma community and Landcorp (DEC Ref A310025).

Methodology

4. References

- Department of Agriculture (2002). Soil Groups of Western Australia. A simple guide to the main soils of Western Australia. Resource Management Technical Report 246. Edition 3
- 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. (2007) Adapted from: 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.
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed 18/5/2010).

5. Glossary

Term	Meaning
CALM	Department of Conservation and Land Management (now DEC)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment (now DEC)
DoW	Department of Water
DMP	Department of Mines and Petroleum (ex DoIR)
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)