



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 3379/1
File Number: DEC13463
Duration of Permit: From 7 February 2010 to 7 February 2015

PERMIT HOLDER

Gogo Station Pty Ltd

LAND ON WHICH CLEARING IS TO BE DONE

Lot 68 on Deposited Plan 238022

AUTHORISED ACTIVITY

Clearing of up to 100 hectares of native vegetation within the area hatched yellow on attached Plan 3379/1.

CONDITIONS

1. Weed control

- (a) 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.
- (b) At least once in each 12 month period for the term of this Permit, the Permit Holder must remove or kill any *weeds* or species permitted for planting under a Pastoral Diversification Permit which are growing within the area hatched red on attached Plan 3379/1.

2. Vegetation management

The Permit Holder shall not clear native vegetation within 30 metres of the *riparian vegetation* of any *watercourse* or *wetland* within and/or adjacent to the area cross-hatched yellow on Plan 3379/1.

3 Records to 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 species composition, structure and density of the cleared area;
- (b) 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;
- (c) the date that the area was cleared; and
- (d) the size of the area cleared (in hectares).

4. Reporting

- (a) The Permit Holder must provide to the CEO, on or before 30 June of each year, a written report of records required under condition 3 of this Permit and activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.
- (b) Prior to 11 November 2014, the Permit Holder must provide to the CEO a written report of records required under condition 3 of this Permit where these records have not already been provided under condition 4(a) of this Permit.

DEFINITIONS

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;

riparian vegetation has the meaning given to it in Regulation 3 of the Environmental Protection (Clearing of Native Vegetation) Regulations 2004;

watercourse has the meaning given to it in section 3 of the *Rights in Water and Irrigation Act 1914*;

weed/s, for the purpose of this permit, 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*, excluding those species permitted for planting under a Pastoral Diversification Permit, issued by the Department of Regional Development and Lands.

wetland/s means an area of seasonally, intermittently or permanently waterlogged or inundated land, whether natural or otherwise, and includes a lake, swamp, marsh, spring, dampland, tidal flat or estuary.



Keith Claymore
A/ DIRECTOR
NATURE CONSERVATION DIVISION

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

7 January 2010

Plan 3379/1



LEGEND

- Clearing Instruments**
- Areas Subject to Conditions
 - Areas Approved to Clear

Western Australia Landsat
Mosaic 26m - AGO 2006



0 2.5 km

Scale 1:88722

(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.

K Claymore

Date

Kirsty Claymore 7/1/00

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.: 3379/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Mr Malcom and Bruce Harris Director Gogo Station Pty Ltd

1.3. Property details

Property: PART LOT 68 ON PLAN 238022 (ST GEORGE RANGES 6728)
PART LOT 68 ON PLAN 238022 (ST GEORGE RANGES 6728)

Local Government Area:

Colloquial name: Gogo Station

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
100		Mechanical Removal	Grazing & Pasture

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 Unit : 116 - Hummock grasslands, sparse low tree steppe; mixed low trees over <i>Triodia wiseana</i>	The proposal is to clear 50ha of native vegetation for the purpose of establishing a rain fed pasture crop.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	Vegetation condition was determine through site photos taken by the Pastoral Lands Board during a site inspection in August 2009 (PLB, 2009)
706 - Grasslands, tall bunch grass savanna, mitchell & ribbon/blue grass (Shepherd, 2007)	The vegetation condition within the applied area ranges from degraded (in recently grazed areas) to very good (in long term ungrazed areas).		
	This proposal is one of 5 areas applied to be cleared, 4 being for rain fed pasture cropping and one for irrigated pasture cropping. These applications to clear for pasture cropping accumulate to 630ha on Gogo Station.		

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 proposal is for the clearing of 100 hectares of native vegetation for the purpose of growing rain fed pasture species. The vegetation under application is mapped as Beard Vegetation Unit 706 (grasslands, tall bunch grass, savanna mitchell and ribbon/blue grass) and Unit 116 (Hummock grasslands, sparse low tree steppe; mixed low trees over *Triodia wiseana*) (Shepherd, 2007) in degraded to very good (Keighery, 1994) condition (DEC, 2009a).

There are 9 fauna taxa of conservation significance recorded in the local area (30km radius). Of these 6 are not likely to occur within the application area due to unsuitable habitat conditions. Two species of mollusc may occur within the application area however little information is recorded about the habitat requirements of these

species. It is likely that the Western Star Finch utilises the applied area as feeding habitat which is widely distributed throughout the region however is unlikely that the applied area is suitable nesting habitat due to the absence of a suitable water pool area (DEC, 2009a).

The local area is highly vegetated (approximately 85%) and the vegetation types of the application area are well represented (approximately 99.5% of pre-European extent remaining) therefore the vegetation under application is not likely to be significant as habitat for any fauna indigenous to Western Australia.

There are no rare flora species or Threatened Ecological Communities (TECs) within the local area (30km radius). Two priority flora species have been recorded within the local area (30 km radius) namely, *Cullen candidum* (P1 found within Gogo Station) and *Goodenia sepalosa* var. *glandulosa* (P3). *C. candidum* is known to occur on different soil types than that within the applied area, being clayey sands (WA Herbarium, 1998) and *G. sepalosa* var. *glandulosa* while known to occur on similar soil types as the applied area is known only from a record 26km north west of the applied area and is therefore unlikely to occur within the applied area.

The proposal includes vegetation in association with a minor non-perennial watercourse.

The clearing as proposed is not likely to be at variance to this principle as the vegetation under application is not likely to comprise a high level of biological diversity when compared with the surrounding largely uncleared landscape. A weed management condition will however, be placed on the permit to minimise pasture species escapes.

Methodology

References:

DEC (2009a)
Keighery (1994)
Shepherd (2007)
WA Herbarium (1998)

GIS Database:

SAC Biodatasets - accessed 3 November 2009
Pre European Vegetation - DA 01/01
Hydrography linear - DOW 13/7/06
Hydrography linear (hierarchy) - DoW 13/7/06

(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 under application is mapped as Beard Vegetation Unit 706 (grasslands, tall bunch grass, savanna mitchell and ribbon/blue grass) and Unit 116 (Hummock grasslands, sparse low tree steppe; mixed low trees over *Triodia wiseana*) (Shepherd, 2007) in degraded to very good (Keighery, 1994) condition (DEC, 2009a).

There are 9 fauna taxa of conservation significance recorded within the local area (30km radius).

Of these taxa there are 6 which are not likely to occur within the application area:

- Purple Crowned Fairy Wren (vulnerable)
- Prince Regent Hardyhead (P2)
- Australian Painted Snipe (vulnerable)
- Orange leaf nosed bat (vulnerable)
- Yellow-lipped Cave bat (P2)
- Freshwater sawfish (vulnerable)

The known habitat characteristics within the applied area (of the above listed fauna) are inconsistent with the known habitat requirements of these species.

Two conservation significant species, *Westraltrachia recta* and *Prymbriareus nimerlinus*, found within the local area are from the family Camaenidae (Land Snail); little of the habitat requirements for these species is known (Solem, 1981). As these species occur within the local area (30km radius), and in light of the EPA precautionary principle (EPA, 2000) it is considered that the area under application may be habitat for these mollusc species.

In addition, the Western Star Finch (*Neochima ruficauda subclarescens*) has been recorded within the local area. The preferred habitat of the finch is grassland and eucalypt woodland close to water, they are particularly abundant in irrigated grasslands where they feed on weedy grasses (Immelmann, 1982). Given the vegetation under application includes a number of native grasses the applied area may provide feeding habitat for this species however given the absence of grasslands and reed beds around freshwater pools it is unlikely that the applied area is suitable nesting habitat for this species (DEC, 2009a).

The local area is highly vegetated (approximately 85%) and the vegetation type is well represented (approximately 99.5% of pre-European extent remaining) therefore while the vegetation under application may provide some habitat for native fauna it is not likely to be significant as habitat in a local context.

Therefore the clearing as proposed is not likely to be at variance to this principle.

Methodology References:
DEC (2009a)
EPA (2000)
Immelmann (1982)
Keighery (1994)
Shepherd (2007)
Solem (1981)

GIS Database:
SAC Biodatasets - accessed 3 November 2009
Pre European Vegetation - DA 01/01

(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 rare flora species recorded in the local area (30km radius).

Therefore the clearing as proposed is not likely to be at variance to this principle as no rare flora have been recorded within the application or nearby areas.

Methodology GIS Database:
SAC Biodatasets - accessed 3 November 2009

(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 the local area (30km radius).

The vegetation under application does not share similar composition characteristics with any known TEC.

Therefore the clearing as proposed is not likely to be at variance to this principle as the vegetation under application is not part or whole of, nor necessary for the maintenance on any TECs.

Methodology GIS Database:
SAC Biodatasets - accessed 3 November 2009

(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 likely to be at variance to this Principle**

	Pre-European (ha)	Current extent (ha)	Remaining (%)	% In reserves DEC Managed Land
IBRA Bioregions*				
Dampierland [^]	8,345,180	8,316,459	99.66	1.06
Shire*				
Derby - West Kimberley	11,956,106	11,899,459	99.53	4.07
Beard Vegetation Association*				
116	117,714	117,714	100.00	11.78
706	287,683	286,932	99.74	0.12
Beard Vegetation Association with Bioregion*				
116	95,013	95,013	100.00	14.59
706	272,803	272,052	99.72	0.13

* (Shepherd 2007)

The local area retains approximately 85% native vegetation cover.

The vegetation under application is not likely to be significant as a remnant of vegetation in a highly cleared landscape; therefore the clearing as proposed is not likely to be at variance to this principle.

Methodology References:
Shepherd (2007)

GIS Database:
Pre European Vegetation - DA 01/01

(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 may be at variance to this Principle

The area under application is known to have black soils with cracking clays (DAFWA, 2008, DEC, 2009a). This type of soil has been identified by DAFWA (2002) as having moderate to high water storage capacity. The annual rainfall of the area under application is approximately 600mm (with an annual evapotranspiration rate of approximately 500mm). According to the technical assessment of natural resource management threats and options in the northern agricultural region of Western Australia the area under application is susceptible to soil structure decline, subsurface compaction and seasonal waterlogging (DAFWA, 2004) due to the soil type of the applied area.

As most of the rain falls in the wet season and the soils of the application area have a moderate to high water storage capacity seasonal waterlogging may occur (DAFWA, 2009). Given the intensity of wet season rainfall, waterlogging over a large scale will likely lead to appreciable land degradation, however long term land degradation is unlikely through the loss of native vegetation if the site is protected from grazing (DAFWA, 2009).

In addition clearing of native vegetation may increase the amount of wind erosion within the application area however as the soils within the application area are cracking clays the soil erodibility is low to moderate, (DAFWA, 2002) where soils are exposed for a prolonged period of time resulting wind erosion will likely be appreciable.

Slopes on site are estimated to be approximately 0.1% and the application area is likely to received run-on of surface water after heavy rains. Soil erosion could occur on site if water management works are not undertaken above the application area (DAFWA, 2009).

The clearing as proposed may be at variance to this principle as appreciable land degradation in the form of waterlogging and soil erosion caused by the proposed clearing is expected to be appreciable.

Methodology References:
DAFWA (2002)
DAFWA (2004)
DAFWA (2008)
DAFWA (2009)
DEC (2009a)

GIS Database:
Hydrography linear - DOW 13/7/06
Hydrography linear (hierarchy) - DoW 13/7/06
Soils, Statewide DA 11/99
Average Annual Rainfall Isohyets - WRC 29/09/98
Annual Evaporation Contours (Isopleths) - WRC 29/09/98

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

Comments Proposal is at variance to this Principle

The area under application is known to have black soils with cracking clays (DAFWA, 2008, DEC, 2009a). This type of soil has been identified by DAFWA (2002) as having moderate to high water storage capacity. The annual rainfall of the area under application is approximately 600mm (with an annual evapotranspiration rate of approximately 500mm). According to the technical assessment of natural resource management threats and options in the northern agricultural region of Western Australia the area under application is susceptible to soil structure decline, subsurface compaction and seasonal waterlogging (DAFWA, 2004) due to the soil type of the applied area.

As most of the rain falls in the wet season and the soils of the application area have a moderate to high water storage capacity seasonal waterlogging may occur. Given the intensity of wet season rainfall, waterlogging over a large scale (x ha) will likely lead to appreciable land degradation.

In addition clearing of native vegetation may increase the amount of wind erosion within the application area however as the soils within the application area are cracking clays the soil erodibility is low to moderate, (DAFWA, 2002) where soils are exposed for a prolonged period of time resulting wind erosion will likely be appreciable.

The clearing as proposed is at variance to this principle as appreciable land degradation in the form of waterlogging and soil erosion caused by the proposed clearing is expected to be appreciable.

Methodology

References:

DAFWA (2002)
DAFWA (2004)
DAFWA (2008)
DEC (2009a)

GIS Database:

Soils, Statewide DA 11/99
Average Annual Rainfall Isohyets - WRC 29/09/98
Annual Evaporation Contours (Isopleths) - WRC 29/09/98

(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 likely to be at variance to this Principle

The area under application is 20km south east of Geikie Gorge, recognised by the Australian Nature Conservation Agency as playing an important ecological and hydrological role in the natural functioning of a major wetland system/complex and is of outstanding historical or cultural significance. (ANCA, 1996)

Given the distance between the application area and Geikie Gorge the clearing as proposed is not likely to impact on the environmental values of this conservation area; therefore the clearing as proposed is not likely to be at variance to this principle.

Methodology

References:

ANCA (1996)

GIS Database:

CALM Managed Lands and Waters - CALM 01/06/05
ANCA wetlands - Environment Australia 26/3/99

(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 likely to be at variance to this Principle

The area under application includes a 1st order minor non-perennial watercourse and is in close proximity to Blariyanning creek (400m) and a 2nd order minor watercourse (600m). The watercourse within the applied area is a terminal watercourse and will therefore not have any downstream impacts.

Clearing of native vegetation may increase the amount of wind erosion within the application area however as the soils within the application area are black cracking clays (DEC, 2009a) the soil erodibility is low to moderate, (DAFWA, 2002) any wind erosion that may occur is not expected to cause sedimentation of nearby watercourses.

The clearing as proposed is not likely to be at variance to this principle as clearing of vegetation within the application area is not likely to cause a deterioration of surface or underground water quality.

Methodology

References:

DAFWA (2002)
DEC (2009a)

GIS Database:

Hydrography linear - DOW 13/7/06
Hydrography linear (hierarchy) - DoW 13/7/06
Soils, Statewide DA 11/99
Average Annual Rainfall Isohyets - WRC 29/09/98
Annual Evaporation Contours (Isopleths) - WRC 29/09/98

(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 area under application is known to have black soils with cracking clays (DAFWA, 2008, DEC, 2009a). This type of soil has been identified by DAFWA (2002) as having moderate to high water storage capacity.

The annual rainfall of the area under application is approximately 600mm (with an annual evapotranspiration rate of approximately 500mm).

Due to the low annual rainfall clearing of vegetation within the application area is not likely to cause or exacerbate the incidence or intensity of flooding more than that which currently occurs on the property.

Methodology

References:

DAFWA (2002)

DAFWA (2008)

DEC (2009a)

GIS Database:

Soils, Statewide DA 11/99

Average Annual Rainfall Isohyets - WRC 29/09/98

Annual Evaporation Contours (Isopleths) - WRC 29/09/98

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

Comments

The applicant responded to the Department of Environment and Conservation (DEC) letter dated 26 November 2009, providing the following additional advice requested (rehabilitation plan):

* Fodder will be bailed, stubble around 25mm high will remain

* As stubble breaks down, introduce a chisel plough with tyne spacing of around 50cm. Pass through the field at right angles to wind.

In the event that farming of cattle ceases:

Action 1 - Will engage a soil conservation expert to advise on rehab work procedure;

Action 2 - Received advice on how and when to sow (and procure seeds) from native grass seed suppliers;

Action 3 - Light cultivation of the area with a chisel plough (tyne settings 50cm apart), operated at right angles to prevailing winds; and

Action 4 - Aerial spreading of native seed prior to a forecasted rain event.

DAFWA (2009) have advised that the clearing of the site is 'unlikely to cause long term land degradation through the loss of native vegetation as there is a reasonable probability that with extended protection from grazing, satisfactory regeneration would occur should the site be abandoned'.

As the purpose for clearing is not consistent with the pastoral lease over the application area the clearing proposal constitutes a future act. A previous submission relating to the same area and purpose was received from the Native Title claimants agreeing to the clearing providing a heritage clearance is carried out, an environmental clearance is obtained, that there be ongoing monitoring of the project and usage of water in the project. In addition the claimants support is conditional on no water being taken away from any river system in the Fitzroy valley (Trim Ref DOC55590).

A Pastoral diversification permit is required for the planting of species outside of those permitted under the pastoral lease. Applicant has supplied a permit (Trim Ref DOC50152).

This proposal is one of 5 areas applied to be cleared, 4 being for rain fed pasture cropping (480 ha) and one for irrigated pasture cropping (150 ha). The loss of extensive vegetation even from a highly vegetation landscape may have significant environmental impact (DEC, 2009a).

The removal of 480ha for non-irrigated pasture cropping may result in environmental harm should clearing be followed by a drought event or over grazing of young crops.

Methodology

References:

DEC (2009a)

DEC (2009b)

DAFWA (2009)

GIS Database:

Hydrography linear - DOW 13/7/06

Hydrography linear (hierarchy) - DoW 13/7/06

4. Assessor's comments

Comment

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, and the proposed clearing is at variance to Principle (f), may be at variance to Principle (g) and is not likely to be at variance to the remaining Principles.

5. References

- ANCA (1996) A Directory of Important Wetlands in Australia. Second Edition. Australian Nature Conservation Agency, Canberra
- DAFWA (2002) Soil groups of Western Australia, A simple guide to the main soils of Western Australia, compiled by N. Schoknecht, Edition 3, Resource Management Technical Report 246.
- DAFWA (2004) Technical assessment of natural resource management threats and options in the northern agricultural region of Western Australia, compiled by L. Hunt and G. Patterson, Resource Management Technical Report 289.
- DAFWA (2008) Advice to assessing officer, Rhodes grass potential spread on Gogo Station, unpublished, Trim Ref DOC 58221
- DAFWA (2009) Advice to assessing officer, Rhodes grass potential spread on Gogo Station, unpublished, Trim Ref DOC 113971
- DEC (2009a) Advice to assessing officer, S.v Leeuwen, Department of Environment and Conservation, unpublished, Trim Ref DOC107786
- DEC (2009b) Regional Advice to assessing officer, Department of Environment and Conservation, unpublished, Trim Ref DOC107457
- EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority, Western Australia.
- Immelmann, K. (1982) Australian Finches. Angus and Robertson, Sydney. In Fairy Wren Profile (2008) Species Profile and Threats Database, Department of Environment, Water, Heritage and the Arts, viewed electronically via http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=64442 last accessed 10 July 2008
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- PLB (2009) Advice to assessing officer, Site Photos, Department of Regional Lands (Pastoral Lands Board), unpublished, Trim Ref DOC106757
- 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. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.
- Solem, A. (1981). Camaenid land snails from Western and Central Australia (Mollusca : Pulmonata : Camaenidae). III. Taxa from the Ningbing Ranges and nearby areas. Rec. West. Aust. Mus. Suppl. 11: 321-425 [419]
- Western Australian Herbarium (1998-). FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed 30/11/2009).

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 (now DEC)
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)