



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 3909/1
File Number: 2010/006347-1
Duration of Permit: From 2 January 2011 to 2 January 2016

PERMIT HOLDER

Petau De Long

LAND ON WHICH CLEARING IS TO BE DONE

LOT 267 ON PLAN 238138 (GINGERAH 6725)

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 194 hectares of native vegetation within the area hatched yellow on attached Plan 3909/1.

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 a 500m buffer of the authorised area

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;

weeds/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 Planning and Infrastructure.

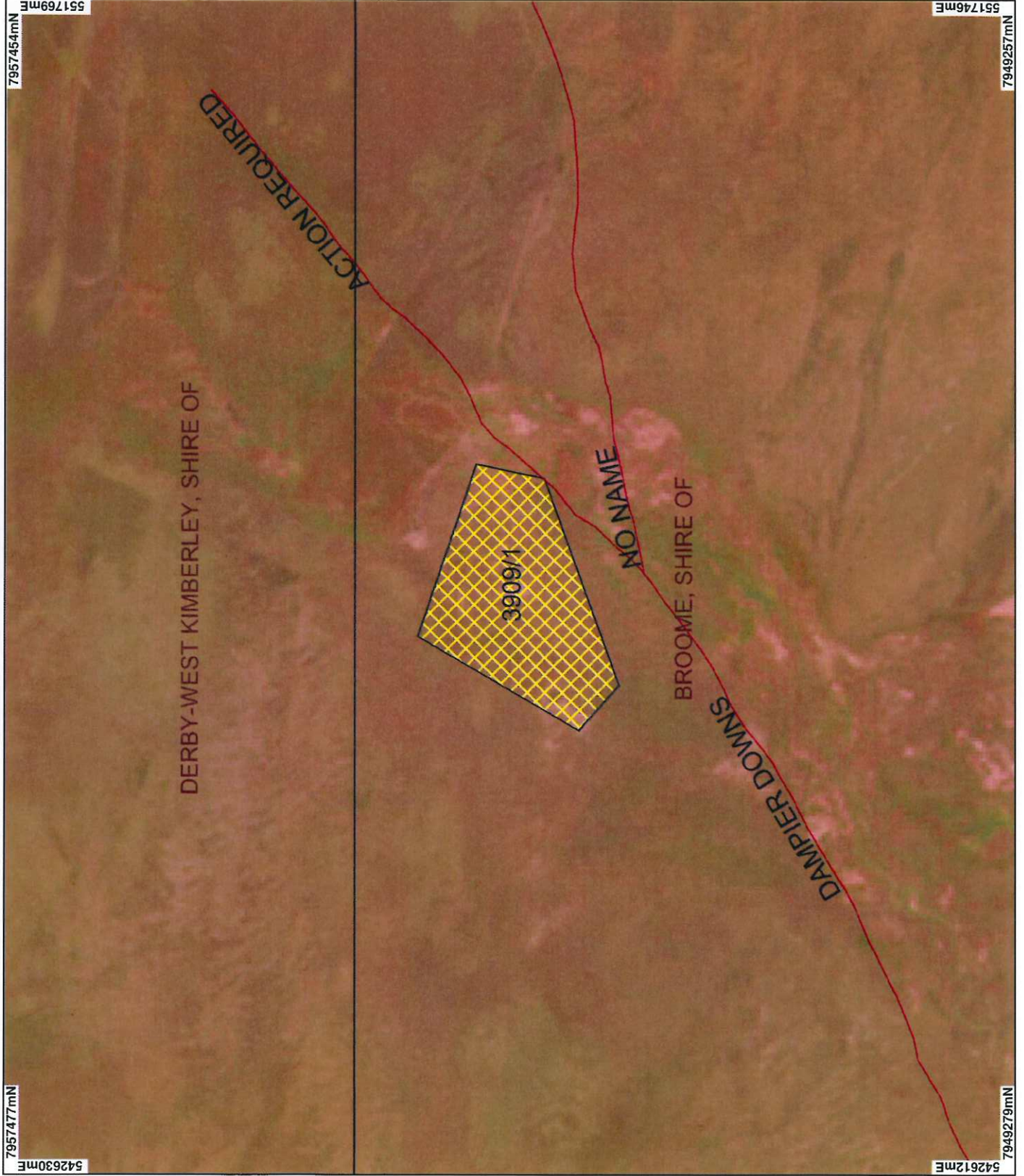
A handwritten signature in black ink, appearing to read "Kelly Faulkner", written over a horizontal line.

Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

2 December 2010

Plan 3909/1



LEGEND

Clearing Instruments

- Areas Applied to Clear
- Areas Subject to Conditions
- Areas Approved to Clear
- Road Centrelines
- Local Government Authorities
- Western Australia ETM+ 25m 543 - AGO 2000

* Project Data is denoted by asterisk.
This data has not been quality assured.
Please contact map author for details.



0 1.25 km

Scale 1:41833

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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

[Signature]
Date 2/12/10

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.



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1. Application details

1.1. Permit application details

Permit application No.: 3909/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Petau De Long

1.3. Property details

Property: LOT 267 ON PLAN 238138 (GINGERAH 6725)
Local Government Area: Shire of Broome
Colloquial name: Dampier Downs Station

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
194		Mechanical Removal	Pastoral Diversification

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 2 December 2010

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 (1980) vegetation association 7001 is described as Grasslands, short bunch grass savanna low tree & sparse shrubs; bauhinia & Acacia eriopoda & A. impressa over Aristida brownii short grasses on river flats	The proposal is to mechanically clear 194 hectares of native vegetation for the purpose of hay and pasture development.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The vegetation condition was determined from DEC regional advice, aerial imagery and photos of the application area supplied by the applicant.
Mapped Beard (1980) vegetation association 7001 is described as Shrublands, pindan; Acacia eriopoda & A. tumida shrubland with scattered low cabbage gum & Eucalyptus setosa over ribbon & curly spinifex			

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 to clear 194ha of native vegetation for the purpose of grazing and pasture development. The vegetation under application is described as grasslands and shrublands with low Acacia and Eucalypt trees over Spinifex and other grasses. The vegetation ranges in condition from 'degraded' to 'good' (Keighery, 1994). The local area (50km radius) is highly vegetated with approximately 90% of the vegetation remaining and the mapped vegetation complexes are highly represented (>99%).

A number of flora species of conservation significance are known to occur within the local area (50km radius), including six priority flora species. The priority flora species *Indigofera ammobia* (P3), *Keraudrenia katatona* (P3) and *Polymeria distigma* (P3) are known to occur on the same mapped soil and vegetation types, however given that the local area (50km radius) is highly vegetated and the mapped vegetation types are well represented, it is considered unlikely that the area under application provides significant habitat to these priority flora species.

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

Methodology Keighery, 1994
Western Australian Herbarium (1998-)

GIS Database:
- SAC Biodatasets - accessed 3 September 2010
- Soils, statewide
- Pre-European Vegetation
- Western Australian ETM+ 25M 543 - AGO 2000 (Image)

(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

There are six records of fauna species of conservation significance within the local area (50 km radius) of the proposed clearing, these include the West Kimberley Rock-Wallaby (*Petrogale lateralis* ssp. (WAM M15135)) and the Bilby (*Macrotis lagotis*), both listed as vulnerable under the Wildlife Conservation Act 1950 (the WC Act) of Western Australia and vulnerable under the Environmental Biodiversity and Protection 1999 of the Commonwealth of Australia and the Peregrine Falcon (*Falco peregrinus*) listed as other specially protected fauna under the WC Act. Also recorded in the local area are the Australian Bustard (*Ardeotis australis*), Bush Stonecurlew (*Burhinus grallarius*) and Pictorella Mannikin (*Heteromunia pectoralis*) which are listed as priority 4 fauna under the WC Act.

Given that the vegetation within the area under application ranges in condition from 'degraded' to 'good' (Keighery, 1994) and that the local area (50km radius) is highly vegetated and there are high representations of the mapped vegetation complexes, the area under application is unlikely to provide significant habitat for fauna of conservation significance and therefore the proposed clearing is not likely to be at variance to this principle.

Methodology References:
Keighery (1994)

GIS Database:
- SAC Biodatasets - accessed 3 September 2010
- Soils, Statewide - 30/11/99
- Western Australian ETM+ 25M 543 - AGO 2000 (Image)

(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 is one record (38km west/northwest) of rare flora occurring within the local area (50km radius). *Pandanus spiralis* var. *flammeus* is mapped as occurring within the same soil type but not the same vegetation type. The site description is: Soil is fine, white, dusty clay becoming boggy during wet, growing and restricted to a small, narrow gorge, containing a series of waterholes fed by a spring (Western Australian Herbarium, 1998-). Given the low relief (<10m) and sandy soils of the area under application (DAFWA, 2010) it is unlikely that this species occurs within the area under application and therefore the proposed clearing is not at variance to this principle.

Methodology References
DAFWA (2010)
Western Australian Herbarium (1998-)

GIS Database:
- SAC Biodatasets - accessed 3 September 2010
- Soils, statewide
- Pre-European Vegetation
- Western Australian ETM+ 25M 543 - AGO 2000 (Image)

(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

A desktop survey did not identify any records of Threatened Ecological Communities within the local area (50km radius).

The proposed clearing is therefore not likely to be at variance to this principle.

Methodology GIS Databases:

- SAC Biodatasets - accessed 3 September 2010
- Soils, statewide
- Pre-European Vegetation
- Western Australian ETM+ 25M 543 - AGO 2000 (Image)

(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 under application is mapped as predominately (~95%) Beard vegetation association 704, grasslands, short bunch grass savanna low tree & sparse shrubs; bauhinia & Acacia eriopoda & A. impressa over Aristida brownii short grasses on river flats. There is also a small amount (~5%) of Beard vegetation association 7001, shrublands, pindan; Acacia eriopoda & A. tumida shrubland with scattered low cabbage gum & Eucalyptus setosa over ribbon & curly Spinifex. The condition of the vegetation systems ranges from degraded to good (Keighery, 1994).

The area under application is within the IBRA Bioregion of Dampierland which retains >99% of the pre-European extent of vegetation (Shepherd, 2009). Further, there are approximately 100% of Beard vegetation associations 704 and 7001 remaining within this bioregion (Shepherd, 2009).

Given the high representation of pre-European vegetation within the bioregion and the local area (50km radius) being highly vegetated, it is considered that the area under application is not significant as a remnant, therefore the proposed clearing is not at variance to this principle.

Methodology

References

Shepherd (2009)
Keighery (1994)

GIS Database:

- Interim Biogeographic Regionalisation of Australia
- Pre-European Vegetation
- SAC Biodatasets - accessed 3 September 2010
- Western Australian ETM+ 25M 543 - AGO 2000 (Image)

(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 watercourses or wetlands have been mapped within the area under application. The landforms of the area have been described as sandplain and dune systems (~84%) and sandy alluvial plains with broad through-going drainage floors (16%). Much of the area (~77%) is within an area that is subject to inundation. Further, the Department of Agriculture and Food have provided advice that flooding may occur short term during high rainfall events (DAFWA, 2010), suggesting the area under application may temporarily act as water course during high rainfall events. However, given that the watercourses feeding into the area under application are non-perennial and the mapped soil types being readily draining sandy soils it is unlikely that the area under application supports vegetation growing in, or in association with a watercourse or wetland and therefore the proposed clearing is not likely to be at variance to this principle.

Methodology

References:

DAFWA (2010)

GIS Database:

- Hydrography linear - DOW 13/7/06
- Hydrogeology, statewide - DoW 13/07/06
- Western Australian ETM+ 25M 543 - AGO 2000 (Image)

(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 application is to clear 194 hectares of native vegetation for the proposed use of grazing and pasture development. The Department of Food and Agriculture (DAFWA) have provided advice that the soils within the area under application are generally not saline and that the proposed land use would not significantly affect the water table (DAFWA, 2010). DAFWA further advises that the establishment of pastures or crops will provide soil cover that will reduce risk of wind or water erosion and that the proposed clearing is therefore unlikely to cause appreciable land degradation (DAFWA, 2010).

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

Methodology References:
DAFWA (2010)

GIS Databases:
- Evapotranspiration, Area Actual - BOM 30/09/01
- Groundwater Salinity, statewide - DoW 13/07/06
- Hydrogeology, statewide - DoW 13/07/06
- Rainfall, Mean Annual - BOM 30/09/01
- Soils, Statewide - 30/11/99
- Topographic Contours, Statewide - DOLA 12/09/02

(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 proposed Edgar Range Conservation Park is located 11km to the south. Given that the area under application is surrounded by pastoral lease and that the proposed Conservation Park is located 11km away, the proposed clearing is therefore is not likely to be at variance to this principle.

Methodology GIS Databases:
- DEC Managed Lands & Waters - DEC 28/10/09
- Western Australian ETM+ 25M 543 - AGO 2000 (Image)

(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**

No watercourses or wetlands have been mapped within the area under application; however the area is mapped as being subject to inundation. Given that the vegetation within the area under application ranges in condition from 'degraded' to 'good' (Keighery, 1994) and that the local area (50km radius) is highly vegetated, the clearing as proposed is not likely to cause deterioration in the quality of surface or underground water and therefore the proposed clearing is not likely to be at variance to this principle.

Methodology References:
Keighery (1994)

GIS Database:
- Country Area Water Supply Act (Part IIA) Clearing Control Catchments - DoW 29/06/06
- Hydrogeographic Catchments, Catchments - DoW 01/06/07
- Hydrogeology, statewide - DoW 13/07/06
- Rainfall, Mean Annual - BOM 30/09/01
- RIVI Act, Areas - DoW 05/04/02
- Soils, Statewide - 30/11/99
- Topographic Contours, Statewide - DOLA 12/09/02

(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 landforms of the area under application consist of sandplain and dune systems (~84%) and sandy alluvial plains with broad through-going drainage floors (16%). Much of the area (~77%) is subject to inundation and the Department of Agriculture and Food have provided advice that flooding may occur naturally in the short term during high rainfall events (DAFWA, 2010). However given that the mapped soil types are readily draining sandy soils, that the vegetation within the area under application ranges in condition from 'degraded' to 'good' (Keighery, 1994) and that the local area (50km radius) is highly vegetated, the clearing as proposed is not likely to cause, or exacerbate, the incidence or intensity of flooding and therefore is not likely to be at variance to this principle.

Methodology References:
DAFWA (2010)
Keighery (1994)
GIS Database:
- Evapotranspiration, Area Actual - BOM 30/09/01
- Hydrogeology, statewide - DoW 13/07/06
- Hydrography Linear
- Rainfall, Mean Annual - BOM 30/09/01
- Rangeland Land System Mapping
- Soils, Statewide - 30/11/99
- Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

The applicant has applied for a diversification permit from the Pastoral Lands Board (PLB) under Section 119 of the Land Administration Act 1997 for the purpose of sowing non-indigenous pasture species (Pastoral Lands Board, 2010). The application includes the non-irrigated growing of forage sorghum (*Sorghum bicolor*), jarra (finger) grass (*Digitaria milanjiana*) and strickland (finger) grass (*Digitaria milanjiana*). Forage sorghum is non-indigenous annual fodder species listed as Green (low risk) on the Department of Environment and Conservation, Department of Agriculture and Food and Department of Regional Development and Lands Fact Sheet *Non indigenous plant species for Western Australia's rangelands* (DAFWA, 2010a). Jarra and strickland grasses are perennial fodder naturalised in northern Australia (DAFWA, 2010b) considered as Amber (medium risk) on the Fact Sheet *Non indigenous plant species for Western Australia's rangelands* (DAFWA, 2010a). Jarra and strickland grasses are known to be agricultural weeds and it is considered that there is some risk of the species escaping the area under application under wet or flood conditions (DAFWA, 2010b), therefore the assessment recommendation is that a weed management condition, including a 500m buffer around the application area, be placed on the permit to manage potential spread of this species.

The applicant has also applied to the PLB for permission to grow sabi grass (*Urochloa mosambicensis*). Sabi grass is a recognised environmental weed in northern Australia and DEC has recommended it be listed as a Red (high risk) species on the Fact Sheet *Non indigenous plant species for Western Australia's rangelands* (DAFWA, 2010b). Given its potential to become an environmental weed the proposed growing of this species is not supported.

The area under application is within the Fitzroy River and Tributaries sub catchment and is zoned under Rights In Water Irrigation Act 1914 as a groundwater area (Canning Kimberley), however the applicant has stated that they do not intend on abstracting groundwater.

One submission, from the Kimberley Land Council (KLC) on behalf of Native Title Claimants the Nyinka & Mangala Native Title group, has been received in objection to this application (Submission, 2010). The environmental issues raised in this submission have been addressed under the appropriate clearing principles.

Methodology

References:

Submission (2010)
Pastoral Lands Board (2010)
DAFWA (2010a)
DAFWA (2010b)

GIS Database:

- Aboriginal Sites of Significance - DIA 02/10
- Native Title Claims - LA 02/5/07
- Pre-European Vegetation- DA 01/01
- SAC Biodatasets - accessed 3 September 2010
- Western Australian ETM+ 25M 543 - AGO 2000 (Image)

4. References

Commissioner of Soil and Land Conservation (2010). Department of Agriculture and Food. DEC Ref: A335242
DAFWA (2010a). Department of Environment and Conservation, Department of Agriculture and Food Western Australia and Department of Regional Development and Lands Fact Sheet *Non indigenous plant species for Western Australia's rangelands*
DAFWA (2010b). Department of Agriculture and Food Western Australia advice received on the planting of non indigenous species in Western Australia's rangelands
Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.
Pastoral Lands Board (2010). Application for Diversification Permit for Pastoral Lease CL20/1975. DEC Ref: A336115
Shepherd, D.P. (2009) 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.
Submission (2010) Kimberley Land Council. 23 September 2010. DEC Ref: A335565.
Western Australian Herbarium (1998-) *FloraBase - The Western Australian Flora*. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed 3/09/2010).

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)