



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 5485/1
Permit Holder:	Department of Water
Duration of Permit:	24 May 2013 – 24 May 2018

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 installing groundwater monitoring bores and access tracks.
- 2. Land on which clearing is to be done**
Lot 259 on Deposited Plan 220696, Waterbank
Broome-Cape Leveque Road reserve (PIN: 11731083), Waterbank
Unnamed road reserve (PIN: 11731920), Waterbank
- 3. Area of Clearing**
The Permit Holder must not clear more than 4.94 hectares of native vegetation within the combined areas shaded yellow on attached Plan 5485/1a and Plan 5485/1b.
- 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. Type of clearing authorised**
This Permit authorises the Permit Holder to clear native vegetation for activities to the extent that the Permit Holder has the right to access land under the *Water Agencies (Powers) Act 1984* or any other written law.
- 6. 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 – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

- 7. Avoid, minimise etc clearing**
In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:
 - (a) avoid the clearing of native vegetation;
 - (b) minimise the amount of native vegetation to be cleared; and
 - (c) reduce the impact of clearing on any environmental value.

8. 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* growing within areas cleared under this Permit.

9. Flora management

- (a) Prior to undertaking any clearing authorised under this Permit, the Permit Holder shall engage a *botanist* to inspect that area for the presence of *priority flora*.
- (b) Where *priority flora* are identified in relation to condition 9(a) of this Permit, the Permit Holder shall ensure that:
 - (i) no clearing of identified *priority flora* occurs, unless first approved by the CEO; and
 - (ii) no clearing occurs within 10 metres of identified *priority flora*, unless first approved by the CEO.

PART III - RECORD KEEPING AND REPORTING

10. Records must be kept

The Permit Holder must maintain the following records in relation to flora management pursuant to condition 9 of this Permit:

- (a) the location of each *priority flora* species recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
- (b) the species name of each *priority flora* species identified; and
- (c) a copy of the botanists flora survey report.

11. Reporting

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
 - (i) of records required under condition 10 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding calendar year.
- (b) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar year, a written report confirming that no clearing under this permit has been carried out, must be provided to the CEO on or before 30 June of each year.
- (c) Prior to 24 February 2018, the Permit Holder must provide to the CEO a written report of records required under condition 10 of this Permit where these records have not already been provided under condition 11(a) of this Permit.

DEFINITIONS

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

botanist means a person with specific training and/or experience in the ecology and taxonomy of Western Australian flora;

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;

priority flora means those plant taxa described as priority flora classes 1, 2, 3, 4 or 5 in the *Department of Environment and Conservation's Threatened and Priority Flora List for Western Australia* (as amended); and

weed/s means any plant -

- (a) that is declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*;
or
- (b) published in the Department of Environment and Conservation Regional Weed Assessments,
regardless of ranking; or
- (c) not indigenous to the area concerned.

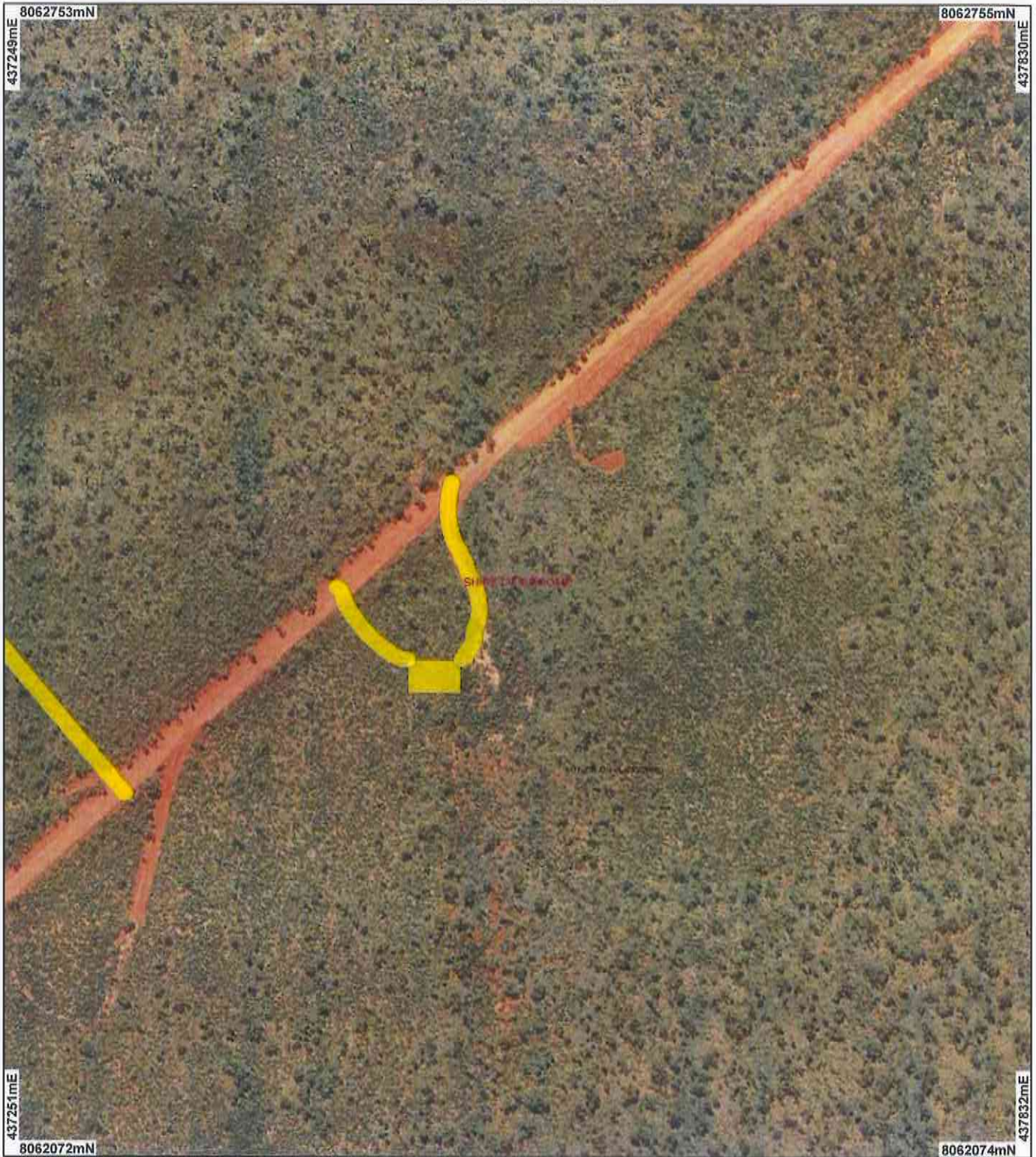


M Warnock
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

2 May 2013

Plan 5485/1a



LEGEND

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

Carnot 50cm Orthomosaic - Landgate 2007
 Broome 50cm Orthomosaic - Landgate 2007



Scale 1:3165

(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.

M. Wamock Date: 2/5/13

M. Wamock

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

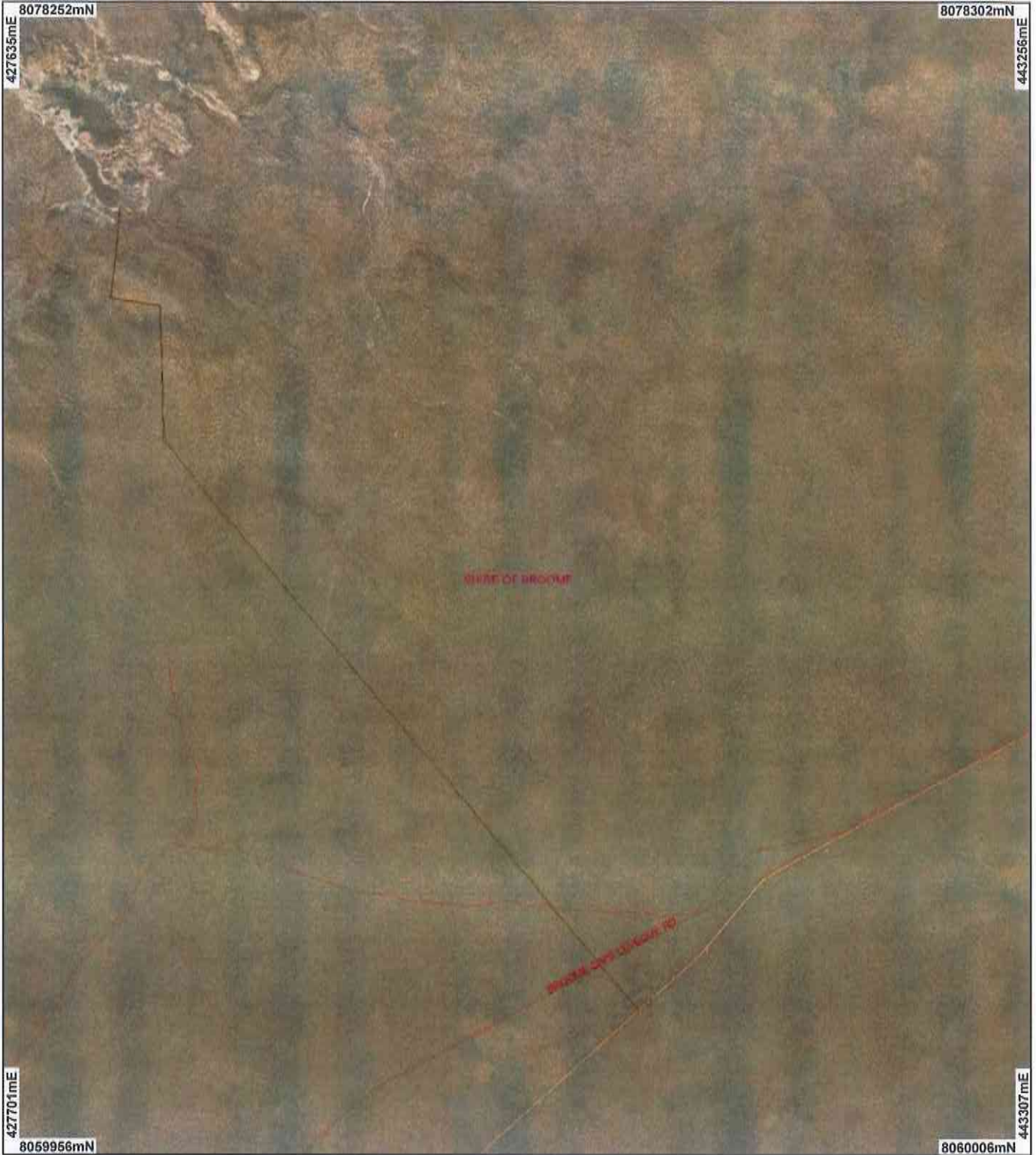
Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



Department of Environment and Conservation


Our environment, our future
 WA Crown Copyright 2002


Plan 5485/1b



LEGEND

<ul style="list-style-type: none"> ■ Road Centrelines ■ Cadastral ■ Local Government Authorities ■ Clearing Instruments ■ Areas Approved to Clear 	<ul style="list-style-type: none"> ■ Carnot 50cm Orthomosaic - Landgate 2007 ■ Broome 50cm Orthomosaic - Landgate 2007
--	--





Scale 1:85040
(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.

M. Wernock Date 2/5/13

M. Wernock
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
Our environment, our future
WA Crown Copyright 2002



1. Application details

1.1. Permit application details

Permit application No.: 5485/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Department of Water

1.3. Property details

Property: LOT 259 ON PLAN 220696 (House No. 259 WATTLE WATERBANK 6725)
ROAD RESERVE (WATERBANK 6725)
ROAD RESERVE (WATERBANK 6725)
Local Government Area: Shire of Broome
Colloquial name: Broome-Cape Leveque Road reserve and unnamed road reserve

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
4.84		Mechanical Removal	Bore construction
0.1		Mechanical Removal	Road construction or maintenance

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 2 May 2013

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 under application is mapped as Beard Vegetation Association 750 which is described as 'Shrublands, pindan; Acacia tumida shrubland with grey box & cabbage gum medium woodland over ribbon grass & curly spinifex' (Shepherd et al., 2001).	The application proposes to clear up to 4.938 hectares of native vegetation within Lot 259 on Deposited Plan 220696, Broome-Cape Leveque Road reserve and unnamed road reserve, Waterbank, for the purpose of constructing two groundwater monitoring bores and associated access tracks. The area under application is predominantly Acacia shrubland, consisting predominately of Acacia sp. (Pindan Wattle) (DEC, 2013). The ground cover layer is predominately Heteropogon, Sorghum and Triodia sp. The middle storey is predominately comprised of Grevillea, Hakea and Grewia sp. (DEC, 2013).	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994). To Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The condition of the vegetation under application was determined via the use of aerial imagery.

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 proposed clearing of 4.938 hectares of native vegetation is for the purpose of constructing two groundwater monitoring bores and associated access tracks off the Broome - Cape Leveque Road. One of the access tracks is approximately 16 kilometres long and 3 metres wide, with a 3 x 60 metre drill pad at the end. The second access track is approximately 60 metres long and 3 metres wide, with a 20 x 30 metre drill pad in the centre.

The local area (40 kilometre radius) is approximately 95 percent vegetated.

The shorter access track is located in close proximity to the Broome - Cape Leveque Road and is likely to be affected by existing disturbance and in very good to degraded (Keighery, 1994) condition. The longer access track is reported to follow an historical track that is regenerating and is likely to be in excellent to degraded (Keighery, 1994) condition.

Nineteen priority flora species have been recorded in the local area, all of which are mapped on the same soil and vegetation types as the application areas. Three Priority 3 (P3) flora species have been recorded within approximately 200 metres of the northern bore location or access track. There are numerous records of a Priority 1 species within 15 kilometres of the application areas, with the closest being approximately one kilometre from the smaller application area. A site visit to the smaller application area conducted by the Department of Environment and Conservation (DEC) on 28 March 2013 identified possible occurrences of this species within the application area (DEC, 2013). Flora survey and appropriate flora management practices will minimise the risk of impacts to the conservation of these species.

Two threatened ecological communities (TEC) have been recorded in the local area, being the Vine Thickets (Vulnerable) approximately 21 kilometres west and Bunda Bunda (Vulnerable) 28 kilometres north. The Vine Thickets TEC occurs along the coast and the Bunda Bunda is known from different vegetation and soil types to those mapped over the application areas. Therefore the application areas are not consistent with the preferred habitat for these TECs.

Clearing activities are likely to increase the risk of introducing weed species into adjacent areas of remnant vegetation which may impact on vegetation communities and priority flora. Appropriate weed management practices will reduce the risk of weed introduction and spread.

The bilby (*Macrotis lagotis*) may inhabit much of the Dampier Peninsula in very low densities.

Due to the presence of Pindan vegetation within the applied area, suitable habitat may be present for the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) listed Golden Bandicoot (*Isoodon auratus*), which was once widespread in arid and semi-arid areas, however is now restricted to grasslands, grassy woodlands and vine thickets of the Kimberley.

Given the above, the area under application may comprise a high level of biological diversity and as such, the proposed clearing may be at variance to this Principle.

Methodology

References:

DEC (2013)
Keighery (1994)

GIS DataBases:

- Broome 50cm Orthomosaic - Landgate 2007
- Pre European Vegetation
- Clearing Regulations, Environmentally Sensitive Areas
- SAC Biodatasets (accessed March 2013)

(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

Numerous fauna species of conservation significance have been recorded in the local area (40 kilometre radius). Six of the species are listed under the Wildlife Conservation Act 1950 as rare or likely to become extinct (DEC, 2007-), however three of these inhabit marine environments and are unlikely to be impacted by the proposed clearing.

Bilby (*Macrotis lagotis*) could potentially utilise the application area as suitable habitat.

Due to the presence of Pindan vegetation within the applied area, suitable habitat may be present for the EPBC Act listed Golden Bandicoot (*Isoodon auratus*), which was once widespread in arid and semi-arid areas, however is now restricted to grasslands, grassy woodlands and vine thickets of the Kimberley (AECOM, 2010).

The proposed clearing is relatively small in size (4,938 hectares) and linear in nature. Given that the vegetation surrounding the area under application comprises vegetation in very good to excellent (Keighery, 1994) condition with a high remaining extent (approximately 95 percent vegetation remaining in the local area), the vegetation under application is unlikely to comprise significant habitat for indigenous fauna in a local context.

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

Methodology

References:

AECOM (2010)
DEC (2007-)
Keighery (1994)

GIS DataBases:

- Broome 50cm Orthomosaic - Landgate 2007
- Pre European Vegetation

(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 nearest record of rare flora is approximately 48 kilometres from the application area. This species is reported to inhabit coastal sites (Western Australian Herbarium, 1998-) and is therefore unlikely to occur within the vegetation proposed to be cleared.

Given the above, the vegetation under application is unlikely to include or be necessary for the continued existence for rare flora and the proposed clearing is not likely to be at variance to this principle.

Methodology References:
 Western Australian Herbarium (1998-)

 GIS DataBases:
 - SAC Biodatasets (accessed March 2013)

(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 records of two threatened ecological communities (TEC) in the local area (40 kilometre radius).

 Vine Thickets (Vulnerable) occurs approximately 21 kilometres west and Bunda Bunda (Vulnerable) 28 kilometres north of the application areas. The Vine Thickets TEC occurs along the coast and the Bunda Bunda is known from different vegetation and soil types to those mapped over the application areas. Therefore the application areas are not consistent with the preferred habitat for these TECs.

Given the above, the vegetation under application is unlikely to comprise or be necessary for the maintenance of TECs and the proposed clearing is not likely to be at variance to this principle.

Methodology GIS DataBases:
 - Pre European Vegetation
 - Clearing Regulations, Environmentally Sensitive Areas
 - SAC Biodatasets (accessed March 2013)

(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**
 The local area (40 kilometre radius) is approximately 95 percent vegetated.

The application area is mapped as Beard Vegetation Association 750, which has approximately 100 percent (1,225,279 hectares) of pre-European levels of native vegetation remaining in the Dampier land Bioregion (Government of Western Australia, 2013).

While the vegetation under application may be significant due to the presence of priority flora, it is not in a highly cleared area.

Therefore the vegetation proposed to be cleared is unlikely to be significant as a remnant in an extensively cleared area and the proposed clearing is not likely to be at variance to this principle.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion Dampierland	8 345 173	8 321 243	100	1
Shire of Broome	5 469 436	5 436 146	99	1
Beard Vegetation Association in Bioregion 750	1 229 176	1 225 279	100	2

Methodology References:
 Government of Western Australia (2013)

- GIS DataBases:
- Broome 50cm Orthomosaic - Landgate 2007
- 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 at variance to this Principle**
The proposed access tracks intersect three mapped minor non-perennial watercourses. Short term impacts to these systems and the vegetation associated with them may result from the proposed clearing.
- Given the presence of watercourses within the applied area, the proposed clearing is at variance to this principle.
- Methodology** GIS DataBases:
- Broome 50cm Orthomosaic - Landgate 2007
- Hydrography linear

(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 proposed clearing of 4.938 hectares of native vegetation is for the purpose of constructing two three metre wide access tracks and two monitoring bores. The tracks are approximately 16 kilometres and 60 metres in length.
- The applied area is mapped as being composed of two soil types. AB21 - Pindan country gently undulating sand plain with a few small rocky sandstone residuals; no external drainage; chief soils are red earthy sands and AB26 - Sand plain with longitudinal sand dunes and some active drainage-ways: chief soils are red earthy sands (Northcote et al. 1960 - 68).
- The mapped annual rainfall is 900 millimetres, however large rainfall events area known to occur within the region.
- Given the sandy nature of the soils present the application area may be susceptible to wind and water erosion, however, due to the linear nature and relatively small size (4.938 hectares) of the proposed clearing, over a large, highly vegetated area, the proposed clearing is considered unlikely to cause appreciable land degradation and is not likely to be at variance to this principle.
- Methodology** References:
Northcote et al. (1960-68)
- GIS DataBases:
- Average Annual Rainfall, Statewide

(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 Coulomb Point Nature reserve is situated 6.5 kilometres north of the northern point of the application area and the local area (40 kilometre radius) is approximately 95 percent vegetated.
- Given the distance of the proposed clearing from the nearest conservation area and the large amount of vegetation remaining in the surrounding area, it is unlikely that the proposed clearing will impact on the environmental values of any conservation areas.
- Given the above, the proposed clearing is not likely to be at variance to this principle.
- Methodology** GIS DataBases:
- 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 is not likely to be at variance to this Principle**
The proposed clearing is within the Cape Leveque Coast Basin catchment area. It is not within a Public Drinking Water Source Area or an area proclaimed under the Country Areas Water Supply Act (Part II) 1947.
- Minor non-perennial watercourses cross the application area. Interference with minor watercourses and the

clearing of riparian vegetation may result in the deterioration of surface water quality due to increased sedimentation, however it is anticipated that these impacts will be short term. Best practice management of erosion and stormwater should be implemented to ensure that the surface water quality or groundwater quality is not adversely impacted.

Given the above, it is unlikely that the proposed clearing of native vegetation will cause surface or groundwater quality deterioration and is not likely to be at variance to this principle.

Methodology GIS DataBases:
- Broome 50cm Orthomosaic - Landgate 2007
- Hydrography linear

(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 local area (40 kilometre radius) is well vegetated and while high rainfall events are known to occur within the region, the proposed clearing of two 3 metre wide access tracks and two bores is unlikely to exacerbate flooding.

The proposed clearing is unlikely to be at variance to this principle.

Methodology GIS DataBases:
- Average Annual Rainfall Isohyets

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

Comments
The area under application falls within the Broome and Canning-Kimberley Groundwater Areas which are areas proclaimed under the Rights in Water and Irrigation Act 1914.

An Aboriginal Site of Significance is mapped over the application area. The applicant is asked to liaise with the Department of Indigenous Affairs regarding their obligations under the Aboriginal Heritage Act 1972.

The Department of Water intend to rely upon their powers set out under Part VI of the Water Agencies (Powers) Act 1984 to enter upon and undertake the proposed activities. The Department of Regional Development and Lands has acknowledged this and advised that they have no objections to the proposal (DRDL, 2013). DRDL (2013) has asked the Department of Water to obtain consent from the Aboriginal Lands Trust to enter onto the reserved lands.

The area under application falls within an area registered as Goolarbooloo/Jabirr Jabirr native title claim. The majority of the area under application also falls within the area for which Goolarabooloo have primary traditional connection to, and responsibility for, and which is known as the Song Cycle Path (GMAC, 2013). Goolarabooloo have advised that they have not been consulted in regards to this proposal and therefore object to this application. The objection is based on; no consultation, outdated maps and incorrect advertising. In response to this submission this application was readvertised on 25 March 2013 to correctly name Broome – Cape Leveque Road. The applicant is asked to contact the Goolarabooloo Millinbinyarri Aboriginal Corporation prior to commencing the proposed works.

A submission has been received from the Kimberley Land Council Aboriginal Corporation (KLC) which advised that they are the firm that represents the Goolarabooloo people in relation to native title and Aboriginal heritage matters within the Goolarabooloo/Jabirr Jabirr claim area (KLC, 2013). The KLC advised that their client objects to this proposal as it falls within Song Cycle Path. 'All areas defined as the Song Cycle path are regarded as having importance and significance because of the interconnected nature of this network of totemic significances. The areas have significance under Section 39 2(a), (b) and (c) and 39(3) of the Aboriginal Heritage Act 1972-80.' (KLC, 2013).

Methodology References:
DRDL (2013)
GMAC (2013)
KLC (2013)

GIS DataBases:
-Aboriginal Sites of Significance
-Native title claims
-RIWI Groundwater Areas

4. References

- AECOM (2010) Supplementary Terrestrial Fauna and Habitat Assessment - James Price Point, WA. Prepared for Department of State Development, WA. March, 2010.
- DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/> - (Accessed March 2013).
- DEC (2013) Site Inspection Report for Clearing Permit Application CPS 5485/1, Lot 259 on Deposited Plan 220696, Broome-Cape Leveque Road reserve and unnamed road reserve, Waterbank. Site inspection undertaken 4 April 2013. Department of Environment and Conservation, Western Australia (DEC Ref: A622445).
- DRDL (2013) Letter to the Department of Water re: Feasibility and Groundwater Assessment - Dampier Peninsula. Department of Regional Development and Lands, Western Australia (DEC Ref: A599007).
- GMAC (2013) Submission on behalf of the Goolarabooloo Community re clearing permit application 5485/1. Goolarabooloo Millinbinyarri Aboriginal Corporation ICN 7235 (DEC Ref: A610443).
- Government of Western Australia. (2013). 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. 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.
- KLC (2013) Native Title Submission for Clearing Permit Application CPS 5485/1. Kimberley Lands Council, Western Australia (DEC Ref: A612948).
- 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.
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed March 2013).

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)