



## CLEARING PERMIT

*Granted under section 51E of the Environmental Protection Act 1986*

<b>Purpose Permit number:</b>	CPS 5581/1
<b>Permit Holder:</b>	Department of Water
<b>Duration of Permit:</b>	5 July 2013 – 5 July 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 constructing groundwater monitoring bores and access tracks.

**2. Land on which clearing is to be done**

Lot 1539 on Deposited Plan 69939, Eighty Mile Beach.  
Lot 937 on Deposited Plan 69938, Eighty Mile Beach.  
Lot 24 on Deposited Plan 217187, Eighty Mile Beach.

**3. Area of Clearing**

The Permit Holder must not clear more than 2.4 hectares of native vegetation within the combined areas shaded yellow on attached Plan 5581/1a and Plan 5581/1b and Plan 5581/1c and Plan 5581/1d and Plan 5581/1e and Plan 5581/1f.

**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. 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

**6. 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.

7. **Weed control**

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*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

**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;

*weed/s* means any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
- (b) published in the Department of Environment and Conservation Regional Weed Assessments, regardless of ranking; or
- (c) not indigenous to the area concerned.



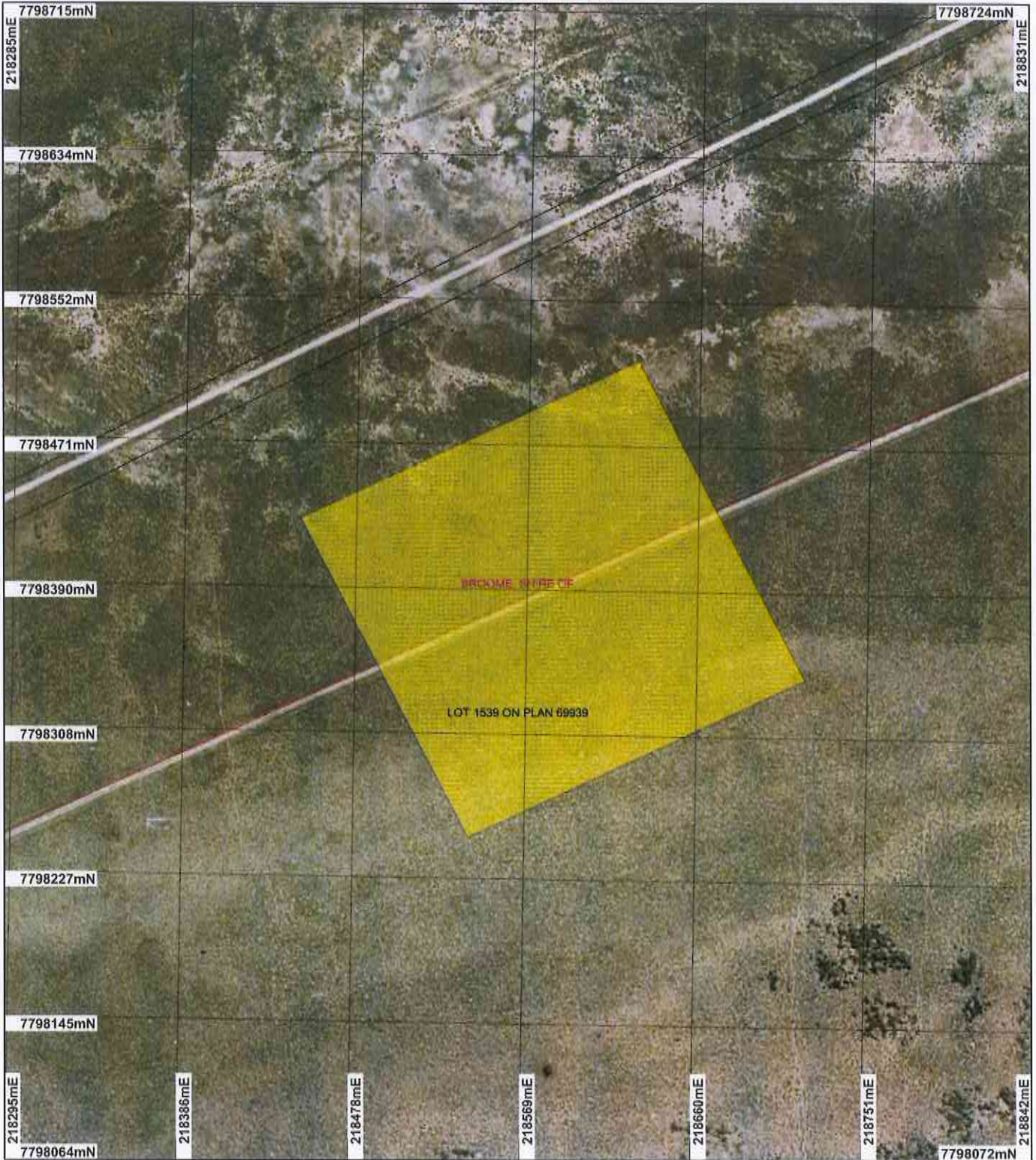
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M Warnock  
MANAGER  
NATIVE VEGETATION CONSERVATION BRANCH

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

13 June 2013

# Plan 5581/1a



## LEGEND

- Cadastre
- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Announced to Clear

Shoanta 50cm Orthomosaic - Landgate 2004



0  75 m

Scale 1:3000  
(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 Warnock* Date 13/6/13

M Warnock

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

# Plan 5581/1b



## LEGEND

- Cadastre
- Local Government Authorities
- Road Centrelines

### Clearing Instruments

- Areas Approved to Clear
- Shoanta 50cm Orthomosaic - Landgate 2004



Geocentric Datum Australia 1994

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# Plan 5581/1c



## LEGEND

- Cadastre
- Local Government Authorities
- Road Centrelines

### Clearing Instruments

- Areas Approved to Clear
- Mandora 50cm Orthomosaic - Landgate 2004



Scale 1:3000  
(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 Warnock* Date 13.6.13  
M Warnock

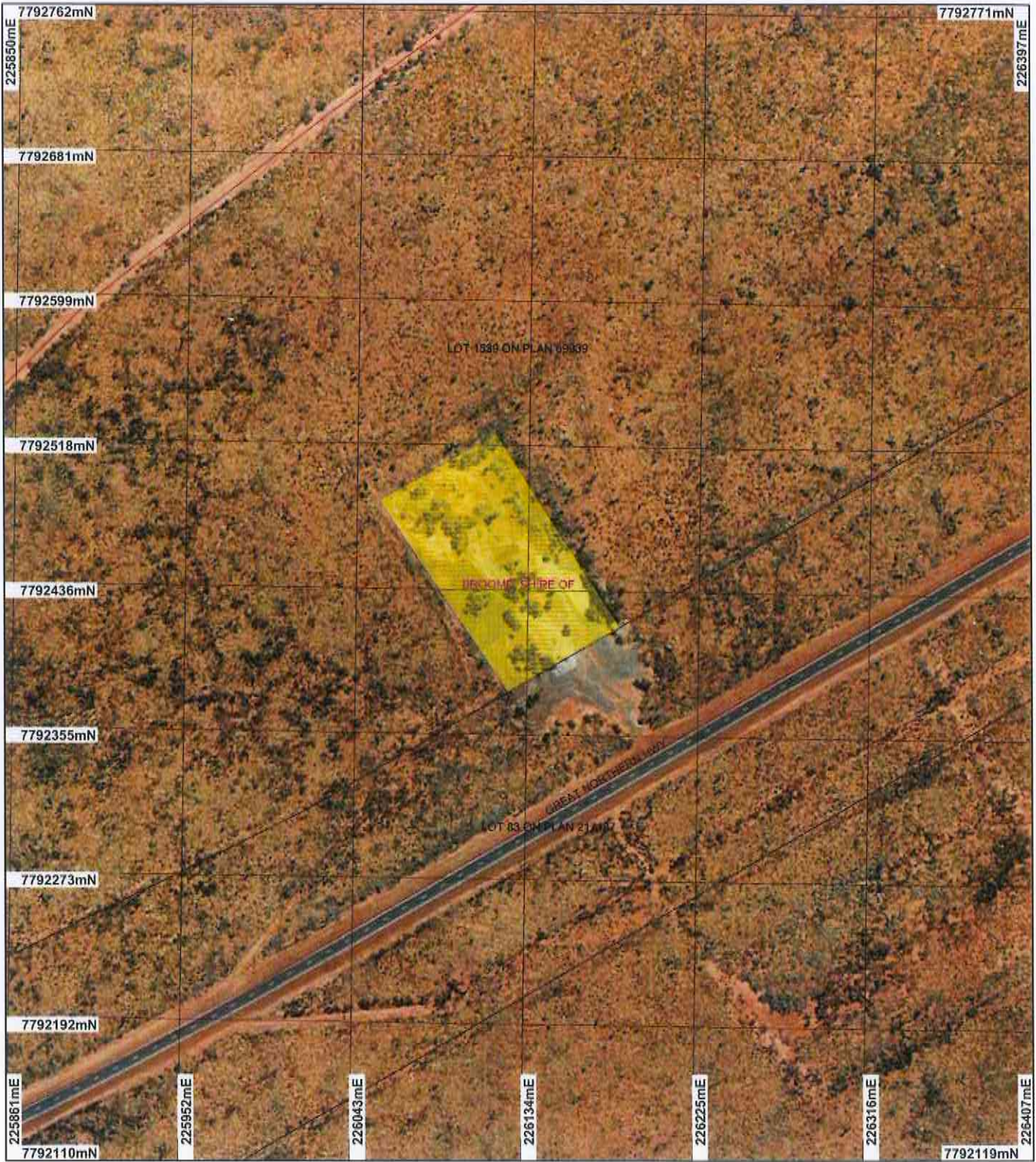
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# Plan 5581/1d



## LEGEND

- Cadastre
- Local Government Authorities
- Road Centrelines

### Clearing Instruments

- Areas Approved to Clear
- Shoonta 50cm Orthomosaic - Landgate 2004



Scale 1:3000

(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 Warnock* Date *13.6.13*  
M Warnock

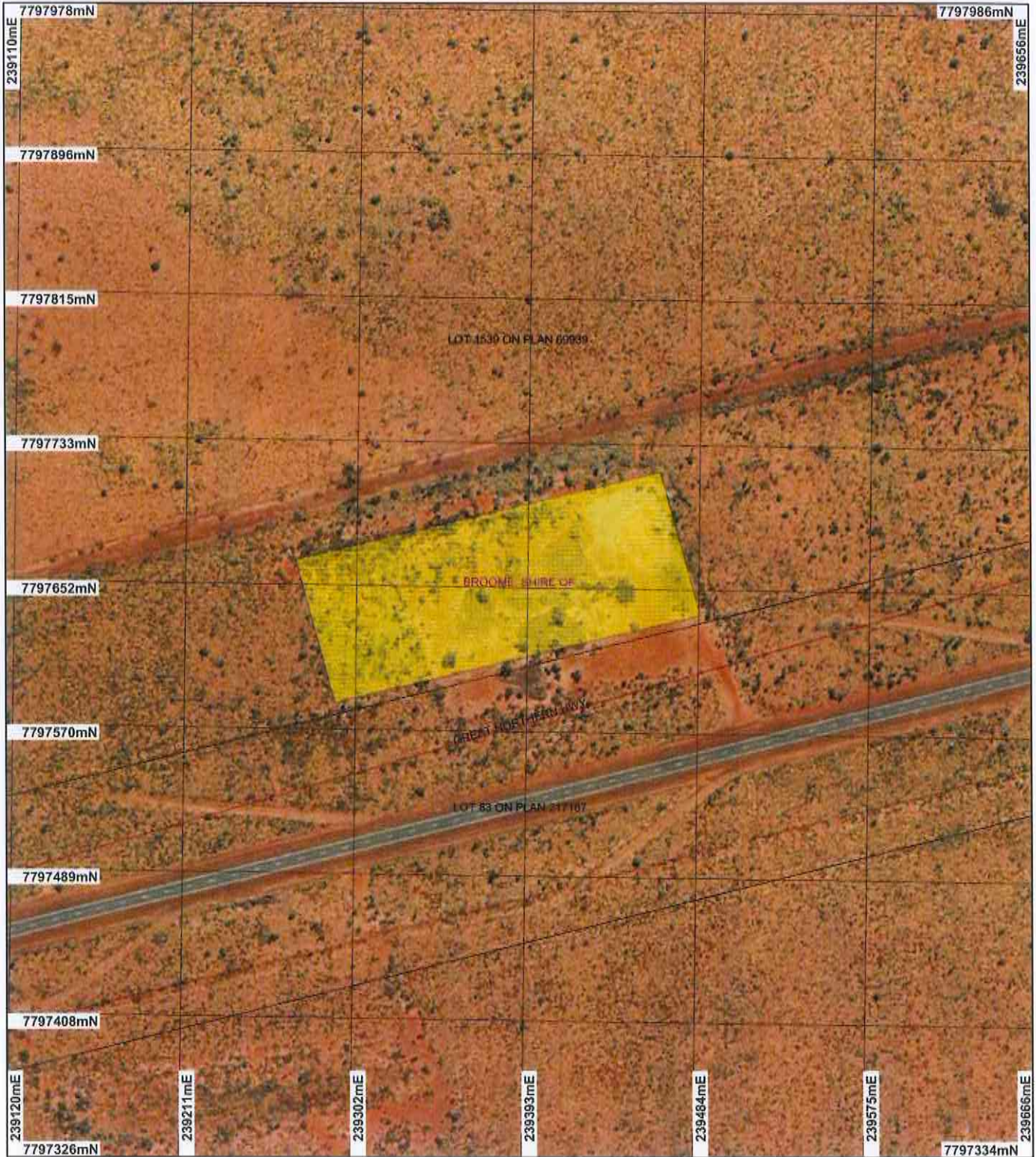
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# Plan 5581/1e



## LEGEND

- Cadastre
- Local Government Authorities
- Road Centrelines

### Clearing Instruments

- Areas Approved to Clear
- Shoats 50cm Orthomosaic - Landgate 2004



Scale 1:3000

(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 Warnock* Date 13.6.13

M Warnock

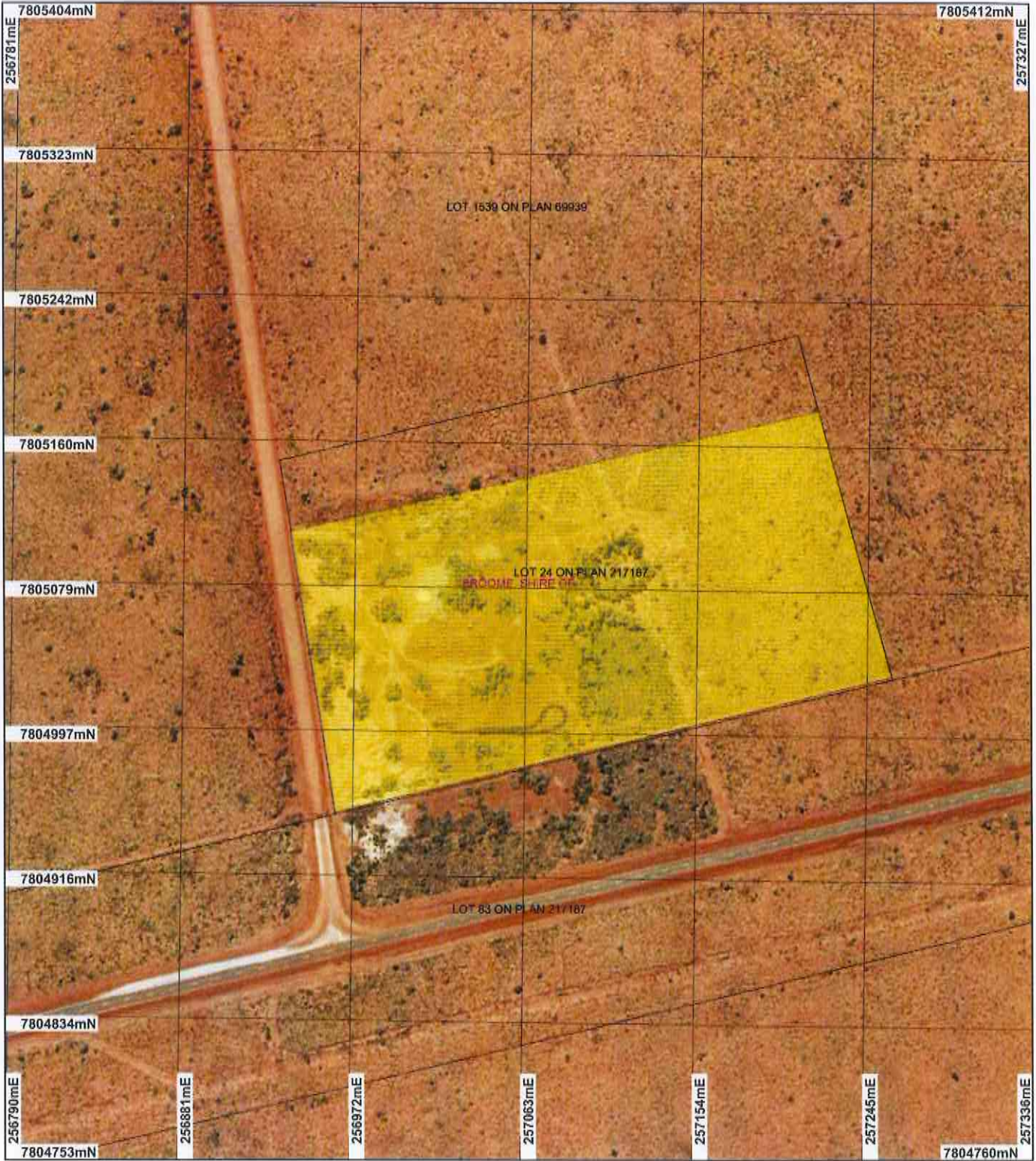
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# Plan 5581/1f

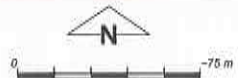


## LEGEND

- Cadastre
- Local Government Authorities
- Road Centrelines

### Clearing Instruments

- Areas Approved to Clear
- Mandora 50cm Orthomosaic - Landgate 2004



Scale 1:3000  
(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 Warnock* Date 13.6.13  
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## 1. Application details

### 1.1. Permit application details

Permit application No.: 5581/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Department of Water

### 1.3. Property details

Property: LOT 1539 ON PLAN 69939 (House No. 44 GREAT NORTHERN EIGHTY MILE BEACH 6725)  
LOT 937 ON PLAN 69938 (EIGHTY MILE BEACH 6725)  
LOT 24 ON PLAN 217187 (Lot No. 24 GREAT NORTHERN EIGHTY MILE BEACH 6725)  
Shire of Broome

Local Government Area:  
Colloquial name:

### 1.4. Application

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

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 13 June 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
Beard Vegetation Association: 117 - Hummock grasslands, grass steppe; soft spinifex (Shepherd et al. 2001).	The application is to clear up to 2.4 hectares of native vegetation within a 19 hectare footprint within Lot 1539 on Deposited Plan 69939, Lot 937 on Deposited Plan 69938 and Lot 24 on Deposited Plan 217187, Eighty Mile Beach, for the purpose of constructing groundwater monitoring bores and access tracks.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994).	Vegetation description and condition were determined through aerial imagery (Shoonta 50cm Orthomosaic - Landgate 2004 and Mandora 50cm Orthomosaic - Landgate 2004).
Beard Vegetation Association: 73 - Grasslands, short bunch grass savanna, grass; salt water grassland (Sporobolus virginicus) (Shepherd et al. 2001).		To	
Beard Vegetation Association: 32 - Shrublands, pindan; acacia shrubland with scattered low trees over Triodia spp (Shepherd et al. 2001).		Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994).	

## 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 application is to clear up to 2.4 hectares of native vegetation within a 19 hectare footprint within Lot 1539 on Deposited Plan 69939, Lot 937 on Deposited Plan 69938 and Lot 24 on Deposited Plan 217187, Eighty Mile Beach, for the purpose of constructing groundwater monitoring bores and access tracks.

The local area (50 kilometre radius) is well vegetated, containing approximately 95 percent vegetation cover. The application area is unlikely to represent an area of high biodiversity value when compared to vegetation in a local and regional context.

Advice received from the Commissioner of Soil and Land Conservation (CSLC) for a previous clearing permit on Lot 1539 on Deposited Plan 69939, indicates that the local area has a history of being stocked with cattle, with a moderate level of grazing pressure (CSLC 2011). The vegetation is rated to be in a good condition (CSLC 2011) which is equivalent to a 'very good' condition according to Keighery (1994).

There are six records of priority flora species within the local area (50 kilometre radius). The closest record is a priority one species, which is located approximately 4.5 kilometres from one of the application areas. Some records occur on the same mapped soil and vegetation types as the application areas. The priority flora species within the local area (50 kilometre radius) have been recorded at a number of sites within the Local

Government Areas of Broome, Derby, West Kimberly, Ashburton, Wyndham and East Pilbara (Western Australian Herbarium 1998), which indicates they have a large distribution. Therefore, the proposed clearing is not likely to impact on their conservation status.

There are no priority ecological communities within the local area (50 kilometre radius).

The disturbance caused by the proposed clearing will increase the risk of weeds being introduced into the adjacent vegetation. Weed management practices will assist in mitigating this risk.

Given the relatively small size of the application areas, and their location within a highly vegetation area, the proposed clearing is not likely to contain a high level of biological diversity. Therefore, the proposed clearing is not likely to be at variance to this principle.

**Methodology**   References:  
CSLC 2011  
Keighery 1994  
Western Australian Herbarium 1998  
GIS Databases:  
- Mandora 50cm Orthomosaic - Landgate 2004  
- SAC Biodatasets  
- Shoonta 50cm Orthomosaic - Landgate 2004  
- Soils, Statewide  
- Pre European vegetation

**(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 three fauna species recorded within the local area (50 kilometre radius) that are classified as rare or likely to become extinct under the Wildlife Conservation Act 1950 (DEC 2007-). One of these species is a marine mammal and would not occur within the application area.

The Bilby (*Macrotis lagotis*) and Northern Marsupial Mole (*Notoryctes caurinus*) may occur within the application area. The habitat for both these species is well represented within the local and regional area. The proposed clearing will not sever any ecological linkages.

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

**Methodology**   References:  
DEC 2007-

**(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 within the local area (50 kilometre radius). The vegetation under application is unlikely to contain rare flora.

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

**Methodology**   GIS Databases:  
- SAC Biodatasets

**(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 threatened ecological communities (TEC) recorded within the local area (50 kilometre radius). The vegetation under application is unlikely to be representative of any TEC.

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

**Methodology**   GIS Databases:  
- SAC Biodatasets

**(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**

Aerial photography indicates the local area (50 kilometre radius) is approximately 95 percent vegetated.

The IBRA Bioregion (Dampier Land) and the local government agency (Shire of Broome) retain approximately 100 percent and 99 percent of their respective pre-European extents (Government of Western Australia 2013).

The application area is mapped as Beard Vegetation Association 117, 73 and 32, which retain approximately 22 073 hectares (76 percent), 239 717 (100 percent) and 244 265 (100 percent) of their respective pre-European extents within the Dampier Land IBRA Bioregion.

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 percent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001).

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

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion*				
Dampier Land	8 343 939	8 319 872	100	1
Shire*				
Shire of Broome	5 469 436	5 436 202	99	1
Beard Vegetation Association in Bioregion*				
117	28 895	22 073	76	8
73	240 284	239 717	100	4
32	244 297	244 265	100	0

\* Government of Western Australia 2013

#### Methodology

#### References:

Commonwealth of Australia 2001  
Government of Western Australia 2013

#### GIS Databases:

- Mandora 50cm Orthomosaic - Landgate 2004
- NLWRA, Current extent of Native Vegetation
- Shoonta 50cm Orthomosaic - Landgate 2004
- 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 may be at variance to this Principle**

Three of the application areas do not occur within close proximity to any watercourses or wetlands. These areas are unlikely to contain riparian vegetation.

Two of the application areas are within 50 metres of an area subject to inundation. One application area is located approximately 40 metres from a minor, non-perennial watercourse and is located approximately 160 metres from Eighty Mile Beach, a RAMSAR wetland.

Given the close proximity to areas subject to inundation and watercourses, three of the application areas may contain riparian vegetation. Therefore, the proposed clearing may be at variance to this principle.

#### Methodology

#### GIS Databases:

- Hydrology, Linear
- Mandora 50cm Orthomosaic - Landgate 2004
- RAMSAR Wetlands
- Shoonta 50cm Orthomosaic - Landgate 2004

#### (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**

Three application areas occur on mapped soil type AB21, which Northcote et al. (1960-1968) describes as Pindan country-gently undulating sand plain with a few small rocky sandstone residuals; no external drainage: chief soils are red earthy sands.

The remaining three application areas do not have a soil type mapped over the area.

The mean annual rainfall of the application areas is 400 millimetres.

Given the small size of the individual proposed clearing areas and the surrounding vegetation, the proposed clearing is not likely to cause significant land degradation.

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

**Methodology** References:  
Northcote et al. 1960-1968  
GIS Databases:  
- Soils, 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**  
There are no Department of Environment and Conservation managed lands within the local area (50 kilometre radius).

Three of the application areas occur within an area listed in the Register of National Estate, which is associated with Eighty Mile Beach. The application areas are located approximately 1 kilometre, 500 metres and 160 metres from Eighty Mile Beach.

The proposed clearing will not fragment any ecological corridors which link these reserves.

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

**Methodology** GIS Databases:  
- DEC Tenure  
- Mandora 50cm Orthomosaic - Landgate 2004  
- Register of National Estate  
- Shoonta 50cm Orthomosaic - Landgate 2004

**(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**  
There are no watercourses or wetlands intersecting the application areas. Therefore, the proposed clearing is not likely to impact on surface water quality.

The groundwater salinity over the application area is mapped as 500 - 1000 mg/L of Total Dissolved Solids. The proposed clearing occurs in six relatively small areas. These areas are surrounded by vegetation. Therefore the proposed clearing is not likely to impact upon groundwater quality.

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

**Methodology** GIS Databases:  
- Hydrography, Linear  
- Groundwater Salinity

**(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**  
Given the relatively small size of the application areas, and the remnant vegetation surrounding them, the proposed clearing is not likely to increase the intensity or occurrence of flooding.

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

**Methodology** GIS Databases:  
- Mandora 50cm Orthomosaic - Landgate 2004  
- Shoonta 50cm Orthomosaic - Landgate 2004

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

**Comments**  
The application is to clear up to 2.4 hectares of native vegetation within a 19 hectare footprint within Lot 1539 on Deposited Plan 69939, Lot 937 on Deposited Plan 69938 and Lot 24 on Deposited Plan 217187, Eighty Mile Beach, for the purpose of constructing groundwater monitoring bores and access tracks.

The proposed clearing is located over six areas. Each area consists of an enlarged drill pad areas, in which a

smaller area will be cleared for a drill pad to be installed. The Department of Water have advised that this will allow flexibility in the placement of the drill bores (Dow 2013).

Lot 24 on Deposited Plan 217187 is vested with Main Roads Western Australia as a reserve for the purpose of water bore and campsite.

Lot 1539 on Deposited Plan 69939 and Lot 937 on Deposited Plan 69938 are vested with Futura Asset Pty Ltd, with the Wallal Downs Station pastoral lease covering the properties.

The application area is located within the Canning-Kimberley Groundwater Water Area covered by the Rights in Water and Irrigation Act 1914.

The application area is located within a Native Title claim area determined by the Federal Court. The claimants (Nyangumarta People) and their representatives (Kimberley Land Council) were given the opportunity to make comment on the application under s24MD of the Native Title Act 1993 (NT Act). No comments were received.

Three of the application areas are located within an environmentally sensitive area, which is associated with Eighty Mile Beach.

No public submissions have been received in response to this application.

#### Methodology

#### References:

DoW 2013

#### GIS Databases:

- Environmentally Sensitive Areas
- Native Title Claim areas
- RIWI Act areas

## 4. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- CSLC (2011), Commissioner of Soil and Land Conservation; Land Degradation Advice Report for clearing permit application CPS 4390/1 received 28/06/2011; Department of Agriculture and Food Western Australia (DEC REF. A409109)
- DEC (2007 - ) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed 23/04/2013.
- DoW (2013) Clearing Permit Application CPS 5581/1. Department of Water, Western Australia (DEC REF: A619976).
- 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.
- 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 30/05/2013).

## 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)