

**PRELIMINARY ENVIRONMENTAL IMPACT ASSESSMENT AND
ENVIRONMENTAL MANAGEMENT PLAN (MINOR PROJECTS)
CARBLA STATION FENCING**



Prepared by Matthew Oswald (Environment Officer)
Gascoyne Region
June 2007

Printed copies are uncontrolled unless marked otherwise

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PRELIMINARY ENVIRONMENTAL IMPACT ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PLAN (MINOR PROJECTS)

CARBLA STATION FENCING

1 BACKGROUND

Main Roads Gascoyne Region over a number of years has progressively been fencing the Road Reserves along various roads in conjunction with Pastoralists via a cost sharing arrangement. The outcome of this fencing produces various positives for both Main Roads and the Pastoralist, being the removal of stock from the road reserve, better stock control and reduced losses from vehicular conflicts, together with the removal of stock grids from the road carriageway.

Main Roads Gascoyne Region proposes to fence Carbla Station, which is located approximately 162 kilometres south of Carnarvon.

2 PROJECT DESCRIPTION

It is planned to fence a section of North West Coastal Highway, within Carbla Station, between 313.63 and 289 SLK, a total length of 24.63 kilometres. Both sides of the highway will be fenced.

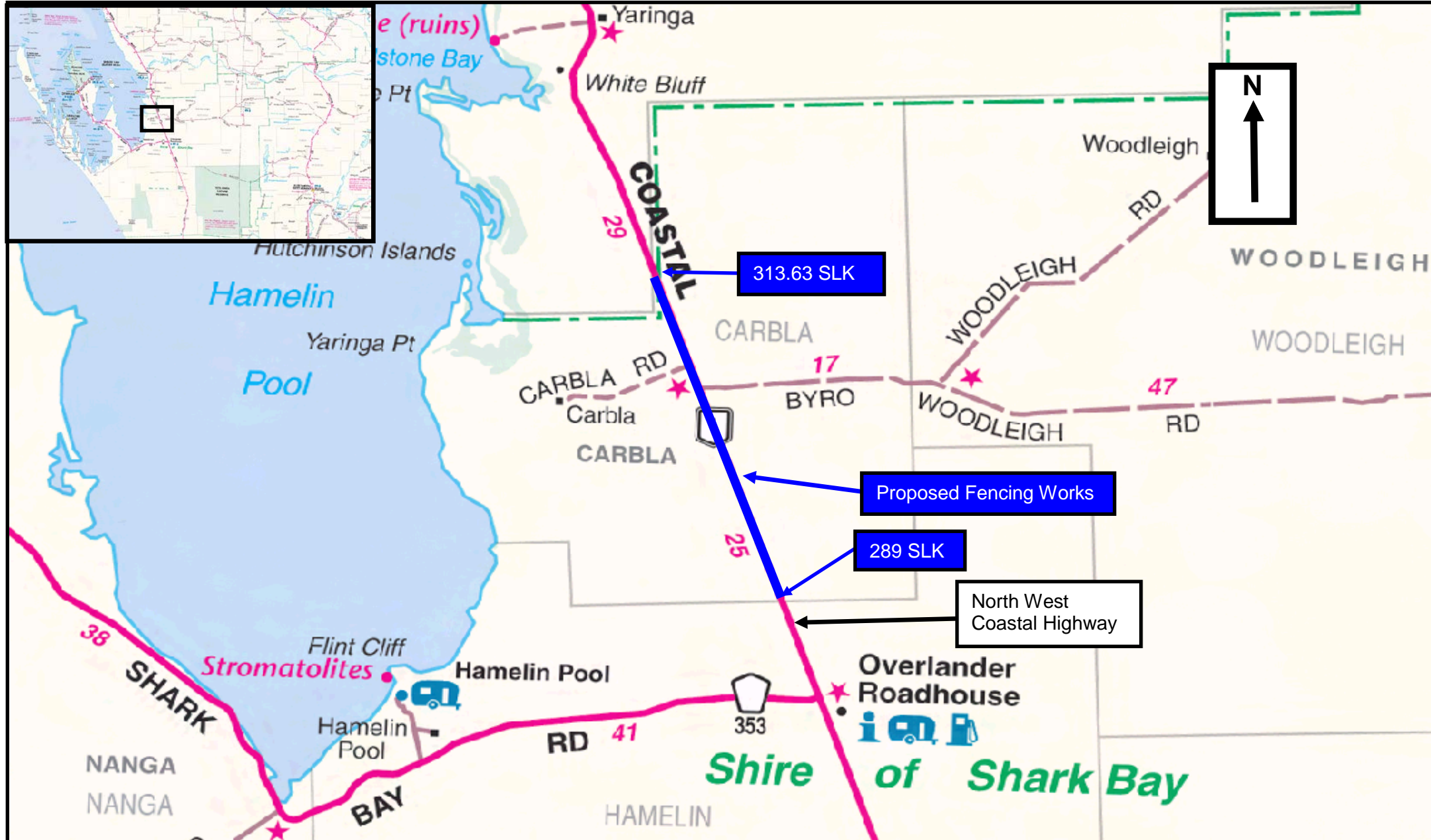
The construction of the fencing will occur 100 meters from the centreline of the highway.

As per Main Roads' Environmental Assessment and Approval process, the Low Impact Environmental Screening Checklist has been completed for the proposal, refer to Appendix A. As the proposed works involves clearing of native vegetation, the preparation of a project specific Preliminary Environmental Impact Assessment (PEIA) and Environmental Management Plan (EMP) are required. This report fulfils this requirement.

2.1 Project Location

The location and boundaries of the study area are shown on Figure 1.

FIGURE 1 LOCATION MAP OF CARBLA FENCING



3 METHODOLOGY

Preliminary Desktop Study

A preliminary assessment of the project area and its potential constraints was undertaken by reviewing a number of government agency managed databases (and consulting where necessary).

3.1 Wetlands

The locations of wetlands within the project area was determined using the Commonwealth Department of the Environmental and Heritage (DEH) mapping tool, Department of Environment and Conservation (DEC) and Geographic Data Atlas mapping tool.

3.2 Threatened Flora, Fauna and Communities, Conservation Reserves and ESAs

DEC's database was searched for known populations of threatened flora, fauna and Threatened Ecological Communities (TECs) and conservation reserves, refer to Appendix B.

3.3 Air Quality

The need for a local air quality assessment was determined using the criteria outlined in the MRWA environmental guideline, Air Quality.

3.4 Heritage

Non-indigenous heritage was examined utilising the Australian Heritage Places Inventory (<http://www.heritage.gov.au>), Heritage Council of Western Australia (<http://register.heritage.wa.gov.au/>) and the Shire of Shark Bay's Municipal Heritage Inventory, refer to Appendix C.

3.5 Aboriginal Heritage

A Search of the Department of Indigenous Affairs' (DIA's) (<http://www.dia.wa.gov.au/Heritage/SitesSurveysSearch.aspx>) database was undertaken to determine whether the project area contains any sites of Aboriginal heritage, refer to Appendix D.

3.6 Sensitive Water Resources

The locations of sensitive water resources within the project area was determined using the Commonwealth Department of the Environmental and Heritage (DEH) mapping tool, Department of Environment and Conservation (DEC) and Geographic Data Atlas mapping tool, plus conducting a site visit.

3.7 Contaminated Sites

The reserve has been in Main Roads continual control; therefore no further work will be required.

3.8 Acid Sulfate Soils

The Western Australian Planning Commission's (WAPC's) acid sulfate soils maps were reviewed and the self assessment done (<http://www.wapc.wa.gov.au/Publications/213.aspx>) to determine what level of risk the project area is exposed to, refer to Appendix E.

3.9 Weeds

Site visit was conducted with David Bauer (consultant from Arid landscapes) to determine whether there are any known populations of declared plants or significant weeds in or adjacent to the project area, refer to Appendix B.

3.10 Dieback

Project receives <400 mm of rain so determined not to be an issue.

4 Commonwealth Referral

The decision whether to refer the project to the Commonwealth's DEH was based upon whether the project would impact upon matters of national significance, e.g. World Heritage properties, protected wetlands and migratory species, Commonwealth marine areas, threatened species or communities or nuclear actions (refer to the Commonwealth webpage www.deh.gov.au/epbc/assessmentsapprovals/index.html for further information and the search tool page at <http://www.deh.gov.au/erin/ert/epbc/imap/map.html>), refer to Appendix H.

4.1 Site Investigation

A site visit was carried out by Matt Oswald (GEO) and Dave Bauer (Consultant) on 31/05/07 to examine the general features of the area. The broad vegetation types in the vicinity of the project area were identified. Other issues that were considered included topography, the impacts on creek lines, property access and the potential for noise and vibration impacts (dilapidation).

Site photos were taken and are included in Appendix G.

5 EXISTING ENVIRONMENT

5.1 Description

According to the Native Vegetation Association Data (DEC & DAF) the fencing works occurs within vegetation association 242 which is described as '*Succulent steppe with scrub; snakewood over saltbush*' and vegetation association 243 which is described as '*Shrublands; bowgada & minnieritchie scrub*'.

Both vegetation associations are well represented in the region with 100% remaining. The condition of the vegetation is somewhat degraded due to sheep and goat grazing.

No mature trees will be cleared for the works.

No drainage regimes or values will be changed or impacted upon.

A complete list of species observed in the project area can be viewed in Appendix B. No rare or endanger species were identified.

Site Investigation	Description/Comment
Total area (ha) of <u>native vegetation</u> to be cleared	24.63km X 5m = 12.315 (ha)
Total area (ha) of other vegetation, including regrowth, landscape areas, to be cleared	0
Weeds present	None
Drainage areas or wetlands present	None
Adjacent land uses	Pastoral

6 CLEARING OF NATIVE VEGETATION

Native vegetation describes all indigenous aquatic and terrestrial vegetation (living or dead). The term does not include vegetation that was intentionally sown, planted or propagated unless it was required under a statutory condition.

Apart from activities that are exempt under the clearing regulations, such as clearing vegetation that is less than 10 years old for maintenance, typically all Main Roads clearing will be undertaken using its Statewide Project Purpose Permit.

6.1 Assessment against Clearing Principles

In assessing whether the project is likely to have a significant impact on the environment, the project has been assessed against the DEC's 10 principles of clearing, refer to Appendix K.

The project will not be at variance with the DEC's 10 clearing principles.

6.2 Environmentally Sensitive Area (ESA)

Clearing within an Environmentally Sensitive Area (ESA)	Yes/ No	Comments
Does the area to be cleared occur within an ESA where the vegetation is in good or better condition?	No	

7 ASSESSMENT OF ASPECTS AND IMPACTS

Table 1: Aspects and Impacts – Marilla Station Fencing

Aspect	Evaluation of Potential Impacts
Air quality	Not relevant to the proposed works. Local air quality assessment is not required for the project since residential and other sensitive receptors are not within 200 meters of the road centre
Dust	Likely to be a minor issue during earthworks.
Fauna	<p>No significant fauna issues associated with any of the proposed fencing works. Fauna species identified in the DEC search were Bilby, Malleefowl, Hamelin Ctenotus, Western Spiny-tailed Skink, Shield-backed Trapdoor Spider, <i>Lerista maculosa</i>, Lined Skink, Thick-billed Grass-wren and White-browed babbler. Due to the nature of the works having a small clearing footprint and the highly mobile nature of all species, no impacts are expected. Recommendations to minimise clearing will also serve to reduce impacts to fauna and remnant fauna habitat at the site.</p> <p>No Matters of National Environmental Significance as protected under EPBC Act (1999) will be impacted. The Slender-billed Thornbill was identified in the search, but being a highly mobile species, no impact is expected.</p>
Vegetation – clearing	<p>12.315 ha of native vegetation will be cleared.</p> <p>The condition of the native vegetation to be cleared is Good but heavily degraded in places due to cattle grazing.</p> <p>The native vegetation will be cleared is well represented regionally. According to Native Vegetation Association Data (DEC and DAF), 100% of both vegetation types are still remaining.</p> <p>The native vegetation to be cleared does not occur within an ESA.</p> <p>The native vegetation to be cleared will be done so using the purpose permit.</p>
Vegetation – TECs/DRF	Consultation with DEC confirms that the proposal is not going to have a significant impact upon any DRF or TECs. <i>Acacia drepanophylla</i> was identified in the DEC search (See Appendix B), but the on-ground flora survey did not discover any populations of this species within the transect line.
Vegetation – weeds	Based upon a site visit, there are no declared plants in the project area.
Vegetation – dieback	Not an issue given the project area receives less than 400 mm of average annual rainfall or is above the 26° parallel.
Reserves / Conservation areas	There are no conservation areas or reserves adjacent to the project area.
Heritage (non-indigenous)	A search of the Australian Heritage Places Inventory, Heritage Council of Western Australia and the Shire of Shark Bay's Municipal Heritage Inventory on-line databases has indicated that there are no heritage significance listed sites present in the currently proposed works areas along NWCH.
Aboriginal heritage	A search of DIA database identified no known sites of Aboriginal heritage significance within the vicinity of the project area.
Surface water/drainage	The proposed works will not disturb or interrupt any natural drainage and surface run-off patterns.
Wetlands	There are no wetlands within the vicinity of the project area.
Groundwater	No dewatering nor drainage modifications are required, hence no change to groundwater level or quality.
Noise and vibration	No major sensitive local receivers within proximity of works. No impacts expected.

Table 1: Aspects and Impacts – Marilla Station Fencing

Aspect	Evaluation of Potential Impacts
Visual amenity	The proposed works will not impact on the visual amenity of the area. Works are well off the road network.
Public safety and risk	The proposed works will serve to enhance public safety.
Hazardous substances	Not relevant to the proposed works.
Contamination	Given the relatively superficial nature of the required earthworks, there appears to be a low risk of any significant contamination issues.
Salinity	Given the nature and scale of the project the impact is not relevant.
Acid Sulfate Soils	The WAPC's self-assessment (Planning Bulletin 64) indicates that no further soil investigation is required for the project.
Statutory Land Use Planning	As the proposed works are entirely within the existing road reserve, no further amendments would be required to the Local Government Planning Scheme or Region Scheme.

8 DECISION TO REFER

Given the scale of the project, the low significance of its impacts to the surrounding environment and the environmental management measures proposed, the project does not require referral to the WA Environmental Protection Authority or the Commonwealth Department of the Environment and Heritage.

9 STAKEHOLDER CONSULTATION

Name	Agency	Date
Ben Lulfitz (Flora)	DEC	15/06/07
Kellie Mantle (Fauna)	DEC	15/06/07

10 ENVIRONMENTAL MANAGEMENT PLAN

This section of the report (the EMP) has been developed for the project area following the completion of the above sections. The main aim of this EMP is to provide a management plan to assist in minimising the environmental impacts of the activities associated with the proposed works and identify who is responsible for the implementation of the management strategies.

This EMP will only address the actions already listed as well as any site-specific issues that were identified during the PEIA. The project specific management measures identified within this EMP are in addition to the standard specifications used for Category 2 projects. The environmental management measures/conditions in Main Road's Specifications 203, 204, 301, 302 and 304 are still to be followed where applicable.

The areas that require special management will be addressed in terms of:

- the timing of the various management actions;
- the topic (e.g. vegetation);
- the objectives for each area;
- the actions that are necessary to minimise the impact;
- the responsible party for implementing the action; and
- whether the action arose from external advice or is a Main Roads requirement.

10.1 Communication Plan

Environmental issues specific to the project will be communicated as follow:

Method	Frequency	Participants	Reference	Record
Project Site				
Induction	Prior to Work	All personnel and subcontractors	EMP and Contractor Environmental Policy	Induction Meeting
Authority Consultation				
Department of Environment and Conservation	As required	Main Roads' Project Manager and Contractor Project Manager	-	Minutes of meeting

10.1.1 External Communication and Complaints

A complaints register shall be maintained by the contractor. All complaints received shall be forwarded to the Main Roads' Project Manager for action. Serious complaints shall be investigated within 24 hours of the complaint being received.

ENVIRONMENTAL MANAGEMENT PLAN					
Timing	Topic	Objective	Action	Responsible Party	Advice
All phases of Construction	Vegetation Clearing - Record-keeping	All projects should maintain the required records relating to clearing native vegetation under the purpose permit.	Clearing: <ul style="list-style-type: none"> a copy of the PEIA & EMP (Minor projects) for small projects; a map showing the location where the clearing occurred, recorded in an ESRI Shapefile; the size of the area cleared (in hectares); and the dates on which the clearing was done. 	Project Manager	DEC
Pre-Construction	Vegetation - Clearing	Ensure that the overall objectives of the alignment and construction works are compatible with maintaining and, where possible, enhancing the biological integrity of the surrounding environment and minimising vegetation loss and degradation; and Ensure the retention of as many habitat trees, shrubs and vegetated corridors for fauna as possible, particularly where associated with riparian zones.	Selection of designs/locations that minimise adverse impacts on the biological environment.	Project Manager	Main Roads
			Construction works to be undertaken in summer to reduce the potential for soil erosion and drainage line siltation due to vegetation removal and heavy rains.	Project Manager	Main Roads
			Any stockpiled vegetation from clearing works shall not be burnt. This vegetation shall be used during any rehabilitation works and either chipped or replaced according to the EMP.	Contractor	Main Roads
Construction	Noise, Vibration and Dust	Ensure that the construction of the proposal does not become a nuisance to the public.	Access to private property and appropriate traffic management measures should be planned and implemented prior to the construction of works.	Contractor	Main Roads
			Works associated with the construction of the development should not prevent public access along the adjacent reserve. Public access should be maintained along the reserve at all times.	Contractor	Main Roads
			Any complaints regarding dust will be attended to as soon as possible.	Contractor/Project Manager	Main Roads
Construction	Fire	Ensure that the fire risk associated with the construction of the proposal is minimised.	No fires shall be lit within the project area.	Contractor	Main Roads
Construction	Site Management	Ensure that the site is managed to ensure that construction of the proposal will have minimal impact upon the surrounding environment.	Materials storage areas will be located on previously disturbed/ designated area.	Contractor	Main Roads
			All waste materials from the development are to be completely removed from the site upon completion of the development.	Contractor	Main Roads

11 CONTINGENCY MEASURES

Given the scale and nature of the project, no contingency measures are identified as the inherent environmental risks are small.

12 AUDITING

Given the scale and nature of the project, there is no requirement for auditing the implementation of the EMP as the environmental risks are small.

13 REFERENCES

Mitchell, A. A. and Wilcox, D. G. (1994) *Arid Shrubland Plants of Western Australia*, Second and Enlarged Edition. University of Western Australia Press, Nedlands, Western Australia. ISBN 1-874460-22-X.

Appendix A

Low Impact Environmental Screening Checklist

Checklist - Low Impact Screening Checklist

The Low Impact Screening Checklist is part of the environmental assessment and approval process, refer to in Figure 2 in the Main Roads environmental guideline Environment Assessment and Approvals. It should be noted that the checklist does not address Aboriginal heritage issues. Please refer to Main Roads guideline *Aboriginal Heritage* for the heritage assessment process.

All projects are to be screened to identify those that are Low Impact.

Projects that have "No" to **all** items are classed as Low Impact and should be implemented using standard contract clauses in the Tender Document Process.

Projects that have "Yes" to **any** item will require further environmental assessment and will be implemented using an Environmental Management Plan.

Tick "Yes" or "No" for every item.

Project Name ... CARBLA STATION FENCING - 313 to 289 SLK - NWCH

ITEM NO.	ITEM	Y	N
1	New road or road reserve to be created or expansion of existing road reserve.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Works require clearing of native vegetation outside the maintenance zone.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Works require clearing of native vegetation that is older than 10 years old within the maintenance zone.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Works to occur outside normal working hours.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5	Passes over, adjoins or drains directly into a wetland or sensitive watercourse.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	Local natural drainage regime / hydrology will be changed.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	Dewatering, or a new water bore required.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	Known potential source of hazardous materials within or adjoining project area. e.g. Acid Sulphate Soils, existing petrol station, industrial site or waste disposal site (landfill)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	Buildings will require demolition.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Completed By:

Signature

PAUL HOARE

Date

13/6/07

Name

PAUL HOARE

Title

Project Manager

To be reviewed by
a Main Roads
Environment Officer

Signature

MATTHEW OSWALD

Date

13/6/07

Name

Matthew Oswald

Title

G/EO

Comments:

Appendix B

DEC's Threatened Flora and Fauna Database Searches and David Bauer's Species List

OSWALD Matt (GEnv)

From: Lullfitz, Ben [Ben.Lullfitz@dec.wa.gov.au]
Sent: Thursday, 14 June 2007 11:27 AM
To: OSWALD Matt (GEnv)
Subject: RE: Flora Database Search - Carbla Station
Attachments: herbarium_carbla.shx; herbarium_carbla.shp; herbarium_carbla.sbx; herbarium_carbla.sbn; herbarium_carbla.prj; herbarium_carbla.dbf

Hi Matt

Only got results from the WA Herbarium database (see shapefile attached), nothing from the Threatened Flora database.

John

Ben Lullfitz

Threatened Flora Database Officer
Species and Communities Branch
Department of Environment and Conservation
Locked Bag 104, Bentley Delivery Centre WA 6983
Ph (08) 9334 0123 Fax (08) 9334 0278
ben.lullfitz@dec.wa.gov.au

From: OSWALD Matt (GEnv) [mailto:matthew.oswald@mainroads.wa.gov.au]
Sent: Wednesday, 13 June 2007 9:10 AM
To: Lullfitz, Ben
Subject: RE: Flora Database Search - Carbla Station

Sorry about that. I was requesting a flora search from you.

Matt

From: Lullfitz, Ben [mailto:Ben.Lullfitz@dec.wa.gov.au]
Sent: Wednesday, 13 June 2007 9:06 AM
To: OSWALD Matt (GEnv)
Subject: RE: Flora Database Search - Carbla Station

Matthew

Could you clarify pls, is this a flora or fauna search request??

Ben Lullfitz

Threatened Flora Database Officer
Species and Communities Branch
Department of Environment and Conservation
Locked Bag 104, Bentley Delivery Centre WA 6983
Ph (08) 9334 0123 Fax (08) 9334 0278
ben.lullfitz@dec.wa.gov.au

From: OSWALD Matt (GEnv) [mailto:matthew.oswald@mainroads.wa.gov.au]
Sent: Tuesday, 12 June 2007 4:25 PM
To: Lullfitz, Ben
Subject: Flora Database Search - Carbla Station

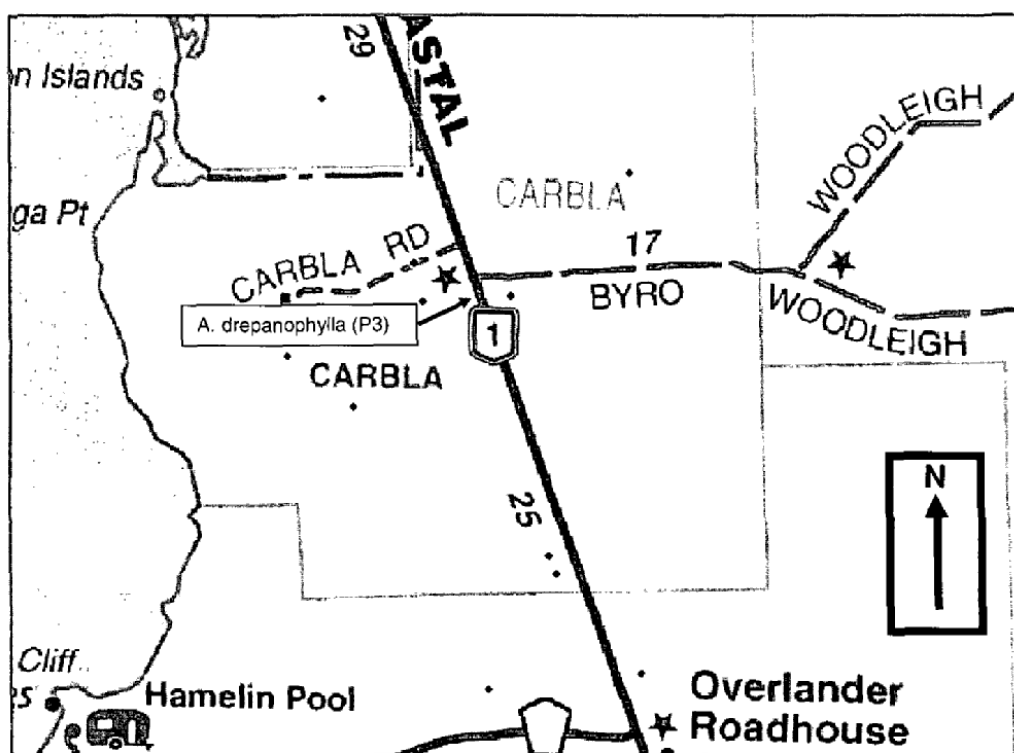
Ben,

Main Roads Gascoyne Region is proposing to fence Carbla Station along North West Coastal Highway, in order to provide a safer road network for motorists.

As required by our purpose permit, a flora database search must be conducted in order to identify any impacts the works may have.

15/06/2007

Carbla Station-WA Herbarium Flora Search



M.R.W.A. SPECIES LIST MAY 2007

Straight Line Transect - Flora Survey.

For A Proposed Fence Alignment :

Start 313.16 SLK - LHS & RHS traveling south to 289 SLK

* Pressed Specimens taken for positive ID

Genus Species	Common Name
Acacia anuera	Mulga
Acacia brachystachya	Bowgada
Acacia coolgardiensis	Spinifex wattle
*Acacia citrinoviridis	Black Mulga
*Acacia glaucescens	
Acacia grasbyi	Miniritchie
Acacia ligulata	Umbrella wattle
Acacia murrayana	Sandplain Wattle
Acacia sclerosperma	Limestone Wattle
Acacia tetragonophylla	Kurara
Acacia victoriae	Prickly Wattle
Acacia zippophylla	Snake Wood
*Acacia sp. tenuissima	Mulga
Aristida centarta	
Atriplex vesicaria	Bladder Salt Bush
Atriplex bunburyana	Silver Salt Bush
Eragrostis eriopoda	Wanderie Grass
Exocarpus aphylla	Leafless Ballart
Eremophila crenulata	Waxy Leaf Poverty
Eremophila forresti	Felt Bush
Eremophila platycalyx	Granite Poverty Bush
*Halosarcia oleiformis	Samphire
Heterodendron oliaefolium	
*Melaleuca Sp.	Pressed Specimen Taken
Ptilotus obovatus	Cotton Bush
Senna desolata	Straight Leaf Cassia
Solanum lasiophyllum	Flannel Bush
Scaevola spinescens	Currant Bush
Introduced species :	
Cenchrus ciliaris	Buffel Grass

Comments :

There were no live native annuals, except dry specimens and the only weed identified was Cenchrus ciliaris – Buffel Grass.

It was too early from recent rains to allow for annual growth on the day of the survey. No rare or endangered species were identified along the Straight Line Transect.

Dave Bauer, Manager,
Aridlandscapes PO Box 148 Carnarvon 6701,
951 North West Coastal Highway,
Ph / Fax : 0899418774. Mobile : 0400 2399 819.
Email : aridlandscapes@wn.com.au

25.7925 °S 113.9137 °E / 26.797 °S 114.906 °E Carbla Station, NW Coastal Hwy (plus~50km buffer)

* Date	Certainty	Seen	Location Name	Method
2006	1	0	Coburn	Tracks
2006	1	0	Coburn	Tracks
2006	1	0	Coburn	Tracks
2006	1	0	Coburn	Tracks
2006	1	0	Coburn	Tracks
2006	1	0	Coburn	Tracks
2006	1	0	Coburn	Definite signs
2006	1	0	Coburn	Tracks
2006	1	0	Coburn	Tracks
2006	1	0	Coburn	Tracks
2006	1	0	Coburn	Tracks
2006	1	0	Coburn	Definite signs
2006	1	0	Coburn	Tracks

Ctenotus zasticus**Hamelin Ctenotus**

2 records

1982	1	2	Hamelin/ Coburn Station	Caught or trapped
1983	1	3		Caught or trapped

Egernia stokesii hadia**Western Spiny-tailed Skink**

1 records

This species occurs in semi-arid scrubs and woodlands of Shark Bay and the northern wheatbelt, sheltering in hollow logs and behind bark of fallen trees.

2003	1	1	Woodleigh	Caught or trapped
------	---	---	-----------	-------------------

Idiosoma nigrum**Shield-backed Trapdoor Spider**

1 records

This species is in decline in its patchy distribution through the northern and central wheatbelt and coastal plain. It is a long-lived species that is very sensitive to disturbance.

1995	1	1	Nanga	Caught or trapped
------	---	---	-------	-------------------

Priority One: Taxa with few, poorly known populations on threatened lands

Lerista maculosa**Lerista maculosa**

1 records

Only known from two localities a little south of Shark Bay, one of them a small area of mallee/Triodia, both of them on red sandplain. This records is <5km from the southern boundary co-ordinates you provided.

1987	1	1		Caught or trapped
------	---	---	--	-------------------

Priority Three: Taxa with several, poorly known populations, some on conservation lands

Lerista lineata**Lined Skink**

1 records

A small, slender skink that inhabits white sands.

1	1	Woodleigh	Caught or trapped
---	---	-----------	-------------------

Priority Four: Taxa in need of monitoring

Amytornis textilis textilis**Thick-billed Grass-wren (western ssp)**

1 records

This species inhabits shrubland, preferring the denser vegetation along drainage depressions.

1985	1	5	Hamelin	
------	---	---	---------	--

Friday, 15 June 2007

Department of
Environment and Conservation

25.7925°S 113.9137°E / 26.797°S 114.906°E Carbla Station, NW Coastal Hwy (plus~50km buffer)

* Date	Certainty	Seen	Location Name	Method
<i>Pomatostomus superciliosus ashbyi</i>			White-browed Babbler (western wheatb	1 records
This species of bird lives in eucalypt forests and woodlands, and forages on or near the ground for insects and seeds.				
2006	1	5	Coburn	Day sighting

* Information relating to any records provided for listed species:-

Date: date of recorded observation

Certainty (of correct species identification): 1=Very certain; 2=Moderately certain; and 3=Not sure.

Seen: Number of individuals observed.

Location Name: Name of reserve or nearest locality where observation was made

Method: Method or type of observation



Appendix C

Australian Heritage Places Inventory, Heritage Council of Western Australia and the Municipal Heritage Inventory Database Searches

AUSTRALIAN HERITAGE PLACES INVENTORY

[New Search]

- | | | |
|-----|--|---|
| 1. | Cape Inscription Lightstation
Dirk Hartog Island, WA | LGA: Shark Bay Shire
Source: Register of the National Estate |
| 2. | Denham Sound Freycinet Reach Hopeless Reach and Lharidon Bight
Shark Bay, WA | LGA: Shark Bay Shire
Source: Register of the National Estate |
| 3. | Dirk Hartog Island
Dirk Hartog Island, WA | LGA: Shark Bay Shire
Source: Register of the National Estate |
| 4. | Dirk Hartog Landing Site 1616 - Cape Inscription Area
Dirk Hartog Island, WA | LGA: Shark Bay Shire
Source: National Heritage List |
| 5. | Edel Land
Shark Bay, WA | LGA: Shark Bay Shire
Source: Register of the National Estate |
| 6. | Gudrun Shipwreck
Shark Bay, WA | LGA: Shark Bay Shire
Source: Register of the National Estate |
| 7. | Peron - Nanga Area
Shark Bay, WA | LGA: Shark Bay Shire
Source: Register of the National Estate |
| 8. | Shark Bay Road Board Office (former)
Francis St, Denham, WA | LGA: Shark Bay Shire
Source: Register of the National Estate |
| 9. | Shark Bay, Western Australia
Denham Hamelin Rd, Denham, WA | LGA: Shark Bay Shire
Source: National Heritage List |
| 10. | Small Islands in Shark Bay
Shark Bay, WA | LGA: Shark Bay Shire
Source: Register of the National Estate |
| 11. | Wolgedda Pioneer Cottage
Nanga Rd, Nanga Station via Denham, WA | LGA: Shark Bay Shire
Source: Register of the National Estate |
| 12. | Zuytdorp Shipwreck
Kalbarri, WA | LGA: Shark Bay Shire
Source: Register of the National Estate |

Query matched 12 records.

Report produced : 12/6/2007

AHPI URL : <http://www.heritage.gov.au/ahpi/search.html>

HERITAGE COUNCIL OF WESTERN AUSTRALIA

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PLACES DATABASE ACTIONS:

Displaying results: [1-47] of 47

QUICK SEARCH
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LOCATION REPORT
SAVE DATA

OTHER REGISTER INFORMATION:

WHAT IS THE STATE REGISTER?
OTHER HERITAGE LISTS

hide selected | hide unselected

<input type="checkbox"/> 40 Mile Water Shed (11731)	Off Denham-Overlander Rd, Shark Bay
<input type="checkbox"/> Bassett House (11713)	Knight Tce, Denham Townsite
<input type="checkbox"/> Canning Factory Site (11732)	Herald Bight, Shark Bay
<input type="checkbox"/> Cape Inscription Lighthouse & Quarters (3261)	Cape Inscription, Dirk Hartog Island  [RI]
<input type="checkbox"/> Carrarang Homestead (11728)	Carrarang Peninsula, Shark Bay
<input type="checkbox"/> Carrarang Lifeboat (ruins) (11729)	Carrarang Peninsula, Shark Bay
<input type="checkbox"/> Denham Cemetery (11719)	Denham-Hamelin Rd, Denham Townsite
<input type="checkbox"/> Denham Post Office (fmr) (2367)	Denham-Hamelin Rd, Denham Townsite
<input type="checkbox"/> Denham Townsite Buildings (2369)	Denham Townsite
<input type="checkbox"/> Denham-Hamelin Pool Telegraph Line (11734)	Off Denham-Overlander Rd, Shark Bay
<input type="checkbox"/> Denham/Shark Bay Fire Station (14495)	Dampier Rd, Denham
<input type="checkbox"/> Dirk Hartog Island (7402)	Dirk Hartog Island
<input type="checkbox"/> Dirk Hartog Island Station (11928)	Dirk Hartog Island, Shark Bay, Denham
<input type="checkbox"/> Flaggpole (11723)	Hamelin Pool, Shark Bay
<input type="checkbox"/> Grave of Thomas Carmody (11722)	Hamelin Pool, Shark Bay
<input type="checkbox"/> Hamelin Pool Post Office, Post Master's Qtrs & Telegraph Station (fmr) (11720)	Hamelin Pool, Shark Bay
<input type="checkbox"/> Hamelin Station Homestead & Outbuildings (11727)	Off Denham-Overlander Rd, Shark Bay
<input type="checkbox"/> Jetty at Denham Townsite (11716)	Between Brockman & Durlacher St s, off Knight Tce, Denham Townsite
<input type="checkbox"/> L'Haridon Bight Shell Spits (11726)	L'Haridon Bight, Shark Bay
<input type="checkbox"/> Ma Fletcher's Cottage (11715)	24 Knight Tce, Denham Townsite

☐		
☐	Monkey Mia Grave Site (11733)	<i>Monkey Mia, Shark Bay</i>
☐	Nanga No.1 Bore (11735)	<i>Nanga Station, Shark Bay</i>
☐	Old Hospital (11706)	<i>Hughes St☐, Denham Townsite</i>
☐	Pearl Buyer's Cottage (11712)	<i>Knight Tce, Denham Townsite</i>
☐	Pearl Camps - site (11927)	<i>Shark Bay</i>
☐	Peron Homestead (3606)	<i>Francois Peron Nat'l Park, Shark Bay</i>
☐	Peron No. 1 Bore (11929)	<i>Peron Station, Shark Bay</i>
☐	Pioneer Museum (2370)	<i>Nanga Station, Shark Bay</i>
☐	Pioneer Park & Denham War memorial (11708)	<i>Hughes St☐, Denham Townsite</i>
☐	Point Petit Bore (11725)	<i>Point Petit, Shark Bay</i>
☐	Poland House (11709)	<i>Knight Tce, Denham Townsite</i>
☐	Police Lock-up, Shark Bay (17472)	<i>6 Denham Hamelin Road, Denham</i>
☐	Ronberg House (11714)	<i>22 Knight Tce, Denham Townsite</i>
☐	Shark Bay Area (12412)	<i>Shark Bay, Denham</i>
☐	Shark Bay Honour Roll, foyer Heritage Resort (14094)	<i>Knights Tce, Denham</i>
☐	Shark Bay Police Station (17384)	<i>Main Road, Shark Bay</i>
☐	Shark Bay Primary School (11704)	<i>Cnr Hughes & Brockman Sts, Denham Townsite</i>
☐	Shark Bay Road Board Office (fmr) (11718)	<i>Francis St, Denham Townsite</i>
☐	Shark Bay Shire Office (11707)	<i>42 Hughes St, Denham Townsite</i>
☐	Shell Quarry (11724)	<i>Hamelin Pool, Shark Bay</i>
☐	Shipwrecks (11736)	<i>various locations, Shark Bay</i>
☐	St Andrew's Anglican Church (11705)	<i>Cnr Hughes & Brockman St☐s, Denham Townsite</i>
☐	Standring House (11711)	<i>Knight Tce, Denham Townsite</i>
☐	Tamala Homestead, Outbuildings and Cottage Ruins (11730)	<i>Off Useless Loop Rd, Shark Bay</i>
☐	Uranie Land Camp (15268)	<i>Peron Peninsula, Shark Bay</i>
☐	Winship House (11717)	<i>4 Mainland St☐, Denham Townsite</i>
☐	Wolgedda Pioneer Cottage (4053)	<i>Nanga Station, Shark Bay</i>

Appendix D

Department of Indigenous Affairs Database Search



Search Criteria

0 sites in a search box. The box is formed by these diagonally opposed corner points:

MGA Zone 50	
Northing	Easting
7106790	236135
7083769	244338

Disclaimer

Aboriginal sites exist that are not recorded on the Register of Aboriginal Sites, and some registered sites may no longer exist. Consultation with Aboriginal communities is on-going to identify additional sites. The AHA protects all Aboriginal sites in Western Australia whether or not they are registered.

Copyright

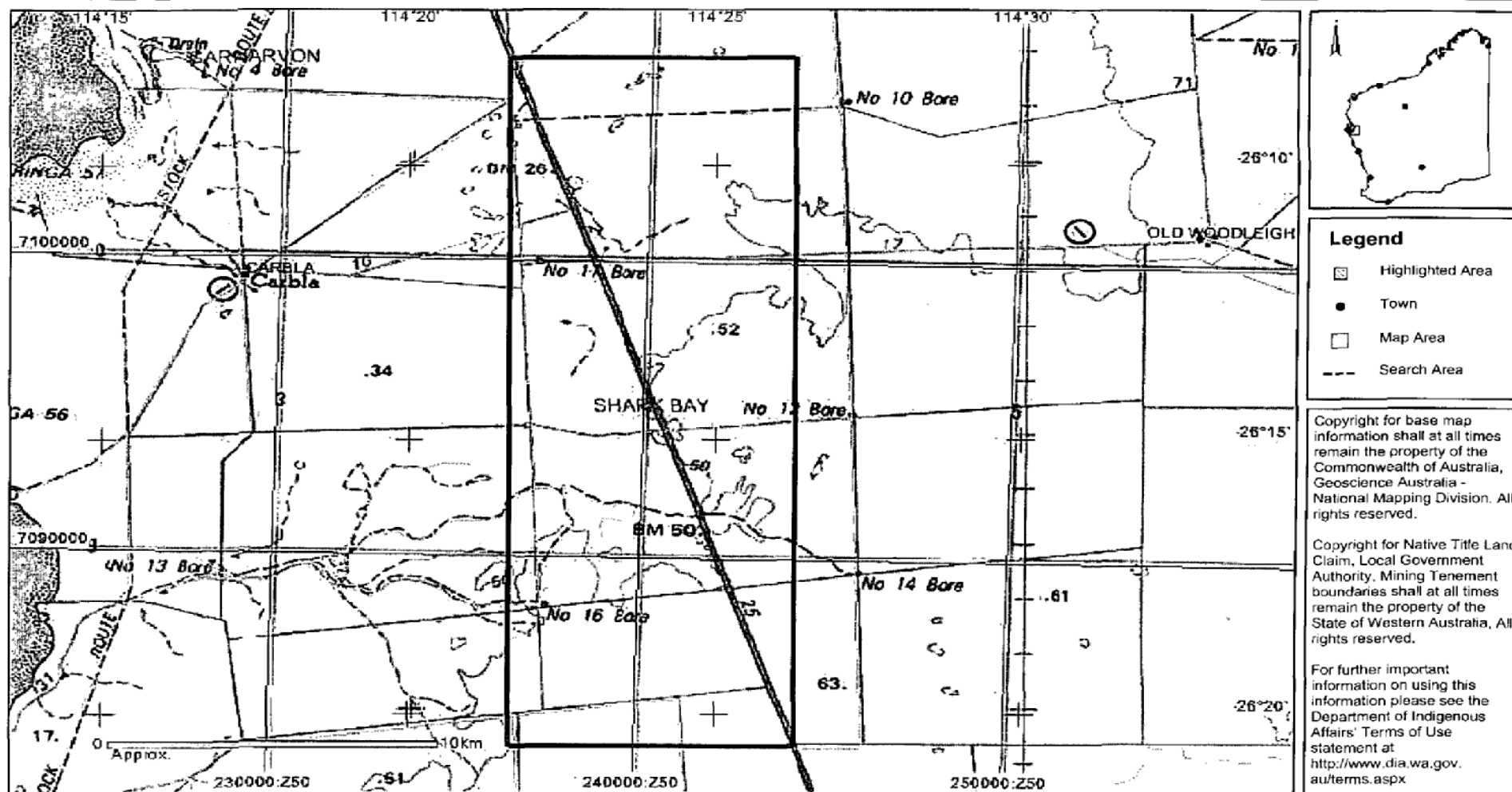
Copyright in the information contained herein is and shall remain the property of the State of Western Australia. All rights reserved. This includes, but is not limited to, information from the Register of Aboriginal Sites established and maintained under the Aboriginal Heritage Act 1972 (AHA).

Legend

Restriction	Access	Status	Coordinate Accuracy
N No restriction	C Closed	I Interim register	Accuracy is shown as a code in brackets following the site coordinates.
M Male access only	O Open	P Permanent register	[Reliable] The spatial information recorded in the site file is deemed to be reliable, due to methods of capture.
F Female access	V Vulnerable	S Stored data	[Unreliable] The spatial information recorded in the site file is deemed to be unreliable due to errors of spatial data capture and/or quality of spatial information reported.

Spatial Accuracy

Index coordinates are indicative locations and may not necessarily represent the centre of sites, especially for sites with an access code "closed" or "vulnerable". Map coordinates (Lat/Long) and (Easting/Northing) are based on the GDA 94 datum. The Easting / Northing map grid can be across one or more zones. The zone is indicated for each Easting on the map, i.e. '5000000:Z50' means Easting=5000000, Zone=50.



Appendix E

WAPC's Acid Sulfate Soils Mapping



Acid Sulfate Soils Applicant Self-Assessment Form



Important information for applicants

This form need only be completed if there is evidence of significant risk of disturbing acid sulfate soils at this location or having completed Form 1A - Application for approval of freehold subdivision or survey strata you have indicated yes to either question 1 or 2, Acid sulfate soils assessment, section 7.

Applicant

The applicant is the person with whom the WAPC will correspond and, if the application is approved, the person to whom the approval will be sent.

Full name MATTHEW OSWALD

Applicant signature [Signature] Date 12/6/07

Application property details CARBLA STATION - NWCH - STATION FENCING

Step 1

If you have previously indicated yes to question 1 or 2 on Form 1A go to Step 2.

Is there evidence of a significant risk of disturbing acid sulfate soils at this location?

The WAPC has published maps showing the levels of risk of acid sulfate soils. The maps are shown on figures 1-11 of planning bulletin no. 64 can be downloaded at www.wapc.wa.gov.au/Publications/213.aspx

- Question 1: Is the land depicted in figures 1-11 of the WAPC's Planning Bulletin No 64 Acid Sulfate Soils as having a high risk of actual acid sulfate soil and potential acid sulfate soil <3m from the surface? ☐ yes ☒ no
- Question 2: Is the land located in an area, whether depicted in figures 1-11 or not, where site characteristics and local knowledge lead you to form the view that there is a significant risk of disturbing acid sulfate soils at this location? ☐ yes ☒ no

If yes to either of these questions go to Step 2.

If no to both of these questions then no further investigation is required. Sign this form and submit it with your application together with the written results of the preliminary site assessment.

Step 2

Are any of the following works proposed, or likely to be carried out, on the land?

- Question 3: Are any dewatering works proposed to be undertaken? ☐ yes ☐ no
- Question 4: Is the surface elevation $\leq 5\text{m}$ AHD and is excavation of $\geq 100\text{m}^3$ of soil (ie 10 standard dump truck loads) with an excavation depth of $\geq 2\text{m}$ proposed? ☐ yes ☐ no
- Question 5: Is the surface elevation $> 5\text{m}$ AHD and is excavation of $\geq 100\text{m}^3$ of soil (ie 10 standard dump truck loads) with an excavation depth of $\geq 2\text{m}$ proposed? ☐ yes ☐ no

If yes to any of these questions go to step 3.

If no to all of these questions no further investigation is required. Sign this form and submit it with your application.

Step 3

Carry out preliminary site assessment in accordance with Department of Environment and Conservation guidelines.

Note: Copies of documents in the acid sulfate soils guidelines series and further technical advice and information can be obtained from contaminated sites page on the Department of Environment and Conservation's website at <http://www.dec.wa.gov.au>

- Question 6: Did the preliminary site assessment reveal the presence of acid sulfate soils? ☐ yes ☐ no

If yes to this questions go to step 4.

If no to this questions then no further investigation is required. Sign this form and submit it with your application together with the written results of the preliminary site assessment.

Appendix F

Department of the Environment and Heritage Database Search



Protected Matters Search Tool

You are here: Environment Home > EPBC Act > Search

12 June 2007 18:39

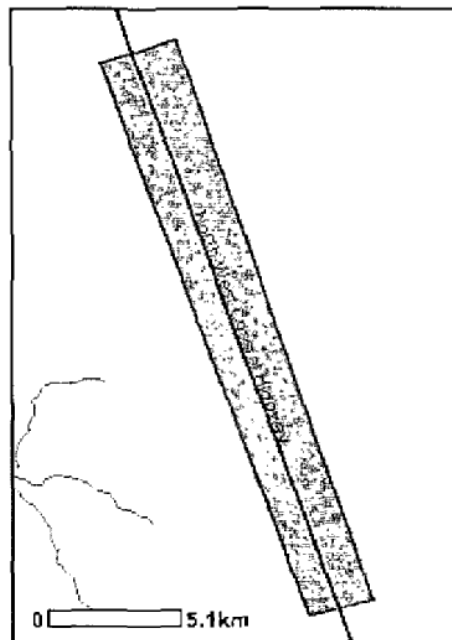
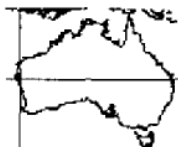
EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

You may wish to print this report for reference before moving to other pages or websites.

The Australian Natural Resources Atlas at <http://www.environment.gov.au/atlas> may provide further environmental information relevant to your selected area. Information about the EPBC Act including significance guidelines, forms and application process details can be found at <http://www.environment.gov.au/epbc/assessmentsapprovals/index.html>

Search Type: Area
Buffer: 0 km
Coordinates: -26.1385,114.3480, -26.1292,114.3774, -26.3413,114.4517, -26.347,114.4269



Report Contents: Summary
[Details](#)
• [Matters of NES](#)
• [Other matters protected by the EPBC Act](#)
• [Extra Information](#)
[Caveat](#)
[Acknowledgments](#)

This map may contain data which are
© Commonwealth of Australia
(Geoscience Australia)
© 2007 MapData Sciences Pty Ltd, PSMA

Summary

Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance - see <http://www.environment.gov.au/epbc/assessmentsapprovals/guidelines/index.html>.

World Heritage Properties: None

National Heritage Places:	None
Wetlands of International Significance: (Ramsar Sites)	None
Commonwealth Marine Areas:	None
Threatened Ecological Communities:	None
Threatened Species:	1
Migratory Species:	8

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place and the heritage values of a place on the Register of the National Estate. Information on the new heritage laws can be found at <http://www.environment.gov.au/heritage/index.html>.

Please note that the current dataset on Commonwealth land is not complete. Further information on Commonwealth land would need to be obtained from relevant sources including Commonwealth agencies, local agencies, and land tenure maps.

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species. Information on EPBC Act permit requirements and application forms can be found at <http://www.environment.gov.au/epbc/permits/index.html>.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Places on the RNE:	None
Listed Marine Species:	6
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have nominated.

State and Territory Reserves:	None
Other Commonwealth Reserves:	None
Regional Forest Agreements:	None

Details

Matters of National Environmental Significance

Threatened Species [Dataset Information]	Status	Type of Presence
--	--------	------------------

Birds

*Acanthiza lineata lineata**
Slender-billed Thornbill (western)

Migratory Species [Dataset Information]

Vulnerable Species or species habitat likely to occur within area

Status Type of Presence

Migratory Terrestrial Species

Birds

Haliaeetus leucogaster
White-bellied Sea-Eagle

Migratory Species or species habitat likely to occur within area

Merops ornatus *
Rainbow Bee-eater

Migratory Species or species habitat may occur within area

Migratory Wetland Species

Birds

Ardea alba
Great Egret, White Egret

Migratory Species or species habitat may occur within area

Ardea ibis
Cattle Egret

Migratory Species or species habitat may occur within area

Charadrius veredus
Oriental Plover, Oriental Dotterel

Migratory Species or species habitat may occur within area

Migratory Marine Birds

Apus pacificus
Fork-tailed Swift

Migratory Species or species habitat may occur within area

Ardea alba
Great Egret, White Egret

Migratory Species or species habitat may occur within area

Ardea ibis
Cattle Egret

Migratory Species or species habitat may occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species [Dataset Information]

Status Type of Presence

Birds

Apus pacificus
Fork-tailed Swift

Listed - overfly marine area Species or species habitat may occur within area

Ardea alba
Great Egret, White Egret

Listed - overfly marine area Species or species habitat may occur within area

Ardea ibis
Cattle Egret

Listed - overfly marine area Species or species habitat may occur within area

Charadrius veredus
Oriental Plover, Oriental Dotterel

Listed - overfly marine area Species or species habitat may occur within area

Haliaeetus leucogaster
White-bellied Sea-Eagle

Listed Species or species habitat likely to occur within area

Merops ornatus *
Rainbow Bee-eater

Listed - overfly marine area Species or species habitat may occur within area

Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the *Environment Protection and Biodiversity Conservation Act 1999*. It holds mapped locations of World Heritage and Register of National Estate properties, Wetlands of International Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

For species where the distributions are well known, maps are digitised from sources such as recovery plans and detailed habitat studies. Where appropriate, core breeding, foraging and roosting areas are indicated under "type of presence". For species whose distributions are less well known, point locations are collated from government wildlife authorities, museums, and non-government organisations; bioclimatic distribution models are generated and these validated by experts. In some cases, the distribution maps are based solely on expert knowledge.

Only selected species covered by the migratory and marine provisions of the Act have been mapped.

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites;
- seals which have only been mapped for breeding sites near the Australian continent.

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

Acknowledgments

This database has been compiled from a range of data sources. The Department acknowledges the following custodians who have contributed valuable data and advice:

- New South Wales National Parks and Wildlife Service
- Department of Sustainability and Environment, Victoria
- Department of Primary Industries, Water and Environment, Tasmania
- Department of Environment and Heritage, South Australia Planning SA
- Parks and Wildlife Commission of the Northern Territory
- Environmental Protection Agency, Queensland
- Birds Australia
- Australian Bird and Bat Banding Scheme

- Australian National Wildlife Collection
- Natural history museums of Australia
- Queensland Herbarium
- National Herbarium of NSW
- Royal Botanic Gardens and National Herbarium of Victoria
- Tasmanian Herbarium
- State Herbarium of South Australia
- Northern Territory Herbarium
- Western Australian Herbarium
- Australian National Herbarium, Atherton and Canberra
- University of New England
- Other groups and individuals

ANUCLIM Version 1.8, Centre for Resource and Environmental Studies, Australian National University was used extensively for the production of draft maps of species distribution. Environment Australia is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Last updated:

Department of the Environment and Water Resources
GPO Box 787 Canberra ACT 2601 Australia
Telephone: +61 (0)2 6274 1111

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Appendix G

Site Photos



Photograph 1: Proposed Fencing Line.
290 SLK North West Coastal Highway
Left Hand Side .North View



Photograph 2: Proposed Fencing Line
290 SLK North West Coastal Highway
Left Hand Side. South View



Photograph 3: Proposed Fencing Line
313.8 SLK North West Coastal Highway
Left Hand Side. North View



Photograph 4: Proposed Fencing Line
315 SLK North West Coastal Highway
Left Hand Side. South View

Appendix H

Vegetation Clearing Assessment Report

MRWA Vegetation Clearing Assessment Report

This report has been prepared to assist MRWA in addressing condition 7 "Assessment of Clearing Impacts" under Clearing Permit CPS 818/3.

For guidance on how to complete the form, refer to DEC completed reports (active permits) at http://203.20.251.100/cps_reports/.

AREA UNDER ASSESSMENT DETAILS

Proponent details

Proponent's name:

Main Roads Western Australia

Contacts:

Name: Matthew Oswald

Phone: 08 9941 0713

Fax: 08 9941 0701

Email: matthew.oswald@mainroads.wa.gov.au

Property details

Property:

Carbla Station – North West Coastal Highway

Colloquial name:

Area under assessment

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:	Site Plan Attached
12.315	0	Mechanical	Fence Construction	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

BACKGROUND

Existing environment and information

Description of the native vegetation under application

Vegetation Description

According to the Native Vegetation Association Data (DEC & DAF) the fencing works occurs within vegetation association 242 which is described as 'Succulent steppe with scrub; snakewood over saltbush' and vegetation association 243 which is described as "Shrublands; bowgada & minnieritchie scrub".

Clearing Description

The proposal includes clearing of vegetation for the purpose of fence construction. The proposed area is 12.315 hectares. The vegetation under application mainly consists of arid shrubland.

Vegetation Condition

Fairly Good but has been somewhat degraded due to cattle grazing

Comment

(suggestion: To determine Vegetation Condition use - Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.)

Site Visit Undertaken	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Fauna / Flora Survey Undertaken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Site Report Attached	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Fauna / Flora Survey Report Attached	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Site Photos Attached	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Other Relevant References Attached	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Vegetation Complex	Clearing Description	Vegetation Condition	Comment
662	Mechanical	Fair	

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 at variance to this Principle

The area under application predominantly consists of grasses and scattered shrubs. The condition of the vegetation is heavily degraded and does not represent a high level of biodiversity. This proposal is therefore not at variance with this Principle.

Methodology

Site visit (31/05/07)

GIS Databases:

- Interim Biogeographic Regionalisation of Australia – 12/06/07.

(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 at variance to this Principle

The area under application predominantly consists of grasses and a few scattered shrubs. The condition of the vegetation is somewhat degraded and does not represent a significant habitat for fauna. The EPBC Protected Matters Report found that the Slender-billed Thornbill is likely to occur within the area. Due to the small clearing footprint necessary for the fencing construction, habitat of the Thornbill will not be depleted. This proposal is therefore not at variance with this Principle.

Methodology Site visit (31/05/07)
DEC advice – 15/06/07

(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

DEC Threatened Flora Database search was conducted and *Acacia drepanophylla* was identified as occurring within the area. *Acacia drepanophylla*'s conservation category (as classified by the DEC) is *Priority 3*. Based upon a site visit with David Bauer (Consultant), this species was not identified with the works area, and is not expected to be impacted upon. It is therefore unlikely that the vegetation under application is necessary for rare flora. This proposal is therefore not at variance with this Principle.

Methodology Site visit (31/05/07)
GIS Databases:
- Declared Rare and Priority Flora list – DEC 15/06/07

(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 at variance to this Principle

There are no records of Threatened Ecological Communities (TEC'S) for the area under application. This proposal is therefore not at variance with this Principle.

Methodology GIS Databases:
- Threatened Ecological Communities – DEC 12/06/07

(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 representative of Beard Vegetation Associations 242 and 243 of which there is 100% of the pre-European extent remaining. This proposal is therefore not at variance with this Principle.

Methodology GIS Databases:
- Interim Biogeographic Regionalisation of Australia – 12/06/07
- Pre-European Vegetation

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments Proposal is not at variance to this Principle

The area under application does not consist of a watercourse or wetland .
This proposal is therefore not at variance with this Principle.

Methodology Site visit (31/05/07)
DEC's web based Geographic Data Atlas mapping tool
GIS Databases:
- Hydrography, linear
- Hydrographic Catchments – Catchments

(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 area under application consists of shallow calcareous loam sands. Given the small clearing footprint and that the vegetation consists mainly of grasses and scattered shrubs, the proposal is not at variance with this principle.

Methodology Site visit (31/05/07)
GIS Databases:
- Acid Sulphate Soil risk map
- NRM Website Soil mapping

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Comments **Proposal is not at variance to this Principle**

The proposed project is not near any conservation areas and therefore is not at variance with this Principle.

Methodology Site Visit (31/05/07)

DEC's web based Geographic Data Atlas mapping tool

(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 at variance to this Principle**

The area under application only receives approximately 300mm of annual rainfall. Due to the low rainfall rate, this proposal will not cause deterioration in the quality of surface or under ground water and therefore not a variance to this Principle.

Methodology Site Visit (31/05/07)

DEC's web based Geographic Data Atlas mapping tool

(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 at variance to this Principle**

The soil consists of shallow calcareous loams. In addition the area under application only receives approximately 300mm of annual rainfall. Due to the nature of the soil and the low rainfall rate, his proposal will not exacerbate the incidence of flooding and therefore is not at variance with this Principle.

Methodology Site Visit (31/05/07)

GIS Databases:

- Rainfall, Mean Annual – BOM 12/06/07

Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.

Comments

There is no further requirement for a RIWI Act Licence, Works Approval or EP Act Licence for the area under application.

Methodology

SUBMISSIONS

If required have submissions been requested and addressed

Submission Requested from	Request Sent (Date)	Submission Received (Date)	Issues Raised / Comments Made
---------------------------	---------------------	----------------------------	-------------------------------

ASSESSOR'S RECOMMENDATIONS

OFFICER PREPARING REPORT

Matthew Oswald (Graduate Environment Officer)
Gascoyne Regional Office MRWA
Phone 08 9941 0713

Date 14/06/07