PRELIMINARY ENVIRONMENTAL IMPACT ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PLAN (MINOR PROJECTS)
Minilya-Exmouth Road:
Passing Lanes (SLK 183.3 - 191.7, 202.1 - 204.4), Road Train Assembly Area and Materials Pit (SLK 205.1 - 206.1)

Prepared by Crystelle Evangelista (Environment Officer)
Gascoyne Region
August 2007

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1 INTRODUCTION

The Minilya-Exmouth Road (H048) provides connection between Coral Bay and Exmouth town site. The road primarily services pastoral, fishing and tourist industries as well as community access.

As a result of the commercial growth in this area, and expected increase in traffic volumes, it is now essential that the Minilya-Exmouth Road be improved. One of the major concerns is the narrow seals, limiting overtaking opportunities and increased risk of accidents occurring due to the interactions between higher speed passenger vehicles, and heavy, slower moving road trains and tourist traffic.

In addition, it should be noted that this road is a triple road train route. One of the major concerns is the increased heavy vehicle traffic into Exmouth. At present, as road trains are not permitted within the Exmouth town site without specialised permits, they are required to “break down” outside the town. Road trains are currently “breaking down” along the side of the road outside the town, causing potential conflict with other traffic users.

In order to minimise this risk, it is proposed to widen the seal along Minilya-Exmouth Road, at several locations to provide passing opportunities between Burkett road intersection and the Exmouth town site. It is also proposed to construct a Road Train Assembly Area outside the Exmouth town site, along Minilya-Exmouth Road, to provide a safe area for road trains to “break down”, and to remove the risk of possible conflict with other road users.

2 DESCRIPTION OF THE PROJECT

The Scope of this Project includes the widening of the road formation to accommodate passing lanes at different sections of Minilya-Exmouth Road, from Burkett Road intersection to the Exmouth town site. The Project will also include the construction of a sealed Road Train Assembly Area along Minilya-Exmouth Road, near the Exmouth town site. These works will be undertaken in order to provide a safer driving environment for the travelling public.

It is also proposes that clearing endorsement are obtained for a potential material pit site within an area adjacent to the Road Train Assembly Area. This proposed pit site will be part of a region wide strategic plan to identify material sites for future basecourse materials. The proposed material pit site is already vested to Main Roads through Section 19 approval.

2.1 Project Location

The location and boundaries of the study area are shown in Figures 1 - 4 and include the following features:

- Proposed passing lanes at SLK 183.3 -191.7 and 202.1 – 204.4
- Construction of a sealed Road Train Assembly Area at SLK 205.1-206.1
- Strategic material pit (under S19/291), along Minilya-Exmouth Road at SLK 205.1 - 206.1.

Figure 1: Passing Lane clearing area along Minilya-Exmouth Road, SLK 183.3 - 189

Figure 2: Passing Lane clearing area along Minilya-Exmouth Road, SLK 189 - 192

Figure 3: Passing Lane clearing area along Minilya-Exmouth Road, SLK 202.1 - 204.4

Figure 4: Road Train Assembly Area and Proposed Material Pit under Section 19/291 on Minilya-Exmouth Road, SLK 205.1 - 206.1

METHODOLOGY

3.1 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).

3.1.1 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) Geographic Data Atlas mapping tool and by an onsite visit.

3.1.2 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 C.

3.1.3 Air Quality

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

3.1.4 Heritage

Non-indigenous heritage was examined utilising the Australian Heritage Places Inventory (http://www.heritage.gov.au) and Heritage Council of Western Australia (http://register.heritage.wa.gov.au/), refer to Appendix D.

3.1.5 Aboriginal Heritage

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

3.1.6 Sensitive Water Resources

The Commonwealth Department of the Environment and Water (DEW) mapping tool and Department of Environment and Conservation (DEC) Geographical Data Atlas mapping tool was used to determine whether the project areas supported, or was adjacent to, any significant lakes, rivers or wetlands or proclaimed areas and was confirmed by an onsite visit.

3.1.7 Contaminated Sites

The reserve areas proposed for the Passing Lanes and Road Train Assembly Area have been in Main Roads continual control, therefore no further work will be necessary or required.

The proposed Materials Pit will be located in an area located adjacent to a waste disposal site, however, this area has been vested to Main Roads under a Section 19 approval for numerous years and would not have been exposed to any contaminated materials.

3.1.8 Acid Sulfate Soils

The Western Australian Planning Commission's (WAPC'c) 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 F.

3.1.9 Weeds
An onsite visit was undertaken to determine whether there are any known populations of declared plants or significant weeds in or adjacent to the project area.

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

3.1 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 G.

3.1 Site Investigation

A site visit was carried out by Matthew Oswald (Environment Officer) and Crystelle Evangelista (Environment Officer) on 21/08/07 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 B.

4 EXISTING ENVIRONMENT

4.1 Description

The Passing Lanes, Road Train Assembly Area and Material Pits all occur within Vegetation Association No. 663 which is described as "Hummock grasslands, shrub steppe; waterwood over soft spinifex". According to the Native Vegetation Association Data (DEC & DAF) this vegetation association is well represented in the region with 92.3% extent remaining. The condition of the vegetation is best described as good to excellent.

The following list of species was observed at the proposed projects areas:

Passing Lane 183.3 -191.7

Crotalaria cunninghamii
Santalum lanceolatum
Acacia victoriae
Acacia coriacea
Heliotropium spp.
Psoralea lachnostachys
Senna oligophylla
Scaevola spinescens
Stylobasium spathulatum
Enchylaena tomentosa
Ptilotus obovatus

Road Train Assembly Area and Section 19

Acacia pyrifolia
Eucalyptus spp.
Leptosema aphyllum
Scaevola pulchella
Indigofera rugosa
Acacia trachycarpa
Lepidium leptopetalum
Ptilotus polystachyus
Ptilotus macrocephalus
Acacia bivenosa

Acacia tetragonophylla
Alectryon oleifolius
Senna glutinosa
Senna oligophylla
Solanum diversiflorum
Acacia victoriae
Scaevola spinescens
Acacia linophylla
Ptilotus exaltatus
Acacia Startii
Erodium crinitum
Eremophila forrestii
Eremophila pterocarpa

Passing Lane SLK 202.1- 204.4
Swainsona maccullochiana
Stylobasium spathulatum
Eremophila freelingii
Atriplex bunburyana
Exocarpos aphyllum
Maireana tomentosa
Maireana polypterygia

4.2 Site Investigation

Site Investigation	**Description/Comment**
Total area (ha) of native vegetation to be cleared	Passing Lane 183.3 - 191.75 = 0.85 ha Passing lane 202.1-204.4 = 0.85 ha RTAA = 0.3 ha Material Pit (Section 19/291) = N/A
Total area (ha) of other vegetation, including regrowth, landscape areas, to be cleared	N/A
Weeds present	Buffel grass
Drainage areas or wetlands present	None
Adjacent land uses	Pastoral and Waste Disposal Site

5 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.

5.1 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 H.

The project is not likely to be at variance with the DEC's 10 clearing principles.

5.2 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?	Yes	According to DEC's shapefiles the project areas are located within an ESA. Consultation with DEC officers (Exmouth) suggested that the area is not within a national park and along with adjacent land uses (including waste disposal site, residential, food processing centres and light commercial air strip) suggest that the projects would not be at variance to the clearing principles. The project areas are located within the Cape Range Geological Site that is listed on the Register of National Estate. However the proposed project will not impact on the geology of the Cape Range and any soil strata that are important to the site.

6 ASSESSMENT OF ASPECTS AND IMPACTS

Table 1: Aspects and Impacts – Minilya-Exmouth Road: Passing Lanes, Road Train Assembly Area and Materials Pit

Aspect	Evaluation of Potential Impacts
Air quality	Not relevant to the proposed works. Local air quality assessment is not required for the project since: • the predicted traffic flow is less than 10,000 vehicles per day (in urban areas) or 15,000 vehicles per day in rural areas: and; • residential and other sensitive receptors are not within 200 meters of the road centre.
Dust	Likely to be a minor issue during earthworks. No major sensitive receivers adjacent to the proposed works.
Fauna	No significant fauna issues associated with any of the proposed upgrade works. DEC website search resulted in the Black-flanked Rock-Wallaby, Atlantic Yellow-nosed Albatross and Eastern Cape Range Bamazomus as possibly occurring within the project area. The proposed project areas however do not cover the habitat areas for these species. The database search also identified the following species as occurring in the project area: *Lerista allochira*, Australian Bustard, Star Finch (western) and Cape Range Draculoides. Given the small area of clearing and the mobile nature of the species, no impacts are expected No Matters of National Environmental Significance as protected under EPBC Act (1999) will be impacted.
Vegetation – clearing	• 2 ha of native vegetation will be cleared. • The condition of the native vegetation to be cleared is Very Good to Excellent • The native vegetation will be cleared is well represented regionally (i.e. it possesses more than 30% of its pre-European extent). • The native vegetation to be cleared does occur within an ESA. • The native vegetation to be cleared will be done so using the purpose permit. • The strategic material pit will involve temporary clearing and so will require revegetation. A revegetation plan will need to be submitted to DEC at the time of clearing.
Vegetation – TECs/DRF	Consultation with DEC confirms that the proposal is not going to have a significant impact upon any DRF or TECs. No Matters of National Environmental Significance as protected under EPBC Act (1999) will be impacted.
Vegetation – weeds	The only weed species observed throughout the project area was *Cenchrus ciliaris* (Buffel Grass) which is now widespread throughout the northern regions.
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	The Cape Range National Park occurs on the Western Side of the project areas but works will not impact on these reserves.
Heritage (non-indigenous)	A search of the Australian Heritage Places Inventory and Heritage Council of Western Australia on-line databases has indicated that there are no heritage significance listed sites present in the currently proposed works areas. The Cape Range Geological Site is listed on the Register of National Estate. The proposed works will not impact on the geology of the Cape Range and any soil strata that are important to the site.

Table 1: Aspects and Impacts – Minilya-Exmouth Road: Passing Lanes, Road Train Assembly Area and Materials Pit

Aspect	Evaluation of Potential Impacts
Aboriginal heritage	A search of DIA database identified no known sites of Aboriginal heritage significance within the vicinity of the project area. Consultation with DIA has confirmed that no further investigations are required for all aspects of the project. Aboriginal Heritage Surveys also confirmed that no matters relating to the sites will be impacted.
Surface water/drainage	On-site visit confirmed that 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 near the project area
Visual amenity	The proposed works will result in minor and short-term visual impacts during construction.
Public safety and risk	Provided traffic management and signage to Main Roads standards is employed, none of the proposed works present any significant hazards to public safety. The proposed works will serve to enhance public safety by improving local road and pedestrian conditions.
Hazardous substances	Not relevant to the proposed works.
Contamination	The proposed Passing Lanes are within the road reserve and no known previous land use activities on or adjacent to the project area have had the potential to create contamination. The proposed strategic material pit is located adjacent to a waste disposal site; however this area has been vested to Main Roads under a Section 19 approval for more then ten years and would not have been exposed to any contaminated materials.
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	The proposed passing lanes and RTAA are entirely within the existing road reserve, no further amendments would be required to the Local Government Planning Scheme or Region Scheme. The Material pit is currently vested with the Commissioner of Main Roads WA under Section 19/291.

7 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.

8 STAKEHOLDER CONSULTATION

Name	Agency	Date	Comments
Ben Lullfitz (Flora)	DEC	23/08/07	
Ross Gordon (Fauna)	DEC	24/08/07	
John Stretch	Dept. of Ag.	27/08/07	
Jeanette Cirby	DEC (Exmouth)	21/08/07	

9 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.

9.1 Communication Plan

Environmental issues specific to the project will be communicated as:

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

9.1.1 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.

10 MONITORING

After project completion, revegetated areas will be inspected every six months for the first two years to ensure weed spread or establishment has not occurred and to measure the effectiveness of revegetation works.

Monitoring of the weeds identified in the project area will comprise the use of input criteria listed below.

Criterion	Target	After three months	After one year	After three years
Mean weed foliage cover (%).	<20	<20	<20	<20

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

Mitchelle, 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.

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: • 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
			Revegetation and rehabilitation of areas: • a copy of each Revegetation Plan; • a map showing the location of any area revegetated and rehabilitated recorded in an ESRI Shapefile; • a description of the revegetation and rehabilitation activities undertaken; and • the size of the area revegetated and rehabilitated (in hectares).	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
			Control/spray weeds species within the project area prior to construction to limit the amount of propagative material that may be spread during disturbance.	Contractor	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
			Where it is found that trucks leaving the site are carrying excessive material onto sealed surfaces, these areas will be swept to reduce dust generation and maintain traffic safety.	Contractor	Main Roads
Construction	Pollution and Litter	Ensure that the construction of the proposal is managed to a standard that minimises any adverse impacts on the environment.	The designated servicing area will be bunded to contain any spills or leaks and shall not be located in an area adjacent to any drainage areas or watercourses or will drain into a temporary sump.	Contractor	Main Roads

ENVIRONMENTAL MANAGEMENT PLAN					
Timing	**Topic**	**Objective**	**Action**	**Responsible Party**	**Advice**
			Emergency cleanup procedures shall be implemented in the case of any spillage. These will include control of spilled material and removal of contaminated soil to an approved site. The contractor shall ensure appropriate equipment is available at all times and shall notify the Superintendent's Representative of a spill.	Contractor	Main Roads
			All waste oil will be collected for recycling and any empty fuel/oil containers, used filters and waste hydraulic parts to be collected and stored in an allocated area then removed to an approved site.	Contractor	Main Roads
			Dumping or temporary storage of bitumen, asphalt, concrete or aggregate should only occur at designated depots or controlled hardstands.	Contractor	Main Roads
			The project areas, including hardstand areas, will be kept in a tidy manner at all times.	Contractor	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
Post-Construction	Rehabilitation	Leave the project area free from debris; and Rehabilitate the project area so that the revegetated area provides a net increase in area of native vegetation at the site.	Replace the cleared trees with locally occurring natives.	Contractor	Main Roads
			All waste materials from the development are to be completely removed from the site upon completion of the development. Final clean-up shall be to the satisfaction of the Project Manager and the Site Superintendent.	Contractor	Main Roads

Appendix A

Low Impact Environmental Screening Checklist

Form No. 6707/001/01

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: Minilya-Exmouth Road Passing Lane 183.3 – 191.7

ITEM NO.	ITEM	Y	N
1	New road or road reserve to be created or expansion of existing road reserve.		✓
2	Works require clearing of native vegetation outside the maintenance zone.	✓	
3	Works require clearing of native vegetation that is older than 10 years old within the maintenance zone.	✓	
4	Works to occur outside normal working hours.		✓
5	Passes over, adjoins or drains directly into a wetland or sensitive watercourse.		✓
6	Local natural drainage regime / hydrology will be changed.		✓
7	Dewatering, or a new water bore required.		✓
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)		✓
9	Buildings will require demolition.		✓

Completed By: *Signature* [signature] *Date* 27.8.07.
Name P.G. Wards. *Title* PM

To be reviewed by a Main Roads Environment Officer *Signature* [signature] *Date* 27.8.07
Name Crystelle Evangelista *Title* Environment officer

Comments: _____

MAIN ROADS Western Australia
Form 670700101 Screening Checklist Rev 3.doc 30/05/07

Form No. 6707/001/01

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: Minilya-Exmouth Road Passing Lane SLK 202.1 – 204.4

ITEM NO.	ITEM	Y	N
1	New road or road reserve to be created or expansion of existing road reserve.		✓
2	Works require clearing of native vegetation outside the maintenance zone.	✓	
3	Works require clearing of native vegetation that is older than 10 years old within the maintenance zone.	✓	
4	Works to occur outside normal working hours.		✓
5	Passes over, adjoins or drains directly into a wetland or sensitive watercourse.		✓
6	Local natural drainage regime / hydrology will be changed.		✓
7	Dewatering, or a new water bore required.		✓
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)		✓
9	Buildings will require demolition.		✓

Completed By: *Signature* _____ *Date* 27.8.07.
Name P.G. WARD. *Title* PM.

To be reviewed by a Main Roads Environment Officer: *Signature* _____ *Date* 27.8.07
Name Crystelle Evangelista *Title* Environment officer

Comments: _____

MAIN ROADS Western Australia
Form 670700101 Screening Checklist Rev 3.doc 30/05/07

Form No. 6707/001/01

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.

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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: Minilya-Exmouth Road Train Assembly Area and Section 19

ITEM NO.	ITEM	Y	N
1	New road or road reserve to be created or expansion of existing road reserve.		✓
2	Works require clearing of native vegetation outside the maintenance zone.	✓	
3	Works require clearing of native vegetation that is older than 10 years old within the maintenance zone.	✓	
4	Works to occur outside normal working hours.		✓
5	Passes over, adjoins or drains directly into a wetland or sensitive watercourse.		✓
6	Local natural drainage regime / hydrology will be changed.		✓
7	Dewatering, or a new water bore required.		✓
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)	✓	
9	Buildings will require demolition.		✓

Completed By:
Signature _____ *Date* 27.8.07.
Name R.G. WARD. *Title* PM.

To be reviewed by a Main Roads Environment Officer
Signature _____ *Date* 27.8.07
Name Estelle Evangelista *Title* Environment officer

Comments: _____

MAIN ROADS Western Australia
Form 670700101 Screening Checklist Rev 3.doc 30/05/07

Appendix B

Site Photographs

Photography 1: Proposed Passing Lane – Minilya-Exmouth Road – North View LHS - SLK 183.3

Photography 2: Proposed Passing Lane – Minilya-Exmouth Road –South View RHS - SLK 183.3

Photography 3: Proposed Passing Lane – Minilya-Exmouth Road –South View RHS - SLK 192

Photography 4: Proposed Passing Lane – Minilya-Exmouth Road – North View RHS - SLK 202.10 - 204.10

Photography 5: Proposed Passing Lane – Minilya-Exmouth Road – North View RHS - SLK 202.10 - 204.10

Photography 6: Proposed RTAA– Minilya-Exmouth Road – North View LHS - SLK 205.1

Photography 7: Proposed RTAA– Minilya-Exmouth Road – North View LHS - SLK 205.1

Photography 8: Proposed RTAA– Minilya-Exmouth Road – South View LHS - SLK 206.1

Photography 9: Proposed Mineral Pit (Section 19) – Minilya-Exmouth Road – South View LHS - SLK 205.1 - 206.1

Photography 10: Proposed Mineral Pit (Section 19) – Minilya-Exmouth Road – South View LHS - SLK 205.1 - 206.1

Appendix C

DEC's Threatened Flora and Fauna Database Searches

EVANGELISTA Crystelle (GEnv)

From: Lullfitz, Ben [Ben.Lullfitz@dec.wa.gov.au]
Sent: Thursday, 23 August 2007 2:33 PM
To: EVANGELISTA Crystelle (GEnv)
Subject: RE: Flora Search Request
Attachments: Minilya-ExmouthRd_waherb_230807.doc; Minilya-ExmouthRd_letter_230807.doc; Minilya-ExmouthRd_drf&plist_230807.doc

Hi Crystelle

Please find attached the results from the WA Herbarium database and Declared Rare and Priority Flora List for the search you requested along the Minilya-Exmouth Road. Please note, there were no results from DEC's Threatened (Declared Rare) Flora database.

Please refer to the attached letter for the conditions in relation to the supplied data.

Regards

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: EVANGELISTA Crystelle (GEnv) [mailto:crystelle.evangelista@mainroads.wa.gov.au]
Sent: Thursday, 23 August 2007 11:50 AM
To: Lullfitz, Ben
Subject: Flora Search Request

Hi Ben,

Main Roads Gascoyne Region is proposing to undertake the construction of passing lanes, a road train assembly area and a materials pit along Minilya-Exmouth Road.

I wish to request a threatened flora search be conducted for the following pit (all co-ordinated are given in GDA94 50K):

Passing lane 1
SW CORNER
0200515
7539922

NW CORNER
0198739
7548565

NE CORNER
0198925
7548475

SE CORNER
0200707
7539930

Passing Lane 2
SW CORNER
0201415
7558205

27/08/2007

NW CORNER
0201354
7560435

NE CORNER
0201595
7560453

SE CORNER
0201618
7558108

Road Train Assembly Area and Material Pit
SW CORNER
0200469
7561422

NW CORNER
0201073
7562341

NE CORNER
0201797
7562127

SE CORNER
0201395
7560893

Results of the search will be placed into a Preliminary Environmental Impact Assessment.

Thankyou for your assistance.

Regards,
Crystelle Evangelista
Graduate Environment (GEnv)
Environment Branch
mainroads
WESTERN AUSTRALIA
Ph: (08) 9323 4455 | Fax: (08) 9323 4547 | crystelle.evangelista@mainroads.wa.gov.au

27/08/2007

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT
DECLARED RARE AND PRIORITY FLORA LIST
21 December 2006

SPECIES / TAXON	CONS CODE	CALM REGION	DISTRIBUTION	FLOWER PERIOD
Abutilon sp. Cape Range (AS George 1312)	2	P	Cape Range, Yardie Creek, Learmonth	
Abutilon sp. Quobba (H Demarz 3858)	2	MW,P	Quobba, Cape Range, Minilya	Jul-Oct
Acacia alexandri	3	P	Cape Range, Exmouth	Jun-Sep
Acacia startii	3	MW,P	Cape Range, Rough Range, Minilya River, Bullara Station	Jul-Aug
Acanthocarpus rupestris	2	P	Cape Range	May-Jun
Brachychiton obtusilobus	4	P	Cape Range	Aug-Sep
Corchorus congener	3	P	Exmouth, Ningaloo Station, Barrow Is.	Apr-Oct
Crinum flaccidum	2	MW,P,*	Yardie Creek, Minilya, Cape Range, Eastern States	May
Daviesia pleurophylla	2	P	Cape Range	Sep-Oct
Eremophila occidens ms	2	P,MW	Cape Range, Kalbarri	-
Eremophila youngii subsp. lepidota ms	4	P,MW	S Cape Range, Roy Hill, N Mt Vernon, Paraburdoo, Muggon Stn	Mar,Jun
Grevillea calcicola	3	P	Cape Range, Learmonth, Yardie Creek Stn	Aug,Sep
Harnieria kempeana subsp. rhadinophylla	2	P	Cape Range	May-Sep
Livistona alfredii	4	P	Millstream, Cave Creek, Cape Range	Nov-Dec
Stackhousia umbellata	3	P	Cape Range	May-Aug
Tinospora esiangkara ms	2	P,*	Cape Range, NT, Qld	Aug-Sep
Verticordia serotina	2	P	Cape Range N.P.	Sep

EVANGELISTA Crystelle (GEnv)

From: EVANGELISTA Crystelle (GEnv)
Sent: Monday, 27 August 2007 9:41 AM
To: EVANGELISTA Crystelle (GEnv)
Subject: RE: Fauna Search Request

From: Gordon, Ross [mailto:Ross.Gordon@dec.wa.gov.au]
Sent: Friday, 24 August 2007 1:44 PM
To: EVANGELISTA Crystelle (GEnv)
Subject: Minilya-Exmouth Rd Threatened Fauna search

Hi Crystelle,

The results of your requested search in the vicinity of the proposed passing lanes, road train assembly area and materials pit along Minilya – Exmouth Rd (plus ~5km) is attached.

Let me know if you have any questions about the supplied information.

Cheers,
Ross

From: EVANGELISTA Crystelle (GEnv)
Sent: Thursday, 23 August 2007 11:56 AM
To: 'ross.gordon@dec.wa.gov.au'
Subject: Fauna Search Request

Hi Ross,

Main Roads Gascoyne Region is proposing to undertake the construction of passing lanes, a road train assembly area and a materials pit along Minilya-Exmouth Road.

I wish to request a threatened fauna search be conducted for the following pit (all co-ordinated are given in GDA94 50K):

Passing lane 1
SW CORNER
0200515
7539922

NW CORNER
0198739
7548565

NE CORNER
0198925
7548475

SE CORNER
0200707
7539930

Passing Lane 2
SW CORNER
0201415
7558205

NW CORNER
0201354

27/08/2007

21.972 °S 114.0294 °E / 22.2664 °S 114.1599 °E Minilya - Exmouth Rd (plus~5km buffer)

*	Date	Certainty	Seen	Location Name	Method

Schedule 1: - Fauna that is rare or is likely to become extinct

Petrogale lateralis lateralis **Black-flanked Rock-wallaby (Warru)** *3 records*

This species thrives in steep, complex rocky habitats providing tunnels, caves and crevices for shelter and protection from predators.

	1999	1	1	Learmonth	Day sighting
	2000	2	0	Learmonth	Scats
	2001	2	0	Learmonth	Scats

Thalassarche chlororhynchos **Atlantic Yellow-nosed Albatross** *1 records*

This species is an occasional visitor to the WA coast. It breeds on islands in the southern Indian and Atlantic oceans.

	2004	1	1	Exmouth	Day sighting

Bamazomus subsolanus **Eastern Cape Range Bamazomus** *11 records*

	1996	1	2	
	1996	1	1	
	1996	1	1	
	1996	1	1	
	1998	1	2	
	1998	1	2	
	1998	1	1	
	1998	1	1	
	1998	1	1	
	1998	1	3	
	1998	1	1	

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

Lerista allochira **Lerista allochira** *2 records*

	2000	1		Learmonth	Caught or trapped
	2000	1		Learmonth	Caught or trapped

Priority Four: Taxa in need of monitoring

Ardeotis australis **Australian Bustard** *2 records*

This species is uncommon and may occur in open or lightly wooded grasslands.

	2000	1		Learmonth	Day sighting
	2000	1		Learmonth	

Neochima ruficauda subclarescens **Star Finch (western)** *1 records*

A nomadic species inhabiting grasslands and eucalypt woodlands near water.

	2000	1		Learmonth	Day sighting

Draculoides vinei **Cape Range Draculoides** *2 records*

Friday, 24 August 2007

Department of Environment and Conservation

Appendix D

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

AUSTRALIAN HERITAGE PLACES INVENTORY

[New Search]

No records matched your query.

Report produced : 23/8/2007
AHPI URL : http://www.heritage.gov.au/ahpi/search.html

HERITAGE COUNCIL OF WESTERN AUSTRALIA

HERITAGE COUNCIL | PLACES DATABASE | HERITAGE TRAILS HELP | ME

ABOUT | REGISTRATION | DEVELOPMENT | INSURANCE | ASSISTANCE | PUBLICATIONS | CASE STUDIES | EDUCATIOI

PLACES DATABASE ACTIONS:

- QUICK SEARCH
- ADVANCED SEARCH
- RESULTS LIST
- LOCATION REPORT
- SAVE DATA

OTHER REGISTER INFORMATION:

- WHAT IS THE STATE REGISTER?
- OTHER HERITAGE LISTS

There are no Places matching your search criteria.

If you'd like to perform a new search, please select a new Places database side.

Australian Heritage Database

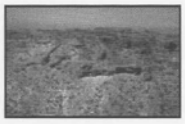
Place Details

edit search | new search | about the Australian Heritage Database | Heritage home | Australian Heritage Council home

Send Feedback

Cape Range Geological Site, Learmonth, WA, Australia

Photographs:



List: Register of the National Estate
Class: Natural
Legal Status: Registered (21/03/1978)
Place ID: 18864
Place File No: 5/14/192/0007
Nominator's Statement of Significance:
Cape Range Geological Site should be included in the Register because: 1) the site displays the geology of the Cape Range Group and younger strata which are important for the study of the Exmouth sub-basin of the Carnarvon Basin; 2) the area includes raised marine terraces which show warping due to late tectonic, possibly continuing to the present day; 3) the area is an important site for geological research; 4) the area includes two geological type sections; 5) there is spectacular scenery developed in the area, including gorges, natural bridges, caves and windows.
Official Values: Not Available
Description:
The area selected forms part of the Cape Range Anticline, a major geological structure in the Exmouth sub-basin of the Carnarvon Basin. Outcropping strata include rocks ranging from Oligocene to Holocene in age. These are mainly limestones and sandstones, and form spectacular rugged landscapes with natural rock arches, windows and canyons. The area includes the type sections of the Mandu and Tulki Limestones and the western coastal section features four marine terraces of Pleistocene age. Warping of the terraces may be evidence that structural disturbance is still taking place. The area was the site of extensive oil exploration in WA.
History: Not Available
Condition and Integrity: Not Available
Location:

About 12,000ha, 20km north west of Learmonth, comprising an area enclosed by a line commencing at the intersection of the coastline at Mean High Water Mark and AMG northing 49KHR7561000mN; then via straight lines joining the latter point and the following points consecutivley AMG point 50KJA192850mE 7561000mN; 193000mE 7554500mN; 196000mE 7554500mN; then southerly by a straight line to the intersection of Charles Knife Road with AMG easting 196000mE; then westerly along that road to its intersection with AMG easting 193000mE; then via straight lines joining the latter point and the following AMG points consecutivley 193000mE 7550400mN; 49KHR809100mE 7550400mN; 809100mE 7550000mN; then directly west to the intersection of the Mean

Appendix E

Department of Indigenous Affairs Database Search

Department of Indigenous Affairs
Government of Western Australia

Aboriginal Heritage Inquiry System

Register of Aboriginal Sites

DEPARTMENT OF INDIGENOUS AFFAIRS

Search Criteria

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

MGA Zone 50	
Northing	Easting
7541057	195092
7560468	200526

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

Legend

Restriction		Access		Status	
N	No restriction	C	Closed	I	Interim register
M	Male access only	O	Open	P	Permanent register
F	Female access	V	Vulnerable	S	Stored data

Coordinate Accuracy

Accuracy is shown as a code in brackets following the site coordinates.

[Reliable]	The spatial information recorded in the site file is deemed to be reliable, due to methods of capture.
[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.

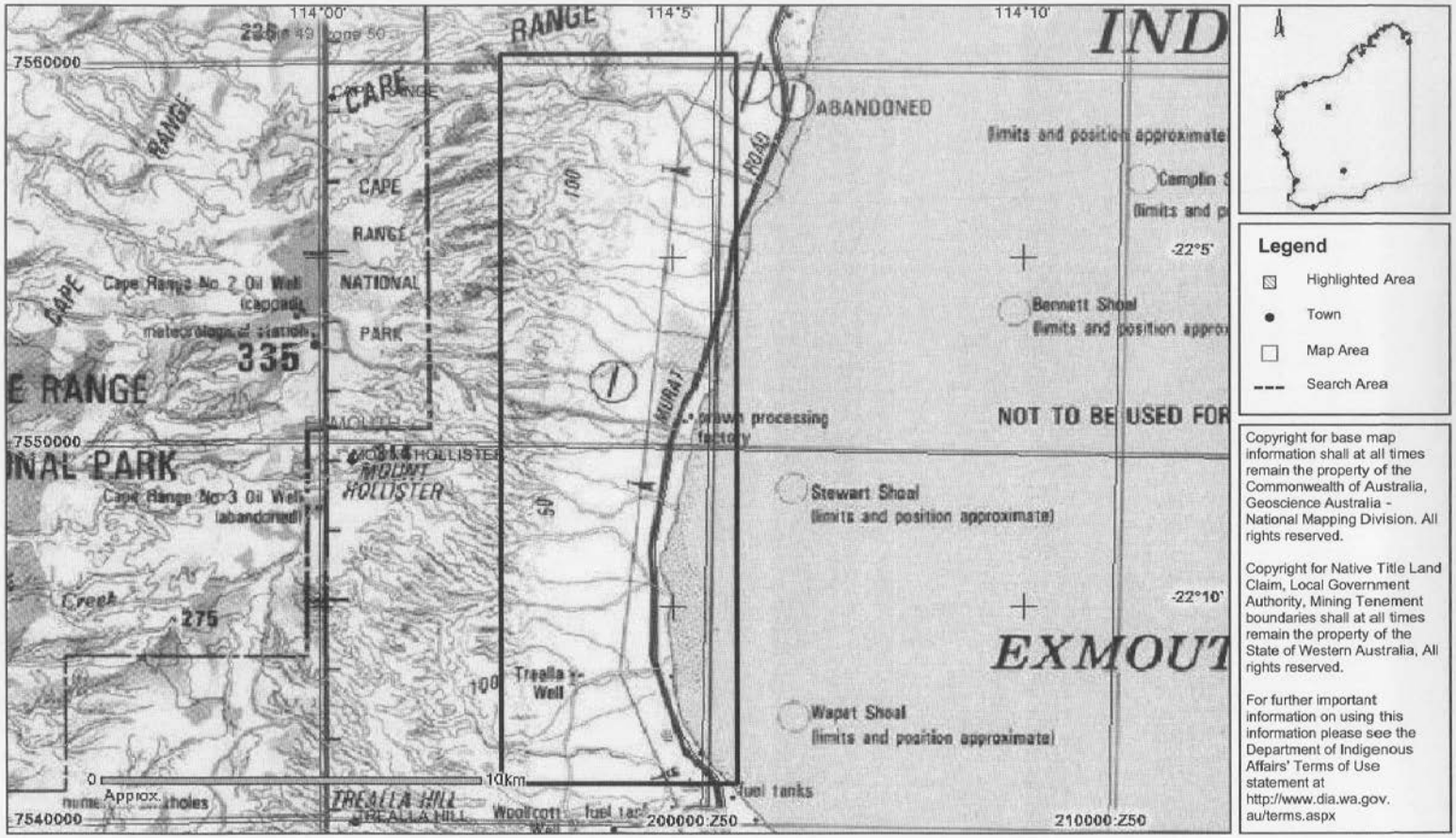
Spatial Accuracy

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.

Department of Indigenous Affairs
Government of Western Australia

Aboriginal Heritage Inquiry System

Register of Aboriginal Sites



Legend

- Highlighted Area
- Town
- Map Area
- Search Area

mainroads
WESTERN AUSTRALIA

MAIN ROADS ABORIGINAL SITE CONSULTATION SHEET

MRWA Project: PASSING LANES - MIN/EX RD - 183.33 TO 191.76 & 202.10 TO 204.49 (BOTH SIDES OF ROAD - 100M FROM CENTRE-LINE) R.T.A.A - MIN/EX RD - 205 TO 206 & S19/291

Consultation Details:		
	Venue:	MINILYA - EXMOUTH RD
	Time:	0800 ~
	Aboriginal Group Name:	GNULLI

Name of Group Member	Signature of Group Member	Date
BEN ROBERTS		15/8/07
KARINA ROBERTS		15/8/07
NATHAN CLINCH ~~DALE~~	N. Clinch	15/8/07
MARIKA DALE	Marika Dale.	15/8/07

Main Roads has consulted with the above members of the Gnulli group with regards to PASSING LANES, R.T.A.A AND SECTION 19/291

Main Roads' Officer (s), _____ was/were onsite during the consultation to explain the nature of the works and describe the impacts these works will have.

The group then made the following comments/recommendations:

No sites of significance found.

Approval to proceed with the works granted.

MAIN ROADS Western Australia
\\Carsrv01\public\Environment\Aboriginal Heritage\Main Roads Aboriginal Consulatation Sheet.doc

Appendix F

WAPC's Acid Sulfate Soils Mapping

Acid Sulfate Soils
Applicant Self-Assessment Form

Western Australian Planning Commission 50 years

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	Crystelle Evangelista		
Applicant signature		Date	27/08/07
Application property details	Minilya-Exmouth Road - Passing Lanes SLK 183-191.1, 202-204, Road Train Assembly Area and Material Pit SLK 205.1-206.1		

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 $\leq$ 5m AHD and is excavation of $\geq$ 100m^3 of soil (ie 10 standard dump truck loads) with an excavation depth of $\geq$ 2m proposed? ☐ yes ☐ no

Question 5: Is the surface elevation > 5m AHD and is excavation of $\geq$ 100m^3 of soil (ie 10 standard dump truck loads) with an excavation depth of $\geq$ 2m 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.

PTO for information on submissions
Version: 2.1 (October 2006)

Appendix G

Department of the Environment and Heritage Database Search

Australian Government
Department of the Environment and Water Resources

Protected Matters Search Tool

You are here: Environment Home > EPBC Act > Search

27 August 2007 16:17

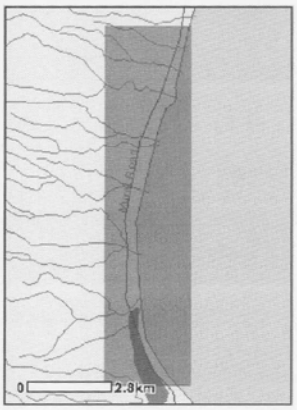
EPBC Act Protected Matters Report

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: -22.08891,114.07146, -22.20678,114.07146, -22.20678,114.09879, -22.0889,114.09879



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

Report Contents:

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:	11
Migratory Species:	25

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:	2
Commonwealth Heritage Places:	None
Places on the RNE:	2
Listed Marine Species:	51
Whales and Other Cetaceans:	13
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		
Macronectes giganteus * Southern Giant-Petrel	Endangered	Species or species habitat may occur within area
Mammals		
Balaenoptera musculus * Blue Whale	Endangered	Species or species habitat may occur within area
Dasycercus cristicauda * Mulgara	Vulnerable	Species or species habitat likely to occur within area
Eubalaena australis * Southern Right Whale	Endangered	Species or species habitat may occur within area
Megaptera novaeangliae * Humpback Whale	Vulnerable	Congregation or aggregation known to occur within area
*Petrogale lateralis lateralis** Black-flanked Rock-wallaby	Vulnerable	Species or species habitat likely to occur within area
Reptiles		
Caretta caretta * Loggerhead Turtle	Endangered	Species or species habitat may occur within area
Chelonia mydas * Green Turtle	Vulnerable	Breeding known to occur within area
Dermochelys coriacea * Leathery Turtle, Leatherback Turtle, Luth	Vulnerable	Species or species habitat may occur within area
Eretmochelys imbricata * Hawksbill Turtle	Vulnerable	Species or species habitat may occur within area
Sharks		
Rhincodon typus * Whale Shark	Vulnerable	Species or species habitat may occur within area
Migratory Species [Dataset Information]	Status	Type of Presence
Migratory Terrestrial Species		
Birds		
Haliaeetus leucogaster	Migratory	Species or species habitat likely to

White-bellied Sea-Eagle		occur within area
Hirundo rustica Barn Swallow	Migratory	Species or species habitat may 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
Glareola maldivarum Oriental Pratincole	Migratory	Species or species habitat may occur within area
Numenius minutus Little Curlew, Little Whimbrel	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
Macronectes giganteus Southern Giant-Petrel	Migratory	Species or species habitat may occur within area
Migratory Marine Species		
Mammals		
Balaenoptera edeni Bryde's Whale	Migratory	Species or species habitat may occur within area
Balaenoptera musculus * Blue Whale	Migratory	Species or species habitat may occur within area
Dugong dugon Dugong	Migratory	Species or species habitat likely to occur within area
Eubalaena australis * Southern Right Whale	Migratory	Species or species habitat may occur within area
Megaptera novaeangliae * Humpback Whale	Migratory	Congregation or aggregation known to occur within area
Orcinus orca Killer Whale, Orca	Migratory	Species or species habitat may occur within area
Sousa chinensis Indo-Pacific Humpback Dolphin	Migratory	Species or species habitat may occur within area
Tursiops aduncus (Arafura/Timor Sea populations) Spotted Bottlenose Dolphin (Arafura/Timor Sea populations)	Migratory	Species or species habitat likely to occur within area

Reptiles		
Caretta caretta * Loggerhead Turtle	Migratory	Species or species habitat may occur within area
Chelonia mydas * Green Turtle	Migratory	Breeding known to occur within area
Dermochelys coriacea * Leathery Turtle, Leatherback Turtle, Luth	Migratory	Species or species habitat may occur within area
Eretmochelys imbricata * Hawksbill Turtle	Migratory	Species or species habitat may occur within area
Sharks		
Rhincodon typus Whale Shark	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
Glareola maldivarum Oriental Pratincole	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
Hirundo rustica Barn Swallow	Listed - overfly marine area	Species or species habitat may occur within area
Macronectes giganteus Southern Giant-Petrel	Listed	Species or species habitat may occur within area
Merops ornatus * Rainbow Bee-eater	Listed - overfly marine area	Species or species habitat may occur within area
Numenius minutus Little Curlew, Little Whimbrel	Listed - overfly	Species or species habitat may occur within area

	marine area	
Mammals		
Dugong dugon Dugong	Listed	Species or species habitat likely to occur within area
Ray-finned fishes		
Bulbonaricus brauni Braun's Pughead Pipefish, Pug-headed Pipefish	Listed	Species or species habitat may occur within area
Campichthys tricarinatus Three-keel Pipefish	Listed	Species or species habitat may occur within area
Choeroichthys brachysoma Pacific Short-bodied Pipefish, Short-bodied Pipefish	Listed	Species or species habitat may occur within area
Choeroichthys suillus Pig-snouted Pipefish	Listed	Species or species habitat may occur within area
Doryrhamphus janssi Cleaner Pipefish, Janss' Pipefish	Listed	Species or species habitat may occur within area
Doryrhamphus negrosensis Flagtail Pipefish, Negros Pipefish	Listed	Species or species habitat may occur within area
Festucalex scalaris Ladder Pipefish	Listed	Species or species habitat may occur within area
Filicampus tigris Tiger Pipefish	Listed	Species or species habitat may occur within area
Halicampus brocki Brock's Pipefish	Listed	Species or species habitat may occur within area
Halicampus grayi Mud Pipefish, Gray's Pipefish	Listed	Species or species habitat may occur within area
Halicampus nitidus Glittering Pipefish	Listed	Species or species habitat may occur within area
Halicampus spinirostris Spiny-snout Pipefish	Listed	Species or species habitat may occur within area
Haliichthys taeniophorus Ribboned Seadragon, Ribboned Pipefish	Listed	Species or species habitat may occur within area
Hippichthys penicillus Beady Pipefish, Steep-nosed Pipefish	Listed	Species or species habitat may occur within area
Hippocampus angustus Western Spiny Seahorse, Narrow-bellied Seahorse	Listed	Species or species habitat may occur within area
Hippocampus histrix Spiny Seahorse	Listed	Species or species habitat may occur within area
Hippocampus kuda Spotted Seahorse, Yellow Seahorse	Listed	Species or species habitat may occur within area
Hippocampus planifrons Flat-face Seahorse	Listed	Species or species habitat may occur within area
Micrognathus micronotopterus Tidepool Pipefish	Listed	Species or species habitat may occur within area

Solegnathus hardwickii Pipehorse	Listed	Species or species habitat may occur within area
Solegnathus lettiensis Indonesian Pipefish, Gunther's Pipehorse	Listed	Species or species habitat may occur within area
Solenostomus cyanopterus Blue-finned Ghost Pipefish, Robust Ghost Pipefish	Listed	Species or species habitat may occur within area
Syngnathoides biaculeatus Double-ended Pipehorse, Alligator Pipefish	Listed	Species or species habitat may occur within area
Trachyrhamphus bicoarctatus Bend Stick Pipefish, Short-tailed Pipefish	Listed	Species or species habitat may occur within area
Trachyrhamphus longirostris Long-nosed Pipefish, Straight Stick Pipefish	Listed	Species or species habitat may occur within area
Reptiles		
Aipysurus apraefrontalis Short-nosed Seasnake	Listed	Species or species habitat may occur within area
Aipysurus duboisii Dubois' Seasnake	Listed	Species or species habitat may occur within area
Aipysurus eydouxii Spine-tailed Seasnake	Listed	Species or species habitat may occur within area
Aipysurus laevis Olive Seasnake	Listed	Species or species habitat may occur within area
Astrotia stokesii Stokes' Seasnake	Listed	Species or species habitat may occur within area
Caretta caretta * Loggerhead Turtle	Listed	Species or species habitat may occur within area
Chelonia mydas * Green Turtle	Listed	Breeding known to occur within area
Dermochelys coriacea * Leathery Turtle, Leatherback Turtle, Luth	Listed	Species or species habitat may occur within area
Disteira kingii Spectacled Seasnake	Listed	Species or species habitat may occur within area
Disteira major Olive-headed Seasnake	Listed	Species or species habitat may occur within area
Emydocephalus annulatus Turtle-headed Seasnake	Listed	Species or species habitat may occur within area
Ephalophis greyi North-western Mangrove Seasnake	Listed	Species or species habitat may occur within area
Eretmochelys imbricata * Hawksbill Turtle	Listed	Species or species habitat may occur within area
Hydrophis elegans Elegant Seasnake	Listed	Species or species habitat may occur within area
Pelamis platurus Yellow-bellied Seasnake	Listed	Species or species habitat may occur within area
Whales and Other Cetaceans [Dataset Information]	Status	Type of Presence
Balaenoptera acutorostrata	Cetacean	Species or species habitat may occur

Minke Whale		within area
Balaenoptera edeni Bryde's Whale	Cetacean	Species or species habitat may occur within area
Balaenoptera musculus * Blue Whale	Cetacean	Species or species habitat may occur within area
Delphinus delphis Common Dolphin	Cetacean	Species or species habitat may occur within area
Eubalaena australis * Southern Right Whale	Cetacean	Species or species habitat may occur within area
Grampus griseus Risso's Dolphin, Grampus	Cetacean	Species or species habitat may occur within area
Megaptera novaeangliae * Humpback Whale	Cetacean	Congregation or aggregation known to occur within area
Orcinus orca Killer Whale, Orca	Cetacean	Species or species habitat may occur within area
Sousa chinensis Indo-Pacific Humpback Dolphin	Cetacean	Species or species habitat may occur within area
Stenella attenuata Spotted Dolphin, Pantropical Spotted Dolphin	Cetacean	Species or species habitat may occur within area
Tursiops aduncus (Arafura/Timor Sea populations) Spotted Bottlenose Dolphin (Arafura/Timor Sea populations)	Cetacean	Species or species habitat likely to occur within area
Tursiops aduncus Spotted Bottlenose Dolphin	Cetacean	Species or species habitat likely to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin	Cetacean	Species or species habitat may occur within area

Commonwealth Lands [Dataset Information]

Defence

Unknown

Places on the RNE [Dataset Information]
Note that not all Indigenous sites may be listed.

Natural

Cape Range National Park and Surrounds WA

Cape Range and Adjacent Coastal Plain WA

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.

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: **MRWA**

Contacts:
Name: Matthew Oswald
Phone: (08) 9941 0713
Fax: (08) 9941 0701
Email: matthew.oswald@mainroads.wa.gov.au

Property details

Property: Passing Lanes – Minilya-Exmouth Road – SLK 183.8 – 191.7

Colloquial name:

Area under assessment

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:	Site Plan Attached
0.85 ha		Mechanical	Passing Lane	Yes / No

Avoidance/Minimise clearing

How have the clearing impacts been minimised?
Areas for passing lanes have been carefully selected based upon preliminary investigations

BACKGROUND

Existing environment and information

This passing lane occurs within vegetation association No. 663 which is described as "Hummock grasslands, shrub steppe; waterwood over soft spinifex". According to the Native Vegetation Association Data (DEC & DAF) this vegetation association is well represented in the region with 92.3% extent remaining.

Site Visit Undertaken	Yes	No	**Fauna / Flora Survey Undertaken**	Yes	No
Site Report Attached	Yes	No	**Fauna / Flora Survey Report Attached**	Yes	No
Site Photos Attached	Yes	No	**Other Relevant References Attached**	Yes	No

Vegetation Complex	Clearing Description	Vegetation Condition	Comment
663	Mechanical	Fair - Good	

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 condition of the vegetation is fair to good and is well represented within the region with 92.3% remaining. This proposal is therefore not at variance with this Principle.

Methodology Site visit - 21/08/07

(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 likely to be at variance to this Principle

Due to the relatively small clearing areas necessary for this proposal and the high percentage of similar vegetation in surrounding areas, impact to fauna species will be marginal. This proposal is therefore not at variance with this Principle.

Methodology Site Visit - 21/08/07
DEC Advice - 23/08/07

(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 no rare flora was known to exist within the project area. Also based upon site visits, no rare flora species were identified. It is therefore unlikely that the vegetation under application is necessary for significant flora. This proposal is therefore not at variance with this Principle.

Methodology

Site visit - 21/08/07
GIS Database – Declared rare and priority Flora List – DEC - 23/08/07
DEC Advice – 23/08/07

(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 likely to be 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 Database :
- Threatened Ecological Communities – DEC 23/08/07

(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 within the project area is representative of Vegetation Association 663 which has 93.2% of the pre-European extent remaining. This vegetation association is therefore of "least concern" for biodiversity conservation. This proposal is therefore not at variance with this Principle.

Methodology

GIS Databases:
- NRM Slip Native Vegetation Associaition

(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 -21/08/07
DEC's we based Geographical Data Atlas mapping tool
GIS Databases:
-Hydrolography linear
-Hydrolographical Catchment -Catchements

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

Comments

Proposal is not at variance to this Principle

The area under application consist of deep sandy soils. Given the small clearing footprint and that the surrounding vegetation is in fair to good condition, the proposal is not at variance with this Principle.

Methodology

Site Visit – 21/08/07
GIS Database"
-Acid sulfate soils risk map

(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 – 21/08/07

(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 receives less then 400 mm of annual rainfall. Due to the low rainfall rate, the proposal will not cause deterioration in the quality of surface or underground water and therefore will not be at variance to this Principle.

Methodology

Site visit – 21/08/07
DEC's web based Geographical Data Atlas mapping tool
Rainfall, Mean Annual – BOM

(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 deep sandy soils. In addition the area under application receives less then 400 mm of annual rainfall. Due to the nature of the soils and the low rate of rainfall, the proposal will not exacerbate the incidence of flooding and therefore is not at variance with this Principle.

Methodology

Site visit – 21/08/07
DEC's web based Geographical Data Atlas mapping tool
Rainfall, Mean Annual – BOM

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 RIWI Act licence, Works Approvals 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

List of Principles seriously at variance, at variance or maybe at variance	Recommendation

OFFICER PREPARING REPORT

Crystelle Evangelista (Graduate Environment Officer)
Gascoyne Regional Office
MRWA

Date: 29/08/07

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: **MRWA**

Contacts:
Name: Matthew Oswald
Phone: (08) 9941 0713
Fax: (08) 9941 0701
Email: matthew.oswald@mainroads.wa.gov.au

Property details

Property: Passing Lanes – Minilya-Exmouth Road – SLK 202.1 - 204.4

Colloquial name:

Area under assessment

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:	Site Plan Attached
0.85 ha		Mechanical	Passing Lane	Yes / No

Avoidance/Minimise clearing

How have the clearing impacts been minimised?

BACKGROUND

Existing environment and information

This passing lane occurs within vegetation association No. 663 which is described as "Hummock grasslands, shrub steppe; waterwood over soft spinifex". According to the Native Vegetation Association Data (DEC & DAF) this vegetation association is well represented in the region with 92.3% extent remaining.

Site Visit Undertaken	Yes	No	**Fauna / Flora Survey Undertaken**	Yes	No
Site Report Attached	Yes	No	**Fauna / Flora Survey Report Attached**	Yes	No
Site Photos Attached	Yes	No	**Other Relevant References Attached**	Yes	No

Vegetation Complex	Clearing Description	Vegetation Condition	Comment
663	Mechanical	Fair to Good	

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 vegetation condition of the vegetation is fair to good however it is well represented within the region with 92.3% remaining. This proposal is therefore not at variance with this Principle.

Methodology Site visit - 21/08/07

(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 likely to be at variance to this Principle

Due to the relatively small clearing areas necessary for this proposal and the high percentage of similar vegetation in surrounding areas, impact to fauna species will be marginal. This proposal is therefore not at variance with this Principle.

Methodology Site Visit - 21/08/07
DEC Advice – 23/08/07

(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 no rare flora was known to exist within the project area. Also based upon site visits, no rare flora species were identified. It is therefore unlikely that the vegetation under application is necessary for significant flora. This proposal is therefore not at variance with this Principle.

Methodology

Site visit - 21/08/07
GIS Database – Declared rare and priority Flora List – DEC - 23/08/07
DEC Advice – 23/08/07

(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 likely to be 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 Database :
- Threatened Ecological Communities – DEC 23/08/07

(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 within the project area is representative of Vegetation Association 663 which has 93.2% of the pre-European extent remaining. This vegetation association is therefore of "least concern" for biodiversity conservation. This proposal is therefore not at variance with this Principle.

Methodology

GIS Databases:
- NRM Slip Native Vegetation Associaition

(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 -21/08/07
DEC's web based Geographical Data Atlas mapping tool
GIS Databases:
-Hydrolography linear
-Hydrolographical Catchment -Catchements

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

Comments

Proposal is not at variance to this Principle

The area under application consist of deep sandy soils and soils with shallow watertable. Given the small clearing footprint and that the surrounding vegetation is in fair to good condition, the proposal is not at variance with this Principle.

Methodology

Site Visit – 21/08/07
GIS Database:
-Acid sulfate soils risk map

(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 – 21/08/07

(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 receives less then 400 mm of annual rainfall. Due to the low rainfall rate, the proposal will not cause deterioration in the quality of surface or underground water and therefore will not be at variance to this Principle.

Methodology

Site visit – 21/08/07
DEC's web based Geographical Data Atlas mapping tool
Rainfall, Mean Annual – BOM

(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 deep sandy soils and soils with shallow watertable. In addition the area under application receives less then 400 mm of annual rainfall. Due to the nature of the soils and the low rate of rainfall, the proposal will not exacerbate the incidence of flooding and therefore is not at variance with this Principle.

Methodology

Site visit – 21/08/07
DEC's web based Geographical Data Atlas mapping tool
Rainfall, Mean Annual – BOM

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 RIWI Act licence, Works Approvals 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

List of Principles seriously at variance, at variance or maybe at variance	Recommendation

OFFICER PREPARING REPORT

Crystelle Evangelista (Graduate Environment Officer)
Gascoyne Regional Office
MRWA

Date: 29/08/07

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: **MRWA**

Contacts:
Name: Matthew Oswald
Phone: (08) 9941 0713
Fax: (08) 9941 0701
Email: matthew.oswald@mainroads.wa.gov.au

Property details

Property: RTAA and Section 19 – Minilya-Exmouth Road – SLK 205.1-206.1

Colloquial name:

Area under assessment

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:	Site Plan Attached
0.3 ha		Mechanical	Road Building Materials	Yes / No: Yes

Avoidance/Minimise clearing

How have the clearing impacts been minimised?

BACKGROUND

Existing environment and information

The Road Train Assembly Area and Material pits occur within vegetation association No. 663 which is described as "Hummock grasslands, shrub steppe; waterwood over soft spinifex". According to the Native Vegetation Association Data (DEC & DAF) this vegetation association is well represented in the region with 92.3% extent remaining.

Site Visit Undertaken	Yes	No	**Fauna / Flora Survey Undertaken**	Yes	No
Site Report Attached	Yes	No	**Fauna / Flora Survey Report Attached**	Yes	No
Site Photos Attached	Yes	No	**Other Relevant References Attached**	Yes	No

Vegetation Complex	Clearing Description	Vegetation Condition	Comment
663	Mechanical	Very Good - Excellent	

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 vegetation condition of the vegetation is very good to excellent; however, it is well represented within the region with 92.3% remaining. This proposal is therefore not at variance with this Principle.

Methodology Site visit - 21/08/07

(c) 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 mot likely to be at variance to this Principle**

Due to the relatively small clearing areas necessary for this proposal and the high percentage of similar vegetation in surrounding areas, impact to fauna species will be marginal. This proposal is therefore not at variance with this Principle.

Methodology Site Visit - 21/08/07
DEC Advice – 23/08/07

(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 no rare flora was known to exist within the project area. Also based upon site visits, no rare flora species were identified. It is therefore unlikely that the vegetation under application is necessary for significant flora. This proposal is therefore not at variance with this Principle.

Methodology

Site visit - 21/08/07
GIS Database – Declared rare and priority Flora List – DEC - 23/08/07
DEC Advice – 23/08/07

(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 likely to be 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 Database :
- Threatened Ecological Communities – DEC 23/08/07

(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 within the project area is representative of Sheppard Vegetation Association 663 which has 93.2% of the pre-European extent remaining. This vegetation association is therefore of "least concern" for biodiversity conservation. This proposal is therefore not at variance with this Principle.

Methodology

GIS Databases:
- NRM Slip Native Vegetation Associaition

(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 -21/08/07
DEC's we based Geographical Data Atlas mapping tool
GIS Databases:
-Hydrolography linear
-Hydrolographical Catchment -Catchements

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

Comments

Proposal is not at variance to this Principle

The area under application consist of deep sands and sandy earth soils. Given the small clearing footprint and that the surrounding vegetation is in good to very good condition, the proposal is not at variance with this Principle.

Methodology

Site Visit – 21/08/07
GIS Database"
-acid sulfate soils risk map

(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 – 21/08/07

(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 receives less then 400 mm of annual rainfall. Due to the low rainfall rate, the proposal will not cause deterioration in the quality of surface or underground water and therefore will not be at variance to this Principle.

Methodology

Site visit – 21/08/07
DEC's web based Geographical Data Atlas mapping tool
Rainfall, Mean Annual – BOM

(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 deep sands and sandy earth soils. In addition the area under application receives less then 400 mm of annual rainfall. Due to the nature of the soils and the low rate of rainfall, the proposal will not exacerbate the incidence of flooding and therefore is not at variance with this Principle.

Methodology

Site visit – 21/08/07
DEC's web based Geographical Data Atlas mapping tool
Rainfall, Mean Annual – BOM

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 RIWI Act licence, Works Approvals 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

List of Principles seriously at variance, at variance or maybe at variance	Recommendation
	Clearing within material pit will require a Revegetation Management Plan and Environmental Management Plan under CPS 818/3

OFFICER PREPARING REPORT

Crystelle Evangelista (Graduate Environment Officer
Gascoyne Regional Office
MRWA

Date: 29/08/07