

**PRELIMINARY ENVIRONMENTAL IMPACT ASSESSMENT AND
ENVIRONMENTAL MANAGEMENT PLAN (MINOR PROJECTS)
Strategic Material Pit
Minilya-Exmouth Road
SLK 174 – 175.75**



Prepared by Crystelle Evangelista (Environment Officer)
Gascoyne Region
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PRELIMINARY ENVIRONMENTAL IMPACT ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PLAN (MINOR PROJECTS)

Strategic Material Pit Minilya-Exmouth Road SLK 174 – 175.75

1 INTRODUCTION

Main Roads Gascoyne over a number of years has slowly been exhausting material stock piles required for road construction and maintenance. Main Roads Gascoyne Region is currently in the process of developing a region wide strategic plan to identify potential future material sites.

The identification of material sites will help the region locate required road building material for road construction and maintenance as well as for use during emergency situations that may arise after events such as cyclones.

2 DESCRIPTION OF THE PROJECT

It is proposed that clearing endorsements be obtained for a potential material pit site within an area along Minilya-Exmouth Road at SLK 174 -175.75. This proposed pit site will be part of the region wide strategic plan to identify material sites for future basecourse materials. The proposed material site is already vested to Main Roads through Section 19 approval.

As the proposed material area is part of a 10 year strategic plan, the area will be systematically cleared and revegetated in relatively small areas (for example 1 or 2 ha) as material is required. In this way, only a small proportion of the material site will be cleared at any one time, with revegetation occurring as soon as the cleared areas are no longer required.

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.

3 PROJECT LOCATION

The location and boundaries of the study area are shown on Figure 1 and include the following features:

- Strategic material pit along Minilya-Exmouth Road, SLK 174 -175.75.

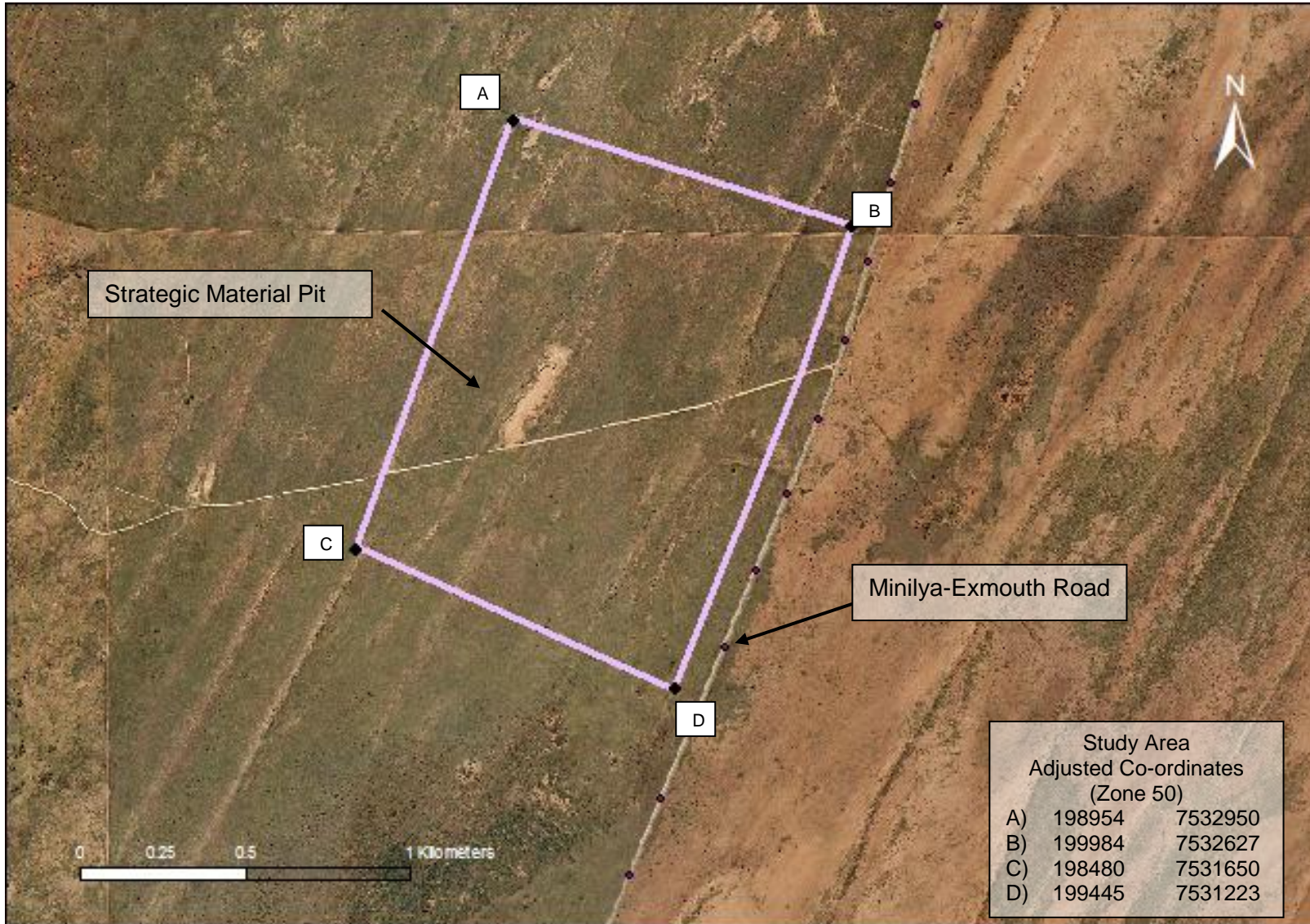


Figure 1: Environmental Clearance Areas for the Material Pit

4 METHODOLOGY

4.1 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).

4.1.1 Wetlands

The locations of wetlands within the project area was determined using the Commonwealth Department of the Environmental and Heritage (DEH) mapping tool and Department of Environment and Conservation (DEC) Geographic Data Atlas mapping tool (<http://apostle.environment.wa.gov.au/idelve/doedataext/index.jsp>).

4.1.2 Threatened Flora, Fauna and Communities, Conservation Reserves and ESA
DEC's database was searched for known populations of threatened flora, fauna and Threatened Ecological Communities (TEC) and conservation reserves, refer to Appendix C.

4.1.3 Air Quality

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

4.1.4 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's of Carnarvon and Ashburton Municipal Heritage Inventory, refer to Appendix D.

4.1.5 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 E.

4.1.6 Sensitive Water Resources

The Commonwealth Department of the Environmental and Heritage (DEH) mapping tool and Department of Environment and Conservation (DEC) Geographic Data Atlas mapping tool was used to determine whether the project area supported, or was adjacent to, any significant lakes, rivers or wetlands or proclaimed areas.

4.1.7 Contaminated Sites

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

4.1.8 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 F.

4.1.9 Weeds

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

4.1.10 Dieback

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

4.1 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 I.

4.2 Site Investigation

A site visit was carried out by Crystelle Evangelista (Environment Officer) on 09/07/08 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.

5 EXISTING ENVIRONMENT

5.1 Description

The material pit occurs within vegetation association 662 which is described as "Hummock grassland; shrub steppe; mixed acacia scrub & dwarf scrub with soft spinifex & *Triodia basedowii*". According to the Native Vegetation Association Data (DEC & DAF) this vegetation association is well represented in the region with 99.3% remaining. The condition of the vegetation is best described as good, but somewhat degraded due to the grazing of cattle and goats.

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

<i>Acacia ancistrocarpa</i>	<i>Corchorus walcotti</i>
<i>Acacia bivenosa</i>	<i>Cullen martinii</i>
<i>Acacia gregorii</i>	<i>Eremophila cuneifolia</i>
<i>Acacia inaequilatera</i>	<i>Exocarpos aphyllus</i>
<i>Acacia linophylla</i>	<i>Grevillea sp.</i>
<i>Acacia murryana</i>	<i>Grevillea variifolia</i>
<i>Acacia sclerosperma</i>	<i>Hakea candolleana</i>
<i>Acacia subtesserogona</i>	<i>Hakea preissii</i>
<i>Acacia tetragonopylla</i>	<i>Alectryon oleifolius</i>
<i>Acacia victoriae</i>	<i>Muehlenbeckia cunninghamii</i>
<i>Aristida contorta</i>	<i>Stylobasium spathulatum</i>
<i>Enekbatus cryptandroides</i>	<i>Thryptomene baeckeacea</i>
<i>Leptosema aphyllum</i>	<i>Tribulus platypterus</i>
<i>Cenchrus ciliaris</i>	<i>Triodia schinzii</i>
<i>Clerodendrum floribundum</i>	<i>Triodia basedowii</i>

5.2 Site Investigation

Site Investigation	Description/Comment
<i>Total area (ha) of <u>native vegetation</u> to be cleared</i>	The proposed material area is part of a 10 year strategic plan and will be systematically cleared and revegetated in relatively small areas (e.g. 1 or 2 ha) as material is required.
<i>Total area (ha) of other vegetation, including regrowth, landscape areas, to be cleared</i>	Nil
<i>Weeds present</i>	Buffel grass
<i>Drainage areas or wetlands present</i>	Nil
<i>Adjacent land uses</i>	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 J.

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

Where temporary clearing occurs during the course of the proposed project, a copy of the DEC approved generic Main Roads WA – Revegetation Plan for pastoral Areas will be adhered to and a copy placed on the project file

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 – Material Pit – Minilya-Exmouth Road – SLK 174 -175.75

Aspect	Evaluation of Potential Impacts
Air quality	Not relevant to the proposed works. Local air quality assessment is not required for the project since: <ul style="list-style-type: none"> 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, Marbled Toadlet, Australian Bustard, and Western Star Finch as possibly occurring within the project area. The proposed project areas however do not cover the habitat areas for these species. No Matters of National Environmental Significance as protected under EPBC Act (1999) will be impacted. The Mulgara was listed as possibly occurring within the area, but given the small clearing areas no impacts are expected.
Vegetation – clearing	<ul style="list-style-type: none"> As the proposed material area is part of a 10 year strategic plan, the area will be systematically cleared and revegetated in relatively small areas (e.g. 1 or 2 ha) as material is required. The project will involve temporary clearing and revegetation will be undertaken in accordance with the DEC approved Main Roads' Revegetation Plan for Pastoral Areas. The condition of the native vegetation to be cleared is good. The native vegetation will be cleared is well represented regionally with 99.3% pre-European extent remaining. The native vegetation to be cleared does not occur within an ESA. The native vegetation to be cleared will be done so using the purpose permit.
Vegetation – TEC/DRF	Consultation with DEC confirms that there are no TEC with the project area. No DRF species have been identified within the vicinity of the project area. Numerous priority flora species have been identified to occur within the vicinity of the project area. A flora survey of the proposed project site was conducted in August 2008 to determine if any rare or priority flora species are present within the project area. This flora survey will minimise the impacts of this project on priority flora species. No Matters of National Environmental Significance as protected under EPBC Act (1999) will be impacted.
Vegetation – weeds	Numerous common weed species occur throughout the proposed works areas. These species are likely to be widespread within the reserve and general area. The risk of spreading these weeds species as part of the proposed work should be minimised. Standard weed hygiene measures should be applied for all earthworks in the area, including ensuring that plant and equipment brought on to the site are clean of soil.
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 Carnarvon's Municipal Heritage Inventory on-line databases has indicated that there are no heritage significance listed sites present in the currently proposed works areas. No Matters of National Environmental Significance will be impacted.

Table 1: Aspects and Impacts – Material Pit – Minilya-Exmouth Road – SLK 174 -175.75

Aspect	Evaluation of Potential Impacts
Aboriginal heritage	A search of DIA database identified no known sites of Aboriginal heritage significance within close proximity to the project area.
Surface water/drainage	On-site visit and DoW search confirmed that the proposed works will not interrupt any natural drainage and surface run-off patterns.
Wetlands	There are no wetlands within the vicinity of the project areas.
Groundwater	No dewatering nor drainage modifications are required, hence no change to groundwater level or quality.
Noise and vibration	Construction works is not expected to significantly contribute to noise levels at the nearest sensitive receivers, provided works are limited to normal working hours. The requirements of the Shire of Exmouth must be met in respect to noise management and construction working hours.
Visual amenity	The proposed works will result in minor and short-term visual impacts during construction. Revegetation of the temporary cleared area will ensure no visual impacts result due to works.
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.
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 likely to take place outside the existing road reserve, prior to construction, development approval from the Western Australian Planning Commission should be sought.

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	Comments
Bridgitte Long	DEC (Flora)	17/07/08	
Kellie Mantle	DEC (Fauna)	11/07/08	

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 follows:

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	Area of Management	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
			Offsets: <ul style="list-style-type: none"> a copy of each offset proposal; a map showing the location where any offset have been implemented, recorded in an ESRI Shapefile; a description of the offset implemented; and the size of the area of the offset (in hectares) 	Project Manager	DEC
			Revegetation and rehabilitation of areas: <ul style="list-style-type: none"> 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
			Control of weed and other pathogens <ul style="list-style-type: none"> a copy of any management plan prepared; and for any pathogen the appropriate steps taken 	Project Manager	DEC
Pre-Construction	Induction	Inform all personnel of the management actions/strategies required of them	Develop and implement a communication plan including response to complaints, liaising/reporting to government agencies, engagement with the community and others when work is performed, with specific reference to nuisance issues such as noise, dust and lighting spill	Project Manager	Main Roads

ENVIRONMENTAL MANAGEMENT PLAN					
Timing	Area of Management	Objective	Action	Responsible Party	Advice
Pre-Construction	Aboriginal heritage	Ensure that there is no unauthorised disturbance to Aboriginal heritage sites during construction	<p>If any materials of significance to Aboriginal people are discovered, works will immediately cease within 100m of the material and the site will be examined by a qualified archaeologist</p> <p>The DIA will be notified in the event of any significant Aboriginal heritage discovery</p> <p>If skeletal material is uncovered during works the WA Police Service will also be advised immediately</p>	Project Manager/ Contractors	Main Roads DIA
Pre-Construction	Visual Amenity	Ensure that the road blends in with the surrounding environment	Ensure that the road blends in with the surrounding environment	Project Manager	Main Roads
Pre-Construction	Vegetation - Clearing	<p>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</p> <p>Ensure the retention of as many habitat trees, shrubs and vegetated corridors for fauna as possible, particularly where associated with riparian zones.</p>	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	Vegetation - Clearing		<p>During construction works, damage of existing vegetation will be avoided as far as practicable. Mature trees are to be conserved as far as is practicable and shall not be disturbed for temporary works such as access tracks, spoil area or sites offices. Vehicles and equipment is not to be parked or driven over tree roots.</p> <p>Trees to be removed are to be felled in a manner that ensures they fall within the approved clearing areas.</p>	Contractor	Main Roads

ENVIRONMENTAL MANAGEMENT PLAN

Timing	Area of Management	Objective	Action	Responsible Party	Advice
Construction	Weeds	Prevent and reduce the introduction and spread of weeds	<p>Control any weed species, if present, within the project area prior to construction to limit the amount of propagative material that may be spread during disturbance.</p> <p>The following machinery and vehicle hygiene measures will be utilised to avoid the inadvertent spread of weeds within any project areas:</p> <ul style="list-style-type: none"> • All site employees will be advised of the hygiene measures • All clearing, topsoil stripping and gravel cartage activities will be conducted under dry soil conditions • Dust adhering to the sides of vehicles does not need to be removed • All construction plant and machinery should be cleaned free of soil and vegetative material prior to arrival and prior to departing the project site. • Clean down will comprise of the use of a brush and/or compressed air to remove clumps of soil and/or soil water slurry. A metal bar or spade will be used to remove compacted soil where necessary. <p>If a new weed infection is identified within the area, measures to reduce its spread should be established.</p> <p>Main roads Specifications applicable:</p> <ul style="list-style-type: none"> • 204: <i>Environment</i> • 301: <i>Clearing</i> 	Contractor	Main Roads

ENVIRONMENTAL MANAGEMENT PLAN

Timing	Area of Management	Objective	Action	Responsible Party	Advice
Construction	Water Course and Surface Drainage	Maintain the hydrological regime that exists prior to the construction of the proposal and prevent erosion in areas subject to flooding	<p>Areas subject to erosion as a result of clearing shall be stabilised and designed to minimise rainfall/run-off impacts.</p> <p>Works should minimise vegetation and soil disturbance to prevent soil movement. Finished works should be left in a stable condition to minimise the risk of scouring.</p> <p>If washdown facilities or chemical storage takes place on site, best management practices will be utilised in accordance with <i>DEC's Water Quality Protection notes, Mechanical Equipment Washdown</i> to minimise impacts on water resources.</p> <p>Stormwater drainage shall be treated and disposed of in accordance with the DoW's <i>Stormwater Management Manual</i> and DEC's requirements.</p> <p>Main Roads Specifications applicable:</p> <ul style="list-style-type: none"> • 402: Surface Drains • 405: Drainage Structures 	Contractor/ Construction Engineer	Main Roads
Construction	Noise, Vibration and Dust	Ensure that the construction of the proposal does not become a nuisance to the public.	<p>Access to private property and appropriate traffic management measures should be planned and implemented prior to the construction of works.</p> <p>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.</p> <p>Any complaints regarding dust will be attended to as soon as possible.</p> <p>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.</p> <p>Watering shall be used as a mitigation measure to protect loose surfaces</p>	<p>Contractor</p> <p>Contractor</p> <p>Contractor/Project Manager</p> <p>Contractor</p>	<p>Main Roads</p> <p>Main Roads</p> <p>Main Roads</p> <p>Main Roads</p>

ENVIRONMENTAL MANAGEMENT PLAN

Timing	Area of Management	Objective	Action	Responsible Party	Advice
Construction	Pollution and Litter	Ensure that the construction of the proposal is managed to a standard that minimises any adverse impacts on the environment.	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.	Contractor	Main Roads
			The contractor shall ensure appropriate equipment is available at all times and shall notify the Superintendent's Representative following a spill.		
			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	
			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	
			Dumping or temporary storage of bitumen, asphalt, concrete or aggregate should only occur at designated depots or controlled hardstands.	Contractor	
			The project areas, including hardstand areas, will be kept in a tidy manner at all times. All litter on the project will be placed into lidded bins and disposed of at an approved landfill.	Contractor	
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

ENVIRONMENTAL MANAGEMENT PLAN

Timing	Area of Management	Objective	Action	Responsible Party	Advice
Post-Construction	Rehabilitation	<p>Leave the project area free from debris; and</p> <p>Rehabilitate the project area so that the revegetated area provides a net increase in area of native vegetation at the site.</p>	<p>Revegetation of temporary cleared area will be undertaken in accordance with the Main Roads' Revegetation Plan for Pastoral Areas which has been approved by DEC.</p> <p>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.</p>	Contractor	Main Roads

11 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

12 CONTINGENCY MEASURES

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

13 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.

14 REFERENCES

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Main Roads Corporate Procedure Environmental Guideline "Assessment of Roadside Vegetation Condition" Document No. 6707/004.

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: Material Pit located on Minilya-Exmouth Road, SLK 174 – 175.5

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

[Signature]

Name

Anil Phal

Date

28/8/08

Title

Materials Manager

To be reviewed by
a Main Roads
Environment Officer

Signature

[Signature]

Name

Cystelle Krangelita

Date

28 Aug. 08

Title

Environment Officer

Comments: Works to be completed using a PEIA

Appendix B

Site Photos



Photograph 1: Material Pit on Minilya-Exmouth Road, 175 SLK. LHS. East View



Photograph 2: Material Pit on Minilya-Exmouth Road, 175 SLK. LHS. North View



Photograph 3: Material Pit on Minilya-Exmouth Road, 175 SLK. LHS. South View (a)



Photograph 4: Material Pit on Minilya-Exmouth Road, 175 SLK. LHS. South View (b)

Appendix C

DEC's Threatened Flora and Fauna Database Searches

EVANGELISTA Crystelle (GEnv)

From: Long, Bridgitte [Bridgitte.Long@dec.wa.gov.au]
Sent: Thursday, 17 July 2008 11:34 AM
To: EVANGELISTA Crystelle (GEnv)
Subject: RE: DEC Flora Database Search - Environmental Clearances for Material Pits
Attachments: SouthExmouth_letter_170708.doc; SouthExmouth_dr&pflist_170708.doc;
SouthExmouth_waherb_170708.dbf

Hi Crystelle

Please find attached the results from the WA Herbarium database and the Declared Rare and Priority Flora Species List for the South Exmouth area. There were no results from the Threatened (Declared Rare) Flora Database.

Please refer to the attached letter for the Conditions of Supply for this information.

Regards

Jessica Donaldson for

Bridgitte Long
Threatened Flora Database Officer
Species and Communities Branch
Department of Environment and Conservation
Ph (08) 9334 0123 Fax (08) 9334 0278
bridgitte.long@dec.wa.gov.au

From: EVANGELISTA Crystelle (GEnv) [mailto:crystelle.evangelista@mainroads.wa.gov.au]
Sent: Friday, 11 July 2008 1:31 PM
To: Long, Bridgitte
Subject: DEC Flora Database Search - Environmental Clearances for Material Pits

Hi Bridgitte

Main Roads Gascoyne Region is proposing to obtain all the necessary environmental clearances for a material pit south of the Exmouth town site. The purpose of the extension is to provide future gravel resources for road maintenance and construction.

As per our Purpose Permit requirements, I now seek your assistance in undertaking a Threatened Flora Search.

The co-ordinates for the sites are as follows (data in GDA 94 – Zone 50):

Site 1
SW Corner
198480
7531650

NW Corner
198954
7532950

NE Corner
199984
7532627

SE Corner
19945

22/07/2008

DEC's Threatened Flora Database Search

13/08/2007

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

Page 1

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 occidentalis 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

WA Herbarium Flora Database

SHEETNO	GENUS	SPECIES	CONSCO DE	SITE	VEGETATION	LOCALITY	LAT	LONG	DATE_
PERTH 00157686	Acacia	alexandri	P3	In limestone.	In tall open shrubland with Triodia.	Cape Range, ca 6 miles W of Learmonth Airfield	-22.21666		114.01667 05 09 1970
PERTH 01764403	Grevillea	calicicola	P3			Learmonth	-22.24166		114.08667 12 07 1964
PERTH 1764462	Grevillea	calicicola	P3	In limestone, at E edge of range.		Cape Range, ca 5 miles W of Learmonth	-22.23333		114.03333 05 09 1970
PERTH 1141570	Brachychiton	obtusilobus	P4			1.3 W of Learmonth Airfield, Cape Range, North West Cape	-22.25000		114.08333 04 09 1988
PERTH 1764454	Grevillea	calicicola	P3			Cape Range, North West Cape	-22.25000		114.08333 26 09 1988
PERTH 05880793	Brachychiton	obtusilobus	P4	Range land system.		Exmouth Gulf Station, Cape Range, ca 6 miles W of Learmonth	-22.36666		114.11667 06 05 2001
PERTH 1619217	Brachychiton	obtusilobus	P4	In rocky limestone soil.	In open shrub - Triodia steppe.	Cape Range, ca 6 miles W of Learmonth	-22.21666		114.01667 05 09 1970
PERTH 1619225	Brachychiton	obtusilobus	P4	In rocky limestone soil.	In open shrub - Triodia steppe.	Cape Range, ca 6 miles W of Learmonth	-22.21666		114.01667 05 09 1970

EVANGELISTA Crystelle (GEnv)

From: Mantle, Kellie [Kellie.Mantle@dec.wa.gov.au]
Sent: Friday, 11 July 2008 2:51 PM
To: EVANGELISTA Crystelle (GEnv)
Subject: RE: DEC Fauna Database Search - Environmental Clearances for Material Pits
Attachments: raref_MainRoads_Evangelista10.pdf; raref_MainRoads_Evangelista.doc

Hi Crystelle

Attached are the results for the search in the vicinity of the Exmouth townsite (plus~5km buffer)

Regards
Kellie

Kellie Mantle
*Species and Communities Branch
Department of Environment and Conservation
Phone (08) 93340579
Fax (08) 93340278*

From: EVANGELISTA Crystelle (GEnv) [mailto:crystelle.evangelista@mainroads.wa.gov.au]
Sent: Friday, 11 July 2008 1:33 PM
To: Mantle, Kellie
Subject: DEC Fauna Database Search - Environmental Clearances for Material Pits

Hi Kellie

Main Roads Gascoyne Region is proposing to obtain all the necessary environmental clearances for a material pit south of the Exmouth town site. The purpose of the extension is to provide future gravel resources for road maintenance and construction.

As per out Purpose Permit requirements, I now seek your assistance in undertaking a Threatened Fauna Search.

The co-ordinates for the sites are as follows (data in GDA 94 -- Zone 50):

Site 1
SW Corner
198480
7531650

NW Corner
198954
7532950

NE Corner
199984
7532627

SE Corner
19945
7531223

Thanks for your assistance in this matter

Regards,

Crystelle Evangelista

22/07/2008

22.228 °S 114.006 °E / 22.35 °S 114.146 °E Exmouth town site (sh) (plus-5km buffer)

* Date	Certainty	Seen	Location Name	Method
Schedule 1 - Fauna that is rare or is likely to become extinct				
<i>Petrogale lateralis lateralis</i>			Black-flanked Rock-wallaby	<i>7 records</i>
This species thrives in steep, complex rocky habitats providing tunnels, caves and crevices for shelter and protection from predators.				
1999	1	1	Leamceeth	Day sighting
2000	1	1	Leamceeth	Day sighting
2001	1	1	Leamceeth	Day sighting
2001	1	1	Leamceeth	Day sighting
2001	1	3	Leamceeth	Day sighting
2001	1	2	Leamceeth	Day sighting
2001	1	2	Leamceeth	Day sighting
Priority One: Taxa with few, poorly known populations on threatened lands				
<i>Uperoleia marmorata</i>			Marbled Toadlet	<i>1 records</i>
1955	1	5	Cape Range	Caught or trapped
Priority Three: Taxa with several, poorly known populations, some on conservation lands				
<i>Lerista allochira</i>				<i>2 records</i>
2000	1		Leamceeth	Caught or trapped
2000	1		Leamceeth	Caught or trapped
Priority Four: Taxa in need of monitoring				
<i>Ardeotis australis</i>			Australian Bustard	<i>2 records</i>
This species is uncommon and may occur in open or lightly wooded grasslands.				
2000	1		Leamceeth	Day sighting
2000	1		Leamceeth	
<i>Neochima ruficauda subclarescens</i>			Star Finch (western)	<i>1 records</i>
A nomadic species inhabiting grasslands and eucalypt woodlands near water.				
2000	1		Leamceeth	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 D

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

Australian Heritage - Microsoft Internet Explorer provided by MRWA ...

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Print Mail News RSS Feeds

Address http://www.environment.gov.au/heritage/index.html Go Links

Skip to content Change text size

Australian Government
Department of the Environment, Water, Heritage and the Arts


Heritage Home

Environment home
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About heritage
Heritage places
Movable cultural heritage
Historic shipwrecks
Heritage organisations
Grants and funding
Nominating a heritage place
Managing a heritage place
Laws and notices
Publications and resources

About us Contact us

You are here: [Environment home](#) » Heritage


Australia's heritage



RICHMOND BRIDGE TASMANIA
PHOTO: AUSTRALIAN SCENICS

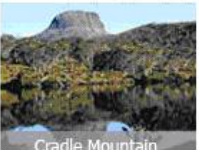
Heritage is all the things that make up Australia's identity - our spirit and ingenuity, our historic buildings, and our unique, living landscapes. Our heritage is a legacy from our past, a living, integral part of life today, and the stories and places we pass on to future generations.

Find a heritage place:



- [New South Wales](#)
- [Victoria](#)
- [Queensland](#)
- [South Australia](#)
- [Western Australia](#)
- [Tasmania](#)
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- [Australian Capital Territory](#)
- [All of Australia](#)

- [World heritage](#)
- [National heritage](#)
- [Commonwealth heritage](#)



Cradle Mountain

Search for heritage places

Search for:


Heritage places (World, National, State and Territory heritage lists)

Photo library

Shipwrecks database

Content of this web site

Heritage videos



[Click to view video list](#)

Quick Links

- [Public notices](#)
- [Asia-Pacific Focal Point](#)
- [Australia's dinosaurs](#)
- [Australian Heritage Council](#)
- [Australian Heritage Places](#)

Done Internet

Heritage Council of Western Australia :: Quick Search - Places Database - Microsoft Internet Explorer provided by MRWA ...

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites

Address http://register.heritage.wa.gov.au/ Go Links >>

OTHER REGISTER INFORMATION:

**WHAT IS THE STATE REGISTER?
OTHER HERITAGE LISTS**

There are two different lists you can search.

The **State Register of Heritage Places** recognizes a place's value and importance to Western Australia. The State Register includes buildings, structures, gardens, cemeteries, landscapes and archaeological sites and has more than 1,200 places on it. The State Register is managed by the Heritage Council and provides a place with statutory protection to ensure it is conserved into the future.

The entire **Places Database** includes places listed in the State Register as well as those included in a Local Government's Municipal Inventory, the Commonwealth's Register of the National Estate and the National Trust's List of Classified Places. There are more than 17,500 places on the Places Database.

To do a search simply enter the details of the place; select whether you want to search the State Register or the Entire Database; and click the 'Search' button below.

It is important to note that the entry of a place in the State Register of Heritage Places does not make the place available for public access.

If you need further advice on whether a property is heritage listed, please call the Heritage Council on 9221 4177.

SEARCH **HELP**

Search In: State Register of Heritage Places Entire Database

Place No:

Name Contains:

Street:

Suburb/Town:

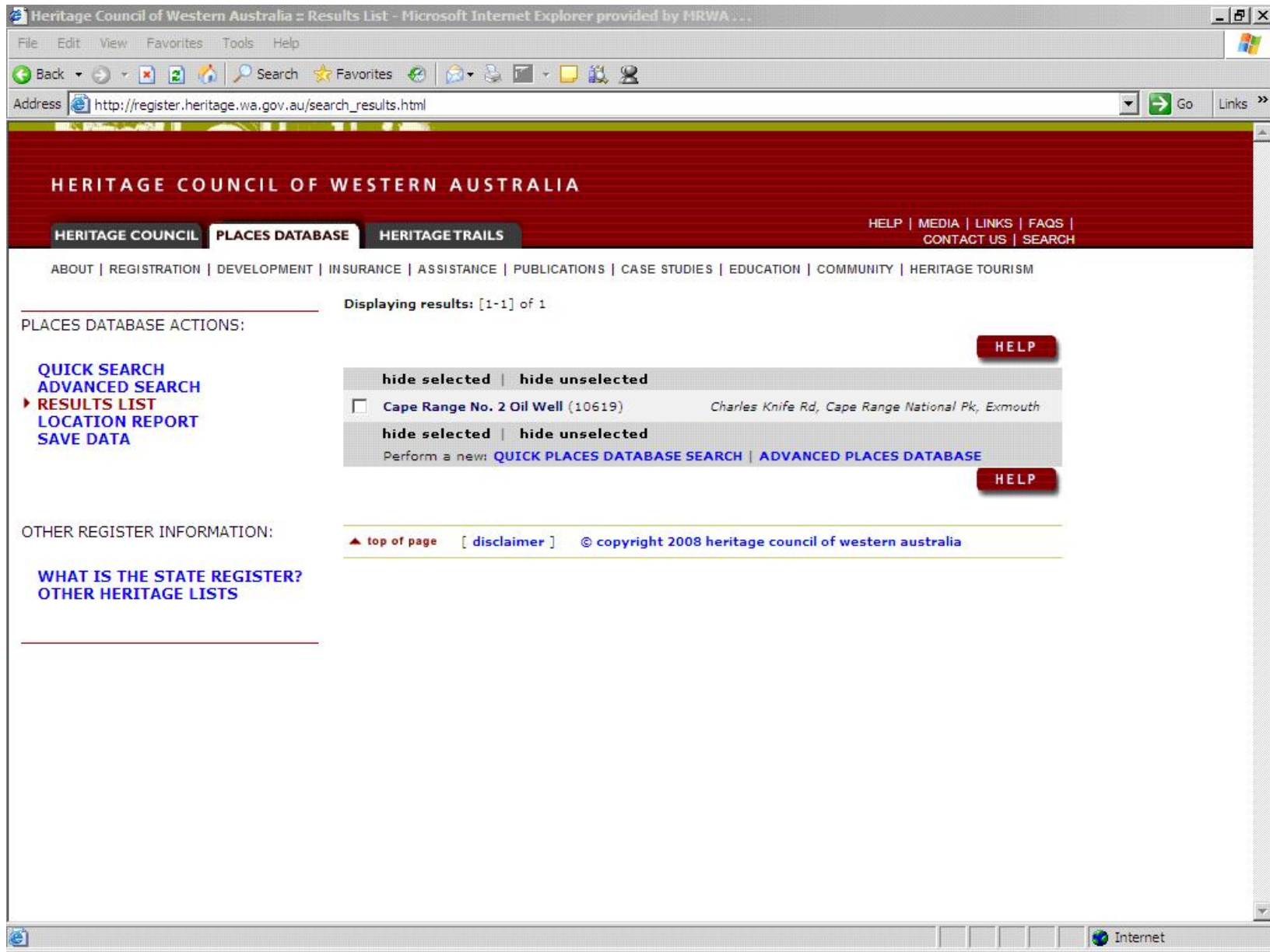
Local Govt:

Search logic:

SEARCH **HELP**

[▲ top of page](#) [[disclaimer](#)] © copyright 2008 heritage council of western australia

Internet



Appendix E

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 60	
Northing	Easting
7530118	194910
7534247	201724

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

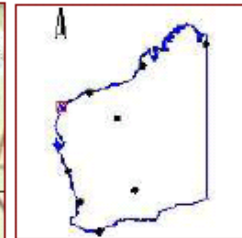
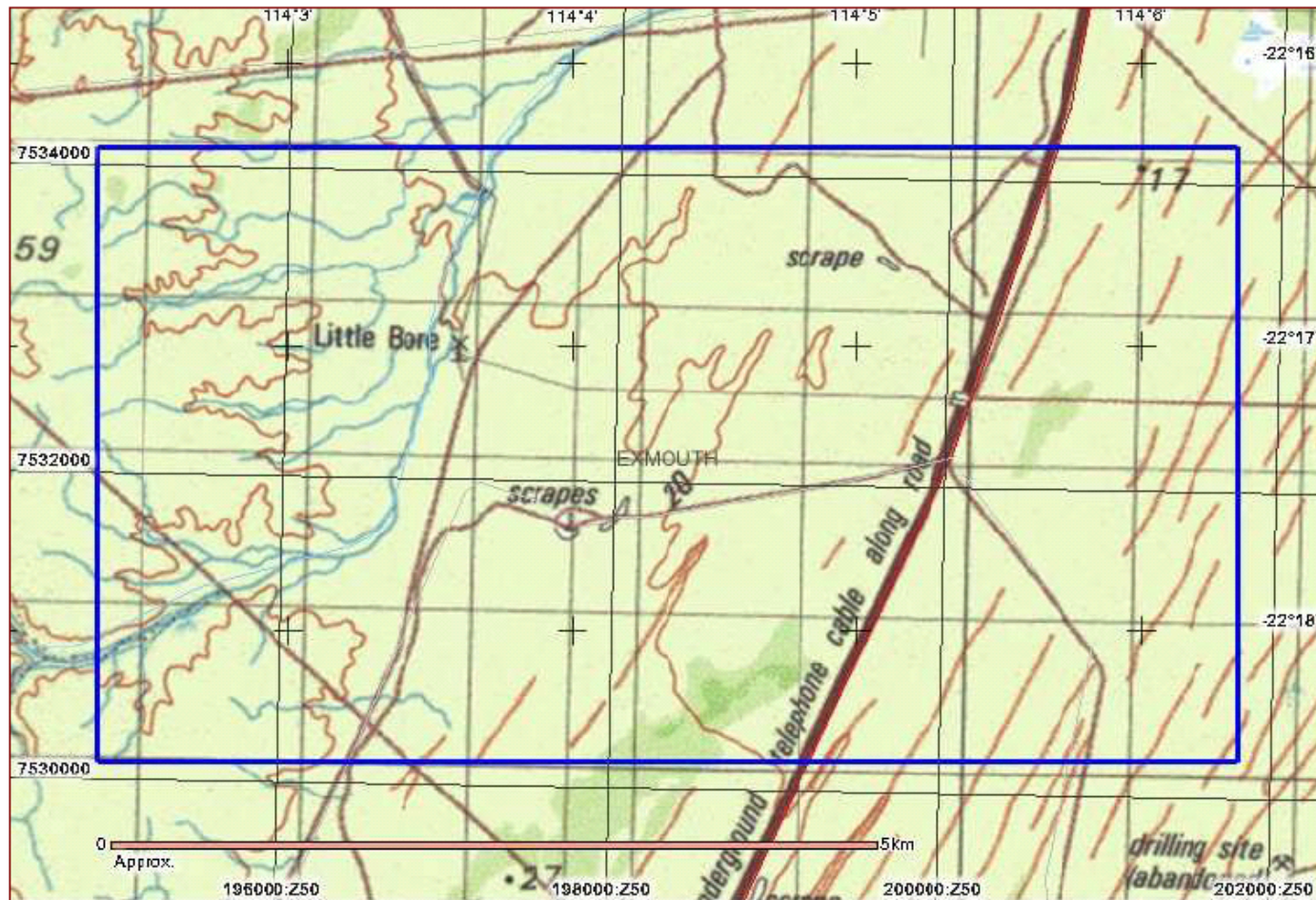
Restriction	Access	Coordinate Accuracy
N No restriction	C Closed	Accuracy is shown as a code in brackets following the site coordinates.
M Male access only	O Open	[Reliable] The spatial information recorded in the site file is deemed to be reliable, due to methods of capture.
F Female access	V Vulnerable	[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.

Status

L Lodged	IR Insufficient Information (as assessed by Site Assessment Group)	Site Assessment Group (SAG) Sites lodged with the Department are assessed under the direction of the Registrar of Aboriginal Sites. These are not to be considered the final assessment. Final assessment will be determined by the Aboriginal Cultural Material Committee (ACMC).
I Insufficient Information	PR Permanent register (as assessed by Site Assessment Group)	
P Permanent register	SR Stored data (as assessed by Site Assessment Group)	
S Stored data		

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. '5000000:250' means Easting=5000000, Zone=50.



Legend

- Highlighted Area
- Town
- Map Area
- Search Area

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Copyright for Native Title Land Claim, Local Government Authority, Mining Tenement boundaries shall at all times remain the property of the State of Western Australia. All rights reserved.

For further important information on using this information please see the Department of Indigenous Affairs' Terms of Use statement at <http://www.dia.wa.gov.au/Terms-Of-Use/>

Appendix F

DEC's Environmental Sensitive Areas

http://maps.dec.wa.gov.au - Department of Environment and Conservation - Native Vegetation - Microsoft Internet Explorer provid

Department of Environment and Conservation
Our environment, our future

Native Vegetation Map Viewer

Welcome Search Metadata Help

Jump to Coordinates

Coordinate System :

Longitude X (Easting) :

Latitude Y (Northing) :

Example
The longitude and latitude values are calculated from east and north respectively. For instance, in GDA 94 coordinate system, Western Australia is bounded approximately by 113E -32N and 129E, -14N)

The map displays a section of Western Australia with a red crosshair indicating a specific location. A yellow label 'MINILYA-EXMOUTH RD' is positioned over the map. The map includes a scale bar from 0 to 10km and a scale of 1:125,338. A legend on the left lists various map layers such as 'Environment', 'Clearing Regs - ESA', 'Inland Waters', and 'Society'. A navigation toolbar is located above the map, and a status bar at the bottom indicates 'Applet map started'.

Multi-tool. Press and hold a button, dragging mouse to navigate.

MINILYA-EXMOUTH RD

Policy & Legislation | Clearing Permits | Public Reports
DEC Home | Contacts | Copyright | Disclaimer

Internet

Appendix G

WAPC's Acid Sulfate Soils Mapping



Acid Sulfate Soils Applicant Self-Assessment Form



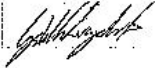
Important information for applicants

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

Applicant signature  Date

Application property details

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 1-29 of planning bulletin no. 64 can be downloaded at www.wapc.wa.gov.au/bulletins

- Question 1: Do figures 1-29 of the WAPC's Planning Bulletin No 64 Acid Sulfate Soils show the land as having a high to moderate risk of acid sulfate soil occurring within 3 m of natural soil surface? yes no
- Question 2: Is the land located in an area, whether depicted in figures 1-29 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 100m³ of soil proposed? (ie 10 standard dump truck loads) yes no
- Question 5: Is the surface elevation $>$ 5m AHD and is excavation of \geq 100m³ 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: 3.1 (February 2008)

Appendix H

Main Roads WA – Revegetation Plan for Pastoral Areas

**Main Roads WA – Revegetation Plan for Pastoral Areas
Condition 14(e), CPS 818**

Date:	Unknown.	Project:	Unknown.
Manager:	Main Roads WA.		
Location and size of clearing:	For project areas located within the pastoral / rangelands region north of the agricultural area as described in the Environmental Protection Authority's Position Statement No.2.		
Location and size of revegetation:	Primarily for areas that were cleared for searching and extracting road building materials (e.g. borrow pits, etc.), and other project related temporary clearing.		
Clearing description:	Machine clearing.		
Revegetation description:	Replacement of topsoil material regeneration.		
Reason for revegetation:	Revegetation of temporary cleared areas, in accordance with condition 14 of clearing permit CPS 818.		
Revegetation / rehabilitation requirements:			
Site preparation:	<p>All vegetation will be cleared from the works area and non-weed infested vegetation is stockpiled. Stockpiled vegetation will be placed in a manner that will prevent damage to adjacent vegetation by machinery. Weed infested vegetation will be disposed of at an appropriate site and not used for revegetation purposes. Burning of the cleared vegetation will not be permitted.</p> <p>Topsoil will be stripped to a maximum depth of 100mm, and will be stored in a weed free (as far as possible) area, as close as possible to the area to be rehabilitated. Topsoil will be placed in windrows of less than 1.5m in height and reinstated as soon as practicable to maintain viability of in-situ seeds.</p>		
Weed control:	<p>Appropriate weed control will be carried out when weeds are present, both prior to topsoil stripping and where weeds become established on or between the stockpiled materials. Weed control will take place prior to the respreading of topsoil to ensure weeds are killed and not transported to other areas.</p> <p>Control measures include the removal of weeds to an approved dumpsite, or treatment of weeds such as by using herbicides mixed in accordance with manufacturer's instructions and applied by a licensed operator. Where practicable, weeds will be removed prior to or when they are in flower, and prior to seeding.</p> <p>All machinery will be cleared of soil build up and vegetative material before entering and leaving the site to help minimise the transportation of weeds and their seeds.</p> <p>Exposed areas such as bare batters and borrow pits shall be promptly rehabilitated to reduce the potential for weed establishment. Where works are adjacent to good quality vegetation, where weeds from within the project area are likely to spread to and result in environmental harm to the adjacent area, those weeds will be controlled annually until 12 Dec 2010..</p>		

**Main Roads WA – Revegetation Plan for Pastoral Areas
Condition 14(e), CPS 818**

Regeneration / direct seeding / planting at an optimal time:

The following rehabilitation works are undertaken on areas of disturbed earth requiring rehabilitation:

- Topsoil is uniformly respread to a typical depth of 100mm over the project area. In project areas where topsoil has not been removed and/or is not available, other substrate, such as gravel, may be substituted as a growth medium.
- Project areas will be ripped to a minimum depth of 200mm deep with rip lines approximately 300mm apart. Where slopes are present, rip lines shall follow natural contours.

The following rehabilitation works are undertaken at borrow / gravel pits:

- Overburden and then topsoil will be uniformly and evenly spread over the disturbed areas of the pit. Depending on the slope of drainage lines within the pit, small swales from the topsoil will be formed to reduce erosion velocities and encourage the deposition of seeds.
- The whole of the existing pit floor, including drainage lines, will be ripped to a depth of 300-500mm deep with rip lines between 500-800mm apart (if the material in the pit is able to be ripped).
- All stockpiled vegetation will be spread along the contour and the pit floor to help promote seed deposition and to reduce erosion velocities.

Vegetation establishment period:

The vegetation establishment period is for at least twelve months following the completion of the works. During this period, maintenance and monitoring will be undertaken (see below).

Ongoing maintenance and monitoring:

After revegetation works, revegetated areas will be inspected annually for a minimum of two years to monitor and control weeds and to measure the effectiveness of revegetation works.

When unwanted weed foliage cover exceeds 25% after the initial two year period, further actions will be implemented to monitor and control these weeds. The additional monitoring and weed control will be conducted annually until 12 Dec 2010 or until the unwanted weed foliage cover falls below 25%, whichever is sooner.

Monitoring commitments:

Post revegetation site inspections will be carried out annually for a minimum of two years to monitor unwanted weeds and measure the effectiveness of revegetation works. Monitoring of sites where unwanted weed foliage cover exceeds 25% after the initial two year period will continue annually until 12 Dec 2010 or until the unwanted weed foliage cover falls below 25%, whichever is sooner.

Management commitments:

Undertake annual weed control of unwanted weeds annually until 12 Dec 2010 or until the unwanted weed foliage cover falls below 25%, whichever is sooner.

Agencies consulted and submissions received:

Nil.

Appendix I

Department of the Environment, Water, Heritage and the Arts Database Search



Australian Government
Department of the Environment, Water, Heritage and the Arts

Protected Matters Search Tool

You are here: [Environment Home](#) > [EPBC Act](#) > [Search](#)

17 July 2008 09:44

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.

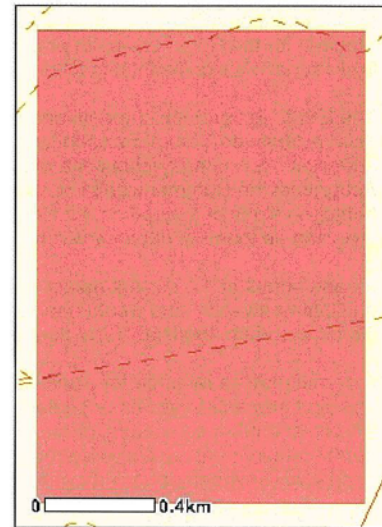
The Australian Natural Resources Atlas at <http://www.environment.gov.au/atlas> may provide further environmental information relevant to your selected area. Information about the EPBC Act including significance guidelines, forms and application process details can be found at <http://www.environment.gov.au/epbc/assessmentsapprovals/index.html>

Search Type: Area
Buffer: 0 km
Coordinates: -22.28032,114.07163, -
22.29756,114.07163, -
22.29756,114.08351, -
22.2803,114.08351



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

http://www.environment.gov.au/cgi-bin/erin/ert/epbc/epbc_report.pl

17/07/2008

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:	11

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:	9
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves:	None

Extra Information

http://www.environment.gov.au/cgi-bin/erin/ert/epbc/epbc_report.pl

17/07/2008

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
Mammals		
Dasyercus cristicauda Mulgara	Vulnerable	Species or species habitat likely to occur within area
Migratory Species [Dataset Information]		
Migratory Terrestrial Species		
Birds		
Haliaeetus leucogaster White-bellied Sea-Eagle	Migratory	Species or species habitat likely to 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

Other Matters Protected by the EPBC Act

Listed Marine Species [Dataset Information]	Status	Type of Presence
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Birds

<i>Apus pacificus</i> Fork-tailed Swift	Listed - overfly marine area	Species or species habitat may occur within area
<i>Ardea alba</i> Great Egret, White Egret	Listed - overfly marine area	Species or species habitat may occur within area
<i>Ardea ibis</i> Cattle Egret	Listed - overfly marine area	Species or species habitat may occur within area
<i>Charadrius veredus</i> Oriental Plover, Oriental Dotterel	Listed - overfly marine area	Species or species habitat may occur within area
<i>Glareola maldivarum</i> Oriental Pratincole	Listed - overfly marine area	Species or species habitat may occur within area
<i>Haliaeetus leucogaster</i> White-bellied Sea-Eagle	Listed	Species or species habitat likely to occur within area
<i>Hirundo rustica</i> Barn Swallow	Listed - overfly marine area	Species or species habitat may occur within area
<i>Merops ornatus</i> Rainbow Bee-eater	Listed - overfly marine area	Species or species habitat may occur within area
<i>Numenius minutus</i> Little Curlew, Little Whimbrel	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

Appendix J

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 Gascoyne Region**
 Contacts: Name: Crystelle Evangelista
 Phone: 9941 0713
 Fax: 9941 0701
 Email: crystelle.evangelista@mainroads.wa.gov.au

Property details

Property: Strategic Material Pit - Minilya-Exmouth Road, SLK 174 -175.75
 Colloquial name:

Area under assessment

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

Avoidance/Minimise clearing

How have the clearing impacts been minimised?
 Flora surveys will be conducted to minimise impacts to rare flora.

BACKGROUND

Existing environment and information

The material pit occurs within vegetation association 662 which is described as "Hummock grassland; shrub steppe; mixed acacia scrub & dwarf scrub with soft spinifex & Triodia basedowii ". According to the Native Vegetation Association Data (DEC & DAF) this vegetation association is well represented in the region with 99.3% remaining. The condition of the vegetation is best described as good, but somewhat degraded due to the grazing of cattle and goats.

Site Visit Undertaken	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Fauna / Flora Survey Undertaken	<input checked="" type="checkbox"/> Yes <input 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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Vegetation Association	Clearing Description	Vegetation Condition	Comment
No.663	Mechanical	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 area under application generally consists of grasses and a few scattered shrubs. The condition of the vegetation is somewhat degraded and does not represent a high level of biodiversity. This proposal is therefore not at variance to this Principle

Methodology Site visit – 09/07/08

(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 at any one time for this proposal and the high percentage of similar vegetation in surrounding areas, impacts to fauna species will be marginal. This proposal is therefore not at variance with this Principle.

Methodology Site visit – 09/07/08
 DEC advice – 17/07/08

(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 species were known to exist within the project area. A flora survey of the proposed project site was conducted in August 2008 to determine if any rare or priority flora species are present within the project area. The flora survey will minimise the impacts of this project on priority flora species.

Methodology Site visit -09/07/08
DEC advice – 11/07/08

(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 Threatened Ecological Communities within the vicinity of the project area. This proposal is therefore not at variance to this Principle.

Methodology GIS database – Threatened Ecological Communities
DEC Advice – 11/07/08

(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 areas is representative of Vegetation Association No.662 which has 99.3% 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 – NRM Slip Native Vegetation Association

(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 likely to be not at variance to this Principle**
The proposed project area does not consist of a watercourse or wetland. This proposal is therefore not at variance to this Principle.

Methodology Site visit – 09/07/08
GIS Database – Acid Sulfate Soils Risk Map

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

Comments **Proposal is not likely to be at variance to this Principle**
The proposed project will only involve the temporary clearing of small area of vegetation. Revegetation of disturbed areas will occur in accordance with Main Roads’ Revegetation Plan for Pastoral Areas that has been approved by DEC. As revegetation of cleared areas will occur as soon as practical, land degradation will be limited. This proposal is therefore not at variance with this Principle.

Methodology Site visit – 09/07/08

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

Comments **Proposal is not likely to be at variance to this Principle**
The proposed project is not near any conservation areas and therefore will not be at variance with this Principle.

Methodology Site visit – 09/07/08

(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 than 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 - 09/07/08

(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 than 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 – 09/07/08

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

Comments

Methodology

SUBMISSIONS

If required have submissions been requested and addressed

Submission Requested from	Request Sent (Date)	Submission Received (Date)	Issues Raised / Comments Made
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ASSESSOR'S RECOMMENDATIONS

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

Recommendation: As the proposed project will involve temporary clearing, a revegetation management plan is required. An Environmental Management Plan has been included in the PEIA and a Flora Surveys will be conducted over the entire project area.

References

OFFICER PREPARING REPORT

Crystelle Evangelista (Graduate Environment Officer)
Gascoyne Regional Office MRWA
Phone 08 9941 0713

Date: 28/08/08