PRELIMINARY ENVIRONMENTAL IMPACT ASSESSMENT

PORT HEDLAND INTERSECTIONS

Great Northern Highway SLK 1603 to 1609
Cajarina Road, Wedgefield

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REVISION NO. 0.0
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CONTENTS

1 PROJECT LOCATION

The project involves at-grade improvements to several intersections on Great Northern Highway (1603 to 1606 SLK) and the widening of a 3.25km section of Great Northern Highway (SLK 1605.74 to 1609 SLK) in the Town of Port Hedland (see Figure 1).

2 BACKGROUND

The work area involved in this project was included as a study option in planning for the Great Northern Highway Reconfiguration. In order to gain an understanding of potential environmental impacts associated with the proposed works, a Comparative Environmental Assessment (CEA) of Route Options for Reconfiguration of the Great Northern Highway at Port Hedland was carried out in January 2008 by BG&E. The CEA was undertaken as a desktop exercise to identify the environmental constraints and aspects that may require referral for statutory approval and further environmental investigations.

3 DESCRIPTION OF THE PROJECT

The proposed upgrade works will consist of:

- At-grade improvements to the intersections of Great Northern Highway with Pinga Street and with Wallwork Road.
- Upgrading a 3.25km section of Great Northern Highway north of Wallwork Road from a three lane highway to a four lane highway.
- At-grade improvements to the Port Hedland Road with Great Northern Highway intersection
- Construction of a link road from the Great Northern Highway to the port access road servicing the new berths at Utah Point and Anderson Point.

The works will include road construction, road widening, construction of ancillary drainage works and the installation of pavement marking and signs.

3.1 Summary Of Significant Environmental Issues

The Port Hedland Intersections Project will not be referred to the WA Environmental Protection Authority or the Commonwealth Department of the Environment, Water, Heritage and the Arts (DEWHA) as there are no significant environmental issues.

4 METHODOLOGY

4.1 Aspects & Constraints

A preliminary assessment of the project area and its potential constraints was undertaken by compiling information from the Comparative Environmental Assessment of the Route Options for Reconfiguration of the Great Northern Highway at Port Hedland (BG&E 2008), which incorporated this study area in it's investigation.

4.1.1 Wetlands

None present within or near the project area.

4.1.2 Threatened Flora, Fauna and Communities, Reserves and ESAs

A DEC database search was conducted for threatened and priority fauna as part of the CEA. Two priority species were recorded in the vicinity of the Port Hedland area and no threatened fauna records were found in the immediate study area (BG&E 2008). The EPBC Act Protected Matter search tool identified no threatened species that would be affected by the project. Migratory species identified in this search have a range far exceeding the proposed route option clearing areas (BG&E 2008) and therefore are not an issue.

4.1.3 Air Quality

The need for a local air quality assessment was determined not necessary using the criteria outlined in the MRWA environmental guideline, Air Quality.

4.1.4 Heritage

No sites present within or near the project area.

4.1.5 Aboriginal Heritage

Ethnographic and archaeological surveys are currently being arranged with the Pilbara Native Title Service.

4.1.6 Sensitive Water Resources

None present within or near the project area.

4.1.7 Contaminated Sites

The work is largely within existing and pre existing road reserve which has not been used for any activity that may have caused contamination.

4.1.8 Acid Sulfate Soils

No further investigations are necessary as there is no dewatering or excavation below the water table.

4.1.9 Weeds

Numerous common weed species occur throughout the proposed works areas however no declared plants are present in the project area.

4.1.10 Dieback

Not applicable to this area.

5 EXISTING ENVIRONMENT

5.1 Description

Vegetation consists typically of coastal heath as shown in the photographs below.

5.2 Site Investigation

A site visit to examine the area was carried out by Project Manager Jeremy Burkett on 16/04/2008.

Site Investigation	**Description/Comment**
Total area (ha) of native vegetation to be cleared	5 ha
Total area (ha) of other vegetation (e.g. regrowth, landscape areas), to be cleared	0.0ha
Weeds present	Yes (no declared weeds)
Drainage areas or wetlands present	No wetlands present
Adjacent land uses	Vacant land. Existing road corridor.

6 CLEARING OF NATIVE VEGETATION

This project will clear 5 ha of native vegetation over the 2.5 km length. No threatened or priority fauna is found in this area.

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 A.

The project is deemed to be *not at* variance with the 10 clearing principles and able to be delivered using Main Roads' clearing permit.

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**	No ESA's and no vegetation classified as being in good or better condition

7 DECISION TO REFER

The decision whether to refer the project to the Commonwealth's DEWR was based upon whether the project would impact upon matters of national significance.

Given the scale of the project 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 Water Resources.

8 ASSESSMENT OF ASPECTS AND IMPACTS

Table 3: Aspects and Impacts – *Port Hedland Intersections*

Aspect	Evaluation of Potential Impacts
Air quality	Not relevant to the proposed works.
Dust	Likely to be a minor issue during earthworks. No major sensitive receivers adjacent to the proposed works. Activities will need to be subject to dust suppression to control short-term dust generation. Likely to be easily managed by standard construction dust management techniques.
Fauna	No significant fauna issues are associated with any of the proposed upgrade works.
Vegetation – clearing	• 5 ha of native vegetation will be cleared. • The project will not involve temporary clearing, however 2 ha will be revegetated. • The condition of the native vegetation to be cleared ranges from poor to fair. • The native vegetation to be cleared is well represented regionally. • 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 – TECs/DRF	None present in the work zone (road reserve)
Vegetation – weeds	Numerous common weed species occur throughout the proposed works areas however no declared plants are present in the project area. Although these common species are likely to be widespread within the 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	No applicable.
Reserves / Conservation areas	There are no conservation areas or reserves near the project area.
Heritage (non-indigenous)	There are no registered European Heritage sites within or adjacent to the work site. No Matters of National Environmental Significance will be impacted.
Aboriginal heritage	Aboriginal heritage field surveys are currently being undertaken
Surface water/drainage	The proposed works will not disturb or interrupt any natural drainage or surface run-off patterns and the works are not located within a proclaimed surface water area.
Wetlands	No wetlands occur within the proposed works site
Groundwater	No dewatering or drainage modifications are required, hence no change to groundwater level or quality.
Noise and vibration	No major sensitive local receivers. Construction works is not be expected to significantly contribute to noise levels at the nearest sensitive receivers, provided works are limited to normal working hours. The requirements of the Town of Port Hedland must be met in respect of noise management and construction working hours.
Visual amenity	The proposed works will result in minor and short-term visual impacts, revegetation will occur post 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 GNH.
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	There were no visual signs of salinity observed in the project area.

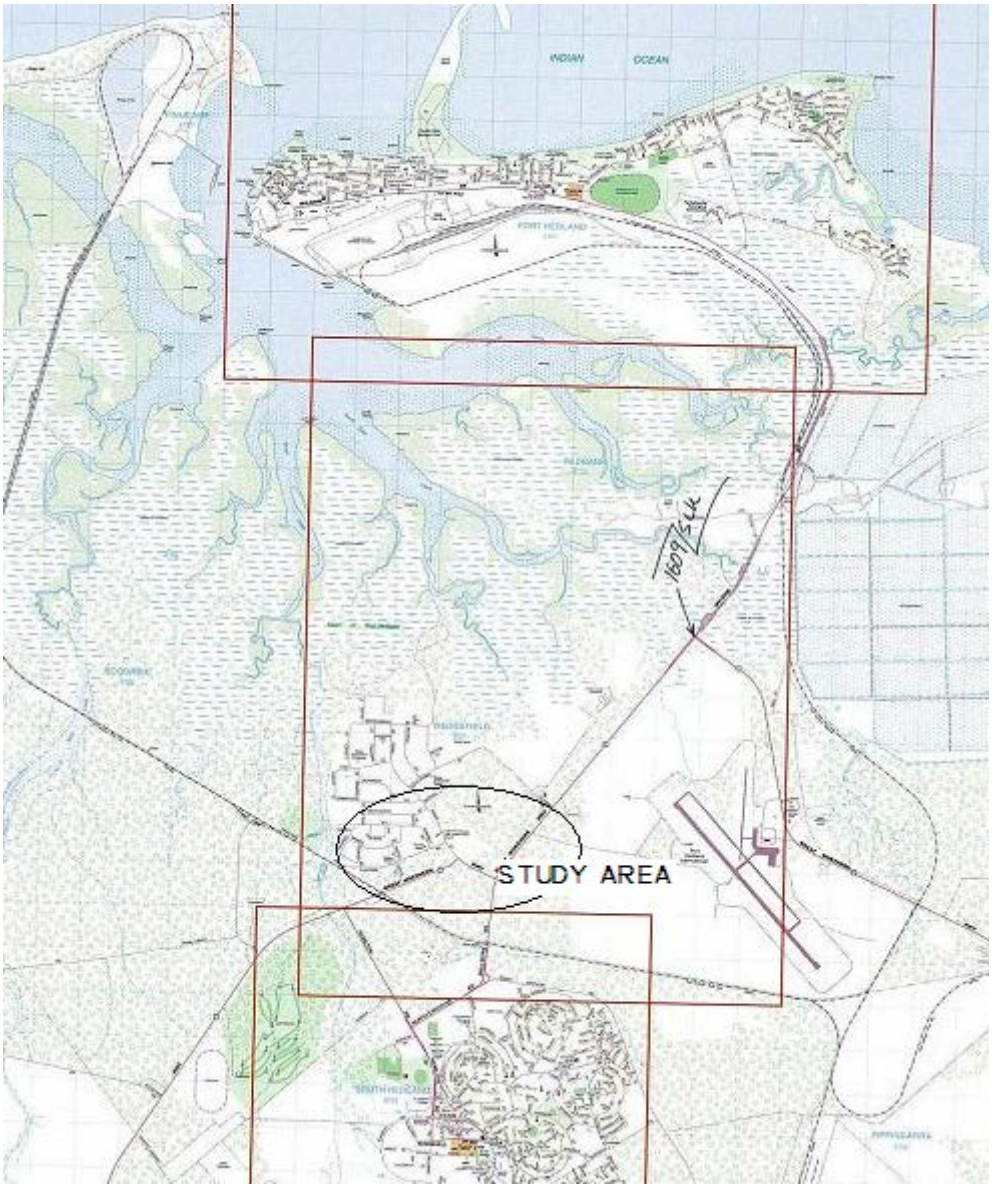
Table 3: Aspects and Impacts – *Port Hedland Intersections*

Aspect	Evaluation of Potential Impacts
Acid Sulfate Soils	The site is not within an Acid Sulfate Soils risk area and the project requires no dewatering or excavation below the water table.
Statutory Land Use Planning	The proposed works are within the existing road reserve. No further amendments would be required to the Local Government Planning Scheme or Region Scheme.

9 REFERENCES

Golder Associates (2008) Comparative Environmental Assessment of Route Options for Reconfiguration of The Great Northern Highway at Port Hedland, WA. Prepared for BG&E and Main Roads WA, February 2008.

Figure 1: Location



Location: Wedgefield, Port Hedland Western Australia.

Figure 2: Aerial Photo

APPENDIX A - 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 818/4.

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: Jeremy Burkett
Phone: 9172 8810
Fax: 9140 1076
Email: jeremy.burkett@mainroads.wa.gov.au

Property details

Property: Great Northern Highway 1603-1609 SLK

Colloquial name:

Area under assessment

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:	Site Plan Attached
4.8ha		Machine	Road Improvements	☐ Yes ☐ No

Avoidance/Minimise clearing

How have the clearing impacts been minimised? Woks have been reduced in size and designed to avoid large trees where possible or clear only on one side of the road.

BACKGROUND

Existing environment and information

Description of the native vegetation under application

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

Site Visit Undertaken	✔ 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
647	Machine clearing for road improvements	Poor to fair	

ASSESSMENT OF APPLICATION AGAINST CLEARING PRINCIPLES

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

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

Methodology The road reserve to be highly degraded and heavly weed infested with very little to no understorey, resulting in the proposal being not at variance with this principle.

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

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

Methodology No fauna affected in this area.

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

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

Methodology No rare flora is located in the work area.

(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**

Methodology No threatened ecological communties are located in the work area.

(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**

Methodology Due to the degraded nature of the vegetation the proposal is determined to be not at variance.

(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**

Methodology No clearing of vegetation in watercourses will take place and no wetlands are located within the work area.

(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**

Methodology Only a thin strip of vegetation is to be cleared with revegetation of removed roads to follow at the completion of the works.

(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**

Methodology The work area is not close enough to any conservation areas to have an impact on their values.

(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**

Methodology Works will not impact any surface water areas and as there is no dewatering groundwater won't be efected.

(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**

Methodology Area is in a low flood risk area away from any major watercourses with only a small amount of vegetation to be

cleared.

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

Comments

N/A

Methodology

SUBMISSIONS

If required have submissions been requested and addressed

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

ASSESSOR'S RECOMMENDATIONS

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

No principles at variance

Recommendation (does this clearing require a Revegetation Management Plan / Offset Proposal / Environmental Management Plan / Management Strategy/New Application, under CPS 818/4)

References

OFFICER PREPARING REPORT

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Position: Jeremy Burkett – Project Manager
Port Hedland Regional Office
MRWA
9172 8810

17 April 2007