

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.:

1166/1

Permit type:

Area Permit

1.2. Proponent details

Proponent's name:

EDL NGD (WA) Pty Ltd

1.3. Property details

Property:

LOT 228 ON PLAN 216500 (Lot No. 228 BROOME WATERBANK 6725)

ROAD RESERVE (BROOME 6725)

ROAD RESERVE (MINYIRR 6725)

ROAD RESERVE (CARLE BEACH 6726)

ROAD RESERVE (CABLE BEACH 6726)

ROAD RESERVE (DJUGUN 6725)

ROAD RESERVE (DJUGUN 6725)

ROAD RESERVE (DJUGUN 6725) ROAD RESERVE (DJUGUN 6725)

ROAD RESERVE (BILINGURR 6725)

LOT 1193 ON PLAN 213567 (House No. 224 PORT MINYIRR 6725)

Local Government Area: Colloquial name:

1.4. Application

Clearing Area (ha)

No. Trees

Method of Clearing

Mechanical Removal

For the purpose of:

Miscellaneous

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description

Beard Vegetation Association 750:

Shrublands, pindan; Acacia tumida (pindan wattle) shrubland with grey box and Eucalyptus grandifolia (cabbage gum) medium woodland over Chrysopogon spp. (ribbon grass) and Triodia bitextura (curly spinifex) (Hopkins et al, 2001).

Clearing Description

The area to be cleared commences at Reserve 40813, also the location of the Fuel Storage Facility (CPS 1134/1, granted), then along road reserves of the existing Buckley's Road, existing Fairway Drive, yet to be constructed Magabala Road, existing Gubinge Road, existing Cable Beach Drive, existing Port Drive, Reserve 33720 and existing McDaniel Road.

The vegetation within the road reserves of all the existing roads has experienced historical disturbance associated with maintaining local infrastructure. The vegetation structure within these road reserves is highly degraded, with very

The vegetation within Magabala Road reserve

poor lower storey grasses and no middle or upper storey species.

Vegetation Condition

Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)

Comment

The description of the vegetation under application was obtained from consultants reports (DoE TRIM Ref: KNI1536, KNI1537, IN25818-01) and aerial photographs (Broome 1m Orthomosaic - DOLA 00).

Excellent: Vegetation structure intact;

and Reserve 33720 has experienced minor disturbances by way of access tracks. The location of the pipeline along Magabala Road follows the access track route, and within Reserve 33720 follows an access track or fire break along its perimeter. Aside from this, the vegetation retains excellent structure within these two areas.

disturbance affecting individual species, weeds non-aggressive (Keighery 1994)

3. Assessment of application against clearing principles

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

Comments Proposal is not likely to be at variance to this Principle

The vegetation at the site is comprised of a single, relatively uniform community, represented by Beard Vegetation Association 750. Species likely to be present include Acacia tumida (pindan wattle) shrubland with grey box and Eucalyptus grandifolia (cabbage gum) medium woodland over Chrysopogon spp. (ribbon grass) and Triodia bitextura (curly spinifex) (Hopkins et al, 2001).

The majority of the proposed clearing involves areas that have been subjected to historical disturbance associated with maintaining local infrastructure (CAU, 2006), therefore additional disturbance in these areas is not likely to significantly impact the biological diversity of the local area and the vegetation is unlikely to represent a biologically diverse environment.

This Association is well represented in the area surrounding Magabala Road and to the north of Reserve 33720, which has not been subject to degradation. It is more likely that these areas contain a higher biological diversity than the proposal area due to the relatively undisturbed condition.

Therefore, the proposal is not likely to be at variance to this Principle.

Methodology

Hopkins et al (2001);

CAU advice (2006);

EDL NDG (WA) Pty Ltd (2006);

GIS Databases:

- Broome 1m Orthomosaic - DOLA 00

(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

A desktop survey and on-ground fauna survey found there were no known Threatened Fauna within the area proposed to be cleared (EDL NDG (WA) Pty Ltd, 2006).

The following species are known to occur within a 10 kilometre radius of the proposal area: Specially Protected - Bilby (Macrotis lagotis), Peregrine Falcon (Falco peregrinus).

Priority Listed - Black Bittern (Ixobrychus flavicollis australis) P2, Scaly-tailed Possum (Wyulda squamicaudata) P3, Eastern Curlew (Numenius madagascariensis) P4, Grey Falcon (Falco hypoleucos) P4, Princess Parrot (Polytelis alexandrae) P4, Water-Rat [Rakali] (Hydromys chrysogaster) P4. (CAU, 2006)

Of the threatened and priority fauna species recorded within the local area, only the Eastern Curlew, Grey Falcon, Princess Parrot and one of the records of the Bilby are recent records (post 1990). The Bilby is listed as a threatened species (fauna that is rare or is likely to become extinct) in the Wildlife Conservation Act 1950 and as a mammal species that is vulnerable in the Environment Protection and Biodiversity Conservation Act 1999. The closest, recent (1998) record of this species was approximately 6 kilometres east of the northern point of the proposed pipeline route (CAU, 2006).

The section of vegetation proposed to be cleared along Magabala Road appears to be the only section (approximately 1.7 kilometres in length) along the proposed route that has had minimal prior disturbance, with the remainder of the route likely to impact only previously disturbed road verges, tracks, boundaries, and power line clearings. The 1.36 hectares (an area 1.7 kilometres in length and 8 metres in width) of vegetation that is proposed to be cleared along Magabala Road would appear to be the area of greatest habitat value along the proposed pipeline route. However, given the close proximity of remnant vegetation to the east, west and north, and the likelihood that these areas will contain similar habitat, the significance of the habitat represented by this area of vegetation is not significant (CAU, 2006).

Therefore, the proposal is not likely to be at variance to this Principle.

It is also recognised that the proponent will implement a Flora and Fauna Management Plan. The procedure commenced with the surveying of the site under application to identify any protected species of fauna, of which none were identified within the area to be cleared (EDL NDG (WA) Pty Ltd, 2006). Other management practices include fencing the construction area to prevent fauna movement into the disturbance site and immediately contacting local wildlife rescue services should any fauna be injured (EDL NDG (WA) Pty Ltd, 2006).

Methodology

EDL NDG (WA) Pty Ltd (2006);

CAU advice (2006);

GIS Databases:

- Threatened Fauna - CALM 30/9/05

(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

The pipeline proposal was referred to the Environmental Protection Authority, however it was set as "Not Assessed - Public Advice Given" (CRN 212646). Advice included the proponent consulting with the Department of Conservation and Land Management (now the Clearing Assessment Unit within the Department of Environment and Conservation) in relation to direct impacts of the proposal on Jacquemontia latisepala prior to construction. However the species Jacquemontia latisepala was incorrectly identified in the initial consultant's report (Paul Armstrong and Associates, 2005a), and further studies have determined it to be Jacquemontia sp. nov. (Paul Armstrong and Associates, 2005b).

The following species are known to occur within a 10 kilometre radius of the proposal area. Declared Rare Flora - Keraudrenia exastia.

Priority Flora - Glycine pindanica, Nicotiana heterantha, Gomphrena pusilla, Keraudrenia katatona and Phyllanthus aridus. (CAU, 2006)

A field flora survey was undertaken by Paul Armstrong and Associates (2006a) in mid to late summer (wet season) in February 2005. In March 2005 a secondary survey was completed to ascertain the extent of populations of significant species identified in the first survey (Paul Armstrong & Assoc, 2005b). Vegetation descriptions were produced for the two largest areas of proposed clearing - "east of the power station (extensive re-clearing) and the northern portion of Gubinge Drive to the northern end of Magabala Road (initial clearing)", representing an area of approximately 2.5 kilometres (Paul Armstrong and Associates, 2005b). Two species of conservation significance were identified, Glycine pindanica and Jacquemontia sp. nov. (Paul Armstrong and Associates, 2005a).

During the initial survey 22 plants of Glycine pindanica (P1) were identified, 10 of which would be destroyed (31% reduction in the population) in the clearing and/or construction process. The consultant notes this species as being a disturbance opportunist, therefore disturbance activities are likely to result in increased germination and a net overall increase in the population size (Paul Armstrong & Assoc, 2005b). The plants were not located within the undisturbed vegetation adjacent to Gubinge Road but on the road shoulders. The estimate of 10 plants being destroyed was based on the assumption that the southern road shoulders would be impacted during the construction phase. The consultant states "if this shoulder can be avoided during the construction, with reasonable care no plants of this species are likely to be taken". (Paul Armstrong & Assoc, 2005b)

The long term impact to the viability of the population of Glycine pindanica is not expected to be significant as it is known to be a disturbance opportunist species (CAU, 2006). It is recommended, however, that rehabilitation of the disturbed areas (that will not be maintained in a cleared state) be carried out using the cleared overburden and topsoil as soon as possible so that any seed in the topsoil is spread as quickly as possible so as to retain maximum viability (CAU, 2006). Spreading topsoil, as opposed to translocation, is the most appropriate action for species that regenerate readily after disturbance (CAU, 2006).

Jacquemontia sp. nov. has only been recorded once, therefore the consultant has considered it to be a species of conservation significance as it could be classified as "poorly collected and likely to be rare". The consultant states that the 50 plants identified will "not be impacted by the gas pipeline construction if reasonable care is exercised", as the closest plants are 30 metres from the proposed pipeline alignment (Paul Armstrong & Assoc, 2005b)

It is recommended that best practice operation methods be established to ensure that there is no off-site disturbance that might affect Jacquemontia sp. nov. (CAU, 2006). If clearing is restricted to within the permitted area only, there will be no impact on Jacquemontia sp. nov.

Based on the information provided by the proponent and the consultant regarding the anticipated level of impact on flora, this proposal in not likely to be at variance to this principle.

Methodology

CAU advice (2006);

Paul Armstrong & Assoc (2005a);

Paul Armstrong & Assoc (2005b);

EDL NGD (WA) Pty Ltd (2006);

GIS Database:

- Environmental Impact Assessments DOE 24/02/06
- Declared Rare and Priority Flora List CALM 01/07/05
- Interim Biogeographic Regionalisation of Australia EA 18/10/00

(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

A desktop survey and an on-ground flora survey found there were no Threatened Ecological Communities within the area proposed to be cleared (EDL NDG (WA) Pty Ltd, 2006).

The following Threatened Ecological Communities are known to occur within a 10 kilometre radius of the proposal area - Broome Townsite Vine Thickets 01 and 08 and the Roebuck Bay Mudflats (CAU, 2006).

The Broome Townsite Vine Thickets are located in the shelter of the sand dunes, inland from Cable Beach and extending south to Gantheaume Point. The thickets represent the southernmost stand of rainforest vegetation in the Kimberley and an important seasonal food resource for Aborigines, so are of high ecological importance (Burbidge et al, 1991). It is not likely that the thickets would occur adjacent to the pipeline route, as they only occur on coastal sand dunes and this habitat does not occur along the route (Paul Armstrong & Assoc, 2005a).

The Roebuck Bay Mudflats are located immediately east and south-east of Broome, extending around Roebuck Bay to the south. The mudflats are an important feeding area for migratory wading birds (Burbidge et al, 1991). It is not likely that the mudflats would occur adjacent to the pipeline route, as they only occur a marine type environment and this habitat does not occur along the route (Paul Armstrong & Assoc, 2005a).

The area proposed to be cleared does not occur within the Roebuck Bay mudflats or on coastal sand dunes (CAU, 2006), therefore the proposal is not likely to be at variance to this Principle.

Methodology

EDL NDG (WA) Ptv Ltd (2006);

CAU advice (2006); Burbidge et al (1991);

Paul Armstrong & Assoc (2005a);

GIS Databases:

- Threatened Ecological Communities CALM 12/4/05
- Broome 1m Orthomosaic DOLA 00

(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 likely to be at variance to this Principle

The area applied to clear is a component of Beard Vegetation Association 750 (Hopkins et al, 2001). Approximately 2.3% of this Association is located within IUCN Class I-IV Reserves (Shepherd et al, 2001). There is approximately 99% of the broad scale, pre-European extent of this Association remaining (Shepherd et al, 2001), which indicates it is well represented in the natural environment. Therefore, this Association is of least concern for biodiversity conservation (Department of Natural Resources and Environment, 2002).

The pipeline is 12.2km long. Of this, approximately 11.1km is located adjacent to existing roads, comprising 8.88 hectares of the proposed 9.8 hectares to be cleared. The vegetation to be cleared has been subject to historical disturbance associated with maintaining local infrastructure, and is degraded. Therefore the vegetation within these areas is not of high conservation significant as a remnant of native vegetation. The small amount of additional disturbance resulting from the pipeline construction is therefore not of concern for the preservation of this vegetation.

Approximately 625m of the pipeline route passes through Magabala Road reserve, which comprises a total of 0.5 hectares proposed to be disturbed during construction. The vegetation within this road reserve is in excellent condition, as is the surrounding vegetation, however a dirt track does pass through the road reserve. Planning for the pipeline has taken into consideration the disturbance already created by this track, and the pipeline has been located over it. Rather than increasing the footprint of disturbance within this otherwise well preserved area, the pipeline location takes advantage of the disturbance and ensures the remaining vegetation is disturbed to a very minimum. The existing track is approximately 3m wide, so approximately 0.19 hectares has already been cleared. Therefore the additional area of vegetation to be cleared from Magabala Road reserve is 0.31 hectares. Additionally, the track is located on the eastern side of the road reserve, and the placement of the pipeline here ensures the remaining 4.47 hectares within Magabala Road reserve remains undisturbed.

Approximately 470m of the pipeline route passes through Reserve 33720, at the southern end of the route, which comprises a total of 0.38 hectares proposed to be disturbed during construction. The vegetation within this reserve is in excellent condition, as is the vegetation to the north of the reserve, however a fire break does pass through the reserve. As within Magabala Road reserve, planning for the pipeline has taken into consideration the disturbance

already created by this fire break, and the pipeline alignment has been sited over it. Again, the footprint of disturbance is minimised by taking advantage of the current disturbed area as the route for the pipeline. The existing fire break is approximately 5m wide, so approximately 0.24 hectares has already been cleared. Therefore the additional area of vegetation to be cleared is 0.14 hectares. Additionally, the fire break is located on the southern side of Reserve 33720, parallel to current industry land uses, and the placement of the pipeline here ensures the remaining 1.97 hectares within Reserve 33720 remains undisturbed.

In summary, approximately 9.31 hectares of the proposed 9.8 hectares applied to clear is already disturbed or partially cleared. The area of new disturbance within areas of vegetation comprising good too excellent condition is 0.45 hectares. The clearing of such a small area of vegetation, adjacent to existing disturbed tracks, will not significantly reduce the remaining extent of this vegetation Association, therefore the proposal is not likely to be at variance to this Principle.

Methodology

Hopkins et al (2001);

Shepherd et al (2001);

Department of Natural Resources and Environment (2002);

GIS Databases:

- Pre-European Vegetation - DA 01/01

(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 proposed to be cleared is located less than one kilometre east of the coast line and approximately 2.5 kilometres west of Dampier Creek (EDL NDG (WA) Pty Ltd, 2006). A desktop survey also located the RAMSAR and ANCA classified wetland of Roebuck Bay approximately 3.5 kilometres south east, and the Roebuck Plains and Lake Eda areas approximately 3 kilometres south east of the proposal area.

The proposal is not associated with a water course or wetland and is therefore not at variance to this Principle.

It is noted that the proponent will implement a Surface Water Management Plan which involves the installation of a site drainage system to prevent uncontrolled, off-site water movement in relation to the construction and ongoing processes of the proposed power station (EDL NDG (WA) Pty Ltd, 2006).

Methodology

EDL NDG (WA) Pty Ltd (2006);

GIS Databases:

- Hydrography, linear (hierarchy) DOE 13/4/05
- Register of National Estate EA 28/01/03
- RAMSAR, Wetlands CALM 14/02/03
- ANCA, Wetlands CALM 08/01

(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 clearing will be blade down, resulting in removal of all root systems that currently stabilise soils and prevent erosion. The soils on site are red earthy sands with hummocks of siliceous sands (Northcote et al, 1960-68) so have a moderate potential for erosion (Schoknecht, 2002). The area along the roads is currently highly disturbed from road maintenance activities, and as such already quite degraded. The area along Magabala Road and Reserve 33720 is moderately disturbed from previous access tracks. Therefore, the proposal is not likely to cause appreciable land degradation.

It is noted that the proponent will implement a Soil Erosion Management Plan which involves the installation of a site drainage system to prevent erosion in relation to the construction and ongoing processes of the proposed power station (EDL NDG (WA) Pty Ltd, 2006).

Methodology

Northcote et al (1960-68);

Schoknecht (2002);

EDL NDG (WA) Pty Ltd (2006);

Application form;

GIS Database:

- Soils, Statewide DA 11/99
- Broome 1m Orthomosaic DOLA 00

(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 following conservation areas are known to occur within a 10 kilometre radius of the proposal area:

- * Within the local area there is one System 7 (Red Book) area: Point Coulomb Nature Reserve.
- * 198 other reserves that are not vested in the Conservation Commission occur within the local area.
- * Three Land for Wildlife sites within the local area.
- * There are seven occurrences of Environmentally Sensitive Areas within the local area, including three Threatened Ecological Community sites and one Declared Rare Flora site.
- * There are 18 records from the Register of National Estate within the local area, one of which is a site included on the Register for its Natural Heritage values; Roebuck Bay Area including Roebuck Plains and Lake Eda.
- * The Roebuck Bay RAMSAR site partly occurs within the local area.
- * There is one Important Wetland (Roebuck Bay) record within the local area, closest point being approximately 750 metres. (CAU, 2006)

Roebuck Bay is the closest conservation area to the proposed clearing and regarded as an important wetland (CAU, 2006). The section of the pipeline identified as being closest to Roebuck Bay is within well-developed areas of Broome. Installation of the pipeline will not significantly increase the impact on Roebuck Bay, therefore this proposal is not likely to be at variance to this Principle.

Methodology

CAU advice (2006);

EDL NGD (WA) Pty Ltd (2006);

GIS Database:

- CALM Managed Lands and Waters CALM 1/07/05
- Broome 1m Orthomosaic DOLA 00

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Comments

Proposal is not likely to be at variance to this Principle

The pipeline location passes through the Roebuck, Cable Beach and Broome Townsite Sub-areas within the Broome Groundwater Area proclaimed under the Rights in Water and Irrigation Act 1914. Dampier Creek lies approximately 2.5 kilometres south east and the coastline is located less than one kilometre west of the closest points of the pipeline route. The Public Drinking Water Source Protection Area, consisting of P1 and P3 protection zones, lies approximately 5 kilometres north east of the pipeline.

Due to the linear and narrow footprint of clearing, small size of the proposal area, and the distance away from the creek, coast and Public Drinking Water Source Protection Area, it is unlikely that the clearing will cause deterioration in the quality of surface or underground water.

It is also noted that the proponent will implement a Surface Water Management Plan which involves the installation of a site drainage system to prevent uncontrolled, off-site water movement in relation to the construction and ongoing processes of the proposed power station (EDL NDG (WA) Pty Ltd, 2006).

Methodology

EDL NDG (WA) Pty Ltd (2006);

GIS Databases:

- Public Drinking Water Source Areas (PDWSAs) DOE 07/02/06
- RIWI Act, Surface Water Areas WRC 18/10/02
- RIWI Act, Groundwater Areas WRC 13/06/00
- Hydrography, linear (hierarchy) DOE 13/4/05

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Comments

Proposal is not likely to be at variance to this Principle

Flooding occurs seasonally over the December to March period, where the flood height and duration are lengthy and extreme. The clearing of 9.8 hectares of vegetation is not likely to increase the incidence or intensity of these naturally occurring flood events.

Therefore, the proposal is not likely to be at variance to this Principle.

Methodology

GIS Database:

- Rainfall, Mean Annual - BOM 30/09/01

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

Comments

EDL NDG (WA) Pty Ltd holds a lease over a portion of Reserve 40813 from the Shire of Broome. The Reserve is vested with the Shire for the purposes of Rubbish Disposal Site and Gas Storage Facility. EDL NDG (WA) Pty Ltd holds an Access Deed over the road reserves for Buckley's Road, Fairway Drive, Magabala Road, Gubinge Road, Cable Beach Road, Port Drive, McDaniel Road and Reserve 33720 with the Shire of Broome and Main Roads WA. Reserve 33720 is crown land reserved for the purpose of Public Utilities Services.

The Shire of Broome requests that:

- * mature native trees are retained where possible, with the exception of the soap and coastal wattles;
- * that no stumps or vegetation are pushed into adjoining uncleared areas;
- * that vegetation be removed from site for disposal;
- * that topsoil be retained for use in rehabilitation after sinking of the pipeline;
- * that access tracks between sealed roads and the pipeline are kept to a minimum and do not disturb unauthorised, uncleared areas of vegetation.

The proponent is in discussions with the Shire of Broome to determine which mature native trees are to be retained along the pipeline route, consistent with Town Planning provisions. The issue of pushing vegetation into adjoining uncleared areas and the creation of access tracks outside the permitted area, are in breach of the provisions of the clearing permit, and the proponent is advised to ensure any areas outside the permitted area are not disturbed. Removal of vegetation for disposal is discouraged, as vegetative material and topsoil is required under Condition 1 of this permit to be retained, and under Condition 2 of this permit to be spread to an even depth on exposed overburden and soil to rehabilitate the area.

There is one Native Title claim over the area under application, by the Rubibi peoples. As the lease has been granted and the proposed activity complies with the land zoning, the granting of a clearing permit does not constitute a future act under the Native Title Act 1993.

The proposed clearing occurs in an area that is covered by the following Registered Indigenous Heritage Sites - Illangarami (ID 12886), Ngilirirrbanjin (ID 13351), Clementson Street Site Complex (ID 12251), Lintapitjin Lot 2065 Port Drive (ID 12410), Balliwanduna (ID 12887), Gantheaume Point 1 (ID 12924). It is the proponent's responsibility to comply with the Aboriginal Heritage Act 1972 and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

The construction and operation of the pipeline does not require a Works Approval or Licence under the Environmental Protection Act 1986.

Water is not required for the operation or construction of the pipeline, therefore a Water Licence under the Rights in Water and Irrigation Act 1914 is not required.

The area under application has been subject to four referrals to the Environmental Protection Authority. Three of the referrals are not related to the proposal under assessment. The fourth referral applies to the pipeline project, however it was not assessed (CRN 212420). Advice given included the proponent consulting with the Department of Conservation and Land Management (now Department of Environment and Conservation) in relation to direct impacts of the proposal on Jacquemontia latisepala, and consulting with the Department of Indigenous Affairs regarding Aboriginal Heritage issues prior to construction. The proposal is consistent with this advice.

Methodology

GIS Databases:

- Native Title Claims DLI 7/11/05
- Aboriginal Sites of Significance DIA
- Environmental Impact Assessments DOE 24/02/06

4. Assessor's recommendations

Purpose Method Applied area (ha)/ trees

Decision

Comment / recommendation

MiscellaneousMechanical Removal

9.8

Grant

For the purpose of the construction and operation of the Broome Pipeline. Assessable criteria have been addressed and no objections were raised. The proposal was found to be not at variance to principle f and not likely to be at variance to all other principles, supported by the proposed implementation of the following internal management plans:

- * Flora and Fauna Management Plan
- * Soil and Groundwater Management Plan
- * Surface Water and Soil Erosion Management Plan

The Assessing Officer therefore recommends the proponent adhere to these Plans, among others, as specified in Energy Developments (2006) West Kimberley Power Project Construction Environmental Management Plan 2060-STD-00-PC-001 Revision C.

The Assessing Officer recommends that the permit should be granted.

The applicant will be required to liaise with the Department of Indigenous Affairs in relation to the Sites of Aboriginal Significance.

5. References

Burbidge, A.A., McKenzie, N.L., Kenneally, K.F. (1991) Nature Conservation Reserves in the Kimberley WA, Department of Conservation and Land Management.

Clearing Assessment Unit biodiversity advice for land clearing application. Advice to Director General, Department of Environment and Conservation (DEC), Western Australia. TRIM Ref DOC1070

- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.
- EDL NDG (WA) Pty Ltd (2006) Land Clearing Permit Application Supporting Information. Broome Low Pressure Gas Pipeline West Kimberley Power Project Broome, Western Australia. Revision 0. DoE TRIM Ref: IN25818-01
- Energy Developments (2006) West Kimberley Power Project Construction Environmental Management Plan 2060-STD-00-PC-001 Revision C. TRIM Ref: DOC1307
- Graham G. (2001) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions in 2002. Dampierland 2 (DL2 Pindanland subregion).
- Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- Paul Armstrong and Associates (2005a) Botanical Survey and Rare Flora Search at Broome for a Proposed Gas Pipeline.

 Prepared for Douglas Partners. DoE TRIM Ref: KNI1536
- Paul Armstrong and Associates (2005b) Supplementary Report to: Botanical Survey and Rare Flora Search at Broome for a Proposed Gas Pipeline. Prepared for Energy Developments. DoE TRIM Ref: KNI1537
- Schoknecht N. (2002) Soil Groups of Western Australia. A simple guide to the main soils of Western Australia. Resource Management Technical Report 246. Edition 3.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.

6. Glossary

Term	Meaning
101111	woanng

CALM Department of Conservation and Land Management

DAWA Department of Agriculture

DEP Department of Environmental Protection (now DoE)

DoE Department of Environment

DoIR Department of Industry and Resources

DRF Declared Rare Flora

EPP Environmental Protection Policy
GIS Geographical Information System
ha Hectare (10,000 square metres)
TEC Threatened Ecological Community

WRC Water and Rivers Commission (now DoE)