



## 1. Application details

### 1.1. Permit application details

Permit application No.: 1352/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Blina Diamonds NL

### 1.3. Property details

Property: M4/372  
Local Government Area: Shire Of Derby-West Kimberley  
Colloquial name: Mining Lease 04/372 - Ellendale Diamond Project

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
14		Mechanical Removal	Mineral Production

## 2. Site Information

### 2.1. Existing environment and information

#### 2.1.1. Description of the native vegetation under application

**Vegetation Description**  
The purpose permit area is located within Beard Vegetation unit 745 : Shrublands, pindan; acacia shrubland with scattered low trees over spinifex (Shepherd et al. 2001).  
Mattiske Consulting Pty Ltd was commissioned by the Kimberley Diamond Company to update previous flora and vegetation surveys of the Ellendale Diamond survey area and produced an updated map and report in 2005. This map covers the western half of the purpose permit application area and provides more precise information than the Beard Vegetation Unit mapping. Vegetation surveys for the 2005 report and map were conducted in April 2001 and December 2002 and have been supplemented by specimens collected by the Kimberley Diamond Company. A total of 15 vegetation communities were defined by Mattiske of which three were mapped within the area that is the subject of this permit. These include :

Type A: Pindan woodland, low open woodland of *Corymbia opaca*, *Acacia platycarpa* and *Bauhinia*

**Clearing Description**  
This purpose permit application is for an area of up to 14 hectares within a larger area of approximately 815 hectares. The clearing is for the mining of 2 diamondiferous alluvial channels and the upgrading of an existing access track. The mining of the diamondiferous gravels will result in the excavation of two trenches approximately 30 to 70 metres wide, up to 5 metres deep and approximately 1 kilometre long. The diamondiferous gravel layer is approximately 1 metre thick and is typically covered by 1 to 2 metres of overburden. The paleochannels are approximately 1 kilometre apart and from available exploration results do not appear to be located over the existing drainage lines.

**Vegetation Condition**  
Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)  
  
To  
  
Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)

**Comment**  
The vegetation condition assessment is based on Mattiske (2005) which described the condition of the vegetation surveyed in the Ellendale area as varying from very degraded to very good. Mattiske (2005) and Ninox (2003) both noted that the vegetation within the Ellendale lease area had been subjected to extensive grazing activities and frequent fires. Mattiske noted that the impacts of the proposed mining operations are relatively minor in a local and regional context. Disturbance from previous mining exploration activity was also noted by Mattiske (2005) and several tracks run through the purpose permit application area.  
A site visit by the DoIR Native Vegetation Assessor in June 2006 confirmed the above findings and noted that the vegetation condition where the mining is planned to occur would be most accurately described in those areas as Very Good to Degraded using the Keighery (1994) scale.

*cunninghamii* over *Sorghum stipoideum*, *Fimbristylis pachyptera* and *Sida hackettiana* in loamy sandy soils on lower slopes.

Type D-C-A: Combination of Vegetation Types C (Twin-leafed Bloodwood Savanna Woodland) and D (Poplar Gum Low Savanna Woodland) and A (Pindan Woodland). Low open woodland of *Eucalyptus bigalerita*, *Acacia platycarpa* and *Bauhinia cunninghamii* over *Sorghum stipoideum*, *Fimbristylis pachyptera* and *Sida hackettiana* on loamy sands on lower slopes.

Type H: Bauhinia Beefwood Savanna Woodland.

### 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 purpose permit area is located within the Fitzroy Trough Interim Biogeographical Regionalisation of Australia (IBRA) subregion (GIS database). The biodiversity values of the Fitzroy Trough IBRA subregion are described by Graham (2001). High species diversity and ecosystem diversity are stated for rainforests patches which are also noted as centres of endemism for the subregion.

No rainforest patches were noted by the vegetation survey and report of Mattiske Consulting (2005) which covered the broader Ellendale project area and included approximately half of the area under this purpose permit application. A good quality aerial photo of the purpose permit area was provided by Blina Diamonds for this application and no rainforest patches are located within the purpose permit area. The plant communities recorded in the Ellendale area were judged by Mattiske Consulting (2005) to be well represented in the regional context and none were considered to be of regional or national significance.

A site visit was conducted by the DoIR Native Vegetation Assessor on the 21 and 22 June 2006. The site visit confirmed that the vegetation proposed to be cleared does not include rainforest or vine thickets nor does it include vegetation that may be of local significance such as vegetation types that are fire sensitive and restricted to rocky outcrops (*Callitris* Sp on sandstone) or seasonally inundated low lying areas (Freshwater mangrove areas). No Devonian reef outcrops are located within the clearing permit area.

CALM advice received (CALM 2006) stated that based on the level of previous disturbance due to fire, grazing and exploration and the well represented nature of the vegetation in a regional context as recorded by Mattiske Consulting (2005), this proposal is unlikely to represent an area of high biodiversity value in a local or regional context and as such is not likely to be at variance to this principle.

##### Methodology

CALM (2006).  
GIS database-IBRA (subregions)-EA 18/10/2000.  
Graham (2001).  
Mattiske Consulting Pty Ltd (2005).

#### (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**

The fauna of the Ellendale area has been the subject of a number of wildlife surveys and reports since 1980 which have been analysed and their findings discussed in a report produced by Ninnox Wildlife Consulting (2003). Surveys in the Ellendale area were conducted in May 1980, May 2001 (sampling some of the 1980 sites) and December 2002. Three of the sites surveyed in 2001 (KD 03, KD 04 and OP 2) are located within the proposed clearing area. A further four sites (KD 02, OP1, OP 3-1, OP3-3) are located in close proximity and in similar vegetation types. Ninnox Wildlife Consulting notes in their report that the vegetation in the vicinity of site KD04 had been severely degraded between the 2001 and 2002 surveys due to cattle activity, and cited a lack of grass cover, dead or dying shrubs and severe soil disturbance from cattle hooves.

In their 2003 report, Ninnox Wildlife Consulting state that 20 species of conservation significance, listed in the

schedules of the *Wildlife Conservation (Specially Protected Fauna) Notice 2005* or listed on CALM's own priority list, are known or could potentially occur in the habitats of the Ellendale area. These consist of 11 mammals, three reptiles and six bird species.

Of the 20 species listed, one Priority listed mammal, the Lakeland Down Mouse *Leggadina lakedownensis* (Priority 4) was recorded at sites KD03 and KD04 in 2001, and two Priority listed bird species, the Australian Bustard *Ardeotis australis* (P4) and Pictorella mannikin *Heteromunia pectoralis* (P4), were also recorded at both sites in 2001/2002.

The Lakeland Down Mouse tends to occur in areas with clay-based soils supporting native grasses (Ninox Wildlife Consulting 2003). Ninox Wildlife Consulting (2003) stated in their report that based on the extensive areas of remaining habitat suitable within and outside of the Ellendale project area, the impact of the proposed mining activities is unlikely to be significant to the Lakeland Down Mouse.

Similarly the impact of mining on the Australian Bustard was judged by Ninox Wildlife Consulting (2003) to be minimal and that no specific management measures were required beyond generalised impact reduction measures outlined in their report.

The potential impacts of mining on the Pictorella Mannikin were not discussed in the Ninox Wildlife Consulting (2003) report. The Action Plan for Australian Birds (Garnett and Crowley 2000) lists the threatening processes to that species as changes to fire regimes and stock grazing leading to an increased incidence of air sac mite which is a potential indicator of environmental stress (the same concerns apply to the Gouldian Finch *Erythrura gouldiae*). Recommended actions under that action plan do not relate to land clearing or specific habitat protection.

A number of specific management measures are listed in Ninox Wildlife Consulting (2003) that relate to Scheduled or Priority listed fauna. Although not recorded within the areas subject to this purpose permit, these fauna are listed as potentially occurring in the Ellendale Project area.

The minimisation of impacts to rocky habitats is listed for the Rock Ringtail Possum *Petropseudes dahli* (P3) and three listed bat species that use rocky areas as roosting habitats (Ghost Bat *Macroderma gigas* (P4), Orange Leaf-nosed Bat *Rhinonycteris aurantius* (Declared Threatened Fauna) and Yellow-lipped Bat *Vespedalus douglasorum* (P2). No rocky habitats were reported to occur in the area by Ninox Wildlife Consulting (2003) or Mattiske Consulting (2005). A site visit by the DoIR Native Vegetation Assessor on the 21 and 22 June 2006 confirmed that no rocky habitats are present within the areas proposed to be cleared.

In relation to the potential for the Northern Marsupial Mole *Notoryctes caurinus* (Schedule 1 Fauna that is rare or is likely to become extinct) to occur within the Ellendale area, the clearing of vegetation on deep red sands should be minimised and access tracks should where possible follow existing roads and tracks. Blina have indicated during the site visit that they will follow and upgrade an existing access track to allow the haulage of the ore recovered as part of this proposal rather than create further disturbance by creating a new haul road (Norman Galli, Blina Environmental Supervisor, pers comm. 21/6/06).

The Gouldian Finch *Erythrura gouldiae* (Schedule 1) was recorded in the 1980 study of the Ellendale area but not during the more recent 2001 and 2002 surveys. The decline of this species is linked to changes in fire regimes and native grass seed availability as well as increased mortality from diseases due to lower food supply levels. Ninox Wildlife Consulting (2003) state that the development of the mine is unlikely to significantly impact on that species given the large areas of suitable habitat present in the general area. Ninox Wildlife Consulting (2003) further recommends that clearing be kept to a minimum and where possible access tracks should follow existing access track routes.

The Bilby *Macrotis lagotis* (Schedule 1) is most likely to occur within Acacia shrublands on deep red sands in the Ellendale project area (Ninox Wildlife Consulting 2003). A relatively recent but abandoned burrow system was located at site KD05 in December 2002 to the south of the area subject to this purpose permit. The impact of the mine in the Ellendale project area was judged unlikely by Ninox Wildlife Consulting (Ninox Wildlife Consulting 2003) to add significantly to the existing impacts of cattle grazing, feral cat predation and changed fire regimes that have contributed to the decline of that species. General impact reduction measures were deemed sufficient to address the impact of mining to that species.

In its assessment of the Fitzroy Trough IBRA subregion biodiversity Graham (2001) listed Riparian zones as being significant by providing dry season refuges to fauna. The site visit undertaken in June 2006 by the DoIR Native Vegetation Assessor confirmed that the proposed mining operation is unlikely to impact on existing creeklines. The site visit also confirmed that the vegetation in the vicinity of the proposed mining operation near the existing creeklines appears to be of no value as a dry season refuge.

CALM advice received (CALM 2006) stated that: having reviewed the associated fauna survey summary provided with the application and DoIR's assessment of this Principle, it would appear that this proposal is unlikely to impact on habitat significant for native fauna.

Given all of the above, the vegetation in the proposed clearing area is not considered necessary for the maintenance of significant fauna habitat and is not likely to be at variance to this principle.

Garnett S.T. & Crowley G.M. (2000) The Action Plan for Australian Birds. Environment Australia.  
Mattiske Consulting Pty Ltd (2005).  
Ninox Wildlife Consulting (2003).

**(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 closest known Declared Rare Flora (DRF) or species listed on CALM's own priority list in the region is the DRF *Eucalyptus mooreana* located approximately 65 kilometres to the east of the areas applied to clear (GIS database).

Previous botanical surveys have been undertaken in the Ellendale area by Dames and Moore in 1981 for the CRA exploration Ashton Joint Venture. More recent surveys in the area have been carried out by Mattiske Consulting for the Kimberley Diamond Company in April 2001 (wet season survey) and December 2002 (dry season survey). The information collected has been further updated with botanical records from the Kimberley Diamond Company. A new updated vegetation map and report for the Ellendale Diamond Project was produced in May 2005 by Mattiske Consulting Pty Ltd (2005). The map covers the western half of the proposed clearing area applied as well as large areas to the North and South.

No DRF or Priority Flora was located by Mattiske Consulting Pty Ltd in those surveys.

Based on the extensive vegetation surveys that have been carried out in the Ellendale project area, it is unlikely that DRF or Priority Flora occur in the proposed clearing area and the proposal is judged not likely to be at variance to this principle.

CALM advice received (CALM 2006) stated that: having regard to the previous flora survey information, CALM concurs with DoIR's assessment report findings that this proposal is unlikely to be at variance with this principle.

**Methodology** CALM (2006).  
GIS Database-Declared Rare and Priority Flora List-CALM (01/07/2005).  
Mattiske Consulting Pty Ltd (2005).

**(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**

No known Threatened Ecological Community (TEC) occurs within the areas proposed to be cleared (GIS Database 2005). The closest known TEC is the Assemblages of Big Springs organic mound springs located more than 100 kilometres from the proposed clearing areas (CALM 2006). No plant communities within the Ellendale Diamond Project Area were found to be of national or regional significance by Mattiske Consulting Pty Ltd (2005).

None of the ecosystems found within the purpose permit area are listed as ecosystems at risk in the assessment of the Fitzroy Trough IBRA subregion biodiversity values by Graham (2001).

A site visit was conducted by the DoIR Native Vegetation Assessor on 21 and 22 June 2006. Following that visit it is apparent that the vegetation community types that are locally significant in the Ellendale area are associated with rocky outcrops (fire sensitive vegetation on sandstone, Devonian Reef vegetation) or low lying seasonally inundated areas. The proposed mining of paleochannels does not involve clearing of seasonally inundated areas nor vegetation located on rocky outcrops.

Based on the lack of known records of TEC's from the local area, defined as a 50km radius from the proposed clearing, CALM advises that this proposal is unlikely to be at variance with this Principle (CALM 2006).

**Methodology** CALM (2006).  
CALM TEC database (2006).  
GIS Database-Threatened Ecological Communities-CALM (12/04/2005).  
Graham (2001).  
Mattiske Consulting Pty Ltd (2005).

**(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 of the site is classified as Beard Vegetation Association 745 (Hopkins et al. 2001) which has 100 % of the pre-European extent remaining (Shepherd et al. 2001, 2001a).

Approximately 0.5 % of Beard Vegetation Type 745 is protected in IUCN class I-IV reserves (Shepherd et al. 2001a).

The benchmark of 15% representation in conservation reserves (JANIS Forests Criteria, 1997) has not been met

for Beard vegetation association 745. However, the area proposed to be cleared does not represent a significant remnant of native vegetation due to the widespread nature of this vegetation type both on a local and regional scale.

Given that Vegetation Type 745 remains at its current pre-European extent and that the proposed clearing will not reduce the extent of that vegetation type to less than 30 % in the bioregion, which is well above the 30% threshold identified by the EPA in Position Statement No. 2, below which species loss appears to accelerate exponentially at the ecosystem level (EPA, 2000), it is considered that the proposed clearing is not at variance to principle e.

**Methodology** EPA (2000).  
Hopkins et al. (2001).  
JANIS (1997).  
Shepherd et al. (2001).  
Shepherd et al. (2001a).

**(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 likely to be at variance to this Principle**

There is a minor non-perennial watercourse located in the area subject to this clearing permit (GIS database). However that watercourse has not been identified as having significant environmental values by Ninnox Wildlife Consulting (2003) or Mattiske Consulting Pty Ltd (2005). Vegetation survey plots located on the edge of that creek within the purpose permit area by the Kimberley Diamond Company (2005) indicate that the area in the vicinity of the creek is dominated by the introduced weed Buffel grass. No riparian vegetation types were mapped in the Mattiske Consulting Pty Ltd survey (2005) report. A site visit by the DoIR Native Vegetation Assessor on 21 and 22 June 2006 included an inspection of the above mentioned watercourse downstream of the Ellendale 9 mine. The assessor noted that the creekline was unlikely to have significant environmental values and that the creekline has been affected by the Ellendale 9 pit and associated northern waste dump situated in its headwater.

The Blina Environmental Supervisor stated that the mining proposal will be located some distance to the west of the existing creekline near the Ellendale 9 pit (Norman Galli, Blina Environmental Supervisor, pers comm. 21/6/06). Available exploration results to date do not indicate that the paleochannels will intercept existing creeklines. While Blina have stated that they will avoid disturbing creeklines where possible there is a possibility that the paleochannels may intercept existing creeklines at some point.

Given the above, the proposal may be at variance to this proposal. The assessor has set a condition requiring the reinstatement of the original course and shape of creeklines if disturbed by the clearing and mining proposal.

**Methodology** GIS database - Hydrography, linear - DOE (01/02/2004).  
Kimberley Diamond Company (2005).  
Mattiske Consulting Pty Ltd (2005).  
Ninnox Wildlife Consulting (2003).

**(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**

Advice received from DAFWA in relation to the assessment of this principle stated:

The area to be cleared in the vicinity of Ellendale Pipe 9 Mine is mapped as Yeeda Land System (Speck et. al. 1964). This is described as being deep red or yellow sandplain supporting pindan vegetation. This vegetation is quite resilient and regenerates quite readily after disturbance. The land is generally quite flat and therefore not particularly erosion prone. It was concluded that the proposed clearing is not likely to be at variance with principle (g) (DAFWA 2006).

A site visit was conducted by the DoIR Native Vegetation Assessor on the 21 and 22 June 2006. The visit included an inspection of previous large exploration costeans and the rehabilitation conducted by Blina. That inspection reinforced the advice given by DAFWA as no obvious erosion issues were apparent.

Given the above DAFWA advice, lack of obvious erosion issues arising from previous Blina operations conducted nearby, and good rehabilitation progress shown, it is considered unlikely that the proposal will cause appreciable land degradation and be at variance to this principle.

**Methodology** DAFWA (2006).  
Speck et. al. (1964).

**(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 Devonian Reef Conservation Park is located approximately 10km to the South-East of the proposed clearing. Windjana Gorge National Park is situated approximately 16km to the North-East. The proposed clearing is sufficiently distanced from these conservation areas so as to cause negligible impact to their environmental values.

Since the clearing is unlikely to impact on The Devonian Reef Conservation Park, or Windjana Gorge National Park, there appears to be a low probability of the proposed clearing being at variance with Principle (h) (CALM advice 2005).

**Methodology** CALM (2005).  
GIS database-Clearing Regulations Schedule 1 Areas-DoE (10/03/2005).  
GIS database-CALM Managed Land and Waters-CALM (01/07/2005).

**(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 proposed clearing area is not located in a Public Drinking Water Source Area or in a proclaimed *Rights in Waters and Irrigation 1914 Act* area (GIS database) or in proximity to any mangroves, tidal flats or acid sulphate soil areas.

The proposal to dig relatively shallow trenches (up to 5 metres deep) is unlikely to intercept the groundwater table which at the nearby Ellendale 9 pit is located approximately 30 metres below ground level. As a result no dewatering will be required and impacts on groundwater dependent ecosystems are unlikely. Given the small scale and progressive nature of the clearing proposed changes to the watertable levels are unlikely.

A site visit by the DoIR Native Vegetation Assessor in June 2006 included a discussion on site with the Blina Environmental supervisor about any potential impacts on groundwater or surface water in the area. Based on current available information on the expected location of the paleochannels the proposal is not expected to intercept any existing drainage line. However in the course of the mining operation the location of the paleochannels will become clearer and those paleochannels may be found to intercept existing creeklines. As a result sedimentation of creeklines could potentially occur.

Therefore the proposal may be at variance to this principle.

**Methodology** GIS database-Public Drinking Water Supply Areas-DoE 2005.

**(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**

The region has highly seasonal rain with large rainfall events that can periodically inundate areas of poor drainage. The area proposed for clearing is located at the top of the Lennard River sub-catchment and comprises less than 0.1% of the local catchment (GIS Database) so there is unlikely to be exacerbated local flooding from the proposed clearing.

**Methodology** GIS database 2003 - Hydrographic Catchments - Subcatchments - 01/07/03

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

**Comments**

There is no Native Title Claim over the area under application (GIS database).

There are no Registered Indigenous Heritage Sites located within the area under application (GIS database).

The area under application was the subject of a previous clearing permit application by Blina (CPS 896/1) for 25 hectares for exploration over the same 815 hectare area as for CPS 1352/1. The clearing permit for CPS 896/1 was granted for 25 hectares for the purpose of exploration on 22<sup>nd</sup> February 2006. Subsequently and with no clearing having been carried out under 896/1 Blina requested an amendment to 896/1 to allow clearing for the purpose of exploration and alluvial mining of diamonds. DoIR amended clearing permit 896/1 to 896/2 on 8th June 2006 and reduced the amount allowed to clear for exploration purposes to 11 hectares. The remainder 14 hectares from the original 896/1 application is the subject of this clearing permit application for the purpose of alluvial mining of diamonds.

Blina Diamonds holds two in-force groundwater licences for taking water on tenement M04/372 (DoE advice 2006). One is for mineral ore processing and the other for mining camp purposes. Both Blina Diamonds and the Kimberley Diamond Company operating nearby have been requested by the Department of Environment to

install monitoring bores at various locations in the Ellendale vicinity to monitor the effects (if any) of their drawdown on the springs and groundwater dependent ecosystems.

The throughput of the Blina processing plant will need to increase from 50 to 75 tonnes per hour as a result of the planned mining operation. As a result of the additional water required an amendment to the existing mineral processing water licence and operating strategy may be required.

The existing Blina Tailings Storage Facility (TSF) will need to be upgraded (Justin Robins, DoIR Environmental Officer, pers comm. 28th June 2006) and may require a works approval from the Department of Environment.

The Blina mining proposal will be the subject of a Mining Proposal yet to be submitted to the Department of Industry and Resources for compliance with the *Mining Act 1978*.

The proposal is not located in a proclaimed RIWI Act area nor is it for the purpose of taking water. As a result a permit to interfere with Beds and Banks is not required under the *Rights in Rivers and Irrigators Act 1914* (RIWI Act), (DoE advice 2006).

**Methodology** DoE (2006) Advice received by Email from DoE Kunnunura office in relation to water and EP licensing.  
GIS Database-Aboriginal Sites of Significance-DIA (28/02/2003).  
GIS Database-Native Title Claims-DLI (7/11/2005).

#### 4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Mineral Production	Mechanical Removal	14	Grant	<p>The proposal has been assessed as being unlikely to be at variance or not at variance to clearing principles a,b,c,d,e,g,h and j. While there is no current indication that the proposal will affect existing creeklines it may happen once more information is gained on the location of the paleochannels as mining progresses. As a result the proposal may result in the clearing of vegetation associated with the existing non-perennial creeklines resulting in a proposal that may be at variance to principle f. Similarly if the proposal was to intercept existing creeklines increased sedimentation could occur downstream of the clearing. Hence the proposal maybe at variance to principle i. To manage the potential environmental impacts of clearing of existing creeklines the Native Vegetation Assessor has set a condition to request the reinstatement of existing creeklines following clearing. The Blina mining proposal will be the subject of a Mining Proposal yet to be submitted to the Department of industry and Resources for compliance with the <i>Mining Act 1978</i>.</p> <p>The assessor has stated to the Blina Environmental Officer that measures to avoid potential erosion and sedimentation of creeklines that may be disturbed by the proposed mining operation would need to be implemented prior to mining within creeklines. Such management measures will need to be specified in the Mining Proposal.</p> <p>A site visit conducted by the DoIR Native Vegetation Assessor indicated that the vegetation near those creeklines is not environmentally significant nor are there other significant vegetation clearing issues arising from this proposal. Therefore the granting of this permit is recommended. Previous rehabilitation work by Blina is progressing well and the rehabilitation conditions currently imposed under the <i>Mining Act 1978</i> are judged adequate to ensure the rehabilitation of previously cleared areas. The Native Vegetation Assessor has set a two permit conditions to keep track of the clearing over the life of the permit..</p> <p>The conditions issued with the 1352 clearing permit are as follows:</p> <ol style="list-style-type: none"> <li>1. The Permit Holder shall provide a report to the Director, Environment, De of Industry and Resources by the 31st of March each year, setting out the rec required under condition 2 of this permit in relation to clearing carried out with cross hatched yellow shown on plan 1352A.</li> <li>2. The Permit Holder shall record the following for each instance of clearing               <ol style="list-style-type: none"> <li>(a) the location where clearing occurred, expressed as grid coordinates using Geocentric datum of Australia 1994 coordinate system,</li> <li>(b) the area cleared in square metres,</li> <li>(c) the method of clearing,</li> <li>(d) the purpose of clearing and</li> <li>(e) the areas rehabilitated in square metres.</li> </ol> </li> </ol>

3 If the permit holder disturbs any of the creeklines shown in blue within the hatched yellow area on plan 1352A, the permit holder shall reinstate the origin and course of those creeklines prior to the expiry of permit 1352/1.

## 5. References

- CALM (2005) Advice given for clearing permit 410/1 overlapping permit 896/1 in the Department of Environment Decision Report for clearing permit 410/1.
- CALM (2006) Land Clearing Proposal Advice. Advice to the Native Vegetation Assessor, DoIR, Email advice received on 28th June 2006 in relation to principles a,b,c,d.and h.
- Department of Agriculture and Food Western Australia (2006). ) Land Clearing Proposal Advice provided by the Office of the Commissioner of Soil and Land Conservation for Clearing Permit proposal 1352/1 on Mining lease M 04/372, advice dated 30 June 2006.
- Department of Environment (2005). Decision report for Clearing permit 410/1.granted by DoE on 30th March 2005.
- 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.
- DoE (2006) Advice received on 27/06/2006 by the Native Vegetation Assessor, DoIR, from DoE Kununurra office in relation to water and EP licensing.
- EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority.
- Garnett S.T. & Crowley G.M. (2000) The Action Plan for Australian Birds. Environment Australia.
- Graham G (2001) Dampierland 1 (DL1-Fitzroy Trough subregion) pp 170-178 in A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions in 2002. Report published by the Department of Conservation and Land Management, Western Australia.
- JANIS Forests Criteria (1997) Nationally agreed criteria for the establishment of a comprehensive, Adequate and Representative reserve System for Forests in Australia. A report by the Joint ANZECC/MCFFA National Forest Policy Statement Implementation Sub-committee. Regional Forests Agreement process. Commonwealth of Australia, Canberra.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Kimberley Diamond Company (2005) Vegetation Plots Survey at E9 Creek. Unpublished report by the Kimberley Diamond Company.
- Mattiske Consulting Pty Ltd (2005) Flora and Vegetation Survey Kimberley Diamond Company NL Ellendale Diamond Project. Unpublished report prepared by Mattiske Consulting Pty Ltd for the Kimberley Diamond Company NL, dated May 2005.
- Ninox Wildlife Consulting (2003) Ellendale Diamond Project Report. Unpublished report by Ninox Wildlife Consulting, dated March 2003.
- 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.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001a) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia (updated 2005).
- Speck, N.H., Wright, R.L., Rutherford, G.K., Fitzgerald, K., Thomas, F., Arnold, Jennifer M., Basinski, J.J., Fitzpatrick, E.A., Lazarides, M. and Perry, R.A. (1964). General report on lands of the West Kimberley area, W.A. Land Research Series No. 9, CSIRO.

## 6. Glossary

### Acronyms:

<b>BoM</b>	Bureau of Meteorology, Australian Government.
<b>CALM</b>	Department of Conservation and Land Management, Western Australia.
<b>DAFWA</b>	Department of Agriculture and Food, Western Australia.
<b>DA</b>	Department of Agriculture, Western Australia.
<b>DEH</b>	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
<b>DEP</b>	Department of Environment Protection (now DoE), Western Australia.
<b>DIA</b>	Department of Indigenous Affairs
<b>DLI</b>	Department of Land Information, Western Australia.
<b>DoE</b>	Department of Environment, Western Australia.
<b>DoIR</b>	Department of Industry and Resources, Western Australia.
<b>DOLA</b>	Department of Land Administration, Western Australia.
<b>EP Act</b>	Environment Protection Act 1986, Western Australia.
<b>EPBC Act</b>	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
<b>GIS</b>	Geographical Information System.



<b>IBRA</b>	Interim Biogeographic Regionalisation for Australia.
<b>IUCN</b>	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
<b>RIWI</b>	Rights in Water and Irrigation Act 1914, Western Australia.
<b>s.17</b>	Section 17 of the Environment Protection Act 1986, Western Australia.
<b>TECs</b>	Threatened Ecological Communities.

### **Definitions:**

{Atkins, K (2005). *Declared rare and priority flora list for Western Australia, 22 February 2005. Department of Conservation and Land Management, Como, Western Australia*} :-

- P1** **Priority One - Poorly Known taxa:** taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
- P2** **Priority Two - Poorly Known taxa:** taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
- P3** **Priority Three - Poorly Known taxa:** taxa which are known from several populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in need of further survey.
- P4** **Priority Four – Rare taxa:** taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5–10 years.
- R** **Declared Rare Flora – Extant taxa (= Threatened Flora = Endangered + Vulnerable):** taxa which have been adequately searched for, and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.
- X** **Declared Rare Flora - Presumed Extinct taxa:** taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

{Wildlife Conservation (Specially Protected Fauna) Notice 2005} [Wildlife Conservation Act 1950] :-

- Schedule 1** **Schedule 1 – Fauna that is rare or likely to become extinct:** being fauna that is rare or likely to become extinct, are declared to be fauna that is need of special protection.
- Schedule 2** **Schedule 2 – Fauna that is presumed to be extinct:** being fauna that is presumed to be extinct, are declared to be fauna that is need of special protection.
- Schedule 3** **Schedule 3 – Birds protected under an international agreement:** being birds that are subject to an agreement between the governments of Australia and Japan relating to the protection of migratory birds and birds in danger of extinction, are declared to be fauna that is need of special protection.
- Schedule 4** **Schedule 4 – Other specially protected fauna:** being fauna that is declared to be fauna that is in need of special protection, otherwise than for the reasons mentioned in Schedules 1, 2 or 3.

{CALM (2005). *Priority Codes for Fauna. Department of Conservation and Land Management, Como, Western Australia*} :-

- P1** **Priority One: Taxa with few, poorly known populations on threatened lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, active mineral leases. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P2** **Priority Two: Taxa with few, poorly known populations on conservation lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not under immediate threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P3** **Priority Three: Taxa with several, poorly known populations, some on conservation lands:** Taxa which are known from few specimens or sight records from several localities, some of which are on lands not under immediate threat of habitat destruction or degradation. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P4** **Priority Four: Taxa in need of monitoring:** Taxa which are considered to have been adequately surveyed, or for which sufficient knowledge is available, and which are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.
- P5** **Priority Five: Taxa in need of monitoring:** Taxa which are not considered threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

**Categories of threatened species (*Environment Protection and Biodiversity Conservation Act 1999*)**

- EX**            **Extinct:** A native species for which there is no reasonable doubt that the last member of the species has died.
- EX(W)**       **Extinct in the wild:** A native species which:  
(a) is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or  
(b) has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
- CR**            **Critically Endangered:** A native species which is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
- EN**            **Endangered:** A native species which:  
(a) is not critically endangered; and  
(b) is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
- VU**            **Vulnerable:** A native species which:  
(a) is not critically endangered or endangered; and  
(b) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.
- CD**            **Conservation Dependent:** A native species which is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.