Government of **Western Australia**
Department of **Mines and Petroleum**

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3082/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Danehill Nominees Pty Ltd**

1.3. Property details

Property: Mining Lease 70/555
Local Government Area: Town of Kwinana
Colloquial name: N/A

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
6.18		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	Clearing Description	Vegetation Condition	Comment
Beard Vegetation Associations have been mapped at a scale of 1:250,000 for the whole of Western Australia. One Beard Vegetation Association is located within the application area (Shepherd, 2007): **Beard Vegetation Association 998:** Medium woodland; Tuart. A vegetation assessment of M70/555 was conducted by Landform Research in October 2001. Landform Research (2002) identified the following vegetation units within the application area: 1. *Acacia rostellifera* thicket with little indigenous understorey; 2. Banksia Woodland with *Eucalyptus marginata* or *E. gomphocephala* often partly degraded; 3. *Grevillea vestita subsp. vestita* Heath; and 4. Predominantly degraded and cleared.	Danehill Nominees (2009) has applied to clear up to 6.18 hectares of native vegetation. The proposed clearing is located within the Town of Kwinana in the Perth metropolitan area. The application area lies adjacent to a quarry and a waste disposal facility (GIS Database). The purpose of the proposed clearing is for the extraction of sand and limestone (Danehill Nominees, 2009).	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994); to Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).	The vegetation condition rating was derived from information provided by Landform Research in October 2001. Landform Research (2002) report that the site has been partially cleared in the past and subjected to grazing and other rural activities. This has resulted in a lack of ground cover and small shrub species (Landform Research, 2002). Landform Research (2002) report that the basic vegetation structure is intact where the overstorey is present, but across the majority of the site there is an absence of indigenous groundcover and smaller shrubs with pasture species filling this role. Three Environmental Assessors from the Department of Mines and Petroleum's Native Vegetation Assessment Branch visited M70/555 on 12 August 2009. The intent of the visit was to verify findings of Landform Research's 2001 vegetation assessment, and to determine the significance of the proposed clearing area with respect to habitat for indigenous fauna species.

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 may be at variance to this Principle

The application area is located within the Perth subregion of the Swan Coastal Plain Interim Biogeographic Regionalisation of Australia bioregion (GIS Database). The Perth subregion is composed of colluvial and aeolian sands, alluvial river flats and coastal limestone (CALM, 2002). The Perth subregion generally consists of heath and/or Tuart woodlands on limestone, Banksia and Jarrah-Banksia woodlands on Quaternary marine dunes of various ages, Marri on colluvials and alluvials (CALM, 2002). The Perth subregion includes a complex set of seasonal wetlands. CALM (2002) reports that the Swan Coastal Plain is part of the South-west Botanical Province which has a very high degree of species diversity (CALM, 2002).

Landform Research conducted a vegetation assessment of Mining Lease 70/555 in October 2001. This survey identified a total of 40 plant taxa from 22 families across the 27 hectare lease area (Landform Research, 2002). The most common families within the survey area were Proteaceae (7), Papilionaceae (3) and Myrtaceae (3) (Landform Research, 2002). These results represent a very low diversity of plant species and possibly reflect the high levels of degradation within the survey area (Landform Research, 2002). The assessing officer concludes that the floristic diversity of the 6.18 hectares applied to clear is likely to be less than that recorded for the larger lease area.

The application area contains a number of exotic plant species including weedy grasses, Rose Geranium (*Pelargonium capitatum*), Gladiolus species and exotic tulip species (Landform Research, 2002). The presence of these introduced flora species would lower the biodiversity value of the application area. Edge effects from the adjacent rubbish tip and pipeline easement were witnessed during inspection of the proposed clearing area on 12 August 2009 and are likely to have impacted the biodiversity value of the mining lease to some degree.

The status of dieback disease (*Phytopthora cinnamomi*) in the proposed clearing area is unknown. The risk of dieback being spread in sandy soils is low (Landform Research, 2002). Vehicles will be restricted to the limits of the areas to be cleared and will be cleaned prior to entering and leaving the site (Landform Research, 2002). These measures are considered adequate to control the spread of any dieback disease that may be present.

Notwithstanding the limited floristic diversity, the vegetation under application has been identified as containing habitat that could potentially support a range of native fauna species, including fauna of conservation significance (Western Wildlife, 2006). The vegetation is also considered to provide an important buffer and corridor that assists in the protection and maintenance of biological diversity by preventing the fragmentation of important conservation areas such as the Leda Nature Reserve (5 kilometres south) and the nearby Bush Forever sites 349 and 346 (650 metres south and 3 kilometres north respectively) (Government of Western Australia, 2000; Del Marco et al., 2004). Given that the vegetation under application has the potential to support a range of native fauna species and provides ecological corridors it is considered that it may represent an area of high biological diversity.

Based on the above, the proposed clearing may be at variance to this Principle.

Methodology

CALM (2002)
Del Marco et al. (2004)
Government of Western Australia (2000)
Landform Research (2002)
Western Wildlife (2006)

(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 at variance to this Principle

The assessing officer conducted a search of the Department of Environment and Conservation (DEC) databases for fauna that could potentially occur within a 20 kilometre radius of the application area. The search identified the following fauna species of conservation significance that could potentially occur within the search area (DEC, 2009):

- Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii subsp. naso*) - Schedule 1 (Fauna that is rare or likely to become extinct), *Wildlife Conservation* (*Specially Protected Fauna*) *Notice 2008;* and Vulnerable, *Environment Protection and Biodiversity Conservation (EPBC) Act 1999*;
- Baudin's Cockatoo (*Calyptorhynchus baudinii*) - Schedule 1 (Fauna that is rare or likely to become extinct), *Wildlife Conservation* (*Specially Protected Fauna*) *Notice 2008;* and Endangered, *Environment Protection and Biodiversity Conservation (EPBC) Act 1999*;
- Carnaby's Cockatoo (*Calyptorhynchus latirostris*) - Schedule 1 (Fauna that is rare or likely to become extinct), *Wildlife Conservation* (*Specially Protected Fauna*) *Notice 2008;* and Endangered, *Environment Protection and Biodiversity Conservation (EPBC) Act 1999*;
- The Southern Brown Bandicoot or Quenda (*Isodon obesulus subsp. fusciventer*) – Priority 5 on the DEC's Threatened and Priority fauna list;
- Perth Lined Lerista (*Lerista lineata*) – Priority 3 on the DEC's Threatened and Priority fauna list;
- Western False Pipistrelle (*Falsistrellus mackenziei*) – Priority 4 on the DEC's Threatened and Priority fauna list; and
- Black-striped Snake (*Neelaps calonotos*) – Priority 3 on the DEC's Threatened and Priority fauna list.

Three officers from DMP's Native Vegetation Assessment Branch visited M70/555 on 12 August 2009 to gain additional information with respect to the significance of the site for indigenous fauna species. The site was traversed on foot, looking for the presence or evidence of indigenous fauna species. Findings are detailed below:

- Numerous rabbit burrows, diggings and scats were observed on M70/555. In addition, one rabbit was seen during the visit. It is likely that large numbers of the introduced European Rabbit (*Oryctolagus cuniculus*) occur in the proposed clearing area;

- One dead male specimen of the Quenda was observed on the Mining Lease subject to this clearing permit application. In addition, numerous conical-shaped diggings believed to have been that of the Quenda were observed. It is likely that a population of Quendas occur on M70/555;

- Two very large birds' nests (greater than 1 metre in diameter) and one relatively smaller birds nest were observed in the canopy of three large Eucalypt trees within M70/555. There was insufficient evidence to determine if the nests were active or which species were responsible for constructing and/or utilising the nests. These nests were found outside of the proposed clearing area towards the northern end of the mining tenement;

- A number of large Eucalypt trees (both dead and alive) occur on M70/555 which potentially contain hollows suitable for nesting by a range of indigenous fauna species;

- The Twenty-Eight Parrot (*Barnardius zonarius semitorquatus*), Pink and Grey Galah (*Cacatua roseicapilla*) and Rainbow Lorikeet (*Trichoglossus haematodus*) were observed on the mining lease. The Twenty-Eight Parrot was especially common in the area.

It should be noted that the DMP officers who visited the mining lease are not qualified zoologists, and to date, no qualified zoologist has undertaken a survey of the proposed clearing area.

However, Western Wildlife (2006) undertook a vertebrate fauna assessment on Mining Lease 70/239 (located immediately to the east of the proposed clearing area) on 27 June 2006. The soils, landforms and vegetation types in this area are comparable to the proposed clearing area (Western Wildlife, 2006; GIS Database). On this basis, the assessing officer considers Western Wildlife's fauna assessment to be sufficient information to describe the faunal values of the proposed clearing area in general.

Western Wildlife (2006) noted that M70/239 was highly likely to provide foraging habitat for Carnaby's Black Cockatoo and likely to provide foraging habitat for Baudin's Black Cockatoo; but was unlikely to provide nesting habitat for either species given the lack of large trees.

With respect to mammalian fauna, Western Wildlife (2006) noted that the Quenda was likely to be common in areas with dense understorey, citing most of M70/239 as suitable habitat for this species. The Brush Wallaby (*Macropus Irma*) favours areas with tall, dense understorey vegetation and may use the site as part of a larger range. Western Grey Kangaroos were also considered likely to use M70/239 as part of a larger range (Western Wildlife, 2006).

Western Wildlife (2006) considered it likely that M70/239 contained a reptilian faunal assemblage typical of adjacent bushland. Conservation significant species such as the Perth Lined Lerista and Black-striped Snake were both deemed likely to occur on site.

The assessing officer notes that vegetation on M70/239 was approved to clear on 2 March 2007, further increasing the significance of native vegetation in the proposed clearing area. Analysis of aerial photography and other imagery indicates that the proposed clearing area is part of an ecological link between the Bush Forever sites to the north and south, and also to other nearby vegetated remnants. Western Wildlife (2006) supports this claim, citing the linkage function of M70/555 as important. Notwithstanding, Thomas Road (consisting of four lanes of traffic), separates the proposed clearing area from Bush Forever site 349. Del Marco et al (2004) cites major regional roads or transport routes as significant barriers to fauna movement. Similarly, Anketell Road would act as a significant barrier to northward movement of ground dwelling fauna toward Bush Forever site 346.

Based on the above, the proposed clearing is at variance to this Principle.

The assessing officer notes that this clearing proposal has been reduced from 17.8 hectares to 6.18 hectares. The proponent has targeted disturbed portions of the mining lease and excluded the northern portion of the lease which contains the larger Eucalypt trees and dense understorey vegetation. Disturbance to fauna and fauna habitat has therefore been minimised as far as practicable.

Should a clearing permit be granted, it is recommended that a condition be imposed requiring Quendas to be trapped and translocated in accordance with a licence issued by DEC. Personal communication with DEC suggests that Quendas can be successfully translocated to other areas of suitable habitat provided that resident populations do not already exist.

Methodology

DEC (2009)
Del Marco et al. (2004)
Landform Research (2002)
Western Wildlife (2006)
GIS Database:
- Pre-European vegetation

(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

There are no known records of Declared Rare Flora (DRF) or Priority Flora within the proposed clearing area (GIS Database).

Landform Research conducted a vegetation survey of M70/555 in October 2001. Prior to conducting the survey, Landform Research (2002) conducted a desktop search for Rare or Priority flora that may occur within the broader Hope Valley - Wattleup area. This desktop search identified up to six Rare and Priority flora that could occur within the search area. However, the field survey did not find any flora of conservation significance within M70/555 (Landform Research, 2002).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology

Landform Research (2002)
GIS Database:
- Declared Rare and Priority Flora list

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

Comments

Proposal is not likely to be at variance to this Principle

There are no known Threatened Ecological Communities (TECs) or Priority Ecological Communities (PECs) within the application area (GIS Database). The closest TEC is located approximately 1 kilometre east of the application area (GIS Database). This TEC has been described as 26a: *Melaleuca huegelli – Melaleuca acerosa* shrublands on limestone ridges (Government of Western Australia, 2000).

Landform Research (2002) did not record any Melaleuca species (the key indicator species of TEC 26a) during the October 2001 flora and vegetation survey of M70/555. It is therefore unlikely that nearby TEC 26a occurs in the proposed clearing area. In addition, Landform Research (2002) reported that no TECs or PECs were identified during the flora and vegetation survey of M70/555.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology

Government of Western Australia (2000)
Landform Research (2002)
GIS Database:
- Threatened Ecological Communities

(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 application area is within the Swan Coastal Plain Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). Shepherd (2007) reports that approximately 38.8% of the pre-European vegetation still exists in this bioregion, of which approximately 24.2% is located within conservation reserves (see table overleaf). In addition, there is approximately 42% of the vegetation remaining within the Perth IBRA subregion, of which 24.2% remains within conservation estate.

The vegetation within the application area is recorded as Beard Vegetation Association 998: medium woodland; Tuart (GIS Database). According to Shepherd (2007) approximately 41.7% of this vegetation association remains within the bioregion and subregion (see table overleaf). This vegetation association is therefore considered to be 'Depleted'. This vegetation association is however, well represented within conservation estate with approximately 29.2% remaining in conservation reserves (Shepherd, 2007).

Industrial and urban development has resulted in considerable native vegetation clearing in the Kwinana area. However, the vegetation type identified from the proposed clearing area has representation above the recommended minimum level of 30%, as recognized by both the EPA and the state government (EPA, 2003; Department of Natural Resources and Environment, 2002). The vegetation under application is therefore not considered to be significant as a remnant in an area that has been extensively cleared.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves (and post clearing %)
IBRA Bioregion – Swan Coastal Plain	1,501,208	583,140	~38.8	Depleted	10.5 (24.2)
IBRA Subregion – Perth	1,117,743	469,645	~42.0	Depleted	11.6 (24.2)
Beard veg assoc. – State					
998	51,015	21,226	~41.6	Depleted	13.3 (29.2)
Beard veg assoc. – Bioregion					
998	50,867	21,226	~41.7	Depleted	13.3 (29.2)
Beard veg assoc. - subregion					
998	50,867	21,226	~41.7	Depleted	13.3 (29.2)

* Shepherd (2007)
** Department of Natural Resources and Environment (2002)

Options to select from:	Bioregional Conservation Status of Ecological Vegetation Classes (Department of Natural Resources and Environment 2002)
Presumed extinct	Probably no longer present in the bioregion
Endangered*	<10% of pre-European extent remains
Vulnerable*	10-30% of pre-European extent exists
Depleted*	>30% and up to 50% of pre-European extent exists
Least concern	>50% pre-European extent exists and subject to little or no degradation over a majority of this area

* or a combination of depletion, loss of quality, current threats and rarity gives a comparable status

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology

EPA (2003)
Department of Natural Resources and the Environment (2002)
Shepherd (2007)
GIS Database
- Interim Biogeographic Regionalisation of Australia

(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

There are no permanent or ephemeral watercourses or wetlands within the application area (GIS Database). The nearest wetland is an area subject to inundation, located approximately 1.5 kilometres north of the application area (GIS Database).

Based on the above, the proposed clearing is not at variance to this Principle.

Methodology

GIS Database:
- Hydrography, linear

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

Comments

Proposal may be at variance to this Principle

The application area is underlain by Tamala limestone which is widespread along the coastal area of Western Australia (Landform Research, 2002). The Tamala limestone is covered by shallow, yellow brown, calcareous loamy sands with common limestone outcrop (Landform Research, 2002). Based on the soils, the application area is likely to be susceptible to wind erosion once the vegetation cover is removed.

Based on the above, the proposed clearing may be at variance to this Principle.

Should a permit be granted, it is recommended that suitable conditions be imposed for the purposes of ensuring that progressive clearing and rehabilitation is undertaken. Such conditions will minimise land degradation risks associated with the clearing proposal.

Methodology Landform Research (2002)

(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 at variance to this Principle

Ecoscape Australia Pty Ltd (2004) undertook fine scale mapping of Tuart woodlands over their 400 kilometre range (Sabina River near Busselton in the south to Jurien Bay in the north). Mapping was undertaken using aerial photo interpretation to map Tuart extent, canopy density and understorey condition in order to identify 'indicative high conservation' Tuart woodlands that merit further consideration for conservation management (Ecoscape Australia Pty Ltd, 2004). Information obtained from the mapping exercise was combined with other data layers such as Rare and Priority Flora, Rare and Threatened Fauna and Threatened Ecological Communities (TEC's) to determine areas of conservation significance.

The Tuart woodlands of the proposed clearing area were mapped as highly disturbed, with a 10-19% canopy cover (Ecoscape Australia Pty Ltd, 2004). There are no known records of Rare or Priority Flora or TEC's within the proposed clearing area (GIS Database). On this basis, the proposed clearing area would not warrant consideration for conservation management.

Notwithstanding, the proposed clearing area has been identified as part of a regionally significant 'continuously or largely continuous corridor' identified in the Bush Forever Study (Government of Western Australia, 2000). The vegetation under application was also identified through the Perth Biodiversity Project (Del Marco et al. 2004) as regionally significant as part of a Regional Ecological Linkage (Ecological Linkage # 76). These types of regionally significant corridors are acknowledged as important in maintaining the environmental values of adjacent or nearby conservation areas.

Bush Forever site 349 (Leda Nature Reserve and adjacent bushland) covers approximately 1,133 hectares and is located approximately 650 metres south of the proposed clearing area (GIS Database). This site includes the Leda Nature Reserve 5 kilometres south of the proposed clearing area (GIS Database). Bush Forever site 346 (Brownman Swamp, Mt Brown Lake and adjacent bushland) covering an area of approximately 616 hectares, is approximately 3 kilometres north of the proposed clearing area (GIS Database). When considering Bush Forever sites are relatively small parcels of land, corridors to other conservation areas are critically important to reduce fragmented ecosystems (Government of Western Australia, 2000).

The proposed clearing will fragment a section of the ecological corridor which exists between Bush Forever Sites 346 and 349. Modification of the original clearing proposal (17.8 hectares) to 6.18 hectares has ensured that there is not a complete loss of connectivity where the corridor passes through M70/555.

Based on the above, the proposed clearing is at variance to this Principle.

Should a clearing permit be granted, it is recommended that conditions be imposed requiring the clearing to be conducted in a staged approach. Staged clearing will minimise the impacts of fragmentation. In addition, rehabilitation of cleared areas post mining should be conditioned on any permit issued. Rehabilitation should aim to reverse fragmentation by reinstating corridors and linkages impacted by native vegetation clearing.

Methodology

Del Marco et al. (2004)
Ecoscape Australia Pty Ltd (2004)
Government of Western Australia (2000)
GIS Database:
- Bush Forever
- Declared Rare and Priority Flora list
- DEC Tenure
- Threatened Ecological Communities

(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

There are no permanent or ephemeral watercourses within the application area (GIS Database). There is little or no surface drainage due to the porosity and permeability of the limestone (Landform Research, 2002). Therefore, the proposed clearing is unlikely to have a significant impact upon surface water quality in the area.

The proposed clearing is not located within a Public Drinking Water Source Area (GIS Database). It is unlikely that the proposed clearing will have a significant impact upon groundwater levels or quality.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology

Landform Research (2002)
GIS Database:
- Hydrography, linear
- Public Drinking Water Source Areas

(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 application area is located in a region of Mediterranean climate that has primarily winter rainfall and is dry for 5 to 6 months of the year (Landform Research, 2002). There are no watercourses or wetlands within the application area and there is little or no surface drainage due to the porosity and permeability of the limestone, with precipitation likely to permeate the soil, or drain to the water table (Landform Research, 2002). The proposed clearing area is approximately 1.5 kilometres from any wetland or watercourse (GIS Database).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology

Landform Research (2002)
GIS Database:
- Hydrography, linear

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

Comments

On 1 July 1996, the then Department of Minerals and Energy referred the proposed limestone quarry on M70/555 to the Environmental Protection Authority (EPA) under Part IV of the *Environmental Protection Act 1986* (EP Act). On 16 August 1996, the EPA set a Level of Assessment on the proposal as 'Informal Review with Public Advice'. On 29 April 2002, Landform Research (acting on behalf of Danehill Nominees Pty Ltd) sought comment from the EPA on the Notice of Intent for M70/555 lodged with the then Department of Mineral and Petroleum Resources. On 2 July 2002, the EPA advised that referral under Part IV of the EP Act was not necessary.

The proposed clearing area is listed as a 'Priority Resource Location' under Statement of Planning Policy No. 2.4 'Basic Raw Materials' made under section 5AA of the *Town Planning and Development Act 1928*. Priority Resource Locations should be recognised for future basic raw materials extraction and not be constrained by incompatible land uses or development (Western Australian Planning Commission, 2000).

According to the Metropolitan Region Scheme (MRS), a section of a Primary Regional Road (Fremantle – Rockingham Highway) is proposed to traverse M70/555 (Landform Research, 2002). The portion of the proposed clearing area in the east of M70/555 is not located within the road reserve; however that portion of the proposed clearing area in the west of M70/555 is located within the road reserve. The MRS has implications for the end land use of the proposed clearing area.

One submission was received when the application was advertised for public comment on 4 May 2009. The submission raised concerns that the proposed clearing was inconsistent with the local Town Planning Scheme. Following discussion with DMP officers, the submission was later modified, providing general support for the proposal.

There is one Native Title claim (WC98/058) over the area under application (GIS Database). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. However, the mining tenement has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

According to available databases, there are no Aboriginal Sites of Significance within the application area (GIS Database). 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.

It is the proponent's responsibility to liaise with the Department of Environment and Conservation and the Department of Water to determine whether a Works Approval, Water Licence, Bed and Banks permit or any other licences or approvals are required for the proposed works.

Methodology

Landform Research (2002)
Western Australian Planning Commission (2000)
GIS Database
- Aboriginal Sites of Significance
- Native Title Claims

4. Assessor's comments

Comment

The proposal has been assessed against the Clearing Principles, and the proposed clearing is at variance to Principles (b) and (h), may be at variance to Principles (a) and (g), is not likely to be at variance to Principles (c), (d), (e), (i) and (j) and is not at variance to Principle (f).

Should a permit be granted it is recommended that conditions be imposed for the purposes of weed management, fauna management, rehabilitation, staged clearing, record keeping and permit reporting.

5. References

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6. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government.
CALM	Department of Conservation and Land Management, Western Australia.
DAFWA	Department of Agriculture and Food, Western Australia.
DA	Department of Agriculture, Western Australia.
DEC	Department of Environment and Conservation
DEH	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
DEP	Department of Environment Protection (now DoE), Western Australia.
DIA	Department of Indigenous Affairs
DLI	Department of Land Information, Western Australia.
DMP	Department of Mines and Petroleum, Western Australia.
DoE	Department of Environment, Western Australia.
DoIR	Department of Industry and Resources, Western Australia.
DOLA	Department of Land Administration, Western Australia.
DoW	Department of Water
EP Act	Environment Protection Act 1986, Western Australia.
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
GIS	Geographical Information System.
IBRA	Interim Biogeographic Regionalisation for Australia.
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
RIWI	Rights in Water and Irrigation Act 1914, Western Australia.
s.17	Section 17 of the Environment Protection Act 1986, Western Australia.
TECs	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.