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

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4000/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Pilbara Manganese Pty Ltd**

1.3. Property details

Property: M45/600
M45/637
M45/517
Local Government Area: Shire of East Pilbara
Colloquial name: Malta Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
35		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
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 173: hummock grasslands; shrub steppe; kanji over soft Spinifex and *Triodia wiseana* on basalt. MBS Environmental have provided a site wide flora and vegetation report which provides a compilation of results of desktop searches and results for all flora and vegetation surveys conducted for Pilbara Manganese across the Woodie Woodie tenements. This report has identified 6 plant communities within the application area (MBS Environmental, 2010a; 2010b): Plant Community 3: Scrub or Thicket of *Carissa lanceolata*, *Petalostylis labicheoides*, *Acacia bivenosa* and *Acacia ancistrocarpa* over *Triodia pungens, Triodia basedowii, Cenchrus ciliaris* and *Chrysopogon fallax* along minor watercourses. Plant Community 5: Scrub or Low Shrubland of *Acacia ancistrocarpa*, *Acacia arida*, *Acacia acradenia*, *Petalostylis labicheoides*, *Gossypium australe*, *Acacia synchronicia* and *Acacia inaequilatera* over *Triodia longiceps* and *Triodia wiseana* with patches of *Cenchrus ciliaris* on flats, often associated with major watercourses. Plant Community 6: Low Shrubland of Acacia arida and *Acacia hilliana* over Triodia wiseana and *Dampiera candicans* on slopes and hilltops. Plant Community 7: Hummock Grassland of *Triodia longiceps* with	Pilbara Manganese Pty Ltd proposes to clear up to 35 hectares of native vegetation for manganese mining within a clearing permit application area totalling 118.8 hectares. The proposed clearing is located within the Malta project area which is located approximately 100 kilometres east of Nullagine.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994). To Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).	The vegetation condition rating is derived from information provided by MBS Environmental. MBS Environmental (2010a) reports the condition of the vegetation within the application area as being generally good condition except for areas of localised disturbances due to impacts from previous mining activities fire and weeds.

scattered *Acacia bivenosa*, *Acacia synchronicia* and *Acacia ptychophylla* on flats and lower slopes.

Plant Community 10:
Hummock Grassland of *Triodia basedowii*, *Triodia pungens* and *Triodia wiseana* with *Acacia bivenosa*, *Acacia pyrifolia* var. *morrisonii*, *Acacia synchronicia*, *Hakea lorea* subsp. *lorea* and emergent *Corymbia hamersleyana* and *Corymbia aspera* on undulating plains and slopes.

Plant Community 14:
Open Low Woodland of *Atalaya hemiglauca* with *Corymbia hamersleyana* over *Corchorus lasiocarpu*s subsp. Lasiocarpus, *Aerva javanica*, *Eriachne mucronata* and *Triodia epactia* on minor watercourses.

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 application area is located within the Chichester subregion of the Pilbara Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). One Beard Vegetation Association is located within the application area (Shepherd, 2007):

Beard Vegetation Association 173: hummock grasslands; shrub steppe; kanji over soft Spinifex and *Triodia wiseana* on basalt.

CALM (2002) reports that hummock grasslands of the Chichester subregion have the potential to host high reptile and high small mammal diversity however these grasslands have a medium to low reservation priority and Beard Vegetation Association 173 retains approximately 100% of its pre-European vegetation extent within the Bioregion (Shepherd, 2007).

Western Wildlife conducted a fauna survey of the Woodie Woodie project area, in October 2008. A total of 274 fauna species have the potential to occur within the Woodie Woodie area including up to seven amphibian, 78 reptile, 138 bird and 51 mammal species (MBS Environmental, 2010a). Of these five amphibian, 60 reptile, 95 bird and 24 mammal species have been observed (Western Wildlife, 2009).

Western Wildlife (2009) have identified 4 fauna species of conservation significance which have a moderate to high likelihood of occurring within the habitats of the clearing permit application area however the vegetation and habitats present are well represented on a regional scale and are unlikely to represent significant habitat in a regional context (MBS Environmental, 2010a).

Mattiske Consulting conducted a flora and vegetation survey in April 2008 including most of the clearing permit application area. The remaining clearing permit application area was covered by a flora and vegetation survey conducted by MBS Environmental in June 2010 (MBS, Environmental 2010a). A total of 66 taxa from 24 families and 42 genera were recorded within the survey area however the mapped plant communities are well represented throughout the region and are therefore not considered to be regionally or locally significant (MBS Environmental, 2010a). No Priority or Declared Rare Flora species have been recorded within the clearing permit area and it is therefore not likely that the area to be cleared comprises a high level of biological diversity in a regional context.

Two introduced weed species were recorded in the survey area (MBS Environmental, 2010a) however weed management will reduce the risk of the spread or introduction of weed species to non-infested areas.

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

Methodology

CALM (2002)
MBS Environmental (2010a)
MBS Environmental (2010b)
Shepherd (2007)
Western Wildlife (2009)
GIS Database
- Interim Biogeographic Regionalisation of Australia

(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

Western Wildlife have undertaken two detailed spring and autumn fauna surveys over the Woodie Woodie tenements in 2006/2007 and 2008/2009. Methods used to sample the fauna of the Woodie Woodie tenements included:

- Trapping for reptiles, amphibians and small mammals.
- Spotlighting and head-torching.
- Bat surveys.
- Birds surveys
- Recording of opportunistic sightings

Western Wildlife (2009) identified two habitat types in the clearing permit application area, Spinifex on low stony hills and minor creeklines. The land systems, vegetation and habitats of the project area are common and widely represented in the region (MBS Environmental, 2010a).

A total of 274 fauna species have the potential to occur within the Woodie Woodie area including up to seven amphibian, 78 reptile, 138 bird and 51 mammal species (MBS Environmental, 2010a). Of these five amphibian, 60 reptile, 95 bird and 24 mammal species have been observed (Western Wildlife, 2009).

Western Wildlife (2009) have identified 4 fauna species of conservation significance which have a moderate to high likelihood of occurring within the habitats of the clearing permit application area:

- Orange Leaf-nosed Bat (*Rhinonicteris aurantius*) - 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*;
- Australian Bustard (*Ardeotis australis*) - Priority 4 on the DECs Threatened and Priority Fauna list;
- Western Pebble-mound Mouse (*Pseudomys chapmani*) - Priority 4 on the DECs Threatened and Priority Fauna list;
- Bush Stone Curlew (*Burhinus grallarius*) - Priority 4 on the DECs Threatened and Priority Fauna list.

Although these species have a moderate to high likelihood of occurring within the habitats of the clearing permit application area the vegetation and habitats present are well represented on a regional scale and are unlikely to represent significant habitat in a regional context (MBS Environmental, 2010a).

Whilst the Orange Leaf-nosed Bat has been recorded foraging near the clearing permit application area no suitable roosting sites have been recorded in the Woodie Woodie tenements however these roost sites can be difficult to locate (Western Wildlife, 2009). The development of this project may result in the loss of some foraging habitat for this species however suitable foraging habitat is common and widespread in the region (MBS Environmental, 2010a).

Given the high levels of disturbance adjacent to the application area for the purpose of mineral production in the form of open pits, waste dumps and mine infrastructure and considering that the habitats present in the clearing permit application area are common on both a local and regional scale, it is not likely that the loss of 35 hectares of native vegetation will comprise a significant habitat for fauna indigenous to Western Australia.

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

Methodology

MBS Environmental (2010a)
Western Wildlife (2009)

(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

Mattiske Consulting conducted a flora and vegetation survey in April 2008 including most of the clearing permit application area. The remaining clearing permit application area was covered by a flora and vegetation survey conducted by MBS Environmental in June 2010 (MBS Environmental, 2010a)

No Declared Rare Flora species have been recorded within the clearing permit area and it is therefore not likely that the area to be cleared includes, or is necessary for the continued existence of, rare flora.

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

Methodology

MBS Environmental (2010a)

(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) within the area under application and the closest known TEC is located approximately 216 kilometres southwest of the application area (GIS Database).

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

Methodology

MBS Environmental (2010a)
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

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion – Pilbara	17,804,188	17,794,647	~100	Least Concern	~6.3
Beard veg assoc. – State					
173	1,421,376	1,421,376	~100	Least Concern	~4.8
Beard veg assoc. – Bioregion					
173	1,420,792	1,420,792	~100	Least Concern	~4.8

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

Beard vegetation association 173 retains approximately 100% of its pre-European extent which is more than the 30% threshold level recommended in the National Objectives Targets for Biodiversity Conservation below which, species loss appears to accelerate exponentially at an ecosystem level (EPA, 2000).

Given that the vegetation is well represented locally and regionally the vegetation within the proposed area is not likely to be significant as a remnant in a highly cleared landscape and the clearing is not likely to be at variance to this clearing principle.

Methodology

Department of Natural Resources and Environment (2002)
EPA (2000)
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 at variance to this Principle

There are no permanent watercourses mapped within the area under application (GIS Database) however there are numerous ephemeral watercourses. The nearest significant watercourse is Brumby creek located 40 metres north of the application area.

MBS Environmental (2010a, 2010b) has identified two plant communities within the application area growing in association with watercourses however these plant communities are common throughout the Woodie Woodie tenements and the impact of this clearing is unlikely to be significant in a regional context (MBS Environmental, 2010a).

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

Methodology

MBS Environmental (2010a)
MBS Environmental (2010b)
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 is not likely to be at variance to this Principle

The application area is located within the Coonigmah and Oakover land systems (GIS Database).

The Coonigmah land system is described by Van Vreeswyk et al. (2004) as consisting of plateaux surfaces, low hills with steep slopes and undulating uplands supporting hard spinifex grasslands which have a very low erosion risk. The Oakover land system is described as breakaways, mesas, plateaux and stony plains of calcrete supporting hard Spinifex grasslands which are not generally prone to degradation or susceptible to soil erosion.

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

Methodology

Van Vreeswyk et al. (2004)
GIS Database
- Rangeland Land System Mapping

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

Comments

Proposal is not likely to be at variance to this Principle

The proposed clearing is not located within any conservation areas (GIS Database). The nearest Department of Environment and Conservation managed land is the Karlamilyi National Park located approximately 90 kilometres south-east of the application area (GIS Database).

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

Methodology

GIS Database
- DEC Managed Land and Waters

(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 East Pilbara is an arid environment. Surface water runoff only occurs during and immediately following significant rainfall events. Groundwater within the application area has low salinity levels of between 350 to 850 milligrams per litre and recharge is estimated to be approximately 15 % of annual rainfall. The depth to the water table in the application area is greater than 30 metres (MBS Environmental, 2010a) and it is therefore not likely that the removal of native vegetation will cause deterioration in the quality of surface or underground water.

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

Methodology

MBS Environmental (2010a)

(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 an arid region where the average annual evaporation rate greatly exceeds the average annual rainfall (MBS Environmental, 2010a). There are no permanent watercourses within the application area however numerous ephemeral drainage lines dissect the proposed clearing area (GIS Database).

Natural flood events do occur within the Pilbara region following cyclonic activity however the proposed clearing of 35 hectares is not expected to increase the incidence or intensity of such events.

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

Methodology

MBS Environmental (2010a)
GIS Database
- Hydrography, linear

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

Comments

There is one Native Title Claim (WC99/8) 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 or petroleum tenure 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*.

There are no registered 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.

The clearing permit application was advertised on 11 October 2010 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received to the proposed clearing.

Methodology

GIS Database
- Aboriginal Sites of Significance
- Native Title Claims

4. Assessor's comments

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O of the *Environmental Protection Act 1986*, and the proposed clearing is at variance to Principle (f) and is not likely to be at variance to Principles (a), (b), (c), (d), (e), (g), (h), (i) and (j).

5. References

CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.

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.

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, Western Australia.

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

MBS Environmental (2010a) Woodie Woodie Operations, Clearing Permit (Purpose Permit) Application, Malta Project Area, Native Vegetation Management Plan and Assessment of Clearing Principles, prepared for Pilbara Manganese Pty Ltd. Unpublished report. Martinick Bosch Sell Pty Ltd, Western Australia.

MBS Environmental (2010b) Site Wide Flora and Vegetation Report Woodie Woodie Manganese Operations, prepared for Pilbara Manganese Pty Ltd. Unpublished report. Martinick Bosch Sell Pty Ltd, Western Australia.

Shepherd, D.P. (2007) Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.

Van Vreeswyk, A.M.E., Payne, A.L., Hennig, P. and Leighton, K.A. (2004) An Inventory and Condition Survey of the Pilbara Region, Western Australia. Department of Agriculture, Western Australia.

Western Wildlife (2009) Ten Prospect Areas at Woodie Woodie: Fauna Survey October 2008. Unpublished report. Western Wildlife, Western Australia.

6. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
CALM	Department of Conservation and Land Management (now DEC), Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia
DEH	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
DEP	Department of Environment Protection (now DEC), 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 (now DEC), Western Australia
DoIR	Department of Industry and Resources (now DMP), Western Australia
DOLA	Department of Land Administration, Western Australia

DoW	Department of Water
EP Act	Environmental Protection Act 1986, Western Australia
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
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 Act	Rights in Water and Irrigation Act 1914, Western Australia
s.17	Section 17 of the Environment Protection Act 1986, Western Australia
TEC	Threatened Ecological Community

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.