



1. Application details

1.1. Permit application details

Permit application No.: 897/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Central Norseman Gold Corporation Ltd

1.3. Property details

Property: M63/133
Local Government Area: Shire Of Dundas
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
8		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 Association 9: Medium woodland Coral Gum (<i>Eucalyptus torquata</i>) and Goldfields Blackbutt (<i>E. lesouefii</i>). Based on 1:250,000 scale mapping. Hopkins et al. (2001) Shepherd et al. (2001)	Clearing of 8 hectares is required for the establishment of the New Chum Pits mine site (e.g open pits, waste dumps, exploration, haul roads). The vegetation will be cleared using a bulldozer to strip vegetation and topsoil, which will be stored separately for future rehabilitation purposes.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The vegetation condition of the area proposed to be cleared was described by Mattiske using Keighery (1994). The vegetation condition ranged from completely degraded in previously mined and disturbed areas, to excellent (Mattiske Consulting 2005). Photographs show that the area has been previously disturbed by historic mineral and exploration activities.
A flora and vegetation survey was undertaken by Mattiske Consulting within the application area during October 2004. The vegetation within the application area was mapped at a scale of 1:10,000 (Mattiske Consulting 2005). The area is dominated by valley floors and extensive lower slopes, with smaller areas covered by mid to upper slopes and outcrops on mid and upper slopes.	The proposed clearing area is located approximately 100 m north of an 87.7 ha area granted to clear on 13 April 2006 for Central Norseman Gold Corporation (CPS 815/1).	To Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	The plant communities mapped during the vegetation survey by Mattiske Consulting (2005) are based on 1:10,000 scale mapping and are a more accurate representation of the vegetation within the application area than the Beard Vegetation Association 9 which is based on 1:250,000 scale mapping.
Three plant communities are represented in the landscape of the application area (Mattiske Consulting 2005), and are associated with the landforms present:			

- Valley Floors and Extensive Lower Slopes

* E4. Open Woodland of *Eucalyptus salubris* - *E dundasii* - *E lesouefii* - *E urna* - *E salmonophloia* over *Geijera linearifolia*,

Santalum acuminatum,
Eremophila scoparia, *E*
glabra, *Exocarpus aphyllus*
over *Atriplex vesicaria*
subsp *appendiculata*,
Frankenia cinerea,
Scaevola spinescens,
Olearia Muelleri,
Hemichroa diandra and
Frankenia pauciflora var
pauciflora and *Halosarcia*
indica subsp *bidens* on
clay-loams on valley floors

- Outcrops - Mid and
Upper Slopes (exposed
rock)

* S2. Closed Heath to Tall
Shrubland of *Grevillea*
acuaria, *Pomaderris*
forrestiana, *Eremophila*
interstans subsp
interstans, *Allocasuarina*
helmsii, *A acutivalvis*
subsp *acutivalvis*,
Phlebalium filifolium,
Dodonaea adenophora,
Beyeria brevifolia var
brevipes, *Alyxia buxifolia*,
Eremophila glabra,
Dodonaea stenozyga over
Acacia erinacea, *Ptilotus*
obovatus var *obovatus*,
Exocarpus aphyllus,
Eremophila psilocalyx,
Riciniocarpus stylosus and
Atriplex nummularia subsp
spathulata with occasional
emergent *Eucalyptus*
stricklandii on shallow
sandy-gravelly soils
associated with
outcropping on mid and
upper slopes.

E10. Low Open Woodland
of *Eucalyptus stricklandii*
over *Eremophila*
psilocalyx, *Atriplex*
nummularia subsp
spathulata, *Exocarpus*
aphyllus, *Acacia dorsenna*,
Hibbertia pungens,
Melaleuca sheathiana,
Alyxia buxifolia,
Allocasuarina helmsii,
Santalum acuminatum
over *Scaevola spinescens*,
Westringia rigida,
Dodonaea stenozyga,
Grevillea acuaria,
Pomaderris forrestiana,
Olearia muelleri, and
Acacia erinacea with
pockets of *Eucalyptus*
torquata, *E incrassata* and
E urna on gravelly shallow
soils on fringes of heath
communities on mid and
upper slopes.

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 area of proposed clearing lies within the Interim Biogeographic Regionalisation for Australia (IBRA) Eastern Goldfield subregion (GIS database). This IBRA subregion encompasses an area of 5,102,428 ha (Shepherd et al. 2001). The vegetation types described by Mattiske Consulting (2005) are widespread in this

subregion, with approximately 100 % of the pre-European vegetation remaining.

The biological assessment report prepared by Matiske Consulting (2005) for the proposed clearing area appears to adequately assess the biodiversity values of the area and the potential impact of the proposal upon local plant communities and flora and fauna species of conservation significance (CALM 2005).

Examination of recent aerial photography reveals that the proposed clearing is situated approximately 100 m north of an open cut pit, and based on the evidence provided, the vegetation types found within the site appear to be well represented elsewhere (CALM 2005). CALM (2005) advise that the proposal is unlikely to have a significant impact on known biodiversity values.

In consideration of the above, it is unlikely that the biodiversity at the site of this proposal will be considered outstanding, or of a higher diversity than in the bioregion or local area, therefore, the proposal is not likely to be at variance to this principle.

Methodology CALM (2005)
GIS Database:
- Interim Biogeographic Regionalisation of Australia (subregions) - EA 18/10/00
Matiske Consulting (2005)
Shepherd et al. (2001)

(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

According to CALM's Threatened and Priority fauna database, no records of species of conservation significance are known to occur within the application area (GIS database).

A fauna assessment of the application area within a wider survey area encompassing M63/133 was undertaken by Ninox Consulting (Matiske Consulting 2005). The assessment was based on an extensive literature review covering the general area, a data search of relevant Government databases and a field assessment. The two-day site inspection was undertaken in late February 2005 by an experienced field zoologist familiar with the Eastern Goldfields.

No rare, threatened or vulnerable species were recorded during the survey. One reptile and one bird species listed in the Wildlife Conservation (Specially Protected Fauna) Notice 2005 may occur in the survey area (Matiske Consulting 2005).

The Carpet Python (*Morelia spilota imbricata*), which is listed under Schedule 4 (other specially protected fauna) of the Wildlife Conservation (Specially Protected Fauna) Notice 2005, is likely to be resident in the general area where introduced species such as the House Mouse and Rabbit will provide additional food resources (Matiske Consulting 2005). These snakes are known to use tree hollows, logs and rabbit warrens as shelter. There is moderate probability of occurrence of the Carpet Python within the application area. However, as it uses a wide range of habitats that are present throughout the surrounding Eastern Goldfields, it is unlikely that the clearing will affect the conservation significance of this species, or that the area to be cleared is significant habitat.

The Peregrine Falcon (*Falco peregrinus*), listed under Schedule 4 (other specially protected fauna) of the Wildlife Conservation (Specially Protected Fauna) Notice 2005, readily use ledges within existing mining areas for roosting and possibly nesting (Matiske Consulting 2005). They forage widely for prey and can co-exist with human disturbance. There is a high probability of occurrence of the Peregrine Falcon within the application area. However, as the habitats are well represented in the broader area, it is unlikely that the localised clearing will affect the habitat and distribution of this species, and that of other bird species which may utilise the area.

Two aerial feeding birds listed under international agreements were not recorded, but may potentially occur within the application area (Matiske Consulting 2005).

The Fork-tailed Swift (*Apus pacificus*) is protected under the CAMBA and JAMBA treaties (China and Japan/Australia Migratory Bird Agreements respectively). A summer migrant, this bird may be observed in the south of the State between late November and April each year. It does not breed in Australia but may be observed aerial feeding during summer. This bird is rarely seen to land in Australia, and therefore, the clearing is unlikely to impact upon this species (Matiske Consulting 2005).

The Rainbow Bee-eater (*Merops ornatus*) is protected under the JAMBA treaty. A spring-summer breeding migrant, this species will occur between late September and March and may be observed aerial feeding over both forest and cleared areas. However, it is unlikely to breed in the study area because the soil conditions are unsuitable for breeding burrows (Matiske Consulting 2005).

The Western Rosella (*Platycerus icterotis xanthogenys*), listed as a Priority 3 species (taxa with several, poorly known populations, some on conservation lands) on CALM's Priority Fauna list, was recorded during the site assessment (Matiske Consulting 2005). The Western Rosella usually occurs in eucalypt and sheoak

woodlands throughout the Eastern Goldfields (Mattiske 2005). Suitable habitat for this bird was identified within the application area, although given the extent of this vegetation type throughout the surrounding region, the proposal is not likely to impact on this species.

One native mammal and four additional bird species on CALM's Priority Fauna List may potentially occur in the study area (Mattiske Consulting 2005). These include;

- Greater Long-eared Bat (*Nyctophilus timorensis* (central form)) Priority 4. This bat roosts in tree hollows and may forage widely for invertebrate prey. The species is infrequently recorded and may be more or less common than currently understood (Mattiske Consulting 2005). The clearing is not likely to impact on this species considering the extent to which similar vegetation types are found throughout the region.
- Australian Bustard (*Ardeotis australis*) Priority 4. This bird prefers open grasslands, grassy woodlands and pastoral country (Mattiske Consulting 2005). This bird may occur within the proposed area, however, given the widespread distribution of open woodlands throughout the Eastern Goldfields the species is not likely to be impacted on by this proposal.
- Bush Stone-curlew (*Burhinus grallarius*) Priority 4. This mainly nocturnal bird prefers open woodlands and shrublands, often with stoney soils (Mattiske Consulting 2005). The soils of the application are mainly clay loams located on valley floors with a small area of gravelly shallow soils associated with mid to upper slopes. This bird would be more likely to occur south of the application area within the open woodlands on the mid to upper slopes where there is a higher occurrence of stoney soils, therefore, is not likely to be impacted upon by this proposal.
- Crested Shrike-tit (*Falcunculus frontatus*) Priority 4. This bird favours smooth-barked trees and occurs mainly in Wandoo woodland and Flooded Gum (*Eucalyptus rudis*) along watercourses (Mattiske Consulting 2005). No watercourses exist within the application area, therefore, this species is not likely to be impacted on by the proposed clearing.

All of the fauna habitats described for the application area are common and widespread in this portion of the Eastern Goldfields (Mattiske Consulting 2005). None of them have any special significance to fauna other than that associated with loss of habitat trees through clearing. The proposed clearing is for only 8 ha, therefore, there is unlikely to be a significant loss of habitat considering the extent of which the vegetation types described in proposed clearing area are found throughout the surrounding Eastern Goldfields. The Salmon Gum (*Eucalyptus salmonophloia*) woodlands in particular are likely to provide substantial nesting, roosting and refuge hollows for a relatively large range of species, however, only a small area (approx. less than 4 hectares) within the application area contains the open woodland in which Salmon Gums are found. The low open woodlands (containing Salmon Gums) are widespread to the north and south of the application area, and the clearing of this specific vegetation type constitutes less than approximately 5% of the total area of this vegetation type within the vicinity of the application area, therefore, the proposed clearing is not likely to impact upon Salmon Gum numbers in the area. Large hollows (entrance size around 25 cm) are likely to start occurring in Salmon Gum trees between 160 and 180 years of age, with most large hollows formed in trees more than 200 years old. Salmon Gums in the eastern part of their range with a diameter at breast height of more than 48cm are estimated to be 180 years old (Rose 1993). The Norseman area has been historically cleared to obtain wood for use within the mining industry, and it is unlikely that Salmon Gums of suitable age to provide habitat to fauna occur within the application area.

The biological assessment report prepared by Mattiske Consulting (2005) for Central Norseman Gold's mining tenement 63/133 appears to adequately assess the potential impact of the proposal upon fauna habitat and fauna species of conservation significance (CALM 2005).

With consideration to the above, the proposal is not likely to be at variance to this principle.

Methodology CALM (2005)
GIS Database:
- Threatened Fauna - CALM 30/9/05
Mattiske Consulting (2005)
Rose (1993)

(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

According to CALM datasets, no Declared Rare Flora (DRF) or Priority Flora species are known to occur within the area under application (GIS database).

A flora and vegetation survey was undertaken by botanists from Mattiske Consulting during October 2004. The area encompassed a large proportion of Mining Lease 63/133 and included the area of proposed clearing for New Chum Pits (CPS 897/1).

No Declared Rare Flora species were located during the flora and vegetation survey (Mattiske Consulting 2005). The Priority One (P1) species *Acacia dorsenna* and the Priority Three (P3) species *Eremophila purpurascens* were located within local plant communities E10 (low open woodland of *Eucalyptus stricklandii*) and S2 (Closed heath to tall shrubland) which occur on or adjacent to exposed outcropping on the upper slopes of hills (Mattiske Consulting 2005). A small area (< 4 ha) of the plant communities E10 and S2 were identified

within the clearing application area, however, these plant communities were widespread approximately 500 m south of the application area in an area (approx. 400 ha) dominated by mid and upper slopes with occasional outcropping (Mattiske Consulting 2005). It is most likely that the Priority species *Acacia dorsenna* (P1) and *Eremophila purpurascens* (P3) will have a greater distribution throughout this area south of the proposal rather than within the application area, therefore, the proposed clearing is unlikely to impact on the conservation status of these species.

The Priority 3 species *Eucalyptus brockwayi* was recorded within plant community E8 (open woodland of *Eucalyptus urna*). This plant community was located in the south-west section of the survey area approximately 1.2 km from the proposed clearing area and also within a small area approximately 200 m north-west from the clearing area (Mattiske Consulting 2005). Considering the distance from the proposal, *Eucalyptus brockwayi* is not likely to be impacted on by the proposed clearing.

The flora survey and report prepared by Mattiske Consulting (2005) appears to adequately assess the potential impact of the proposal upon local plant communities and flora species of conservation significance (CALM 2005). The proposal is not likely to impact on DRF or Priority flora species, therefore, is not likely to be at variance to this principle.

Methodology CALM (2005)
GIS Database:
- Declared Rare and Priority Flora List - CALM 01/07/05
Mattiske Consulting (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 Communities (TECs) have been recorded within the area subject to be cleared (GIS database; Cowan 2001). None of the plant communities recorded during the flora and vegetation survey of the clearing area are classified as TECs, or listed as TECs under the *Environmental Protection and Biodiversity Conservation Act 1999* (Mattiske Consulting 2005). The nearest known TEC is located approximately 73 km north-east of the proposed clearing (GIS database).

In consideration of the above, the clearing proposal is not likely to be at variance to this principle.

Methodology Cowan (2001)
GIS Database:
- Threatened Ecological Communities - CALM 12/4/05
Mattiske Consulting (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 State Government is committed to the National Objectives Targets for Biodiversity Conservation which includes a target that prevents clearance of ecological communities with an extent below 30% of that present pre-European settlement (Department of Natural Resources and Environment 2002; EPA 2000).

While the benchmark of 15% representation in conservation reserves (JANIS Forests Criteria 1997) has not been met for Beard vegetation association 9, approximately 99.7% of the pre-European extent remains for this association and it is therefore of 'least concern' for biodiversity conservation (Hopkins et al. 2001; Department of Natural Resources and Environment 2002).

	Pre-European area (ha)	Current extent (ha)	Remaining %*	Conservation Status**	% in IUCN Class I-IV reserves
IBRA Bioregion - Coolgardie Shire of Coolgardie	12,917,718*	12,719,084*	98.5%	Least concern	
Beard vegetation associations - 9	250,894	250,183	99.7%	Least concern	3.0%

* Shepherd et al. (2001)

** Department of Natural Resources and Environment (2002)

Methodology Department of Natural Resources and Environment (2002)
EPA (2000)
Hopkins et al. (2001)
JANIS Forests Criteria (1997)
Shepherd et al. (2001)

(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 are no wetlands or watercourses within the area applied to clear (GIS database). The closest non-perennial watercourse is located approximately 230 m north-west of the proposed clearing area and is not likely to be impacted on by the proposal. A 894 ha salt lake is located approximately 850 m east of the proposed clearing area (GIS database), however, given the distance to the lake and the small size of the clearing it is not likely to be impacted on by the proposal.

In consideration of the above, the proposal is not likely to be at variance to this principle.

Methodology GIS Database:
- Hydrography, linear - DOE 1/2/04
- Lakes, 1M - GA 01/06/00

(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 dominant soil types of the application area are clay loams which are associated with the open eucalypt woodlands (vegetation type E4) on the valley floors and lower slopes. On the mid to upper slopes the open eucalypt woodlands and heathlands (vegetation types S2 and E10) occur on soils ranging from calcretes to sandy-gravels, with shallow sandy-gravelly soils associated with outcropping (Mattiske Consulting 2005).

The proposed clearing area is predominately located on the mid to upper slopes between two peaks, with a small area of clearing proposed to occur on the lower slope and valley floor areas of the two peaks (GIS database; Mattiske Consulting 2005). The topography of the proposed clearing area is relatively inclined with a gradient of approximately 20% on the mid to upper slopes and approximately 10-15% on the lower slopes and valley floors (GIS database). The region is characterised by low average annual rainfall (290 mm/yr) and a high evaporation rate (2300 mm/yr) (GIS database; BoM 2006), and with the area of proposed clearing not in association with any drainage lines or watercourses there is unlikely to be surface water runoff during normal seasonal rains thereby minimising the risk of water erosion (GIS database). The proposed area to be cleared will be excavated in order to access the mineral deposit or cleared for associated mining land uses, therefore, the clearing is unlikely to impact on surrounding native vegetation by way of erosion or sedimentation. None of the clearing areas occur in particularly low lying areas associated with the non-perennial salt lake or watercourse, therefore, clearing is unlikely to cause or increase waterlogging (GIS database).

With regard to salinity, any clearing is unlikely to increase salinisation, either on-site or off-site, as saline and subsaline soils are common throughout the region. The proposed area to be cleared is located within 400 m of an 894 ha non-perennial salt lake, and with groundwater salinities ranging between 14,000 – 35,000 mg/L Total Dissolved Solids, groundwater quality is already considered to be poor (GIS database).

The clearing of 8 hectares for mine development purposes is not likely to cause appreciable land degradation, therefore, the proposal is not likely to be at variance to this principle.

Methodology BoM (2006)
GIS Database:
- Hydrography, linear - DOE 1/2/04
- Evaporation Isoleths - BOM 09/98
- Topographic Contours, Statewide - DOLA 12/09/02
- Groundwater Salinity, Statewide - 22/02/00
Mattiske Consulting (2005)

(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

There are no CALM managed conservation areas within the proposed clearing area. The nearest conservation areas to the proposal are a CALM managed timber reserve, located approximately 9.5 km south of the proposal and the Dundas Nature Reserve which is located approximately 13 km south-east of the proposal (GIS database). The vegetation proposed to be cleared does not serve as a significant ecological linkage or buffer to those regional conservation areas.

Considering the distance between this proposal and the nearest CALM managed reserves, the proposed clearing is not likely to be at variance to this principle.

Methodology GIS Database:
- CALM Managed Lands and Waters - CALM 1/07/05

(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 area to be cleared is located within the Yilgarn-Goldfields groundwater province which covers more than 290,000 sq km. The proposal does not fall within a Public Drinking Water Source Area, therefore, there is no risk of deterioration to the quality of public water supplies (GIS database). The proposed area is located in the vicinity of a salt lake in an area where groundwater quality is already considered poor, with salinities ranging between 14,000 - 35,000 mg/L Total Dissolved Solids (GIS database). As a result, clearing for the proposed New Chum Pits mine site will not impact on the quality of groundwater in the area.

There are no wetlands or watercourses within the proposed clearing area, therefore, the proposal will not impact on the quality of surface water.

This proposal raises no water quality issues, therefore, the proposal is not likely to be at variance to this principle.

Methodology

GIS Database:

- Public Drinking Water Source Areas (PDWSAs) - DOE 07/02/06
- Groundwater Salinity, Statewide - 22/02/00
- Hydrography, linear - DOE 1/2/04
- Groundwater Provinces - WRC 98

(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 Norseman township, 3 km west of the proposed clearing area, experiences mean annual rainfall of 290 mm/yr and a mean annual evaporation rate of approximately 2300 mm/yr. Rainfall in the region occurs in winter or is non-seasonal (BoM 2006; Mattiske Consulting 2005; GIS database). Flooding usually only occurs following extreme rainfall events, and the broad valley systems disperse and drain floodwaters into the numerous salt lakes which are scattered throughout the landscape (GIS database). There are also no wetlands or watercourses within the area to be cleared which are prone to flooding.

The proposed clearing of 8 ha is unlikely to form a catchment area large enough to cause or increase the incidence of flooding, therefore, the proposal is not likely to be at variance to this principle.

Methodology

BoM (2006)

GIS Database:

- Evaporation Isopleths - BOM 09/98_1
 - Hydrography, linear - DOE 1/2/04
 - Topographic Contours, Statewide - DOLA 12/09/02
- Mattiske Consulting (2005)

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

Comments

Clearing Permit Application 897/1 is exempt under Schedule 1- Low Impact or other mineral or petroleum activities because the clearing is less than 10 hectares. However, Central Norseman Gold Ltd has chosen to continue with the clearing permit application because there is uncertainty over the amount of land they require to clear on Mining Lease 63/133 per financial year.

There is a native title claim over the area under application; WC99/002. This claim has been registered with the National Native Title Tribunal on behalf of Ngadju 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*.

There are no known sites of aboriginal significance within the proposed area to be cleared (GIS database).

The Shire of Dundas (2005) have discussed this application, and resolved that "approval be granted to Central Norseman Gold Corporation Ltd to clear native vegetation as defined in the application provided by the Department of Industry and Resources on Mining lease number M63/133 and clearing permit number 897/1".

Central Norseman Gold Corporation's lease M63/133 has a current groundwater licence GWL61134 for the purpose of dewatering, dust suppression and mineral ore processing granted in accordance with the *Rights in Water and Irrigation Act 1914* (DoE 2005).

Central Norseman Gold Corporation's lease M63/133 has a current operating licence 6043/9 granted in

accordance with the *Environmental Protection Act 1986* (DoE 2005).

Methodology Central Norseman Gold Corporation has an approved Notice of Intent (5191) for the New Chum Pits proposal.
DoE (2005)
GIS Database:
- Native Title Claims - DLI 7/11/05
- Aboriginal Sites of Significance - DIA 28/02/03
Shire of Dundas (2005)

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Mineral Production	Mechanical Removal	8	Grant	The clearing principles have been addressed and the proposed clearing is not likely to be at variance with principles a, b, c, d, f, g, h, i, and j. The proposed clearing is not at variance with principle e. The assessing officer recommends that the permit be granted.

5. References

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- Shire of Dundas (2005). Direct Interest Submission for CPS 897/1. Letter addressed to Native Vegetation Assessor, Native Vegetation Branch, Department of Industry and Resources. Shire of Dundas, Norseman.

6 Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government.
CALM	Department of Conservation and Land Management, Western Australia.
DAWA	Department of Agriculture, Western Australia.
DA	Department of Agriculture, Western Australia.
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.
DoE	Department of Environment, Western Australia.
DoIR	Department of Industry and Resources, Western Australia.
DOLA	Department of Land Administration, Western Australia.
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.