



1. Application details

1.1. Permit application details

Permit application No.: 2089/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: View Gold Pty Ltd

1.3. Property details

Property: M36/82
Local Government Area: Shire of Leonora
Colloquial name: Bronzewing - Mt McClure Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
25		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
<p>Beard vegetation associations have been mapped at a 1:250,000 scale for the whole of Western Australia. One Beard vegetation association has been mapped over the area proposed to be cleared (GIS Database). This association is:</p> <p>39: Shrublands; Mulga Scrub (GIS Database, Shepherd <i>et al.</i>, 2001).</p> <p>A flora and vegetation survey of the Mt McClure project was conducted in 1990, which included the Challenger Pit area (Outback Ecology, 2007). Another recent vegetation survey conducted in July 2007 by Outback Ecology (2007) identified the following vegetation associations within the altered clearing permit boundary:</p> <ul style="list-style-type: none"> - Mulga Open Low Woodland B over <i>Ptilotus obovatus</i> Open Dwarf Scrub C; - Mulga Low Woodland A over <i>Sida calyxhymenia</i> Open Dwarf Scrub C over <i>Eragrostis eriopoda</i> Very Open Low Grass; - Mulga Open Low Woodland B over <i>Eremophila shonae</i> ssp. <i>shonae</i> Dwarf Scrub C; - Mulga and <i>A. quadrimarginea</i> Scrub over <i>Baeckea</i> sp. <i>Melita Station</i> Low Scrub A; - <i>Acacia rhodophloia</i> Open Low Woodland B over <i>Ptilotus obovatus</i> Dwarf Scrub D; - Mulga Low Forest A over <i>Acacia tetragonophylla</i> Open Low Woodland B over <i>Sida calyxhymenia</i> and <i>Ptilotus obovatus</i> Open Dwarf Scrub C over <i>Aristida contorta</i> and <i>Enneapogon caeruleus</i> Very Open Low Grass (Drainage lines); - Mulga Open Low Woodland B over a sparse understorey. (Degraded area inside abandonment bund); and 	<p>View Gold Pty Ltd (from this point forward referred to as View Gold) has applied to clear up to 25 hectares of vegetation within a total application area of approximately 48 hectares. This is the altered clearing permit boundary, with the original application area footprint being reduced from 60 hectares to 48 hectares, due to the possible impact on an Aboriginal Site of Significance. This site has since been excluded from the clearing envelope, and will not be impacted upon.</p> <p>The clearing permit application is for the redevelopment of Challenger South satellite pit of the Bronzewing - Mt McClure project. The proposed clearing area is located approximately 45 kilometres north-east of Leinster.</p> <p>Department of Environment and Conservation (DEC) has issued approval to take 63 priority species within the area under application.</p>	<p>Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994)</p> <p>to</p> <p>Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994)</p>	<p>The vegetation condition is based on the Keighery (1994) vegetation condition scale and from aerial and ground photography (GIS Database, Outback Ecology, 2007).</p> <p>The vegetation surrounding the Challenger pit is generally in a degraded condition due to previous mining and exploration activities, combined with the effects of grazing (Outback Ecology, 2007).</p>

- *Acacia oswaldii* Open Low Woodland A over *Eremophila platycalyx* ssp. *platycalyx* and *Grevillea sarissa* ssp. *succincta* Open Scrub over *Maireana georgei* Open Dwarf Scrub D over *Enneapogon caerulescens* Very Open Low Grass (Outback Ecology, 2007).

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 clearing permit application area is located within the Murchison Interim Biogeographic Regionalisation of Australia (IBRA) bioregion, and the Eastern Murchison IBRA subregion (GIS Database). The biodiversity values of the Eastern Murchison IBRA subregion were assessed by Cowan (2001). Cowan (2001) suggests that Eastern Murchison IBRA subregion is rich and diverse in both its flora and fauna species, however, most species are wide ranging and usually occur in at least one, and often several, adjoining subregions. The proposal is not located within any of the ecosystems at risk listed for the IBRA subregion (Cowan, 2001). During Outback Ecology (2007) survey, 57 plant taxa (including subspecies and varieties) from 17 families and 27 genera were identified, which suggests that the area under application may not be as biodiverse as the rest of the IBRA subregion.

The proposed clearing is located within the Yandal Pastoral Lease, and adjacent to a mine site (GIS Database). Aerial and ground imagery provided by the proponent as well as other aerial imagery available to the Department of Industry and Resources (DoIR) shows that the proposed clearing area has been disturbed by past mining activities (GIS Database, Google Earth, 2007; Outback Ecology, 2007). Much of the proposed clearing area is considered to be in a degraded state due to past mining and exploration activities, as well as the effects of grazing (Outback Ecology, 2007).

The vegetation of the proposed clearing area is dominated by open Mulga (*Acacia aneura*) Scrub to Open Low Woodland, which is common and widespread in the region (Outback Ecology, 2007). Considering the degraded state of the vegetation within the application area, the native vegetation is unlikely to represent higher biodiversity than the surrounding undisturbed vegetation.

Populations of the Priority 4 species *Eremophila pungens* and Priority 3 species *Baeckea* sp. *Melita Station* occur within the proposed clearing area (Outback Ecology, 2007). Within the current footprint of the cutback, there are 8 plants of *Eremophila pungens* and 55 plants of *Baeckea* sp. *Melita Station* present, which may be cleared (Outback Ecology, 2007). However, recent surveys indicated that local populations are in their thousands of plants (Outback Ecology, 2007), and therefore the clearing of 8 and 55 plants respectively is unlikely to lead to a reduction in the biodiversity values of the area under application.

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

Methodology Cowan (2001).
Google Earth (2007).
Outback Ecology (2007).
GIS Database:
- Interim Biogeographic Regionalisation of Australia (subregions) - EA 18/10/00.
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00.
- Pre-European Vegetation - DA 01/01.
- Pastoral Leases.
- Western Australia ETM 25m 543 - AGO 2002.

(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**

Ninox Wildlife Consulting undertook fauna assessments in the Bronzewing and Mt McClure project areas in 1989 and 1993. No species listed under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBCAct) or the *WA Wildlife Conservation Notice 2006* (WAWCN) were recorded (Outback Ecology, 2007). The following species of conservation significance may occur in the greater Mt McClure area, based on known distributions and habitat preferences:

- Lesser Stick-nest Rat (*Leporillus conditor*) (Presumed extinct - WANCN)
- Mulgara (*Dasyercus cristicauda*) (Vulnerable - WAWCN);
- Long tailed Dunnart (*Sminthopsis longicaudata*) (Priority 3 - DEC priority list)
- Princess Parrot (*Polytelis alexandrae*) (Priority 4- DEC priority list); and
- Peregrine Falcon (*Falco peregrinus*) (Schedule 4 - DEC priority list) (Outback Ecology, 2007).

The Lesser Stick-nest Rat (*Leporillus apicalis*) (presumed extinct) is now almost certainly extinct from all areas except islands off Shark Bay (DEH, 2007; Strahan, 1995), and given the degraded nature of the application area, it is very unlikely that the species occurs in the proposed clearing area.

The preferred habitat for the Mulgara is open Mulga woodlands (*Acacia aneura*) over mature hummock grasslands (*Triodia basedowii*). Sandplains and dune systems with sandy loams are necessary to enable burrowing. There is also evidence to suggest that colonies of Mulgara coincide with watered areas such as paleo-drainage lines. The proposed clearing area does not represent suitable habitat for Mulgara due to the absence of *Triodia basedowii* hummock grassland, and the lack of major drainage lines. Open Mulga shrubland/ woodland is widespread in the local area (Outback Ecology, 2007), and the degraded vegetation surrounding the Challenger Pit is unlikely to represent significant habitat for the Mulgara.

The Long-tailed Dunnart (*Sminthopsis longicaudata*) (Priority 4, taxa in need of monitoring) inhabits rocky outcrops, rocky scree areas and breakaways, with associated vegetation including hummock grasslands and Acacia woodlands (Strahan, 1995). There are small rocky outcrops within the application area, however, due to the absence of hummock grasslands and the degraded nature of the vegetation within the application area, it is unlikely that the proposed clearing will impact on significant habitat for Long-tailed Dunnart.

The Princess Parrot (*Polytelis alexandrae*) (listed by DEC as Priority 4, taxa in need of monitoring) is highly nomadic and has a sporadic occurrence throughout the arid interior of Australia. It is known to occur on red desert sandplains and is known from the Gibson, Great Victoria and Great Sandy Deserts (Pizzey and Knight, 1997). It favours habitats of Mulga over Spinifex, Casuarina and *Eucalyptus camaldulensis* (Cowan, 2001). These habitats do not occur in the application area, and therefore, the vegetation within the application area is not likely to be significant habitat for this species.

The Peregrine Falcon (*Falco peregrinus*) (Schedule 4, other specially protected fauna, *Wildlife Conservation (Specially Protected Fauna) Notice, 2006*), a wide ranging bird, has little habitat specificity apart from an affinity with cliffs, tall trees for nesting, and water (Pizzey and Knight, 1997). Given the lack of cliffs, tall trees or perennial watercourses within the project area, and the ability of the Peregrine Falcon to utilise a wide variety of habitats, the vegetation within the application area is not likely to be significant habitat for this species.

The vegetation within the boundary of the application area is not significant habitat for fauna as much of the vegetation is considered degraded due to previous mining and grazing activities.

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

Methodology Cowan (2001).
DEH (2007).
Outback Ecology (2007).
Pizzey and Knight (1997).
Strahan (1995).

(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

No Declared Rare Flora (DRF) have been previously recorded within the proposed clearing area (GIS Database).

A search of the Department of Environment and Conservation's (DEC's) Threatened Flora Database was undertaken in December 2004 by Outback Ecology, to identify DRF or Priority Flora species in the Bronzewing - Mt McClure area (Outback Ecology, 2007). The database search was conducted for the co-ordinates 27 ° 00' - 28 ° 00'S and 120°00'-121 ° 00'E (covering an area of approximately one million hectares, including the area applied to clear). No DRF species records were identified from this search. However, 15 Priority Flora species were recorded:

- *Calytrix verruculosa* (Priority 1);
- *Baeckea sp. Sandstone* (Priority 1);
- *Eucalyptus striatocalyx ssp delicate* (Priority 1);
- *Euryomyrtus inflata* (Priority 1);
- *Stenanthemum mediale* (Priority 1);
- *Olearia mucronata* (Priority 2);
- *Baeckea sp. Melita Station* (Priority 3);
- *Calytrix erosipetala* (Priority 3);
- *Calytrix praecipua* (Priority 3);
- *Calytrix uncinata* (Priority 3);
- *Canoparmelia macrospora* (now *Parmeliopsis macrospora*) (Priority 3);
- *Acacia balsamea* (Priority 4);
- *Eremophila pungens* ms (Priority 4);
- *Grevillea inconspicua* (Priority 4); and
- *Hemigenia exilis* (Priority 4) (Outback Ecology, 2007).

Of these 15 species, only two species (*Baeckea sp. Melita Station* and *Eremophila pungens* ms) have been identified during the field surveys within the proposed clearing area.

The preferred habitat of *E. pungens* includes low hills covered with ironstone gravel or lateritic material, and the drainage lines dissecting these areas (Outback Ecology, 2006). During the 2006 survey (Outback Ecology, 2006) the plants occurred predominantly on the Bevon land system, with some identified on the neighbouring Ararak and Violet Land systems. Over 4500 plants were located in the area in August 2006 (Outback Ecology, 2007). DEC (Kalgoorlie) has granted View Gold permission to remove 8 *Eremophila pungens* within this clearing permit area, as the removal of these individuals will not significantly impact on the conservation of this species (DEC, 2007).

The preferred habitat of *Baeckea* sp. *Melita Station* are dark red rocky soils, over ironstone, associated with Mulga shrublands. All populations within the Bronzewing - Mt McClure project were located on lateritic outcrops, and in association with *Acacia aneura* (Mulga) (Outback Ecology, 2007). DEC has granted the removal of 55 *Baeckea* sp. *Melita Station* within this purpose permit area (DEC, 2007).

Recent surveys (by Outback Ecology as well as View Gold) have indicated that local populations are in their thousands (Outback Ecology, 2007), and therefore the clearing of 8 and 55 plants respectively is unlikely to lead to a reduction of biodiversity in the wider area. Therefore, it is not likely that the vegetation to be cleared represents significant habitat for these species.

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

Methodology DEC (2007).
Outback Ecology (2006).
Outback Ecology (2007).
GIS Database:
- Declared Rare and Priority Flora List - CALM 01/07/05.

(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) in the IBRA Eastern Murchison subregion (GIS Database, Cowan, 2001). The nearest known TEC is approximately 90 kilometres south west of the application area (GIS Database). No TECs have been identified by previous botanical surveys within the clearing permit area, or in the vicinity of the area (Outback Ecology, 2007).

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

Methodology Cowan (2001).
Outback Ecology (2007).
GIS Database:
- Threatened Ecological Communities - CALM.

(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 application falls within the Murchison IBRA subregion (GIS Database). The proposed clearing is not located within the Intensive Land-use Zone (GIS Database, Shepherd et al., 2001). The vegetation proposed to be cleared is classified as Beard vegetation association 39: Shrublands; Mulga scrub (GIS Database).

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	% of Pre-European area in IUCN Class I-IV Reserves (and current %)
IBRA Bioregion – Murchison	28,120,558	28,120,558	100	Least concern	6.6
Beard veg assoc. – State					
39	6,613,453	6,613,453	100	Least concern	11.8
Beard veg assoc. – Bioregion					
39	1,148,411	1,148,411	100	Least concern	2.5

* Shepherd *et al.* (2001) updated 2005

** Department of Natural Resources and Environment (2002)

Although the percentage of land in conservation reserves is very low for the Murchison IBRA regions and subregions, as well as the Beard Vegetation association 39, the regional extent is approximately 100% uncleared, and therefore the proposed clearing does not pose a threat to the conservation of this vegetation association.

The area proposed to be cleared does not form a significant remnant of native vegetation.

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

Methodology Department of Natural Resources and Environment (2002).
Shepherd *et al.* (2001).
GIS Database:
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00.
- Pre-European Vegetation - DA 01/01.

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments Proposal may be at variance to this Principle

There are no permanent watercourses in the vicinity of the application area, but one minor, non perennial watercourse traverses the south-east corner of the proposed clearing area (GIS Database). Only after heavy rainfall would water flow along this shallow, ephemeral watercourse. No riparian vegetation was identified during the vegetation survey (Outback Ecology, 2007).

The area to be cleared is in the vicinity of the cutback, and it is not likely that the clearing would occur near the minor, non-perennial watercourse.

Given the lack of riparian vegetation within the proposed clearing area and the non perennial nature of the watercourse, it is unlikely that the proposed clearing will affect environments associated with a watercourse or wetland.

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

Methodology Outback Ecology (2007).
GIS Database:
- Geodata, Lakes - GA 28/06/02.
- Hydrography, linear - DOE 1/2/04.
- Hydrography, linear (hierarchy) - DOW.
- Rivers, DoW.

(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 Yandal pastoral lease, which has been subject to sheep and cattle grazing since the 1930's (Outback Ecology, 2007).

The proposed clearing area is located within the Bevon and Felix land systems (GIS Database).

The Bevon land system is characterised by irregular low hills capped with limonite, plateaux and small breakaways with short footslopes, extensive lower colluvial slopes, very gently inclined plains with mantles of ferruginous gravel and narrow drainage tracts (Pringle *et al.*, 1994; Payne *et al.*, 1998). Some minor areas are susceptible to soil erosion, particularly if perennial shrub cover is substantially reduced or the soil surface is disturbed (Pringle *et al.*, 1994; Payne *et al.*, 1998).

The Felix land system is characterised by level to gently undulating plains with quartz lag and sparse narrow drainage lines, with relief of less than 10 metres (Pringle *et al.*, 1994; Payne *et al.*, 1998). The stone mantles provide effective protection of the soil against erosion (Pringle *et al.*, 1994; Payne *et al.*, 1998).

As the clearing will occur on low rises and stony plains, it is unlikely that the proposed clearing will lead to appreciable erosion.

The proposed clearing is unlikely to exacerbate land degradation such as water logging and water erosion given the low annual rainfall and minimal surface water flow in the application area. With low average annual rainfall (approximately 209 millimetres per annum) and high annual potential evaporation (approximately 3,600 millimetres per annum) (GIS Database), recharge to groundwater would be low, effectively minimising the risk of salinisation.

Parts of the area proposed to be cleared are in a degraded condition due to previous mining activities and grazing.

Given the very low erosion hazard of the proposed clearing area, the low rainfall and high evaporation rates of the area, the already disturbed nature of the area and the management practices indicated, it is unlikely that the proposed clearing will cause appreciable land degradation.

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

Methodology Outback Ecology (2007).
Payne *et al.* (1998).
Pringle *et al.* (1994).
GIS Database:
- Evapotranspiration, Point Potential
- Rainfall, Mean Annual - BOM 30/09/01.
- Rangeland Land System Mapping - DA.

(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 Wanjarri (A Class) Nature Reserve, covering an area of approximately 53,000 hectares, is located approximately 19 kilometres northwest of the application area (GIS Database). This area is also registered on the Register of the National Estate, as well as being a Wildlife Sanctuary (Red Book System 11.02) (GIS Database).

There are no other conservation areas nearby (GIS Database).

The application area is not likely to act as a significant remnant, buffer or ecological linkage to the Wanjarri Nature Reserve given that the area is relatively far from the Nature Reserve, and has been historically disturbed by mining activities and the surrounding landscape has not been extensively cleared.

Based on the above, 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.
- CALM proposed 2015 pastoral lease exclusions.
- CALM Regional Parks - CALM 12/04/02.
- Register of National Estate - EA 28/01/03.
- System 1 to 5 and 7 to 12 Areas - DEP 06/95.

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

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

The proposed clearing is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database). However, the area under application is a surface water management area (Salt Lake Basin) (GIS Database).

Groundwater within the area under application is fresh at between 500 - 1000 milligrams per litre of Total Dissolved Solids (TDS). Given the relatively small size of the proposed clearing (25 hectares) and the size of the groundwater province (Yilgarn-Goldfields) (GIS Database), the quality of the groundwater is unlikely to be impacted by the proposed clearing activity.

Within the vicinity of the Challenger pits, surface drainage flows to the south-west, and then south, eventually draining into Lake Darlot (GIS Database; Outback Ecology, 2007). Considering that the proposed clearing is for a cutback, it is unlikely that the proposed clearing will lead to sedimentation of waterways in the area.

There are no Potential Groundwater Dependent Ecosystems in the area (GIS Database).

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

Methodology Outback Ecology (2007).
GIS Database:
- Groundwater Salinity, Statewide - DOW.
- Potential Groundwater Dependant Ecosystems - DOE 2004.
- Public Drinking Water Source Areas (PDWSAs) - DOW.
- Topographic Contours, Statewide - DOLA 12/09/02.

(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 average annual rainfall at Lawlers (the closest meteorological recording station to the area applied to be cleared) is 209 millimetres (Outback Ecology, 2007). Average annual potential evaporation in the proposed clearing area is approximately 3,600 millimetres (GIS Database). It is therefore expected that there would be little surface water flow during normal seasonal rains.

The clearing of 25 hectares within the Lake Carey Catchment (113,782 square kilometres) (GIS Database), is unlikely to result in an increase in flooding incidence or intensity.

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

Methodology Outback Ecology (2007).

GIS Database:

- Hydrographic Catchments - Catchments - DOW.
- Hydrographic Catchments - Subcatchments - DOW.
- Rainfall, Mean Annual - BOM 30/09/01.
- Evapotranspiration, Point Potential

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

Comments

There are no Native Title Claims over the area under application (GIS Database).

There are a number of known Sites of Aboriginal Significance within the area applied to clear (GIS Database). Department of Indigenous Affairs (DIA) has examined the proposed clearing and provided information on the six registered sites impacted by the original proposal:

- 1424 (Karra Creek Quarry);
- 16186 (Challenger South Site 1);
- 16187 (Challenger South Site 2);
- 16943 (Rockshelter 2);
- 16944 (Rockshelter 3); and
- 16945 (Rockshelter 1) (DIA, 2007).

However, View Gold has received permission from DIA through a Section 18 to disturb all sites, except 1424 (Karra Creek Quarry). The application envelope has since been altered from 60 hectares to 48 hectares to exclude site 1424 and its buffer zone from the area under application. Therefore, DIA (2007) advice states that no impacts are expected on Aboriginal Sites of Significance from this clearing permit.

View Gold has also conducted Aboriginal Heritage surveys of the site, and the outcome of consultation between View Gold and Aboriginal heritage consultants were that View Resources could proceed with the proposed works on the Challenger South Project Area, as the recorded sites of Aboriginal significance are no longer of any ethnographic significance (Outback Ecology, 2007). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Sites of Aboriginal Significance are damaged through the clearing process.

There were no relevant Environmental Impact Assessments conducted over the area under application (GIS Database).

The application area is within a *Rights in Water and Irrigation Act 1914* (WA) groundwater management area (GIS Database). The applicant would require approval from Department of Water to extract groundwater.

The proposed expansions of the Bronzewing - Mt McClure Project are subject to *the Mining Act 1978* approval 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 Outback Ecology (2007).

GIS Database:

- Aboriginal Sites of Significance - DIA.
- Environmental Impact Assessments.
- Native Title Claims - DLI 7/11/05.
- RIWI Act, Groundwater Areas.

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Mineral Production	Mechanical Removal	25	The proposal has been assessed against the Clearing Principles, and is considered may be at variance to principle (f), not likely to be at variance to principles (a), (b), (c), (d), (g), (h), (i) and (j), and not at variance to principle (e).

It is recommended that conditions be placed on any permit granted relating to recording areas cleared and reporting on clearing activities on an annual basis.

5. References

- Cowan, M. (2001) *Murchison 1 (MUR1 - East Murchison subregion)*, in *A Biodiversity Audit for Western Australia*, Department of Conservation and Land Management, Perth, Western Australia.
- DEC (Department of Environment and Conservation) (2007) *Taking of priority flora - View Gold Pty Ltd Challenger South Pit*, letter from Ian Kealley, Regional Manager - Goldfields Region, dated 9 October 2007.
- DEH (Department of Environment and Heritage) (2007) *Species Profile and Threats Database: Leporillus apicalis - Lesser Stick-nest Rat* [online] <http://www.deh.gov.au/biodiversity/threatened/species/index.html> Last Accessed 11/12/2007.
- 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.
- DIA (Department of Indigenous Affairs) (2007) *Advice on CPS 2089/1 on mining tenement M36/82 for View Gold Pty Ltd*, email to assessing officer.
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- Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Outback Ecology (2006) *Application for an Area Permit to Clear Native Vegetation at the Bronzewing - Mt McClure Project: Success Pit Cutback and Waste Landform*. Unpublished report dated December, 2006.
- Outback Ecology (2007) *Purpose Permit Clearing Application: View Gold Pty Ltd. - Bronzewing - Mt McClure Project, M36/82*, unpublished report prepared for View Gold Pty Ltd, Jolimont, Western Australia.
- Payne, A.L., Van Vreeswyk, A.M.E., Pringle, H.J.R., Leighton, K.A. and Hennig, P. (1998) *An inventory and condition survey of the Sandstone-Yalgoo-Paynes Find area*, Western Australia, Technical Bulletin No.90, Department of Agriculture Western Australia, South Perth, Western Australia.
- Pizzey, G. and Knight, F. (1997) *Field Guide to the Birds of Australia*. Angus & Robertson, Sydney.
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- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) *Native Vegetation in Western Australia, Extent, Type and Status*. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- Strahan, R. (1995) *The Mammals of Australia*. Reed Books, NSW.

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.
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.