



1. Application details

1.1. Permit application details

Permit application No.: 374/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Paddington Gold Pty Ltd

1.3. Property details

Property:

- M24/403
- M24/255
- M24/231
- M24/291
- P24/3076
- P24/3077
- M24/205
- M24/270
- M24/138
- M24/187
- M24/271
- M24/220
- M24/272
- M24/393
- M24/229
- M24/432
- M24/60
- M24/321
- M24/363
- M24/302
- M24/234
- M24/81
- M24/82
- M24/710
- M24/182
- M24/223
- M24/16
- M24/227
- M24/705
- M24/709
- M24/266
- M24/265
- M24/155
- M24/79
- G24/11
- G24/12
- M24/236
- L24/184
- M24/166
- M24/256
- M24/102
- M24/211
- M24/810
- M24/796
- M24/708
- M24/142

M24/172
M24/304
City Of Kalgoorlie/Boulder
Mt Pleasant Area

Local Government Area:
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
100		Mechanical Removal	Mining

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 125: Bare areas; salt lakes	Edith Cowan University (2005) report five different vegetation communities within the area of the proposal. Species include Eucalyptus salmonaphloia, E. clelandii, Halosarcia sp., Acacia sp., maireana sp., Atriplex sp. and Eremophila sp.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Edith Cowan University (2005) report the vegetation condition as being from good to excellent with few weed species. Grazing and tree-cutting impacts appear slight-moderate and the mining company has considerably reduced stocking rates in recent years.
Beard Vegetation Association 128: Bare areas: rock outcrops			
Beard Vegetation Association 468: Medium woodland; salmon gum and Goldfields blackbutt			
Beard Vegetation Association 480: Succulent steppe with open low woodland; mulga & sheoak over salt bush			
Beard Vegetation Association 936: Medium woodland; salmon gum			
Beard Vegetation Association 2901: Mosaic: Medium woodland; Allocasuarina cristata & Goldfields blackbutt/Shrublands; Acacia quadrimarginea thicket			
(Hopkins et al 2001, Shepherd et al 2001).			

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 CALM (2005) advise that the level of species richness recorded in a recent survey (Edith Cowan University, 2005) is generally low to medium compared to other communities. Although detailed vegetation studies of the general Mt Pleasant area are lacking, regional scale studies and studies in adjoining districts indicate that the plant communities found at Mt Pleasant are widespread and common throughout the area. DOIR (2005) advise that Mt Pleasant is a historically disturbed mining area which has undergone a significant amount of recent and historical clearing associated with mining. Given the above it is therefore unlikely that the biodiversity of the proposal is significant compared to other native vegetation either in the local area or in the bioregion.
Methodology	CALM Land clearing proposal advice (2005) (DOE TRIM Ref NI 1013) DOIR (2005) (DOE TRIM Ref ND 620)

(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 may be at variance to this Principle Placer Dome (2005b) has produced a draft 'Exploration Drilling: Clearing Management Plan Kalgoorlie Region March 2005' in which procedures are outlined to minimise impacts on the environment. Procedures include the impact of exploration on flora and fauna. For each project, the Environmental Superintendent will identify areas that are more likely to contain significant habitat for fauna. These areas will be subject to targeted surveys prior
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to clearing for exploration. A member of the Placer Dome Environmental Department will survey undisturbed areas of less than one hectare for evidence of (the presence of) indigenous fauna. Should any (evidence of) fauna species of significance be found, the Environmental Superintendent will liaise with CALM Wildlife Branch.

Methodology CALM Land clearing proposal advice (2005) (NI 1013)
Placer Dome (2005b) (DOE TRIM Ref IN 1020)

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, significant flora.

Comments **Proposal is not likely to be at variance to this Principle**
CALM (2005) advise that no DRF or Priority Flora were found during a recent flora survey (Edith Cowan University, 2005) as provided by the applicant. CALM (2005) recommends that the proponent adheres to the tenement conditions and undertakes appropriate remediation and progressive rehabilitation of the tenement area as soon as is practicable.

Methodology CALM Land clearing proposal advice (2005) (DOE TRIM Ref NI 1013)
Edith Cowan University (2005) (DOE TRIM Ref NI 1027)

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

Comments **Proposal is not likely to be at variance to this Principle**
There are no Threatened Ecological Communities recorded within 10km of the proposal.

Methodology CALM Land clearing proposal advice (2005) (DOE TRIM Ref NI 1013)
GIS Databases:
- Threatened Ecological Community Database - CALM 15/07/03
- Threatened Plant Communities - DEP 06/95
- Environmentally Sensitive Areas - DOE 22/10/04
[The comprehensiveness of the database is dependent on the amount of survey carried out in the area and does not necessarily represent a comprehensive listing]

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

Comments **Proposal is not at variance to this Principle**
The vegetation at the site is a component of Beard Vegetation Associations 125, 128, 468, 480, 936 & 2901 (Hopkins et al. 2001) of which there is 89.8%, 79.1%, ~100%, ~100% & ~100% respectively of the pre-European extent remaining (Shepherd et al. 2001) and therefore of 'least concern' for biodiversity conservation (Department of Natural Resources and Environment 2002).

	Pre-European Area (ha)	Current extent (ha)	Remaining (%)	Conservation Status***	In reserves/CALM managed land(%)
IBRA Bioregion - Coolgardie	12 917 718	12 719 084	98.5	Least concern	
City of Kalgoorlie/Boulder**	9 522 850	~ 9 522 850	~ 100	Least concern	
Beard Vegetation Associations					
125**	3 940 746	3 536 992	89.8	Least concern	7.4
128**	412 121	325 830	79.1	Least concern	16.8
468**	476 124	476 120	100.0	Least concern	1.6
480**	135 039	135 039	100.0	Least concern	6.5
936**	1 016 210	906 826	89.2	Least concern	4.0
2901**	36 103	36 103	100.0	Least concern	0.0

** Shepherd et al. (2001)

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

CALM (2005) advise that vegetation associations proposed to be cleared are well represented in the region and the clearing is unlikely to significantly reduce the overall vegetation cover of these associations on a regional scale.

Methodology CALM Land clearing proposal advice (2005) (DOE TRIM Ref NI 1013)
Shepherd et al. (2001)
Hopkins et al. (2001)
Department of Natural Resources and Environment (2002)
GIS Databases:
- Pre-European Vegetation - DA 01/01
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00

(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

Numerous natural ill-defined drainage lines occur within the area subject to the proposal. Drainage is generally to the SSE toward White Flag Lake and a salt lake system. Two small lakes occur in the extreme SE of the proposal.

Placer Dome (2005a) report that the tributaries to White Flag Lake are in general shallow and not well defined. If clearing is to take place in low lying areas, levee banks will be constructed with diversion drains on the outside to divert water around the project area to the existing drainage system. Creating levee banks around cleared areas will prevent contamination of runoff and diversion of the flow to the existing flow paths will minimise the impact on downstream habitats.

Note that the application is for a purpose permit to clear 100ha within a 9,000ha area that has been described by DOIR (2005) as being an historically disturbed mining area with a significant amount of current and former clearing associated with mining.

Methodology Placer Dome (2005a) (DOE TRIM Ref NI 1002)
DOIR (2005) (DOE TRIM Ref ND 620)
GIS Databases:
- Hydrography, linear - DOE 01/02/04
- Hydrographic Catchments - Catchments DOE 3/4/03

(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

DAWA(2005) advise that the proposal is not likely to cause appreciable land degradation subject to the implementation of appropriate management strategies. Management strategies have been outlined in the supporting documentation by Placer Dome (2005b), to the satisfaction of the Department.

Methodology DAWA Land degradation assessment advice (2005) (DOE TRIM Ref NI 1005)
Placer Dome (2005b) (DOE TRIM Ref NI 1020)

(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 conservation reserves within 25km of the proposal.

The benchmark of 15% representation in conservation reserves (JANIS Forests Criteria 1997) has not been met for Beard Vegetation Associations 125, 468, 480, 936 and 2901. However because of the largely uncleared state of these vegetation types, this is not considered to be a serious conservation issue.

CALM (2005) advise that the clearing associated with this project is unlikely to impact on the environmental and conservation values of the listed CALM managed areas based on the distances from the area under application.

Methodology CALM (2005) (DOE TRIM Ref NI 1013)
Shepherd et al. (2001)
Hopkins et al. (2001)
JANIS Forests Criteria (1997)
GIS Databases:
- CALM Managed Lands and Water - CALM 01/08/04
- Pre-European Vegetation - DA 01/01

(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

With an average annual rainfall of 250mm and an annual evaporation rate of 2,800mm there is little surface flow during normal seasonal rains. It is only during major rainfall events that there is any significant surface flow. Surface flow during these events tends to be relatively fresh. The saline lake system of the Salt Lake Basin of the Western Plateau becomes a medium for the collection and transportation of major flows.

With high annual evaporation rates and low annual rainfall there is little recharge into regional groundwater that is considered to be saline/hypersaline at this site (from 14,000 mg/l to greater than 35,000 mg/l). The proposed clearing of native vegetation for this proposal is unlikely to have an impact on regional groundwater considering the magnitude of the Yilgarn-Goldfields Groundwater Province (~300,000 sq km) and the extent of native vegetation remaining in the Goldfields Bioregion (~100%).

- Methodology** GIS Databases:
- Evaporation Isopleths - BOM 09/98
 - Isohyets - BOM 09/98
 - Groundwater Salinity, Statewide - 22/02/00
 - Hydrography, linear - DOE 01/02/04
 - Topographic Contours, Statewide - DOLA 12/09/02
 - Hydrographic Catchments, Sub-catchments - DOE 01/07/03
 - Groundwater Provinces - WRC 98

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding.

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

With an average annual rainfall of 250mm and an annual evaporation rate of 2,800mm there is little surface flow during normal seasonal rains. It is only during major rainfall events that there is a likelihood of flooding for which the broad valleys and lake systems of the region are designed to compensate and sustain floodwaters.

- Methodology** GIS Databases:
- Evaporation Isopleths - BOM 09/98
 - Isohyets - BOM 09/98
 - Hydrography, linear - DOE 01/02/04
 - Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

DOIR has no objection to the proposal and advises that the Mt Pleasant Gold Mining area is an historically disturbed mining area and has a significant amount of current and former clearing associated with mining.

- Methodology** DOIR (2005) (DOE TRIM Ref ND 620)

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Mining	Mechanical Removal	100	Grant	<p>This proposal is for a purpose permit to cover 100ha for exploration and mining within a 9,000ha lease (multiple tenements).</p> <p>Assessable criteria have been addressed and the clearing as proposed may be at variance to Principles b and f.</p> <p>For Principle b: although there is insufficient data available on significant fauna, Placer Dome have procedures for their Environmental Superintendent to identify areas of habitat likely to be significant for indigenous fauna. Such areas identified will be avoided where possible. If disturbance is not possible the Environmental Superintendent will liaise with CALM's Wildlife Branch.</p> <p>For Principle f: There are numerous ill-defined watercourses identified within this proposal that are primarily shallow. If clearing is to take place in low lying areas, levee banks will be constructed with diversion drains on the outside to divert water around the project area to the existing drainage system. Creating levee banks around cleared areas will prevent contamination of runoff and diversion of the flow to the existing flow paths will minimise the impact on downstream habitats.</p> <p>There are three Aboriginal Sites of Significance within the proposal area in addition to several native title claims. The proponent will be required to liaise with the Department of Indigenous affairs and possibly address these issues.</p>

5. References

CALM Land clearing proposal advice (2005). Advice to A/Director General, Department of Environment (DoE). Department of Conservation and Land Management, Western Australia. DoE TRIM ref NI 1013.

DAWA Land degradation assessment advice (2005). Office of the Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia. DoE TRIM ref NI 1005.

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.

DOIR (2005) Submission. DOE TRIM Ref ND 620.

Edith Cowan University (2005) Vegetation and Flora of the Mt Pleasant Mining Area, Kalgoorlie West Operations - A report prepared for Placer Dome Inc, April 2005. Centre for Ecosystem Management, Edith Cowan University. DOE TRIM ref NI 1027.

Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.

JANIS Forests Criteria (1997) Nationally agreed criteria for the establishment of a comprehensive, Adequate and Representative reserve System for Forests in Australia. A report by the Joint ANZECC/MCFFA National Forest Policy Statement Implementation Sub-committee. Regional Forests Agreement process. Commonwealth of Australia, Canberra.

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

Placer Dome (2005a) Correspondence. DOE TRIM Ref NI 1002.

Placer Dome (2005b) Exploratory Drilling: Clearing Management Plan - Kalgoorlie Region - March 2005 (Draft). DOE TRIM Ref NI 1020.

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.