



1. Application details

1.1. Permit application details

Permit application No.: 2056/1
 Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Goldfields Mine Management Pty Ltd

1.3. Property details

Property: LOT 11 ON PLAN 48932 (FEYSVILLE 6431)
 LOT 11 ON PLAN 48932 (FEYSVILLE 6431)
 Local Government Area: City Of Kalgoorlie-Boulder
 Colloquial name: Hampton Location 48 (East)

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
13.5		Mechanical Removal	Mineral Exploration
		Mechanical Removal	Mineral Exploration
		Mechanical Removal	Mineral Exploration

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Beard Vegetation Associations: 9 - Medium woodland, Coral Gum (<i>E. torquata</i>) and Goldfields Blackbutt (<i>E. lesouefii</i>); 221 - Succulent steppe, saltbush; 468 - Medium woodland, Salmon Gum and Goldfields Blackbutt. (Hopkins et al 2001, Shepherd 2006)	The proposed clearing includes three areas under application: area A (4.0 ha of clearing within a 5.5 ha area) is for an extension to the existing Otter Juan mine waste rock dump and area B (5.5 ha of clearing within a 425 ha area) and area C (4.0 ha of clearing within a 183 ha area) are for exploration drilling and construction of drill pads and access tracks. In total, the clearing as proposed totals 13.5 ha within a 614 ha area. All three areas occur within 2.5 km of the existing Otter Juan mine site and on Hampton area - Lot 11. Clearing is proposed to take place over the next 5 years (Goldfields Mine Management 2007). Exploration drilling and proposed clearing and rolling of vegetation in areas B and C will involve retesting areas previously explored with the addition of previously untested areas. Existing access tracks and drilling lines will be revisited in the proposed operations (Goldfields Mine Management 2007).	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	Description and condition of the vegetation under application was determined from Recon Environmental (2007) and Goldfields Mine Management (2007). The areas of native vegetation under application range in condition from 'Degraded' to 'Very Good' with an average condition of 'Very Good' (Keighery 1994).

Goldfields Mine

Management (2007) describes area A as consisting of both disturbed and relatively undisturbed bushland.

Recon Environmental (2007) describes area B as, with the exception of some exploration tracks, being relatively undisturbed. No specific information has been provided describing the condition of vegetation in area C; however, limited disturbance has occurred in this area with timber harvesting and the construction of exploration tracks (Goldfields Mine Management 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

Goldfields Mine Management (2007) state that area A consists of both disturbed and relatively undisturbed bushland and is thus considered to be in 'good' condition, however is not likely to support high floristic diversity.

Recon Environmental (2007) state area B, with the exception of some exploration tracks, is relatively undisturbed. DAFWA (2007a) however advise that area B is adjacent to the Kambalda townsite, has numerous vehicle tracks and is subject to considerable off-road vehicle activity on these tracks. The area has had exploratory drilling conducted in the past and has numerous drill lines especially towards the southern half. However between the drill lines and vehicle tracks the vegetation is relatively undisturbed. Given this area B is considered to be in 'very good' condition (Keighery 1994) and the area under application may comprise high floristic diversity in areas between the drill lines.

Specific information has not been provided describing the condition of vegetation within area C however Goldfields Mine Management (2007) states that limited disturbance has occurred in this area with timber harvesting and the construction of some exploration tracks. As with area B, DAFWA (2007a) advise that as the area is adjacent to the Kambalda townsite vehicle tracks are present and the area is subject to off-road vehicle activity on these tracks, however fewer tracks exist in this area than in area B. Area C has been subject to exploratory drilling in the past however the degree of impact is less than in area B with sparse drilling mainly restricted to the areas southern boundary. Between the drill lines and vehicle tracks the vegetation is relatively undisturbed. Given this, area C is also considered to be in 'very good' condition (Keighery 1994) and the area under application may comprise high floristic diversity in areas between the drill lines.

In addition to clearing of vegetation for general mining activities in all three areas under application, and exploratory drilling and construction of tracks in area B and C, fauna surveys conducted by Ninox Wildlife Consulting (1999) recorded several feral cats in the Kambalda survey area. Thus feral cats are likely to be present in all areas under application (Ninox Wildlife Consulting 1999). Considering this the areas under application are not considered to comprise significant habitat for native fauna.

Surrounding the areas under application are large areas of relatively undisturbed vegetation of the same vegetation association and occurring on the same soil type as the areas under application (Northcote 1960-68). These areas are likely to support equal if not higher biodiversity than that within the areas under application.

Area A is considered to be in 'good' condition however is not likely to comprise a high level of floral or faunal diversity and although areas B and C may support high floristic diversity, large tracts of the same vegetation associations in equal or better condition to the areas under application exist in the local area. Thus clearing of areas A, B and C is considered not likely to be at variance to this Principle.

Methodology

References:

- Recon Environmental (2007)
- Goldfields Mine Management (2007)
- DAFWA (2007a)
- Ninox Wildlife Consulting (1999)
- Keighery (1994)
- Northcote et al. (1960-68)

GIS Databases:

- Soils, Statewide - DA 11/99
- Pre-European Vegetation - DA 01/01

- Lake Lefroy 1.4m Orthomosaic - DLI 02
- Yilmia 140cm Orthomosaic - Landgate03
- Kalgoorlie Kurnalpi 50cm Orthomosaic - DLI00

(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

Nine indigenous fauna species of significance are recorded within a 50 km radius of the area under application and include:

- Chuditch, *Dasyurus geoffroii*;
- Malleefowl, *Leipoa ocellate*;
- Peregrine Falcon, *Falco peregrinus*;
- Crested Bellbird (southern), *Oreoica gutturalis* subsp. *gutturalis*;
- Hooded Plover, *Charadrius rubricollis*;
- Shy Heathwren (western ssp.), *Hylacola cauta* subsp. *whitlocki*;
- White-browed Babbler (western wheatbelt), *Pomatostomus superciliosus* subsp. *ashbyi*;
- The butterfly species, *Ogyris subterrestris* subsp. *petrina*, and;
- The butterfly species, *Jalmenus aridus*

Fauna surveys conducted by Ninnox Wildlife Consulting (1999) recorded several feral cats in the Kambalda survey area with feral cats considered likely to be present within all areas under application (Ninnox Wildlife Consulting 1999). The presence of this introduced predator is likely to make the habitat unsuitable for Chuditch and Malleefowl, through predation of both adult and juvenile Chuditch and Malleefowl hatchlings and through competition with the Chuditch. Although adults of both these species may be present at low densities, the areas under application are not considered likely to be significant.

As vegetation in area B is likely to support stands of *Acacia tetragonophylla* (Recon Environmental 2007) this area may present significant habitat for the butterfly species, *Jalmenus aridus* (priority 1).

An assessment by Biodiversity Coordination Section (BCS), DEC (2005) provides advice regarding fauna species occurring in a nearby area with the same vegetation association and soil types as within the areas under application states:

- The species of butterfly, *Ogyris subterrestris* subsp. *petrina*, is at risk from mining activities but as individuals have not been seen since 1993 it is difficult to speculate on the probability of the proposed clearing affecting the habitat and thus conservation status of this taxon.

Given large areas of the same vegetation association and soils as present within the areas under application exist nearby and have less disturbance, these areas are likely to be of greater significance for the conservation of all of the above listed species than the areas under application, with the exception of the Hooded Plover which is unlikely to be present due to an absence of the shallow salt lake margin habitat it requires.

In addition, cumulatively the three areas under application are restricted to 13.5 ha within a larger 613.5 ha area and disturbance will likely be restricted to defined drill lines.

Given the areas under application support unsuitable habitat for Chuditch and Malleefowl; the surrounding areas support the same vegetation association and soils, and have fewer disturbances; and clearing will likely be restricted to defined drill lines, clearing as proposed is considered not likely to be at variance to this Principle.

Methodology References:

- Ninnox Wildlife Consulting (1999)
 - Recon Environmental (2007)
 - Biodiversity Coordination Section, DEC (2005)
 - DEC fauna habitat notes. February 2007
- GIS Database:
- SAC Bio datasets 12/09/2007

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

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

There are three known records of one Declared Rare Flora (DRF), being *Gastrolobium graniticum*, within the local area (60km radius). The nearest record of *Gastrolobium graniticum* is approximately 50.2km north-west of the areas under application, and although it occurs within the same vegetation association as the areas under application it is within a different soil type. *Gastrolobium graniticum* is restricted to the Kalgoorlie and Coolgardie districts of the Eastern Goldfields region; it forms small thickets in sandy or sandy loam soils near granite rocks, and flowers September to October (Brown et al, 1998).

There are 41 species of Priority flora occurring within the local area (60km radius). The nearest recorded Priority flora is *Astartea* sp. Red Hill (Priority 1), which is located approximately 3.1km south of the areas under application.

Recon Environmental (2007) states area A supports Plain Eucalypt Saltbush Woodland which is not known to support any priority flora. An autumn flora survey has been conducted within area A and did not record any DRF or Priority flora (Recon Environmental 2007).

Recon Environmental (2007) states area B supports two vegetation complexes, being Granite Hill Mixed Shrubland and Greenstone Non-Halophytic Eucalypt Woodland with the former known to support one species of Priority 1 flora, *Astartea* sp. Red Hill, and the latter known to support two species of Priority 1 flora, being *Acacia dorsenna* and *Grevillea phillipsiana*, and two species of Priority 3, being *Acacia kalgoorliensis* and *Eremophila pustulata*. An autumn flora survey has been conducted within area B and did not record any DRF or Priority flora (Recon Environmental 2007).

Recon Environmental (2007) did not surveyed area C for DRF or Priority flora, as the DEC Rare Flora database did not identify any species of conservation significance within this area.

Given the above it is considered that clearing as proposed is not likely to be at variance with this principle.

Methodology References:
 - Brown et al (1998)
 - Recon Environmental (2007)
 GIS Database:
 - SAC Bio datasets 02/01/2008

(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 records of Threatened Ecological Communities (TEC) within the local area (50 km radius). The nearest recorded TEC is located approximately 300 km south-east of the areas under application. It is therefore unlikely that the vegetation proposed to be cleared comprises the whole, or part of, or is necessary for the maintenance of a TEC.

Methodology GIS Databases:
 - SAC Bio datasets 12/09/2007

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

Comments **Proposal is not likely to be at variance to this Principle**
 The State government is committed to the National Objective Targets for Biodiversity Conservation, which includes targets that prevent the clearing of ecological communities with an extent below 30% of that present pre-1750 (Commonwealth of Australia, 2001).

All Beard vegetation associations that occur within the areas under application are above the threshold and areas surrounding the application sites retain intact and undisturbed native vegetation representative of these associations. Given this clearing is not considered at variance to this Principle.

	Pre-European area (ha)	Current extent (ha)	Remaining %	Conservation status**	% in reserves/DEC-managed land
Coolgardie *	12,912,208	12,707,623	98.4	Least Concern	-
City of Kalgoorlie-Bolder	No information available		-	-	--
Beard vegetation associations *					
9	240,509	239,898	99.7	Least Concern	1.3
221	592,023	592,023	100	Least Concern	4.3
468	63,721	63,626	99.9	Least Concern	5.6

* Shepherd (2006)

Methodology References:
 - Shepherd (2006)
 - Commonwealth of Australia (2001)
 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

Lake Lefroy is located to the east and south of the application site and at its closest point is approximately 1 km from the eastern boundary of area C.

Several minor perennial water courses flow from west to east through area C and flow into Lake Lefroy. DAFWA (2007a) advise that the southern end of area C supports an incised drainage line in which ephemeral water flows are from WNW to ESE. The southern portion of area B also supports a minor perennial water course that flows south into Lake Lefroy.

Areas B and C are both located in the sheet flow zone for Lake Lefroy.

As watercourses are located within areas B and C it is considered likely that some of the vegetation under application is associated with watercourses and clearing may be at variance to this Principle.

Methodology Reference:

- DAFWA (2007a)
- GIS Databases:
 - Hydrography, linear (hierarchy) - DOW
 - Lake Lefroy 1.4m Orthomosaic - DLI 02

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

Comments Proposal may be at variance to this Principle

The vegetation under application lies within soils associated with rocky ranges and hills of greenstone with the chief soils being shallow calcareous loamy soils, with shallow brown and grey-brown calcareous earths, below which weathered rock occurs at shallow depths. A portion of area C, approximately 7.8 ha in size, occupying the far north eastern side of this area lies within soils associated with gently undulating valley plains with some rocky outcroppings with the chief soils being alkaline red earths with limestone at shallow depth (Northcote et al. 1960-68).

DAFWA (2007a) identifies no land degradation issues within the proposed works area for area A. However Goldfields Mine Management (2007) acknowledges that runoff and soil loss may occur where land is cleared for rock stock piling. However as the area is small (4.0 ha within a 5.5 ha area) and clearing can be done incrementally the risk of erosion causing land degradation can be managed and is not likely to be appreciable.

DAFWA (2007a) advice identifies the potential for land degradation in the form of water born soil erosion within areas B and C (Goldfields Mine Management 2007). Areas B and C occur within the sheet flow area for Lake Lefroy, as such the areas may be prone to inundation during heavy rainfall events. However, cumulatively the proposed clearing in these two areas amounts to 9.5 ha within a larger 608 ha area thus clearing is likely to be widely distributed and is unlikely to lead to an appreciable increase in soil erosion leading to sedimentation in Lake Lefroy.

However, DAFWA (2007a) advised that the southern end of area C contains an incised drainage line for ephemeral water flows. The drainage line is located in the Alluvial Plains land unit of the Graves land system which is susceptible to water erosion where perennial shrub cover is substantially reduced and/or the soil surface is disturbed.

As there is a risk of soil erosion through the disruption of soils and vegetation cover in an incised drainage line in area B, clearing as proposed may be at variance to this Principle.

Methodology References:

- Northcote et al. (1960-68)
- DAFWA (2007a)
- Goldfields Mine Management (2007)
- GIS Database:
 - Soils, Statewide - DA 11/99

(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 the areas under application with the nearest reserves being DEC managed lands, located approximately 3.6 km west (Kambalda Nature Reserve and Kambalda Timber

Reserve) which together form 7,065 ha of reserved lands.

Vegetation surrounding the areas under application is relatively continuous and structurally intact and neither areas A, B or C constitute part of a habitat corridor necessary for faunal movement.

It is thus considered that clearing of 13.5 ha within 614 ha area as proposed will not affect environmental values in nearby conservation areas and thus is not considered to be at variance to this Principle.

Methodology GIS Databases:
- CALM Managed Lands and Waters - CALM 1/07/05
- Lake Lefroy 1.4m Orthomosaic - DLI 02

(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 may be at variance to this Principle

The areas under application are located within the Salt Lake Basin of the Lake Lefroy Catchment. The area under application is at high risk of developing salinity problems in the future.

DAFWA (2007a) identifies no land degradation issues within the proposed works area for area A. However Goldfields Mine Management (2007) acknowledges the potential for water runoff and soil loss from areas cleared for rock stock piling. As area A is within the sheet flow area for Lake Lefroy clearing has the potential to increase sedimentation within the lake however as the area is small (4.0 ha within a 5.5 ha area) and clearing can be done incrementally to manage erosion this risk is unlikely to be appreciable.

Areas B and C occur within the sheet flow area for Lake Lefroy, as such the areas may be prone to inundation during heavy rainfall events (Goldfields Mine Management 2007). However, cumulatively the proposed clearing amounts to 9.5 ha within a larger 608 ha area thus clearing is likely to be widely distributed and is unlikely to lead to an appreciable increase in soil erosion leading to sedimentation in Lake Lefroy.

However, DAFWA (2007a) advised that the southern end of area C contains an incised drainage line for ephemeral water flows. The drainage line is located in the Alluvial Plains land unit of the Graves land system which is susceptible to water erosion where perennial shrub cover is substantially reduced and/or the soil surface is disturbed. Considering this water erosion of soils may occur in area C leading to sedimentation within Lake Lefroy.

As the proposal may involve clearing of native vegetation within an incised drainage line possibly leading to sedimentation in Lake Lefroy clearing may be at variance to this Principle.

Methodology References:
- DAFWA (2007a)
- Goldfields Mine Management (2007)
GIS Databases:
- Groundwater Salinity, Statewide - DOW
- Hydrographic Catchments - Subcatchments - DOW
- Hydrography, linear - DOE 1/2/04
- Lake Lefroy 1.4m Orthomosaic - DLI 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

Areas A, B and C under application are within the sheet flow area for Lake Lefroy and are thus subject to broad scale flooding during heavy rainfall events (Goldfields Mine Management 2007). As the cumulative area of clearing in these three areas is small, approximately 13.5 ha within a 613 ha area the clearing of native vegetation is not likely to cause or exacerbate the incidence of broad scale flooding.

Given this, clearing as proposed is not likely to be at variance to this principle.

Methodology References:
- Goldfields Mine Management (2007)

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

Comments

Both areas B and C are in the sheet flow area for Lake Lefroy. Area B under application is prone to water born soil erosion if earthworks concentrate overland flow onto disturbed soils. Area C under application contains an incised drainage line that is prone to water born soil erosion if the soil surface is disturbed and/or the vegetation cover is removed. It is recommended that were the proposed works traverse the above drainage line that rehabilitation earthworks should include provisions that prevent lateral gullying. It is advised in both areas B and

C that soil disturbance should be minimised and appropriate bunding installed on cut-lines following exploration completion, to divert any surface water flows before they become erosive (DAFWA 2007a; DAFWA 2007b).

Goldfields Mine Management (2007) advise that in area A proposed for rock stock pile that during dump construction only those areas required for active rock disposal will be cleared to control runoff and soil erosion.

During exploratory drilling operations in areas B and C saline groundwater aquifers may be intercepted, leading to local surface flooding. Goldfields Mine Management (2007) propose using drill sumps where necessary to contain these waters during operations. Post-operation holes will be subsurface capped in line with current DOIR guidelines (Goldfields Mine Management 2007).

Additional information provided by Goldfields Mine Management explains that in: area A, under application for rock stock piling, vegetation will be pushed up and stockpiled for use in dump rehabilitation and; in areas B and C cleared vegetation will be stockpiled for rehabilitation use at the completion of the programme and top soil will not be disturbed (Goldfields Mine Management 2007).

DAFWA (2007a) advise that during rehabilitation earthworks actions should be taken to deny feral goats access to water on their tenures to facilitate successful rehabilitation of areas disturbed during exploration activities. Further, rehabilitation works on exploration access tracks in areas B and C, where considerable recreational off-road vehicle activity occurs, should include provisions to minimise the generation of this form of soil disturbance.

The areas under application are within the Proclaimed Groundwater Area of Goldfields. Therefore any abstraction of groundwater would require a licence.

Mineral exploration is not a prescribed premise as defined under Environmental Protection Regulations 1987 Schedule 1 - Prescribed premises. It is the proponent's responsibility to determine whether any other licences or approvals are required for future proposed works.

Works approval is not required for the proposed mineral exploration and waste rock dump (Submission 2007).

There are no Registered Aboriginal Heritage Sites of Significance recorded within the areas under application (Department of Indigenous Affairs 2007a, 2007b and 2007c).

Lot 11 on Plan 48932 is Freehold land.

Methodology

References:

- Goldfields Mine Management (2007)
- Submission (2007)
- DAFWA (2007a)
- DAFWA (2007b)
- Department of Indigenous Affairs (2007a)
- Department of Indigenous Affairs (2007b)
- Department of Indigenous Affairs (2007c)

GIS databases:

- RIWI Act Groundwater Areas - WRC 13/06/00
- RIWI Act Surface Water Areas - WRC 18/10/02
- Native Title Claims - DLI 7/11/05

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Mineral Exploration	Mechanical Removal	13.5	The assessable criteria have been addressed and the clearing as proposed as proposed may be at variance to Principles (c), (f), (g) and (i).
Mineral Exploration	Mechanical Removal		
Mineral Exploration	Mechanical Removal		

5. References

- Biodiversity Coordination Section, DEC (2005) Clearing Assessment Unit's biodiversity advice for land clearing application. Advice to Director General, Department of Environment and Conservation (DEC), Western Australia. TRIM Ref HD26053
- Brown A., Thomson-Dans C. and Marchant N., (1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.
- Commonwealth of Australia (2001). National Targets and Objectives for Biodiversity Conservation 2001-2005, AGPS, Canberra.
- DAFWA. (2007a). Application clearing permit CPS2056/: Land degradation assessment report. TRIM Ref. DOC36267.

- DAFWA. (2007b). CPS 2056 Goldfields Mine Management } Additional advice on land degradation risk in area B. (TRIM Ref. DOC40811).
- Department of Indigenous Affairs. (2007a). Aboriginal Heritage Inquiry System: Area A under application. Perth, Western Australia. <http://www.dia.wa.gov.au/Heritage/Inquiry/>. Accessed 30 October 2007. TRIM Ref. DOC38970.
- Department of Indigenous Affairs. (2007b). Aboriginal Heritage Inquiry System: Area B under application. Perth, Western Australia. <http://www.dia.wa.gov.au/Heritage/Inquiry/>. Accessed 30 October 2007. TRIM Ref. DOC38973.
- Department of Indigenous Affairs. (2007c). Aboriginal Heritage Inquiry System: Area C under application. Perth, Western Australia. <http://www.dia.wa.gov.au/Heritage/Inquiry/>. Accessed 30 October 2007. TRIM Ref. DOC38976.
- Goldfields Mine Management. (2007). Purpose permit clearing application: East Location 48 - Lot 11, supporting documentation. TRIM Ref. DOC 30658.
- Heddl, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
- 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.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Ninox Wildlife Consulting. (1999). Fauna assessment report for Otter Juan Mines. TRIM Ref. DOC30658.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- Recon Environmental. (2007). North Kambalda Project - Rare Flora Survey: Hampton Area Location 48. TRIM Ref. DOC30658.
- Shepherd, D.P. (2006). Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.
- 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.
- Submission. (2007). Hamptons Area - East Location 48 - Lot 11: Otter Juan Mine, waste rock dump extension and exploratory drilling. TRIM Ref. DOC36455.

6. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now BCS)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)