



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 6206/1
Permit type: Purpose

1.2. Proponent details

Proponent's name: Silver Lake Resources Limited

1.3. Property details

Property: Mining Lease 74/53
Exploration Licence 74/311
Local Government Area: Shire of Ravensthorpe
Colloquial name: Norther Gift Project

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 18 September 2014

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description Beard vegetation associations have been mapped for the whole of Western Australia and are useful to look at vegetation in a regional context. Two vegetation associations have been mapped within the application area (GIS Database):

47: Shrublands; tallerack mallee-heath; and

516: Shrublands: mallee scrub, black marlock.

A level 1 flora survey was undertaken by Dr G. F. Craig on 18 June 2014. The following five vegetation units were identified within the application area (Craig, 2014):

1. *Eucalyptus species/ Melaleuca species (Mallee/ Mssp)*: The southernmost drill line '1' is on a north-east facing, lower slope in open mallee (2m tall) characterized by *Eucalyptus pileata*, *E. flocktoniae*, *E. leptocalyx*, *E. phaenophylla* and open heath (0.1-1m tall) with *Melaleuca hamata* and *M. rigidifolia*. The drilling line is predominantly within a firebreak which was scrub-rolled and burnt about 7 years ago.

2. *Eucalyptus uncinata/ E. incrassata (Eunc/Einc)*: Drill line '2' is in a drainage line that flows in a NW direction and is characterized by mid-dense tall eucalypts including *E. sporadica*, *E. flocktoniae*, *E. ecostata*, *E. pileata* and *E. astringens* ssp. *redacta*. Open low shrubs of *Siegfriedia darwinioides* and *Lasiopetalum compactum* are common, along with the sedges *Gahnia ancistrophylla*, *G. aristata* and four *Lepidosperma* species (Appendix 3) which form a dense layer through the winter-wet drainage.

3. *Eucalyptus proxima/ Melaleuca species (Epro/ Mssp)*: Drill line '3' crosses a weak drainage with a dense mallee-shrub thicket, including *Eucalyptus proxima*, *Melaleuca stramentosa* and *Taxandria spathulata*. Upslope *Melaleuca stramentosa* forms a dominant shrub thicket (1.5m tall) with emergent *Banksia lemmaniana*. At the westernmost end of this drill line, the shrub layer thins out and the diversity of shrub species increases, being typical of an 'Efal/Eple' vegetation type.

4. *Eucalyptus falcata/ E. pleurocarpa (Efal/Eple)*: Typically occurs on crests and upper slopes on laterite and colluvium supporting open mallee and very dense proteaceous thicket where *Banksia lemmaniana* is typical. The mallees *Eucalyptus ecostata* (previously known as *E. falcata* – the latter name is now only used for the mallet form) and *E. pleurocarpa* are common. Common shrub species include *Taxandria spathulata*, *Beaufortia schaueri*, *Tetrapora verrucosa* and *Melaleuca rigidifolia*.

5. *Melaleuca stramentosa (Mstr)*: At lower altitudes, the crests and upper slopes between minor drainage lines have orangebrown mottled clay loams with ironstone rubble. These soils support mid-dense to open mallee and dense heath associations characterised by *Melaleuca stramentosa*. In the survey area, this unit intergrades with the *Efal/Eple* unit.

Clearing Description Northern Gift Project.
Silver Lake Resources Ltd proposes to clear up to 0.4 hectares within a boundary of 0.59 hectares for the purposes of mineral exploration. The project is located approximately 16.5 kilometres south-east of

Ravensthorpe in the Shire of Ravensthorpe.

Comment	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994); to Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).
Vegetation Condition	The vegetation condition was derived from a report prepared by Craig (2014) and review of aerial imagery.

3. Assessment of application against clearing principles

Comments

The vegetation within the application area is in an 'excellent' to 'degraded' condition. Parts of the application area have been previously disturbed by an existing access track and an old firebreak. None of the vegetation communities are considered to represent a Threatened or Priority Ecological Community (Craig, 2014). No plant disease was observed during the survey, however, the application area is located within a dieback risk area (Craig, 2014). Potential impacts from dieback may be minimised by the implementation of a dieback management condition.

A total of 72 flora species were recorded during the flora survey (Craig, 2014). There was a high diversity of species present, which is consistent with the surrounding area (Craig, 2014). There are records of Threatened Flora within 1 kilometre of the application area, however, no species of Threatened Flora were recorded within the application area itself (Craig, 2014; GIS Database). There were 135 individuals of the Priority 4 flora species *Marianthus mollis* recorded during the flora survey (Craig, 2014). These plants are part of a population that is estimated at 1,500 individuals covering 4.84 hectares (Craig, 2014). Regional surveys have estimated that there are over 40,000 plants east of the vermin proof fence and 800 plants within the Ravensthorpe Range (Craig, 2014). The proposed clearing is not likely to have a significant impact on the local population of *Marianthus mollis*.

There are a number of conservation significant fauna that have been recorded within 10 kilometres of the application area (DPaW, 2014). Similar habitat is present throughout the surrounding region (GIS Database). Given the previous disturbances and the small scale of the clearing (0.4 hectares), the application area is not likely to provide significant habitat for local fauna species.

The application area is located approximately 3 kilometres north of Kundip Nature Reserve (GIS Database). The proposed clearing is not likely to have any impacts on the Kundip Nature Reserve. The application area is located within an area that is a proposed Nature Reserve. The proposed Nature Reserve covers an area of over 6,500 hectares (GIS Database). The proposed clearing of 0.4 hectares is unlikely to significantly impact the environmental values of the proposed Nature Reserve.

Vegetation units 2 and 3 were both identified as being associated with drainage lines (Craig, 2014). These vegetation units extend outside the application area and the proposed clearing is not likely to have a significant impact to riparian vegetation in the local area. Given the small scale of the clearing (0.4 hectares), it is not likely to cause any appreciable land degradation.

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

Methodology	Craig (2014) DPaW (2014) GIS Database: - DEC Tenure - Hydrography, linear - Ravensthorpe 1.4m Orthomosaic - Threatened and Priority Flora - Threatened Ecological Sites Buffered
Officer	Adam Buck

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

Comments

There are three Native Title claims (WC2003/006; WC1996/109; 1998/070) over the area under application (GIS Database). Two of these claims have been registered with the Native Title Tribunal on behalf of the claimant group and the other has been filed at the Federal Court of Australia. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process. Therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance located within the clearing permit application area (GIS Database). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

It is noted that the proposed clearing may impact on *Marianthus mollis* which is a protected matter under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act). The proponent may be required to refer the project to the (Federal) Department of the Environment for environmental impact assessment under the EPBC Act. The proponent is advised to contact the Department of the Environment for further information regarding notification and referral responsibilities under the EPBC Act.

It is the proponent's responsibility to liaise with the Department of Environment Regulation, Department of Parks and Wildlife and the Department of Water to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

The clearing permit application was advertised on 11 August 2014 by the Department of Mines and Petroleum inviting submissions from the public. There was one submission received stating no objections to the proposed clearing.

Methodology GIS Database:
- Aboriginal Sites of Significance
- Native Title Claims - Filed at the Federal Court
- Native Title Claims - Registered with the NNTT

4. References

- Craig, G. F. (2014) Northern Gift Kundip Mining Leases M74/53 & E74/311 Vegetation & Flora Survey. Unpublished report prepared for Silverlake Resources Ltd, dated June 2014.
- DPaW (2014) NatureMap: Mapping Western Australia's Biodiversity - Department of Parks and Wildlife.
<http://naturemap.dec.wa.gov.au/default.aspx> (Accessed 8 September 2014).
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
CALM	Department of Conservation and Land Management (now DEC), Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia
DEH	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
DEP	Department of Environment Protection (now DEC), Western Australia
DIA	Department of Indigenous Affairs
DLI	Department of Land Information, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DoE	Department of Environment (now DEC), Western Australia
DoIR	Department of Industry and Resources (now DMP), Western Australia
DOLA	Department of Land Administration, Western Australia
DoW	Department of Water
EP Act	Environmental Protection Act 1986, Western Australia
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
RIWI Act	Rights in Water and Irrigation Act 1914, Western Australia
s.17	Section 17 of the Environment Protection Act 1986, Western Australia
TEC	Threatened Ecological Community

Definitions:

{Atkins, K (2005). *Declared rare and priority flora list for Western Australia, 22 February 2005*. Department of Conservation and Land Management, Como, Western Australia} :-

- P1** **Priority One - Poorly Known taxa:** taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.

- P2** **Priority Two - Poorly Known taxa:** taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
- P3** **Priority Three - Poorly Known taxa:** taxa which are known from several populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in need of further survey.
- P4** **Priority Four – Rare taxa:** taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5–10 years.
- R** **Declared Rare Flora – Extant taxa (= Threatened Flora = Endangered + Vulnerable):** taxa which have been adequately searched for, and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.
- X** **Declared Rare Flora - Presumed Extinct taxa:** taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

{Wildlife Conservation (Specially Protected Fauna) Notice 2005} [Wildlife Conservation Act 1950] :-

- Schedule 1** **Schedule 1 – Fauna that is rare or likely to become extinct:** being fauna that is rare or likely to become extinct, are declared to be fauna that is need of special protection.
- Schedule 2** **Schedule 2 – Fauna that is presumed to be extinct:** being fauna that is presumed to be extinct, are declared to be fauna that is need of special protection.
- Schedule 3** **Schedule 3 – Birds protected under an international agreement:** being birds that are subject to an agreement between the governments of Australia and Japan relating to the protection of migratory birds and birds in danger of extinction, are declared to be fauna that is need of special protection.
- Schedule 4** **Schedule 4 – Other specially protected fauna:** being fauna that is declared to be fauna that is in need of special protection, otherwise than for the reasons mentioned in Schedules 1, 2 or 3.

{CALM (2005). Priority Codes for Fauna. Department of Conservation and Land Management, Como, Western Australia} :-

- P1** **Priority One: Taxa with few, poorly known populations on threatened lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, active mineral leases. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P2** **Priority Two: Taxa with few, poorly known populations on conservation lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not under immediate threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P3** **Priority Three: Taxa with several, poorly known populations, some on conservation lands:** Taxa which are known from few specimens or sight records from several localities, some of which are on lands not under immediate threat of habitat destruction or degradation. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P4** **Priority Four: Taxa in need of monitoring:** Taxa which are considered to have been adequately surveyed, or for which sufficient knowledge is available, and which are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.
- P5** **Priority Five: Taxa in need of monitoring:** Taxa which are not considered threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

Categories of threatened species (Environment Protection and Biodiversity Conservation Act 1999)

- EX** **Extinct:** A native species for which there is no reasonable doubt that the last member of the species has died.
- EX(W)** **Extinct in the wild:** A native species which:
 (a) is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or
 (b) has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
- CR** **Critically Endangered:** A native species which is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
- EN** **Endangered:** A native species which:
 (a) is not critically endangered; and
 (b) is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.

- VU** **Vulnerable:** A native species which:
(a) is not critically endangered or endangered; and
(b) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.
- CD** **Conservation Dependent:** A native species which is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.

Principles for clearing native vegetation:

- (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.
- (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.
- (c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.
- (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.
- (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.
- (f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.
- (g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.
- (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.
- (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.
- (j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.