



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 6485/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Tronox Management Pty Ltd

1.3. Property details

Property: Exploration Licence 70/2491
Exploration Licence 70/4518
Local Government Area: Shire of Dandaragan
Colloquial name: Cooljarloo South-West

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 16 April 2015

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. There is one vegetation association mapped within the application area (GIS Database):

1030: Low woodland; *Banksia attenuata* & *B. menziesii*.

A botanical survey of the application area was undertaken by Woodman Environmental Consulting on 27-31 October and 25-27 November 2014. Vegetation mapping was not conducted over the application area. The vegetation in the application area was broadly described by Woodman Environmental Consulting (2015) as *Banksia* woodland, wet heath, *Acacia* shrubland.

Clearing Description
Cooljarloo South-West Drilling Project. Tronox Management Pty Ltd (Tronox) proposes to clear 0.7 hectares within a boundary of 0.7036 hectares for the purposes of mineral exploration. The project is located approximately 10 kilometres north-west of Regans Ford in the Shire of Dandaragan.

Vegetation Condition
Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994);

to

Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).

Comment
The vegetation condition was derived from a report prepared by Woodman Environmental Consulting (2015).

3. Assessment of application against clearing principles

Comments

The proposed clearing of 0.7 hectares relates to a portion of the total planned drilling at Cooljarloo South-West that occurs within 50 metres of Threatened flora species and is therefore identified as an Environmentally Sensitive Area. The drill lines covered by this clearing permit application have been located on an existing tracks and firebreaks to minimise disturbance to vegetation in the local area. The native vegetation within the application area is broadly mapped as Beard vegetation association 1030 of which greater than 64% remains at a state level (Government of Western Australia, 2013).

A desktop flora and vegetation assessment identified that five Threatened species were likely to occur within the vicinity of the proposed drill lines and access tracks (Woodman Environmental Consulting, 2015). Consequent botanical surveys during spring 2015 identified two Threatened flora species, *Anigozanthos viridis* subsp. *terraspectans* and *Ptychosema pusillum*, and one Priority One species, *Malleostemon* sp. Cooljarloo.

Malleostemon sp. Cooljarloo and *Ptychosema pusillum* were both recorded from one location within the application area with 5 and 71 individuals recorded respectively (Woodman Environmental Consulting, 2015). *Anigozanthos viridis* subsp. *terraspectans* was identified at 12 locations within the application area with 23 individuals recorded (Woodman Environmental Consulting, 2015). Based on known records of the Threatened flora species any deviation of the drill lines will likely result in the removal of additional plants and potential habitat (DPaW, 2015). Deviation of the drill line around the location of *Malleostemon* sp. Cooljarloo is also likely to result in better quality habitat being cleared than that in the application area. Advice from DPaW (2015) is that the proposed clearing is not likely to have a significant impact on these species at a local or regional level.

The proposed clearing is for low impact exploration requiring the clearing of 0.7 hectares which is largely located within previously disturbed tracks and firebreaks. Given the small area of disturbance required for exploration there are unlikely to be any impacts upon significant fauna habitat. There are no watercourses within the application area (GIS Database). Part of the application area runs along the border of the Namming Nature Reserve (GIS Database). Care should be taken to ensure that weeds and dieback are not spread into the Nature Reserve. The implementation of a weed management condition may minimise the potential for the movement of weeds into the Nature Reserve.

Tronox has strict hygiene procedures in place including the requirement for dieback interpretation and risk mapping. In addition Tronox operate under an approved Exploration Environmental Management Plan which identifies that where there is a requirement to move soil in wet conditions, additional hygiene measures must be implemented. These additional measures require tenements to be operated using a clean on entry and exit policy and the installation of a mobile wash-down unit (Tronox, 2014). The implementation of a dieback management condition will minimise the potential for the movement of dieback from infested to un-infested areas.

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 (c), is not likely to be at variance to Principles (a), (b), (d), (g), (h), (i), and (j) and is not at variance to Principles (e) and (f).

Methodology DPaW (2015)
GIS Database:
- DPaW Tenure
- Hydrography, linear
Government of Western Australia (2013)
Tronox (2014)
Woodman Environmental Consulting (2015)

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

Comments

There is one Native Title Claim (WC2003/006) over the area under application (GIS Database). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. 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 within the 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 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 9 March 2015 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

Methodology GIS Database

4. References

- DPaW (2015) Advice to assessing officer from Species and Communities Branch, Department of Parks and Wildlife. Received 1 April 2015.
- Government of Western Australia (2013) 2013 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2013. WA Department of Parks and Wildlife, Perth.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Tronox (2014) Exploration Environmental Management Plan, 26 June 2014.
- Woodman Environmental Consulting (2015) Botanical Survey of 2015 Cooljarloo Drill and Access Lines. Unpublished report for Tronox Management Pty Ltd, February 2015.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DPaW and DER)
DER	Department of Environment Regulation, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DRF	Declared Rare Flora
DotE	Department of the Environment, Australian Government
DoW	Department of Water, Western Australia
DPaW	Department of Parks and Wildlife, Western Australia
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DotE)
EPA	Environmental Protection Authority, Western Australia
EP Act	<i>Environmental Protection Act 1986</i> , Western Australia
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (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
PEC	Priority Ecological Community, Western Australia
RIWI Act	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
s.17	Section 17 of the <i>Environment Protection Act 1986</i> , 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.