



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 6117/3  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Tronox Mining Australia Limited

### 1.3. Property details

Property: Mining Lease 70/785  
Miscellaneous Licence 70/159  
Local Government Area: City of Busselton  
Colloquial name: Wonnerup South Mineral Sands Project

### 1.4. Application

| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of:                                    |
|--------------------|-----------|--------------------|--|
| 6.7                |           | Mechanical Removal | Mineral sands extraction and associated infrastructure |

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 21 November 2019

## 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. Three Beard vegetation associations have been mapped within the application area (GIS Database):

- 990: Low forest: peppermint (*Agonis flexuosa*)

- 949: Low woodland; banksia

- 1136: Medium woodland; marri with some Jarrah, Wandoo, River Gum and Casuarina.

The application area falls within vegetation complex mapping conducted by Matisse and Havel (1998). The following vegetation complexes have been mapped in the application area (GIS Database):

- AB: Woodland and open forest of *Corymbia calophylla* on flats and low rises in the humid zone.

- Ad: Woodland of *Corymbia calophylla*, *Agonis flexuosa*, *Allocasaurina fraseriana* and *Nuytsia floribunda*.

- AF: Woodland of *Corymbia calophylla*-*Agonis flexuosa* and tall shrubland of Myrtaceae-Proteaceae spp. on terraces and valley floors in the humid zone.

- Aw: Tall shrubland of *Melaleuca viminea* and woodland of *Eucalyptus rudis*, *Melaleuca raphiophylla* with occasional *Corymbia calophylla*.

- Lw: Open woodland of *Melaleuca raphiophylla* and sedgelands of Cyperaceae-Restionaceae spp. on broad depressions in the subhumid zone.

Two flora and vegetation surveys have been undertaken over the application area; Onshore Environmental in April 2006 and Ekologica in October 2012. The Onshore Environmental (Onshore) survey identified four vegetation communities within the application area (Onshore, 2006):

- *Agonis flexuosa* Low Forest over \**Lolium rigidum* Dense Low Grass.
- *Corymbia calophylla*/*Agonis flexuosa* Forest over \**Lolium rigidum* Low Grass.
- *Melaleuca raphiophylla* Low Forest over \**Zantedeschia aethiopica* / \**Rumex pulcher* Open Dwarf Scrub over \**Lolium rigidum* Low Grass.

- *Corymbia calophylla* Woodland over \**Rumex pulcher* Open Dwarf Scrub over \**Lolium rigidum* Low Grass.

The Ekologica (2012) survey identified the following four vegetation communities within the application area:

- *Eucalyptus rudis* and *Agonis flexuosa* woodland over grassland/herbland of introduced taxa including \**Pennisetum clandestinum*.
- *Corymbia calophylla* and *Eucalyptus marginata* woodland over *Agonis flexuosa*, *Nuytsia floribunda* low woodland over grassland/herbland of \**Lolium rigidum*, \**Hordeum leporinum*, \**Arctotheca calendula* and other introduced species.
- *Melaleuca raphiophylla* low woodland over grassland/herbland of \**Lolium rigidum*, \**Hordeum leporinum*, \**Arctotheca calendula* and other introduced species.
- *Melaleuca raphiophylla* low forest over \**Zantedeschia aethiopica* and \**Rumex pulcher* herbland.

\* introduced species

#### Clearing Description

Wonnerup South Mineral Sands Project  
Tronox Mining Australia Limited proposes to clear 6.7 hectares of native vegetation within a total boundary of approximately 162.7 hectares for the purpose of mineral sands extraction and associated infrastructure. The project is located approximately 6 kilometres south-east of Busselton, in the City of Busselton.

#### Vegetation Condition

Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).

To

Degraded: Basic vegetation structure severely impacted by disturbance (Keighery, 1994).

#### Comment

The vegetation condition was determined by botanists from Ekologica and Onshore Environmental.

Clearing permit CPS 6117/1 was granted by the Department of Mines and Petroleum (now the Department of Mines, Industry Regulation and Safety) on 9 April 2015 and authorised the clearing of up to 6.7 hectares of native vegetation within a boundary of approximately 162.7 hectares, for the purpose of mineral sands extraction and associated infrastructure.

Clearing Permit CPS 6117/1 was appealed on the grounds of impacts to fauna habitat and movement, and water quality. The Minister determined that the environmental impacts from the proposed clearing were appropriately assessed, however allowed the appeal in part by requiring that the conditions be amended to include a requirement for the installation of artificial dreys for Western Ringtail Possum in rehabilitated areas at a rate of at least two per hectare. Cristal Mining has submitted a revised Offset Management Plan in response to this requirement (Cristal Mining, 2015). CPS 6117/1 was amended on 26 November 2015 to give effect to the Minister's determination.

The permit holder has applied to amend CPS 6117/2 to extend the duration of the permit by five years to ensure appropriate time is allowed for rehabilitation monitoring. Cristal Mining Australia Ltd has changed company name to Tronox Mining Australia Ltd and has requested that the permit holder is updated to reflect the change.

### 3. Assessment of application against Clearing Principles

#### Comments

The permit holder has applied to amend clearing permit CPS 6117/2 to extend the duration of the permit and amend the permit holder name to reflect a company name change. The proposed amendment will not have any additional environmental impacts.

The assessment against the clearing principles remains consistent with the assessment contained in decision report CPS 6117/1.

#### Planning Instrument, Native Title, Previous EPA decision or other matter.

#### Comments

The permit area is within the South West Native Title Settlement area (DPLH, 2019). This settlement resolves Native Title rights and interests over an area of approximately 200,000 square kilometres within the south west of Western Australia. 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 is one registered Aboriginal Site of Significance within the application area (DPLH, 2019). 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 Water and Environmental Regulation and the Department of Biodiversity, Conservation and Attractions, 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 amendment application was advertised on 16 September 2019 by the Department of Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

**Methodology** DPLH (2019)

#### 4. References

- Cristal Mining Australia Limited (2015) Wonnerup South Mining Project – Sabina River Reserve Revegetation Program. Version 3, November 2015.
- DPLH (2019) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. <http://maps.daa.wa.gov.au/AHIS/> (Accessed 7 October 2019).
- Ekologica (2012) Vegetation, Flora and Wetland Survey at the Wonnerup South Mineral Sands Deposit. Report prepared for Cristal Mining Australia Ltd, by Ekologica Pty Ltd, December 2012.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.
- Onshore (2006) Grice & Location 7 Flora Survey. Report prepared for Bemax Resources (incorporating Cable Sands), by Onshore Environmental Consultants Pty Ltd, May 2006.

#### 5. Glossary

##### Acronyms:

|                 |   |
|-----------------|---|
| <b>BoM</b>      | Bureau of Meteorology, Australian Government  |
| <b>DAA</b>      | Department of Aboriginal Affairs, Western Australia (now DPLH)  |
| <b>DAFWA</b>    | Department of Agriculture and Food, Western Australia (now DPIRD)   |
| <b>DBCA</b>     | Department of Biodiversity, Conservation and Attractions, Western Australia   |
| <b>DEC</b>      | Department of Environment and Conservation, Western Australia (now DBCA and DWER)   |
| <b>DoEE</b>     | Department of the Environment and Energy, Australian Government   |
| <b>DER</b>      | Department of Environment Regulation, Western Australia (now DWER)  |
| <b>DMIRS</b>    | Department of Mines, Industry Regulation and Safety, Western Australia  |
| <b>DMP</b>      | Department of Mines and Petroleum, Western Australia (now DMIRS)  |
| <b>DPIRD</b>    | Department of Primary Industries and Regional Development, Western Australia  |
| <b>DPLH</b>     | Department of Planning, Lands and Heritage, Western Australia   |
| <b>DRF</b>      | Declared Rare Flora   |
| <b>DoE</b>      | Department of the Environment, Australian Government (now DoEE)   |
| <b>DoW</b>      | Department of Water, Western Australia (now DWER)   |
| <b>DPaW</b>     | Department of Parks and Wildlife, Western Australia (now DBCA)  |
| <b>DSEWPaC</b>  | Department of Sustainability, Environment, Water, Population and Communities (now DoEE)                                   |
| <b>DWER</b>     | Department of Water and Environmental Regulation, Western Australia   |
| <b>EPA</b>      | Environmental Protection Authority, Western Australia   |
| <b>EP Act</b>   | <i>Environmental Protection Act 1986</i> , Western Australia  |
| <b>EPBC Act</b> | <i>Environment Protection and Biodiversity Conservation Act 1999</i> (Federal Act)  |
| <b>GIS</b>      | Geographical Information System   |
| <b>ha</b>       | Hectare (10,000 square metres)  |
| <b>IBRA</b>     | Interim Biogeographic Regionalisation for Australia   |
| <b>IUCN</b>     | International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union |
| <b>PEC</b>      | Priority Ecological Community, Western Australia  |
| <b>RIWI Act</b> | <i>Rights in Water and Irrigation Act 1914</i> , Western Australia  |
| <b>TEC</b>      | Threatened Ecological Community   |

## Definitions:

{DBCA (2019) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia):-

### **T** Threatened species:

Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as threatened species under section 26(2) of the *Biodiversity Conservation Act 2016* (BC Act).

**Threatened fauna** is that subset of 'Specially Protected Fauna' listed under schedules 1 to 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for Threatened Fauna.

**Threatened flora** is that subset of 'Rare Flora' listed under schedules 1 to 3 of the *Wildlife Conservation (Rare Flora) Notice 2018* for Threatened Flora.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

### **CR** Critically endangered species

Threatened species considered to be "*facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines*".

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines. Published under schedule 1 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for critically endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for critically endangered flora.

### **EN** Endangered species

Threatened species considered to be "*facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines*".

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines. Published under schedule 2 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for endangered flora.

### **VU** Vulnerable species

Threatened species considered to be "*facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines*".

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines. Published under schedule 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for vulnerable fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for vulnerable flora.

## Extinct Species:

### **EX** Extinct species

Species where "*there is no reasonable doubt that the last member of the species has died*", and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).

Published as presumed extinct under schedule 4 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for extinct fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for extinct flora.

### **EW** Extinct in the wild species

Species that "*is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form*", and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.

## Specially protected species:

Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection.

Species that are listed as threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act cannot also be listed as Specially Protected species.

**MI**

**Migratory species**

Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act).

Includes birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and fauna subject to the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

Published as migratory birds protected under an international agreement under schedule 5 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

**CD**

**Species of special conservation interest (conservation dependent fauna)**

Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).

Published as conservation dependent fauna under schedule 6 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

**OS**

**Other specially protected species**

Fauna otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).

Published as other specially protected fauna under schedule 7 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

**P**

**Priority species:**

Possibly threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened fauna or flora.

Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring.

Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

**P1**

**Priority One - Poorly-known species**

Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.

**P2**

**Priority Two - Poorly-known species**

Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.

**P3**

**Priority Three - Poorly-known species**

Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.

**P4**

**Priority Four - Rare, Near Threatened and other species in need of monitoring**

(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands.

(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as Conservation Dependent.

(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

**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.