



# Report and recommendations of the Environmental Protection Authority



## **Dongara Titanium Minerals Project – inquiry under section 46 of the *Environmental Protection Act 1986* to amend Ministerial Statement 953**

**Tronox Management Pty Ltd**

Report 1655

November 2019

## **Inquiry under section 46 of the *Environmental Protection Act 1986***

The Minister for Environment has requested that the Environmental Protection Authority (EPA) inquire into and report on the matter of changing the implementation conditions in Ministerial Statement 953 relating to Tronox Management Pty Ltd's Dongara Titanium Minerals Project.

Section 46(6) of the *Environmental Protection Act 1986* requires the EPA Report to include:

1. a recommendation on whether or not the implementation conditions to which the inquiry relates, or any of them, should be changed
2. any other recommendations that it thinks appropriate.

The following is the EPA's Report and Recommendations to the Minister pursuant to s. 46(6) of the *Environmental Protection Act 1986*.



Dr Tom Hatton  
Chairman

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# 1. The proposal

The Dongara Titanium Minerals Project (the proposal) is located approximately 25 kilometres (km) south-east of Dongara in the Midwest Region of Western Australia. The proposal is to develop and operate a mineral sands mine. The nominated proponent for the proposal is Tronox Management Pty Ltd (Tronox).

The Environmental Protection Authority (EPA) assessed the proposal at the level of Public Environmental Review, and released its Report and Recommendations (Report 1478) in June 2013. In this report, the EPA considered the following key environmental factors relevant to the proposal:

- Flora
- Fauna
- Groundwater
- Land degradation (Acid Mine Drainage)
- Air quality.

In applying the *Statement of Environmental Principles, Factors and Objectives* (EPA 2018a) these factors are now represented by:

- Flora and Vegetation
- Terrestrial Environmental Quality
- Terrestrial Fauna
- Inland Waters
- Air Quality.

The EPA concluded in Report 1478 that it was likely the EPA's objectives would be achieved, provided there was satisfactory implementation by the proponent of the EPA's recommended conditions.

The then Minister for Environment approved the proposal for implementation, subject to the implementation conditions of Ministerial Statement 953 (2 December 2013).

## **Previously approved changes to conditions**

There have been no previous applications to change the proposal or to change the conditions in the Ministerial Statement prior to this application.

## 2. Requested changes to conditions

Condition 3-1 of Ministerial Statement 953 states that the proponent shall not commence implementation of the proposal after the expiration of five years from the date of the statement (being 2 December 2013), and any commencement, within this five year period, must be substantial. The proposal has not yet substantially commenced.

Tronox has requested a change to condition 3-1 of Ministerial Statement 953 to extend the authorised timeframe for substantial commencement of the proposal by a further five years from 2 December 2018.

The proponent has not proposed any changes to the proposal, or change to any other conditions of Ministerial Statement 953.

In response to the proponent's request, in July 2019, the Minister for Environment requested that the EPA inquire into and report on the matter of changing the implementation conditions of Ministerial Statements 953 for the proposal. This report satisfies the requirements of the EPA's inquiry.

### 3. Inquiry into changing conditions

The EPA typically recommends the Minister sets conditions on significant proposals that require them to be substantially commenced within a specified timeframe. Extending this timeframe requires the Minister to change the relevant conditions under s. 46 of the *Environmental Protection Act 1986*, and provides for the EPA to review and consider the appropriateness of the implementation conditions relating to the proposal.

The EPA has discretion as to how it conducts this inquiry. The currency of the initial assessment and issue of the Ministerial Statement (that is, when it was published) is also instructive in determining the extent and nature of the inquiry.

In conducting this inquiry, the EPA reviewed the information provided by the proponent and considered the original EPA assessment of the proposal detailed in Report 1478. In considering whether it should recommend an extension of the authorised timeframe for substantial commencement of the proposal, the EPA considered whether there was any change to, or new information relating to, the key environmental factors relevant to the proposal. The EPA also considered if any new key environmental factors had arisen since its original assessment of the proposal.

In addition to the above, the EPA has also considered:

- any changes in environmental, scientific or technological knowledge that may have arisen since the initial assessment
- whether the proposal is being implemented using best practice and contemporary methods so that the EPA objectives for the key environmental factors are met.

#### **EPA policy and procedures**

In conducting this inquiry, the EPA has followed the procedures in the *Environmental Impact Assessment (Part IV Divisions 1 and 2) Administrative Procedures 2016* (EPA 2016a) and the *Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual* (EPA 2018b).

## 4. Inquiry findings

The EPA considered that Flora and Vegetation is the key environmental factor relevant to the change to conditions. This determination is based on the length of time since the original biological surveys were conducted and the likelihood that the conservation status of individual species and vegetation types may have changed in that period.

Other factors such as Terrestrial Environmental Quality, Terrestrial Fauna, Inland Waters and Air Quality were considered unlikely to have changed significantly.

### 4.1 Flora and Vegetation

The EPA's environmental objective for this factor is *to protect flora and vegetation so that biological diversity and ecological integrity are maintained.*

#### EPA Report 1478

The proposal would require the clearing of approximately 1200 hectares (ha) of native vegetation and 115 ha of pasture. Native vegetation at the site is in pristine to excellent condition and contains several conservation significant flora species. The native vegetation in the proposal area also supports foraging habitat for Carnaby's Cockatoo. No infestations of dieback were identified within the proposal area and weeds were only prevalent in disturbed areas adjacent to farming properties.

Tronox has undertaken flora surveys within the Dongara Study Area (DSA) which is located within the Irwin Botanical District (Northern Sandplains Region) of the Southwest Botanical Province (Beard 1990). The DSA covers an area of approximately 35 000 ha, constituting a contiguous, largely intact block of native vegetation, extending approximately 10 km east and approximately 30 km south of the proposal area (Woodman 2011). A series of wetlands occur along the western side of the proposal area containing groundwater dependant ecosystems. The wetlands are considered to be equivalent to Conservation Category Wetlands.

Twenty-five conservation significant flora species were originally identified within the DSA. This included six Priority 4, twelve Priority 3, three Priority 2, three Priority 1 and one Declared Rare Flora (DRF) (DRF is now referred to as Threatened Flora). Of the 25 conservation significant flora species identified, twelve priority flora species would be impacted by the proposal either from clearing, dewatering drawdown or both. Of the twelve priority flora species being impacted, there would be a high impact to local populations to approximately half of the species.

EPA Report 1478 concluded that the proposal could be managed to meet the EPA's environmental objectives for this factor provided conditions were imposed requiring:

- the impacts on terrestrial and groundwater dependant ecosystem native vegetation to be limited to that predicted by the proponent
- monitoring to demonstrate that impacts are contained within the areas predicted and contingency management is required in the event the mining activities are having a greater impact than predicted

- an offset for the significant residual impact on the cumulative impact of clearing Carnaby's Cockatoo foraging habitat and wetlands.

To manage these impacts, the EPA recommended the following conditions:

- Condition 6 – Vegetation

Requiring the proponent to ensure that dewatering and abstraction does not cause the loss of groundwater dependent ecosystems beyond the boundaries specified in Ministerial Statement 953 and that a Groundwater Dependent Vegetation Monitoring and Management Plan is developed and implemented.

- Condition 7 – Residual Impacts and Risk Management Measures

Requiring the proponent to develop and implement an offset program to offset the significant residual impact to *Calyptorhynchus latirostris* (Carnaby's Cockatoo).

### Assessment of the proposed change to conditions

The EPA considers that the *Environmental Factor Guideline – Flora and Vegetation* (EPA 2016b) is the current environmental policy and guidance relevant to its assessment of the proposal for this factor.

The requested change relates to the time limit for commencement and does not include any changes to either operational extent or methods.

During this assessment it was identified that given the large number of priority flora species identified in the original survey work, it was possible that the conservation status of all species identified may have changed since the original approval was granted. A request was made to the proponent to review the conservation status of all flora species identified in the original surveys. This request also included a requirement to determine if any change in the classification of the vegetation types and percentage of the vegetation associations and Floristic Community Types (FCT) remaining had occurred.

The review of the conservation status of species and areas of vegetation types and FCTs demonstrated that there was no significant change to their status when compared to the information provided in the original assessment. Two flora species had their priority rating reduced (*Calectasia palustris* and *Schoenus griffinianus*). The EPA also sought advice from the Department of Biodiversity, Conservation and Attractions (DBCA) who advised that they had no concerns in relation to the requested change to the proposal in regard to matters relevant to DBCA's responsibilities under the *Biodiversity Conservation Act 2016*.

## 4.2 Other conditions

Ministerial Statement 953 contains other conditions not related to the key environmental factors discussed above. The EPA's recommendations regarding these other conditions are that they remain unchanged.



## 5. Conclusions and Recommendations

### ***Change to condition 3***

The proponent has requested an extension to the Time Limit for Proposal Implementation for an additional five years. The EPA considers it appropriate to extend the Time Limit for Project Implementation for a further five years from 2 December 2018 to 2 December 2023.

### **Conclusions**

In relation to the environmental factors, and considering the information provided by the proponent and relevant EPA policies and guidelines, the EPA concludes that:

- There are no changes to the proposal.
- There is no significant new or additional information that changes the conclusions reached by the EPA under any of the relevant environmental factors since the proposal was assessed by the EPA in Report 1478 (June 2013).
- No new significant environmental factors have arisen since its assessment of the proposal.
- The impacts to the key environmental factors are considered manageable, based on the requirements of existing conditions.

### **Recommendations**

Having inquired into this matter, the EPA submits the following recommendations to the Minister for Environment under s. 46 of the *Environmental Protection Act 1986*:

1. That condition 3 of Ministerial Statement 953, be amended to allow for the Time Limit for Proposal Implementation of the Dongara Titanium Minerals Project to be extended to 2 December 2023.
2. That, after complying with s. 46(8) of the EP Act, the Minister may issue a statement of decision to change conditions 3-1 and 3-2 of Statement 953 in the manner provided for in the attached recommended Statement (Appendix 1).

## References

Beard J.S. 1990, *Plant Life of Western Australia*. Kangaroo Press, Perth.

EPA 2016a, *Environmental Impact Assessment (Part IV Divisions 1 and 2) Administrative Procedures*, Environmental Protection Authority, Perth, WA.

EPA 2016b, *Environmental Factor Guideline – Flora and Vegetation*, Environmental Protection Authority, Perth, WA.

EPA 2018a, *Statement of Environmental Principles, Factors and Objectives*, Environmental Protection Authority, Perth, WA.

EPA 2018b, *Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual*, Environmental Protection Authority, Perth, WA.

Woodman 2011, *Dongara Titanium Minerals Project: Flora and Vegetation Impact Assessment*, prepared for Tiwest Pty Ltd, November 2011.

## Appendix 1: Identified Decision-Making Authorities and recommended environmental conditions

The following decision-making authorities have been identified for the purposes of s. 45 as applied by s. 46(8) of the *Environmental Protection Act 1986*:

Decision-making Authority	Legislation (and Approval)
1. Minister for Environment	<i>Biodiversity Conservation Act 2016</i> <ul style="list-style-type: none"> <li>• Taking of protected flora and fauna</li> </ul>
2. Minister for Water	<i>Rights in Water and Irrigation Act 1914</i> <ul style="list-style-type: none"> <li>• Groundwater abstraction licence</li> </ul>
3. Minister for Aboriginal Affairs	<i>Aboriginal Heritage Act 1972</i> <ul style="list-style-type: none"> <li>• Section 18 approval</li> </ul>
4. Minister for Mines and Petroleum	<i>Mining Act 1978</i> <ul style="list-style-type: none"> <li>• Mining Proposal</li> </ul>
5. CEO, Department of Water and Environmental Regulation	<i>Environmental Protection Act 1986</i> <ul style="list-style-type: none"> <li>• Works Approval and Licence</li> <li>• Clearing Permit</li> </ul>
6. Department of Mines, Industry Regulation and Safety  Executive Director, Resource and Environmental Compliance Division  Mining Registrar  State Mining Engineer  Chief Dangerous Goods Officer	<i>Mining Act 1978</i> <ul style="list-style-type: none"> <li>• Mining proposal</li> </ul> <i>Mining Act 1978</i> <ul style="list-style-type: none"> <li>• Miscellaneous licences</li> </ul> <i>Mines Safety and Inspection Act 1994</i> <ul style="list-style-type: none"> <li>• Mining proposal</li> </ul> <i>Dangerous Goods Safety Act 2004</i> <ul style="list-style-type: none"> <li>• Dangerous Goods Licence</li> </ul>
7. Shire of Irwin	<i>Planning and Development Act 2005</i>
8. Secretary, Radiological Council	Radiation Safety Act 1975 <ul style="list-style-type: none"> <li>• Certificate of Registration</li> </ul>

RECOMMENDED ENVIRONMENTAL CONDITIONS

**STATEMENT TO CHANGE THE IMPLEMENTATION CONDITIONS APPLYING TO  
A PROPOSAL**

**(Section 46 of the *Environmental Protection Act 1986*)**

DONGARA TITANIUM MINERALS  
SHIRE OF IRWIN

**Proposal:** To develop and operate a mineral sands mine approximately 25 kilometres (km) south-east of the township of Dongara in the Midwest Region of Western Australia.

**Proponent:** Tronox Management Pty Ltd  
ABN 59 009 343 364

**Proponent Address:** 1 Brodie Hall Drive  
BENTLEY WA 6102

**Report of the Environmental Protection Authority:** 1655

**Previous Report Relating to this Proposal:** 1478

**Preceding Statement/s Relating to this Proposal:** 953

Pursuant to section 45 of the *Environmental Protection Act 1986*, as applied by section 46(8), it has been agreed that the implementation conditions set out in Ministerial Statement No. 953, be changed as specified in this Statement.

**Condition 3 of Ministerial Statement 953 is deleted and replaced with:**

**3 Time Limit for Proposal Implementation**

3-1 The proponent shall not commence implementation of the proposal after 2 December 2023, and any commencement, prior to this date, must be substantial.

3-2 Any commencement of implementation of the proposal, on or before 2 December 2023, must be demonstrated as substantial by providing the CEO with written evidence, on or before 2 December 2023.