NOTICE OF DECISION TO CONSENT TO MINOR OR PRELIMINARY WORKS

PERSON TO WHOM THIS NOTICE IS GIVEN:

(a) Proponent:
Hastings Technology Metals Limited
Suite 2508, Level 25
St Martins Tower, 31 Market Street
SYDNEY NSW 2000

(b) Relevant Decision-Making Authorities, see Attachment 1

PROPOSAL TO WHICH THIS NOTICE RELATES:
Yangibana Rare Earths Project – Minor or Preliminary Works
Assessment No. 2115

Pursuant to section 41A(3) of the Environmental Protection Act 1986 (EP Act), the Environmental Protection Authority consents to the proponent undertaking the minor or preliminary works detailed in Schedule 1.

EFFECT OF THIS NOTICE:

1. The prohibition provided by sections 41(2), 41(3) and 41A(1) of the EP Act do not apply to implementing the minor or preliminary works consented to in this Notice.

2. It is an offence under s41A(1) of the EP Act, with a maximum penalty of $125,000 for a body corporate and $62,500 for an individual, to do anything to implement the proposal other than the minor or preliminary works consented to in this Notice.

3. Relevant decision-making authorities may make decisions that would cause or allow the doing of the minor or preliminary works listed in Schedule 1 of this Notice.

RIGHTS OF APPEAL:

There are no rights of appeal under the EP Act in respect of this consent.

Dr Tom Hatton
Delegate of the Environmental Protection Authority
CHAIRMAN
25 August 2017
Environmental Protection Act 1986

Section 41A(3)

STATEMENT OF REASONS

CONSENT TO UNDERTAKE MINOR OR PRELIMINARY WORKS

Proposal: Yangibana Rare Earths Project

Proponent: Hastings Technology Metals Limited

Decision

For the reasons outlined below, I, as a delegate of the Environmental Protection Authority (EPA), have determined to consent to the minor or preliminary works outlined in Schedule 1 attached to this Statement of Reasons.

Background

On 31 January 2017, Hastings Technology Metals Ltd (Hastings) referred the Yangibana Rare Earths Project to the EPA under section 38 of the Environmental Protection Act 1986 (EP Act). The proposal is to extract and process Rare Earth Element (REE) ore from four mining pits in the Yangibana Project area. The project area is located approximately 270 kilometres east-north-east of Carnarvon in the Shire of Upper Gascoyne. The Proposal includes mining above and below the ground water table, on-site processing of ore and associated infrastructure. Transport of the product via road to Fremantle port for export is currently proposed. The proposal would include clearing of up to 1,000 hectares (ha) within a development envelope of 12,098 ha and water abstraction of up to 2.5 gigalitres per year (GL/a).

The EPA determined to assess the Proposal at the level of Public Environmental Review on 27 February 2017 and is yet to publish its assessment report.

In advance of a decision or agreement in relation to whether or not the proposal may be implementation under section 45 of the EP Act, Hastings has sought the EPA's consent to undertake minor or preliminary works related to the proposal.

Relevant Statutory and Administrative Provisions

After the EPA decides to assess a proposal, and before a decision or agreement is made under s45 of the EP Act, all persons are prohibited from implementing a proposal, and relevant decision making authorities are prohibiting from making a decision which would allow the proposal to be implemented, except in relation to minor or preliminary works which the EPA has consented may be implemented – see sections 41(4) and 41A(3) of the EP Act.
If the EPA consent to the minor or preliminary works being done, the person proposing to undertake those works may still need to obtain other authorisations from other decision making authorities.

Section 3.5 of the *Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual 2016* guides what information the EPA requires from a person wanting to undertake minor or preliminary works.

In considering the request for consent, I considered whether the:
- work is associated with the implementation of the proposal
- potential environmental impacts of the work are significant
- work would constitute the irreversible and substantial implementation of the proposal, and
- work is justified.

**Materials considered in making this decision**

In determining whether to consent to the minor or preliminary works I have considered the following:

1. the document Yangibana Rare Earths Project Minor or Preliminary Works Application, Hastings, 26 July 2017 which was revised and resubmitted on 8 August 2017 (hereafter called the supporting documentation) that provided:
   - the location, scope and methodology of the proposed work
   - the relationship of the proposed work to the proposal
   - details of the potential environmental impacts caused or likely to be caused by the work and how the potential impacts will be managed
   - details of decommissioning and rehabilitation works which would be carried out should the overall proposal not be implemented
   - information explaining how the impact from proposed works would be reversed if the proposal is not implemented.

2. spatial data provided by Hastings on 26 July 2017 and revised and resubmitted on 8 August 2017, showing the location and area of change

3. Yangibana Rare Earths Project Preliminary Mine Closure Plan, Hastings 27 July 2017, and

4. public comments received during the seven day public consultation process.

**Consideration**

1. **Proposed work associated with the implementation of the proposal**

   The proposed minor or preliminary works (proposed works) involve the construction and operation of an access road, and accommodation facilities and associated infrastructure. The scope of the proposed works are detailed in section 3.2 of the supporting documentation.
All proposed works will be undertaken within the development envelope of the proposal which was defined in the referral stage of the EPA’s assessment process (Figure 1).

The proposed works would allow Hastings to collect site specific information through water source studies, geotechnical assessments of infrastructure locations, environmental surveys and mineral exploration drilling to further define the resource and therefore improve the knowledge of likely impacts.

I, as the delegate of the EPA, consider the proposed works are associated with the implementation of the proposal currently being assessed by the EPA.

2. **Significance of the potential environmental impacts**

The EPA set level of assessment for the proposal at the level of Public Environmental Review on 27 February 2017. The EPA identified a number of key environmental factors that required evaluation during the assessment process including Flora and Vegetation, Subterranean Fauna, Terrestrial Environmental Quality, Hydrological Processes, and Inland Waters Environmental Quality and Human Health. Additionally Terrestrial Fauna and Social Surroundings were also identified as other environmental factors or matters which require consideration during the assessment process. All seven environmental factors were addressed in the supporting document and are discussed below. None of the environmental factors were identified to be at risk from the implementation of the proposed works.

**Flora and Vegetation**

The proposed works will result in clearing and disturbance of up to 68 ha of native vegetation within a disturbance envelope of 122.51 ha within the proposal’s development envelope (12,098 ha). The proposed work is not considered to cause a significant impact to this factor, for the following reasons:

- No conservation significant flora will be impacted by the proposed works.
- No Threatened Ecological Communities or Priority Ecological Communities will be impacted by the proposed works.
- The potential impact to the three vegetation communities, considered to have local conservation significance within the disturbance envelope, is considered low.
- The potential impact to EcMgCc a vegetation community that represents a Groundwater Dependent Ecosystem (GDE) is low. As the proposed works includes clearing of up to 0.43 ha of EcMgCc vegetation which represents 0.1% of this vegetation community known from the area (based on the 55,000 ha flora and vegetation survey of the area).
- The potential impact to AcEt and AcAsCc vegetation communities that are considered to potentially represent GDEs is considered low. As the proposed works includes clearing of up to 3.19 ha of AcEt and 0.78 ha of AcAsCc, representing 0.16% and 0.05% respectively of these vegetation communities known from the area.
Subterranean Fauna

The proposed works will include abstraction of no more than 0.28 GL/a of groundwater. The water will be supplied from a bore that occurs within the Frasers pit fractured rock aquifer. The proposed work is not considered to cause a significant impact to this factor, for the following reasons:

- Three phases of sampling found no stygofauna within the Frasers pit fractured rock aquifer.
- Water will be abstracted from a confined ironstone fractured rock aquifer and will not significantly impact the Gifford Creek calcrete Priority Ecological Community.
- Modelling has shown water drawdown will be temporary.
- Storage of hydrocarbons and other chemicals will be managed to prevent contamination of subterranean fauna habitat.

Hydrological Processes and Inland Waters

The proposed works will include abstraction of no more than 0.28 GL/a of groundwater. The proposed access road crosses the Lyons River and the accommodation facilities occur in close proximity to the Lyons River. The proposed work is not considered to cause a significant impact, for the following reasons:

- Modelling has shown water drawdown will be temporary.
- Storage of hydrocarbons and other chemicals will be managed to prevent contamination of surface and ground water.
- Other nearby groundwater users (Pastoralists) will not be impacted.
- Additional sediment loads during heavy rainfall events, from the design and location of the access road is considered unlikely.
- A concrete causeway will be constructed to cross the width of the Lyons River. Small culverts will be used to allow the river to flow unimpeded underneath the causeway.

Terrestrial Environmental Quality

The proposed works will result in the clearing of up to 68 ha of vegetation exposing mainly what appears to be ‘Plains soil’. Plains soil was found to be saline and sodic in nature, highly erodible and unsuitable for rehabilitation. The proposed works also includes the construction of a waste-water treatment plant (WWTP) and irrigation field. The proposed work is not considered to cause a significant impact, for the following reasons:

- No harvesting or storage of Plains soil.
- Storage of hydrocarbons and other chemicals will be managed to prevent contamination of soil.
- WWTP to be constructed and operated to be in compliance with part V of the Environmental Protection Act 1987.
- Landfill to be operated to be in compliance with part V of the Environmental Protection Act 1987.
**Human Health**

The proposed works will result in the construction and operation of a Department of Health approved waste water treatment plant (WWTP) will be used to service the accommodation facilities, where up 100 people will stay. The proposed work is not considered to cause a significant impact to this factor, for the following reason:

- WWTP to be constructed and operated to be in compliance with part V of the Environmental Protection Act 1987.

**Terrestrial Fauna**

The proposed works will result in clearing and disturbance of up to 68 ha of terrestrial fauna habitat within a disturbance envelope of 122.51 ha, within the proposal's development envelope (12, 098 ha). The proposed work is not considered to cause a significant impact to this factor, for the following reasons:

- No threatened fauna species listed under the EPBC Act have been recorded from the development envelope.
- No conservation significant species have been recorded from the disturbance envelope.
- One conservation significant species, the Long-tailed Dunnart (*Sminthopsis longicaudata*; listed as a Priority 4 species by DPaW) was the recorded from the northeast portion of the development envelope. This species is unlikely to be impacted by the proposed works.
- The Grey Falcon (*Falco hypoleuca*; listed as a Schedule 1 species under the WC Act) was recorded outside the development envelope but in the vicinity of the proposed southern access road. Another five conservation significant species were assessed to have potential to occur in the disturbance envelope: Fork-tailed Swift (*Apus pacificus*, EPBC Migratory), Eastern Great Egret (*Ardea modesta*, EPBC Migratory), Yinnietharra Rock Dragon (*Ctenophorus yinnietharra*, EPBC Vulnerable), Peregrine Falcon (*Falco peregrinus*, WC Act S7) and the Golden Gudgeon (*Hypseleotris aurea*, DPaW P2). Based on the larger study area (55,000 ha) a small proportion of the three potentially significant fauna habitats is proposed to be cleared: up to 0.16% of the total 'major river habitat' (potential breeding sites for Grey Falcons and foraging habitat for the Eastern Great Egret and Rainbow Bee-eater), up to 0.27% of the ‘minor creeklines’ (with ‘major river’ habitat, as the most suitable habitats for invertebrate SRE fauna) and up to 5.03% of the ‘rocky plains’ habitat (a suitable habitat for the Western Pebble-mound Mouse). Resulting in a low impact to these habitats.
- No granite outcrops, the known habitat of the Yinnietharra Rock Dragon will be disturbed by the proposed works.
- Suitable feral animal management has been proposed by Hastings.
Social Surroundings

The proposed works will result in the disturbance of up to 68 ha of land. The proposed work is not considered to cause a significant impact to this factor, for the following reasons:

- Hastings has worked with the Traditional Owners (Thin-Mah Warianga, Tharrikari, Jiwarli) to identify indigenous heritage values of the Yangibana development envelope.
- All areas to be disturbed by the proposed minor or preliminary works have been surveyed and no heritage impacts have been identified and all these surveys were undertaken in accordance with the Aboriginal Heritage Act 1972 (WA).

3. Proposed work would constitute irreversible substantial implementation of the proposal

Considering the limited disturbance associated with the proposed works (68 ha), and Hastings’ commitment to remove infrastructure and undertake rehabilitation activities, the proposed works are not considered to constitute irreversible substantial implementation of the proposal.

4. Proposed work is justified in extent and timing

The proposed work is limited in nature (68 ha) and involves construction of an access road, accommodation camp and related infrastructure to support and continue investigative studies. The proposed works will enable the collection of additional site specific information to further progress water source studies, geotechnical assessments of infrastructure locations and environmental impact assessment surveys.

Currently seasonal rainfall events restrict access and safe movement of personnel and equipment to the project area. The proposed works would reduce the cost and time of demobilising and remobilising before and after seasonal adverse weather events. The proposed works would also allow Hastings to continue the various investigations, assessments and surveys during short durations of adverse weather events.

Considering the limited nature of clearing, the need for further investigations and the constraints on the temporary camps due to seasonal weather, the proposed works are considered justified in their extent and timing.
Schedule 1

Minor or Preliminary Works
### Table 1: Summary of the Proposal

<table>
<thead>
<tr>
<th>Proposal Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yangibana Rare Earths Project: Minor or Preliminary Works</td>
<td>Pursuant to section 41A(3) of the <em>Environmental Protection Act 1986</em> the EPA consents to Hastings Technology Metals Limited undertaking minor or preliminary works within the assessed development envelope for the purposes of undertaking investigative works including water investigations, geotechnical assessments, environmental surveys and mineral exploration activities. The proposed works include the construction of an accommodation village and associated infrastructure including a waste-water treatment plant, irrigation field and access roads.</td>
</tr>
</tbody>
</table>

### Table 2: Location and authorised extent of physical and operational elements

<table>
<thead>
<tr>
<th>Element</th>
<th>Location</th>
<th>Authorised Extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access road and associated topsoil storage</td>
<td>Figure 1</td>
<td>Clearing of no more than 45 ha within the development envelope of 12,098 ha</td>
</tr>
<tr>
<td>Accommodation village and associated topsoil storage</td>
<td>Figure 1</td>
<td>Clearing of no more than 6 ha within the development envelope of 12,098 ha</td>
</tr>
<tr>
<td>Landfill</td>
<td>Figure 1</td>
<td>Clearing of no more than 0.15 ha within a development envelope of 12,098 ha</td>
</tr>
<tr>
<td>Waste water treatment plant and irrigation field</td>
<td>Figure 1</td>
<td>Clearing of no more than 1.5 ha within the development envelope of 12,098 ha</td>
</tr>
<tr>
<td>Other: Borrow pit and associated track maintenance upgrades</td>
<td>Within the disturbance envelope.</td>
<td>Clearing of no more than 15 ha within the development envelope of 12,098 ha</td>
</tr>
<tr>
<td>Water abstraction</td>
<td>Within Frasers pit fractured rock aquifer.</td>
<td>Abstraction of no more than 280,000 kL/a (0.28 GL/a) of groundwater</td>
</tr>
</tbody>
</table>
LEGEND
- Preliminary Works Layout
- Development Envelope
- Activity Areas
- Roads (2016)

SOURCE DATA
Preliminary Development Envelope
Activity Areas (2017)
Preliminary Works Layout (2017)
Preliminary Works Layout (2016)
SLP Report 2016
MGP Phillips (2015)

LOCALITY MAP

Figure 1 Location of the Minor or Preliminary Works