

Environmental Protection Act 1986

Section 41A(3)

STATEMENT OF REASONS

CONSENT TO UNDERTAKE MINOR or PRELIMINARY WORKS

Proposal: Eliwana Iron Ore Mine Project
Proponent: Fortescue Metals Group Limited

Decision

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

Background

On 7 July 2017, Fortescue Metals Group Limited (FMG) referred the Eliwana Iron Ore Mine to the Environmental Protection Authority (EPA) under section 38 of the *Environmental Protection Act 1986* (EP Act). The Proposal includes development and operation of mine pits and associated infrastructure for extraction and processing of above and below water table iron ore deposits, 90 km west-north-west of Tom Price, in the Pilbara Region of Western Australia.

The proposal would require clearing of up to 8,560 ha of native vegetation within a 70,000ha mine development envelope, and abstraction of up to 14 GL/a of groundwater.

The EPA determined to assess the Proposal at the level of Public Environmental Review 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 implemented under section 45 of the EP Act, FMG has sought the EPA's consent to undertake minor or preliminary works related to the Proposal.

The original application to undertake minor or preliminary works was submitted on 16 February 2018. Following release of the application for public comment from 18 April 2018 to 25 April 2018, the proponent undertook additional consultation with the Traditional Owner group, the Puutu Kuntj Kurrama and Pinikura (PKKP). A revised and final application was submitted on 19 July 2018.

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;
- work is justified;
- potential environmental impacts of the work are significant; and
- work would constitute the irreversible and substantial implementation of the proposal.

Materials considered in making this decision

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

1. Fortescue Metals Group Limited (FMG), *Minor or Preliminary Works Application EW-AP-EN-0003*, Received February 2018, and updated version received 19 July 2018
2. Fortescue Metals Group Limited (FMG), *Minor or Preliminary Works: Response to Queries*, correspondence received 12 March 2018.
3. Spatial Data provided by FMG on 19 July 2018 (DWER Ref # 2018-1532490573765)
4. Public comment received during the seven-day public consultation process, and subsequent information received from Traditional Owners.

Consideration

1. Proposed work associated with the implementation of the proposal

The proposed works are associated with the implementation of the proposal currently being assessed by the EPA, and would be carried out as part of the proposal following approval, in the event that the application for Minor and Preliminary works was approved. All proposed works would be undertaken within the development envelope of the proposal (Figure 1).

2. Environmental justification of the proposed works.

Approval of the proposed works would allow these works to be conducted during the dry season, reducing the risk of erosion and sedimentation as a result of heavy rainfall striking during ground disturbing works, with particular regard to works intercepting creeks for linear infrastructure such as

Approval of the proposed works would also allow the work to be carried out within a minimised disturbance footprint, with a longer timeframe enabling staging of work and subsequent opportunities to locate laydown areas and topsoil stockpiles in previously disturbed areas.

3. Details of proposed works, and Significance of potential impacts

The proposed works include construction of an accommodation camp to house construction personnel, construction of access roads, an airstrip, and water supply pipelines. Borrow pits, topsoil stockpiles, and a turkey's nest, would also be required to enable the proposed works to be completed.

Figure 1 shows the location of the proposed works. Disturbance associated with the proposed works would include:

Item	Disturbance (in hectares)
Construction Camp – including spray field	33.1
Aerodrome	68.8
Roads and pipeline	41.6
Topsoil stockpiles	21.5
Borrow pits	50
Turkey nest	1.2
Laydown areas	17.4
Flying Fish Road	32
Total	265.6

The 265.6 ha of clearing for the proposed works as detailed above represents 3.1% of the proposed 8,560 hectares of clearing for the Eliwana Mine Project.

Significance of the potential environmental Impacts

The Preliminary key environmental factors associated with the proposed Eliwana Iron Ore Mine Project as identified in the Environmental Scoping Document (ESD) are:

1. Hydrological Processes and Inland Waters Environmental Quality;
2. Flora and Vegetation;
3. Terrestrial Fauna;
4. Subterranean fauna;
5. Social Surrounds; and
6. Air Quality

Of these, the following factors were considered likely to be impacted by the proposed works:

1. Social Surrounds;
2. Flora and Vegetation;
3. Terrestrial Fauna; and
4. Hydrological Processes.

The potential impacts of the proposed works on each of these factors is discussed below.

Social Surrounds

The proponent has conducted heritage surveys across the proposed works area in consultation with the PKKP people. Following the release of the Minor and Preliminary Works Application for public comment by the EPA, the PKKP provided comments expressing that further consultation with the PKKP should be conducted by FMG. These comments were provided to the proponent, prompting FMG to engage in further consultation with the PKKP, including site visits.

The proposed works have been designed based on heritage surveys to avoid significant heritage sites. No ethnographic sites would be impacted by the proposed works. Some impact to archaeological heritage sites would occur, however the PKKP have provided information to the EPA indicating that any impact to these sites can be managed under the *Aboriginal Heritage Act 1972*. Where sites are identified that would be impacted by the works, appropriate approvals would be obtained prior to ground disturbance.

Flora and Vegetation

The proposed works would result in clearing of up to 265.5 hectares of native vegetation within the 53,500 ha proposal development envelope. Extensive Flora and Vegetation surveys have been carried out within the Eliwana Iron Ore Mine Project area, which have been used to assess the impact of the proposed works.

Impacts to Flora and Vegetation as a result of the proposed works proposal are considered unlikely to be significant for the following reasons:

- No Threatened Ecological Community or Priority Ecological Community would be impacted as a result of the proposed works.
- No Threatened Flora listed under the EPBC Act would be impacted as a result of the proposed works.
- Fifteen vegetation communities would be impacted by the proposed works proposal. The mapped extent of fourteen of these would be reduced by less than 4%. The remaining vegetation community (EIAatTw) would be reduced by 11.8%. This vegetation community is not considered to be regionally or locally significant, and does not contain any significant species.
- 1.3 ha of potentially Groundwater Dependent Vegetation (GDE) would be impacted by the proposal, however this would represent a reduction of only 0.24% of the mapped extent of this vegetation type.
- Known locations of Priority Flora have been avoided in planning the proposed works.

Terrestrial Fauna

The proposed works would result in clearing of up to 265.5 ha of terrestrial fauna habitat within the 53,500 ha proposal development envelope. Extensive fauna surveys have been carried out within the Eliwana Iron Ore Mine Project area, which have been used to assess the impact of the proposed works.

The proposed works are not considered likely to cause a significant impact to Terrestrial fauna for the following reasons:

- The proposed works have been designed to avoid areas of significant fauna habitat identified during extensive Fauna surveys for the Eliwana Iron Ore Mine project. In particular, design of the proposed works program avoided areas of significant habitat for the Ghost bat, Pilbara leaf-nose bat, Pilbara Olive Python, and Northern Quoll.
- The three conservation significant species likely to use the areas impacted by the proposed works - the Peregrine Falcon, Grey Falcon, and Pebble-mound mouse - are either highly mobile and able to avoid areas of disturbance, or in the case of the Pebble-mound mouse (Priority 4), have extensive distribution across the Pilbara.

Hydrological Processes

The proposed works would require abstraction of up to 1.6 GL of water from existing bores constructed during exploration activities at the site and from an additional well yet to be constructed. The proposed access roads, water pipelines, and accommodation camp infrastructure, have the potential to alter surface water flows by intercepting significant drainage lines.

The proposed works are not considered to be likely to cause significant impacts to hydrological processes, for the following reasons:

- Drawdown associated with abstraction is expected to be minimal relative to that required for the proposal.

- Potential sensitive receptors to drawdown in the area are limited to riparian vegetation within Pinarra Creek which is dominated by *Eucalyptus victrix*.
- Groundwater in the vicinity of the riparian vegetation is 20-30m below ground level, and therefore it is considered unlikely that *E.victrix* is dependent on groundwater in this area.
- Construction of the well and abstraction of groundwater would be regulated under the *Rights in Water and Irrigation Act 1914*.
- Proposed roads and infrastructure have been located to avoid higher order drainage lines.
- Surface drainage features in the area of the proposed camp are minor and there is limited catchment upstream of the proposed disturbance.
- Drainage line road crossings would be managed with low level flood ways or culvert crossings if required.
- For both the accommodation camp and the aerodrome there is a lack of riparian vegetation downstream of the proposed works. A small area of riparian vegetation downstream of the camp appears to be supported predominantly by drainage lines which would not be impacted by the proposed works.

4. Proposed rectification actions

The proposed works proposal has been designed with consideration for the potential to rehabilitate and reverse any environmental impacts that may occur. In the event that the Eliwana Iron Ore Mine project does not proceed, all infrastructure including the accommodation camp, stockpiles and water pipes could be decommissioned and removed.

Borrow pits would be backfilled, and disturbed areas would be contoured and revegetated. Under the Mining Act 1978, the proponent is required to submit a Mining Proposal for the approval of mining-related infrastructure, including a mine closure plan detailing how disturbance would be rehabilitated if required.

Schedule 1

Minor or Preliminary Works

Authorised Minor or Preliminary Implementation Works

Authorised Work(s)	Location	Authorised extent
The following works are authorised in their entirety:	Figure 1	
1. Construction, operation and maintenance of:		
<ul style="list-style-type: none"> • An accommodation camp, including waste water treatment plant and spray field. 		Clearing of up to 33.1 hectares.
<ul style="list-style-type: none"> • An Aerodrome 		Clearing of up to 68.8 hectares.
<ul style="list-style-type: none"> • Linear infrastructure including access roads and water supply pipelines (excludes clearing allowance for Flying Fish Road) 		Clearing of up to 41.6 hectares.
<ul style="list-style-type: none"> • Borrow pits for the supply of construction materials required for the accommodation camp, aerodrome, access roads (including Flying Fish Road) and pipeline referred to in this schedule. 		Clearing of up to 50 hectares.
<ul style="list-style-type: none"> • Construction material stockpiles 		To be located within previously cleared areas.
<ul style="list-style-type: none"> • Concrete batching plant for the supply of construction materials required for the accommodation camp, aerodrome, access roads and pipeline referred to in this schedule. 		To be located within previously cleared areas
<ul style="list-style-type: none"> • Turkey nest dams 		Clearing of up to 1.2 hectares.
<ul style="list-style-type: none"> • Laydown areas required for the construction of the accommodation camp, aerodrome, access roads and pipeline referred to in this schedule. 		Clearing of up to 17.4 hectares.
<ul style="list-style-type: none"> • Flying Fish Road 		Clearing of up to 32 hectares
2. Abstraction of groundwater from existing and proposed production bores.		Up to 1.6 Gigalitres.

up until such time as the later of one of the following occurs:

- a. notice issued under s 45(8) of the EP Act; or
- b. statement issued under s45(5) of the EP Act is final (that is, after period in which to lodge an appeal under s 100(3) has expired, or appeal decision under s109(3), in respect of an appeal lodged under s 100(3), is published).

and;

- 3. rehabilitation of the area/s identified in Figure 1 in accordance with current EPA rehabilitation guidance, or if an implementation statement is issued for the Proposal, in accordance with any implementation conditions relating to rehabilitation

