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Published on: 28 April 2009

Statement No: 0794

**STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED  
(PURSUANT TO THE PROVISIONS OF THE  
ENVIRONMENTAL PROTECTION ACT 1986)**

**BALLA BALLA MAGNETITE MINING PROJECT, 10 KILOMETRES  
NORTH-WEST OF WHIM CREEK, SHIRE OF ROEBOURNE**

**Proposal:** To undertake mining and processing of up to 129 million tonnes of magnetite iron ore in the Central and Western deposits at the Balla Balla mine site and to construct and operate a pipeline to convey the magnetite slurry to Utah Point, Port Hedland.

**Proponent:** Ferro Metals Australia Pty Ltd

**Proponent Address:** Unit 1, 245 Churchill Avenue, Subiaco WA 6008

**Assessment Number:** 1770

**Report of the Environmental Protection Authority** Report 1309

The proposal referred to in the above report of the Environmental Protection Authority may be implemented. The implementation of that proposal is subject to the following conditions and procedures:

**1 Proposal Implementation**

1-1 The proponent shall implement the proposal as assessed by the Environmental Protection Authority and described in schedule 1 of this statement subject to the condition and procedures of this statement.

**2 Proponent Nomination and Contact Details**

2-1 The proponent for the time being nominated by the Minister for Environment under sections 38(6) or 38(7) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal.

- 2-2 The proponent shall notify the Chief Executive Officer (CEO) of the Department of Environment and Conservation of any change of the name and address of the proponent for the serving of notices or other correspondence within 30 days of such change.

### **3 Time Limit of Authorisation**

- 3-1 The authorisation to implement the proposal provided for in this statement shall lapse and be void within five years after the date of this statement if the proposal to which this statement relates is not substantially commenced.
- 3-2 The proponent shall provide the CEO of the Department of Environment and Conservation with written evidence which demonstrates that the proposal has substantially commenced on or before the expiration of five years from the date of this statement.

### **4 Compliance Reporting**

- 4-1 The proponent shall prepare and maintain a compliance assessment plan to the satisfaction of the Chief Executive Officer of the Department of Environment and Conservation.
- 4-2 The proponent shall submit to the Chief Executive Officer of the Department of Environment and Conservation, the compliance assessment plan required by condition 4-1 at least 6 months prior to the first compliance report required by condition 4-6. The compliance assessment plan shall indicate:
- 1 the frequency of compliance reporting;
  - 2 the approach and timing of compliance assessments;
  - 3 the retention of compliance assessments;
  - 4 reporting of potential non-compliances and corrective actions taken;
  - 5 the table of contents of compliance reports; and
  - 6 public availability of compliance reports.
- 4-3 The proponent shall assess compliance with conditions in accordance with the compliance assessment plan required by condition 4-1.
- 4-4 The proponent shall retain reports of all compliance assessments described in the compliance assessment plan required by condition 4-1 and shall make those reports available when requested by the Chief Executive Officer of the Department of Environment and Conservation.
- 4-5 The proponent shall advise the Chief Executive Officer of the Department of Environment and Conservation of any potential non-compliance as soon as practicable.

4-6 The proponent shall submit a compliance assessment report annually from the date of issue of this Implementation Statement addressing the previous twelve month period or other period as agreed by the Chief Executive Officer of the Department of Environment and Conservation. The compliance assessment report shall:

- 1 be endorsed by the proponent's Managing Director or a person, approved in writing by the Department of Environment and Conservation, delegated to sign on the Managing Director's behalf;
- 2 include a statement as to whether the proponent has complied with the conditions;
- 3 identify all potential non-compliances and describe corrective and preventative actions taken;
- 4 be made publicly available in accordance with the approved compliance assessment plan; and
- 5 indicate any proposed changes to the compliance assessment plan required by condition 4-1.

## **5 Performance Review and Reporting**

5-1 The proponent shall submit to the CEO of the Department of Environment and Conservation Performance Review Reports at the conclusion of the first, second, third and fifth years after the commencement of productive mining and then, at such intervals as the CEO of the Department of Environment and Conservation may regard as reasonable, which addresses:

- 1 the major environmental risks and impacts; the performance objectives, standards and criteria related to these; the success of risk reduction/impact mitigation measures and results of monitoring related to management of the major risks and impacts;
- 2 the level of progress in the achievement of sound environmental performance, including industry benchmarking, and the use of best available technology where practicable; and
- 3 significant improvements gained in environmental management which could be applied to this and other similar projects.

## **6 Flora and Vegetation**

6-1 The proponent shall ensure that during construction and operation of the proposal that groundwater abstraction from the mine and borefield does not adversely affect vegetation to be retained in the project area.

- 6-2 The proponent shall monitor groundwater levels in the project area, including in the vicinity of riparian and groundwater dependent vegetation, to facilitate determination of whether the requirements of condition 6-1 are being met. This monitoring is to be carried out to the satisfaction of the CEO of the Department of Environment and Conservation.
- 6-3 The proponent shall monitor the health and condition of riparian and groundwater dependent vegetation to be retained to facilitate determination of whether the requirements of condition 6-1 are being met. This monitoring is to be carried out to the satisfaction of the CEO of the Department of Environment and Conservation.
- 6-4 The proponent shall submit the results of the monitoring of groundwater and vegetation required by condition 6-2 and condition 6-3 to the CEO of the Department of Environment and Conservation.
- 6-5 The proponent shall immediately provide proposed management measures to the CEO of the Department of Environment and Conservation in the event that the requirements of condition 6-1 are not being met or are not likely to be met.

## **7 Fauna**

- 7-1 The proponent shall limit the length of open trenches to a maximum length of two and a half kilometres at any time.
- 7-2 Fauna refuges are to be placed in the trench at intervals not exceeding 50 metres.
- 7-3 The proponent shall employ at least two “fauna clearing people” to remove fauna from the trench. The “fauna clearing people” shall be able to demonstrate suitable experience to obtain a fauna handling licence from the Department of Environment and Conservation.
- 7-4 Inspection and clearing of fauna from trenches by fauna clearing people shall occur twice daily and at least half an hour prior to the backfilling of trenches, with the first daily inspection and clearing to be undertaken no later than 3.5 hours after sunrise, and the second inspection and clearing to be undertaken daily between the hours of 3:00 pm and 6:00 pm.
- 7-5 In the event of significant rainfall, the proponent shall, following the clearing of fauna from the trench, pump out any pooled water in the open trench (with the exception of groundwater) and discharge it via a mesh (to dissipate energy) to adjacent vegetated areas.
- 7-6 Within 14 days following completion of the construction of the slurry and return water pipelines, the proponent shall provide a report on fauna deaths, within the pipeline corridor to the CEO of the Department of Environment and Conservation.

## **8 Surface Water and Groundwater Quality**

- 8-1 The proponent shall ensure that run-off and/or seepage from the tailings storage facility and waste rock do not cause the quality of surface water or groundwater within or leaving the proposal area to exceed ANZECC\* requirements, taking into consideration natural background water quality, so that existing and potential uses, including ecosystem maintenance, are protected.

\*- Australian Water Quality Guidelines for Fresh and Marine Waters, ANZECC (November 1992, and its updates).

- 8-2 The proponent shall monitor the quality of any run-off and/or seepage from the tailings storage facility and waste rock entering surface water and groundwater on or in proximity to the proposal area. This monitoring is to be carried out to the satisfaction of the Department of Environment and Conservation.
- 8-3 The proponent shall submit the results of monitoring required by condition 8-2 to the CEO of the Department of Environment and Conservation.
- 8-4 The proponent shall provide proposed management measures to the CEO of the Department of Environment and Conservation in the event that the requirements of condition 8-1 are not being met or are not likely to be met.

## **9 Mine Closure and Rehabilitation**

- 9-1 Prior to the commencement of ground-disturbing activities, the proponent shall conduct surveys of the proposal area to collect baseline information on the following:

- 1 pre-mining soil profiles;
- 2 groundwater levels;
- 3 surface water flows;
- 4 vegetation complexes;
- 5 landscape and landforms; and
- 6 material characterisation.

- 9-2 The proponent shall submit a Rehabilitation and Mine Closure Plan acceptable to the CEO of the Department of Environment and Conservation and the Director General of the Department of Mines and Petroleum with the advice of other agencies as appropriate within 12 months of the commencement of ground disturbing activities.

The Rehabilitation and Mine Closure Plan shall provide for specific outcomes for:

- 1 landform design and material characterisation;
- 2 progressive rehabilitation timelines and monitoring against key performance indicators;

- 3 re-establishment of vegetation in the rehabilitation area to be comparable with that of the pre-mining vegetation such that the following criteria are met within four years following the cessation of productive mining:
    - (1) flora and vegetation are re-established with not less than 70 percent coverage (not including weed species);
    - (2) weed coverage less than 10 percent; and
    - (3) a schedule of the rate of rehabilitation acceptable to the CEO of the Department of Environment and Conservation.
  - 4 annual reporting procedures.
- 9-3 The proponent shall ensure that the final pit voids do not cause significant environmental impacts arising from groundwater pollution or through attracting native fauna which may subsequently be harmed or fauna which may harm surrounding native vegetation.

### **Procedures**

1. Where a condition states “on advice of the Environmental Protection Authority”, the Environmental Protection Authority will provide that advice to the Department of Environment and Conservation for the preparation of written notice to the proponent.
2. The Environmental Protection Authority may seek advice from other agencies or organisations, as required, in order to provide its advice to the Department of Environment and Conservation.
3. The Minister for Environment will determine any dispute between the proponent and the Environmental Protection Authority or the Department of Environment and Conservation over the fulfilment of the requirements of the conditions.
4. Where a condition list advisory bodies, it is expected that the proponent will obtain the advice of those listed as part of its compliance reporting to the Department of Environment and Conservation.
5. The proponent is required to apply for a Works Approval Licence for this project under the provisions of Part V of the *Environmental Protection Act 1986*.

Hon Donna Faragher JP MLC  
**MINISTER FOR ENVIRONMENT; YOUTH**

## Schedule 1

### The Proposal (Assessment No. 1770)

#### General Description

The proposal is to mine magnetite iron ore in the Central and Western deposits located approximately 10 km north-west of Whim Creek, midway between the regional centres of Karratha and Port Hedland.

The proposal is described in the following document – *Balla Balla Magnetite Project Environmental Protection Statement, November 2008*.

#### Summary Description

A summary of the key proposal characteristics is presented in Table 1.

**Table 1: Summary of key proposal characteristics**

Element	Description
Mining operations	
Life of mine (mine production)	15 years approximately
Ore type	Magnetite (iron ore)
Ore mining rate	Approximately 10.1 million tonnes per annum (6 million tonnes per annum of magnetite concentrate)
Mining method	Open pit – 2 pits Central and Western to be mined concurrently
Mine pit dimensions (length x width x depth, metres)	Central pit (approximately 1800 x 300 x 135) Western pit (approximately 4000 x 200 x 165)
Depth of water table	Approximately 7 metres below ground surface
Processing requirements	
Tailings	Total quantity of tailings material is approximately 59 million tonnes
*Option 1 - Size of 2 hexagonal tailings storage facilities	Approximately 232 hectares x 45 metres
*Option 2 - Size of tailings storage facility and Integrated Waste Landform	Approximately 175 hectares x 45 metres
Number of waste rock dumps	Six
Water requirement	Not more than 8.54 gigalitres per annum (with approximately 65% of the water used to convey slurry to Port Hedland returned to the Balla Balla ore processing circuit)
Mine site infrastructure	
Disturbance area	Mining: Not more than 1010 hectares Pipeline: Not more than 505 hectares
Power source and requirements	Initial power supply by diesel or cogen type generators (until adequate gas supplies confirmed) – 40 megawatts.
Greenhouse gas emissions	Approximately 5.06 million tonnes (over life)
Access roads	New all weather access road from site to North West Coastal Highway (approximately 9 kilometres)

Element	Description
Transport	
Slurry pipeline to port (corridor length x width)	Approximately 110 kilometres x 40 metres
Additional vehicle movements on North West Coast Highway per week	Approximately 16 road trains

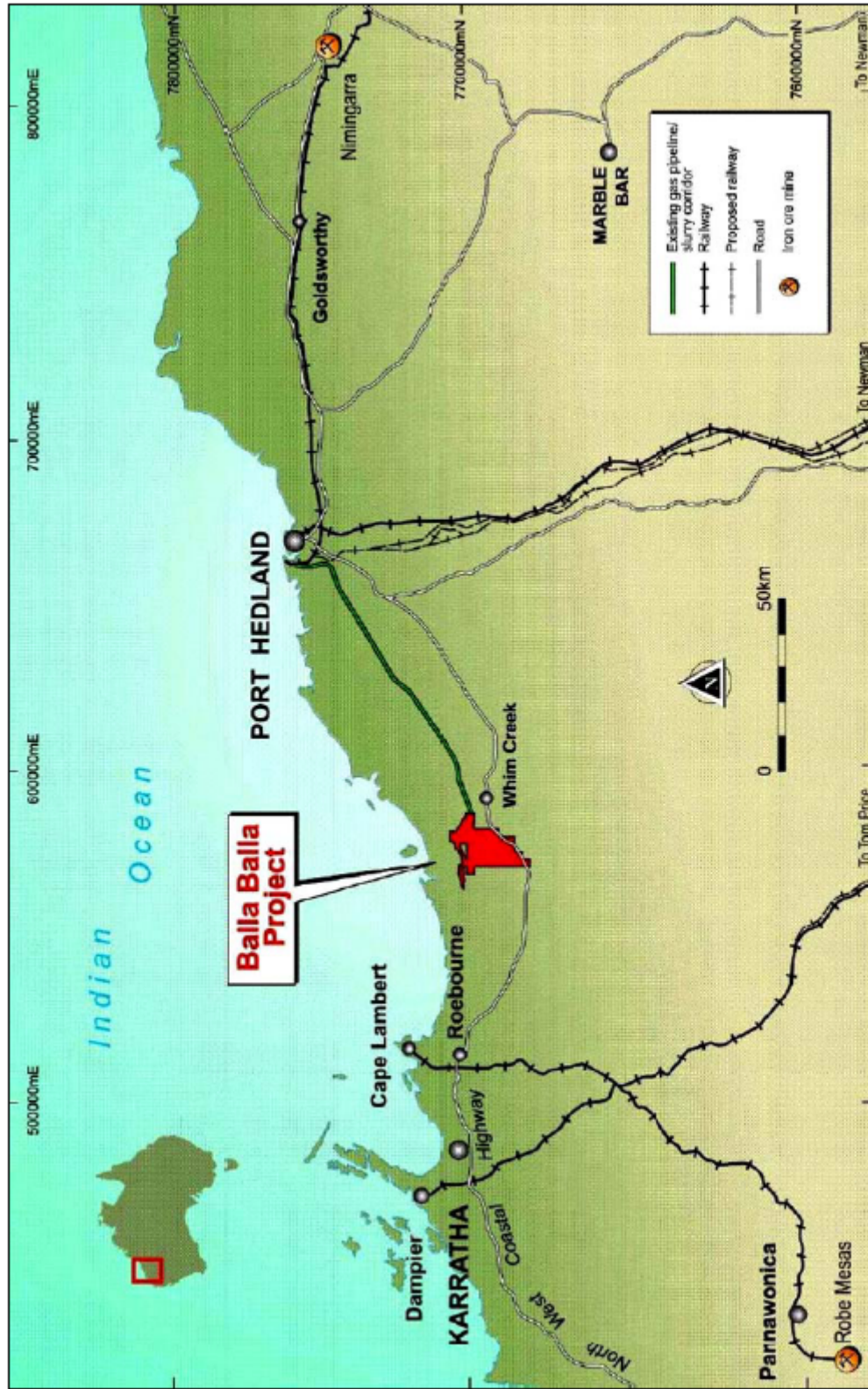
*\* Note: The proposed tailings storage facility would consist of a staged approach, initially with a traditional hexagonal paddock-style tailings storage facility, with options for a second paddock or a proposed integrated waste landform, pending trials during operation.*

**Figures (attached):**

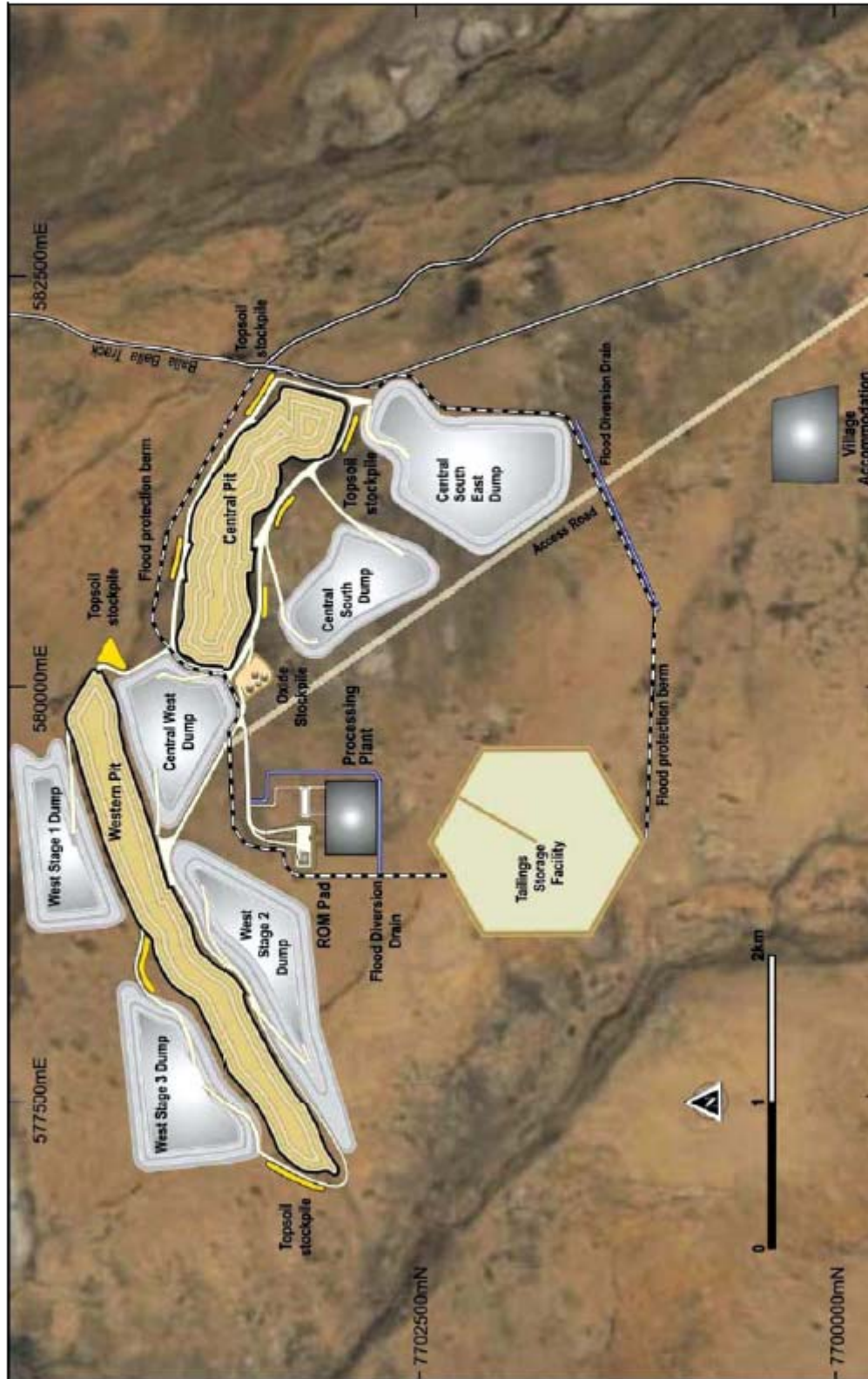
Figure 1: Regional location of mine site and pipeline corridor.

Figure 2: Conceptual mine site layout.





*Figure 1: Regional location of the mine site and pipeline corridor*



*Figure 2: Conceptual mine site layout*