

MINISTER FOR THE ENVIRONMENT, SCIENCE

000683

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

WHEELARRA HILL IRON ORE MINE EXTENSION
LIFE-OF-MINE PROPOSAL
MINING LEASE 266SA, 40 KM EAST OF NEWMAN
SHIRE OF EAST PILBARA

Proposal: Life-of-mine proposal to mine and crush iron ore within Mining Lease 266SA at a rate of approximately 12 million tonnes per annum, for transportation by rail to Newman; rehabilitation; and decommissioning of the site, as documented in schedule 1 of this statement.

Proponent: BHP Billiton Iron Ore Pty Ltd

Proponent Address: 225 St George's Terrace, PERTH WA 6000

Assessment Number: 1558

Report of the Environmental Protection Authority: Bulletin 1168

The conditions of this statement supersede those of Statement No. 385.

The proposal referred to above may be implemented by the proponent subject to the following conditions and procedures:

1 Implementation

- 1-1 The proponent shall implement the proposal as documented in schedule 1 of this statement subject to the conditions and procedures of this statement.

2 Proponent Commitments

- 2-1 The proponent shall implement the environmental management commitments documented in schedule 2 of this statement.

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16 AUG 2005

3 Proponent Nomination and Contact Details

- 3-1 The proponent for the time being nominated by the Minister for the Environment under section 38(6) or (7) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal until such time as the Minister for the Environment has exercised the Minister's power under section 38(7) of the Act to revoke the nomination of that proponent and nominate another person as the proponent for the proposal.
- 3-2 If the proponent wishes to relinquish the nomination, the proponent shall apply for the transfer of proponent and provide a letter with a copy of this statement endorsed by the proposed replacement proponent that the proposal will be carried out in accordance with this statement. Contact details and appropriate documentation on the capability of the proposed replacement proponent to carry out the proposal shall also be provided.
- 3-3 The nominated proponent shall notify the Department of Environment of any change of contact name and address within 60 days of such change.

4 Commencement and Time Limit of Approval

- 4-1 The proponent shall substantially commence the proposal within five years of the date of this statement or the approval granted in this statement shall lapse and be void.

Note: The Minister for the Environment will determine any dispute as to whether the proposal has been substantially commenced.

- 4-2 The proponent shall make application for any extension of approval for the substantial commencement of the proposal beyond five years from the date of this statement to the Minister for the Environment, prior to the expiration of the five-year period referred to in condition 4-1.

The application shall demonstrate that:

1. the environmental factors of the proposal have not changed significantly;
2. new, significant, environmental issues have not arisen; and
3. all relevant government authorities have been consulted.

Note: The Minister for the Environment may consider the grant of an extension of the time limit of approval not exceeding five years for the substantial commencement of the proposal.

5 Compliance Audit and Performance Review

- 5-1 The proponent shall prepare an audit programme and submit compliance reports to the Department of Environment which address:
1. the status of implementation of the proposal as defined in schedule 1 of this statement;

2. evidence of compliance with the conditions and commitments; and
3. the performance of the environmental management plans and programmes.

Note: Under sections 48(1) and 47(2) of the *Environmental Protection Act 1986*, the Chief Executive Officer of the Department of Environment is empowered to monitor the compliance of the proponent with the statement and should directly receive the compliance documentation, including environmental management plans, related to the conditions, procedures and commitments contained in this statement.

- 5-2 The proponent shall submit a performance review report every five years following the formal authority issued to the decision-making authorities under section 45(7) of the *Environmental Protection Act 1986*, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority, which addresses:
1. the major environmental issues associated with implementing the project; the environmental objectives for those issues; the methodologies used to achieve these; and the key indicators of environmental performance measured against those objectives;
 2. the level of progress in the achievement of sound environmental performance, including industry benchmarking, and the use of best practicable measures available;
 3. significant improvements gained in environmental management, including the use of external peer reviews;
 4. stakeholder and community consultation about environmental performance and the outcomes of that consultation, including a report of any on-going concerns being expressed, and
 5. the proposed environmental objectives over the next five years, including improvements in technology and management processes.
- 5-3 The proponent may submit a report prepared by an independent auditor to the Chief Executive Officer of the Department of Environment on each condition/commitment of this statement which requires the preparation of a management plan, programme, strategy or system, stating whether the requirements of each condition/commitment have been fulfilled within the timeframe stated within each condition/commitment.

6 Water

- 6-1 Within 12 months following the formal authority issued to the decision-making authorities under section 45(7) of the *Environmental Protection Act 1986*, the proponent shall prepare a Water Management Plan, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

The objectives of this Plan are to maintain the quantity and quality of water so that existing and potential environmental values, including ecosystem maintenance, are protected.

This Plan shall address:

1. Jimblebar Wellfield licensing arrangements;

2. baseline monitoring data on groundwater levels and quality within the Jimblebar Wellfield;
 3. the monitoring programme for the Jimblebar Wellfield and mine project areas (including ground and surface water measurement criteria, quality of groundwater; measurement sites, parameters, frequency; data verification and management procedures; data review/interpretation procedures; data reporting mechanisms);
 4. effects of drawdown on vegetation communities and any stygofauna within the project area, and remedial action if impacts are detected;
 5. the principles of water use efficiency to be applied at the mine during operation of the wellfield;
 6. water quality management that is consistent with the State Water Quality Management Strategy;
 7. the effects of climate change on the wellfield; and
 8. the timeframe for implementation of the Plan.
- 6-2 The proponent shall implement the Water Management Plan required by condition 6-1.
- 6-3 The proponent shall make the Water Management Plan required by condition 6-1 publicly available.
- 6-4 The proponent shall prepare and implement the Water Management Plan referred to in conditions 6-1, 6-2 and 6-3 to be consistent with current best practice (where practicable, and having regard for site conditions) and subject to independent peer review every five years, or unless otherwise agreed with the administering authority, to ensure that there is continuous improvement, based on adaptive management and benchmarking against similar projects in Australia and internationally.

7 Stygofauna

- 7-1 Within 12 months following the formal authority issued to the decision-making authorities under section 45(7) of the *Environmental Protection Act 1986*, the proponent shall prepare a Stygofauna Investigation Plan to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority and the Department of Conservation and Land Management.

The objective of this Plan is to maintain the abundance, diversity, geographic distribution and productivity of stygofauna at species and ecosystem levels through the avoidance or management of adverse impacts and through improvements in knowledge.

This Plan shall include:

1. subterranean fauna surveys in areas affected by project operations to assist in establishing the conservation significance of any species within the affected areas;

2. subterranean fauna surveys in areas with similar habitats outside the areas to be affected by project operations to assist in establishing the conservation significance of fauna within the areas to be affected;
3. recording and preserving of biological information on any species collected in the project area;
4. the effects that climate change may have on stygofauna in the wellfield;
5. a Stygofauna Management Plan where surveys indicate that species and/or communities of conservation significance exist within the impact areas.

This plan shall include:

- a monitoring programme for species and/or communities of conservation significance; and
- management measures to be implemented to ensure persistence of those species and/or communities;

6. reporting procedures and schedule; and
 7. the timeframe for implementation of the Plan.
- 7-2 The proponent shall implement the Stygofauna Investigation Plan required by condition 7-1.
- 7-3 The proponent shall make the Stygofauna Investigation Plan required by condition 7-1 publicly available.

8 Conservation of Significant Flora and Fauna

- 8-1 Within six months following the formal authority issued to the decision-making authorities under section 45(7) of the *Environmental Protection Act 1986*, the proponent shall prepare a Significant Species Management Plan to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority and the Department of Conservation and Land Management.

The objective of this plan is to maintain the abundance, diversity, geographic distribution, conservation status and productivity of flora and fauna at species and ecosystem levels through the avoidance or management of adverse impacts and improvement in knowledge.

This Plan shall include:

1. surveys, prior to ground-disturbing activities, where baseline surveys have identified the likelihood of significant impact (see note) on flora and fauna species, vegetation associations and habitat areas for species of conservation significance;
2. a description of the identified flora and fauna species (including short range endemics), vegetation associations and habitat areas for species of conservation significance;

3. modification of land-clearing plans and evaluation of alternative mine plans or creek diversion designs, where practicable, to minimise or avoid impacts on identified flora and fauna species, vegetation associations and habitat areas for species of conservation significance;
4. demarcation of identified populations and/or individuals of species of conservation significance or habitat areas suitable for fauna species of conservation significance in the vicinity of the disturbance areas;
5. species-specific management plans where mining, climate change, changes to water flow patterns, or groundwater abstraction activities are likely to impact on known locations of significant flora and fauna species, vegetation associations and habitat areas of conservation significance;
6. records of impacted flora and fauna species, vegetation associations and habitat areas of conservation significance and consultation with regulators where potential impacts on conservation significant species are identified;
7. feral animal control strategies where native fauna is made more vulnerable due to activities associated with mining;
8. reporting procedures and schedule; and
9. the timeframe for implementation of the Plan.

Note: 'Significant impact' will be determined by the Minister for the Environment acting on advice of the Environmental Protection Authority and the Department of Conservation and Land Management.

- 8-2 The proponent shall review and revise the Significant Species Management Plan required by condition 8-1 at intervals not exceeding five years.
- 8-3 The proponent shall implement the Significant Species Management Plan required by condition 8-1.
- 8-4 The proponent shall make the Significant Species Management Plan required by condition 8-1 publicly available.

9 Weeds

- 9-1 Within 12 months following the formal authority issued to the decision-making authorities under section 45(7) of the *Environmental Protection Act 1986*, the proponent shall prepare a Weed Management Plan to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority, the Department of Conservation and Land Management and the Department of Agriculture.

The objective of this Plan is to minimise the spread of weed species.

This Plan shall include:

1. the location, approximate quantity and type of each weed species which has been recorded during previous vegetation surveys;
 2. weed control and eradication measures and monitoring activities to manage weeds;
 3. weed species which have not been recorded within the project area, but which have the potential to occur;
 4. the effects that climate change may have on the incidence of weed species in the project area;
 5. weed control measures and/or monitoring activities to be used to minimise the potential for weed species which have not been previously recorded in the project area from entering;
 6. reporting procedures and schedule; and
 7. the timeframe for implementation of the Plan.
- 9-2 The proponent shall review and revise the Weed Management Plan required by condition 9-1 at intervals not exceeding five years.
- 9-3 The proponent shall implement the Weed Management Plan required by condition 9-1.
- 9-4 The proponent shall make the Weed Management Plan required by condition 9-1 publicly available.

10 Progressive Rehabilitation

- 10-1 Within 12 months following the formal authority issued to the decision-making authorities under section 45(7) of the *Environmental Protection Act 1986*, the proponent shall prepare a Progressive Rehabilitation Management Plan to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority and the Department of Conservation and Land Management.

The objectives of this Plan are:

- to establish rehabilitation completion criteria; and
- to carry out successful rehabilitation works.

This Plan shall include:

1. progressive rehabilitation works (i.e. new areas) and rehabilitation management activities (i.e. maintenance of existing areas);

2. how the planned works and activities have been developed, with consideration and incorporation (where practicable, and having regard for site conditions) of:
 - the characteristics of the pre-mining ecosystems within the mining lease (through research and/or baseline surveys);
 - the performance of previously rehabilitated areas within the mining lease;
 - the effects of climate change on the progress of rehabilitated areas;
 - the performance of rehabilitated areas at the proponent's other operations in the Pilbara; and
 - best practice rehabilitation techniques used elsewhere in the mining industry.
 3. the process and timing for developing rehabilitation performance objectives, parameters and completion criteria;
 4. rehabilitation performance objectives, parameters and completion criteria;
 5. rehabilitation monitoring (i.e. Ecosystem Function Analysis or an equivalent long-term systems-based monitoring programme) to be used to assess the performance of all rehabilitated areas against the completion criteria;
 6. reporting of rehabilitation and monitoring results; and
 7. the timeframe for implementation of the Plan.
- 10-2 The proponent shall review and revise the Progressive Rehabilitation Management Plan required by condition 10-1 at intervals not exceeding five years.
- 10-3 The proponent shall implement the Progressive Rehabilitation Management Plan required by condition 10-1.
- 10-4 The proponent shall make the Progressive Rehabilitation Management Plan required by condition 10-1 publicly available.

11 Decommissioning and Final Rehabilitation

- 11-1 Within 12 months following the formal authority issued to the decision-making authorities under section 45(7) of the *Environmental Protection Act 1986*, the proponent shall prepare a Decommissioning and Final Rehabilitation Plan to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority, the Department of Conservation and Land Management and the Department of Industry and Resources.

The objective of this plan is to ensure that closure planning and rehabilitation are carried out in a coordinated, progressive manner and are integrated with development planning, consistent with the Australian and New Zealand Minerals and Energy Council; and The Minerals Council of Australia, *Strategic Framework for Mine Closure* (Canberra, Australian Capital Territory, 2000) and current best practice.

This Plan shall include:

1. the key components of the mine (i.e. mining method, overburden management, ore processing, ore loading and transportation, water and power supply and service infrastructure);
2. development of a 'walk away' solution for the decommissioned mine site;

Note: A 'walk away' solution means that the site shall either no longer require management at the time the proponent ceases mining operations, or if further management is deemed necessary, the proponent shall make adequate provisions so that the required management is undertaken with no liability to the State.

3. how the project will be closed and disturbance areas rehabilitated to fulfil the following guiding closure principles:

Landforms, Revegetation and Land Use

- minimise the number and size of out-of-pit overburden storage areas and changes to water flow patterns;
 - within the constraints imposed by the physical nature of the materials, design the final landform to be similar to the existing regional landforms;
 - revegetate the mine landforms to establish local native vegetation appropriate for the area;
 - take into consideration the effects of climate change on vegetation;
 - use Ecological Function Analysis or an equivalent long-term systems-based monitoring approach to track the course of the rehabilitated areas towards self-sustaining status;
 - determine the end land use for the project area in consultation with stakeholders, and agreed with the administering government authority.
4. Management strategies and/or contingency measures in the event that operational experience and/or monitoring indicate that a guiding closure principle is unlikely to be achieved or any other significant environmental impact arises; and
 5. The timeframe for implementation of the Plan.

- 11-2 The proponent shall review and revise the Decommissioning and Final Rehabilitation Plan required by condition 11-1 at intervals not exceeding five years, or when significant changes occur at the mine, taking into account the rehabilitation monitoring and management required by condition 10.
- 11-3 The proponent shall implement the Decommissioning and Final Rehabilitation Plan required by condition 11-1.
- 11-4 The proponent shall make the Decommissioning and Final Rehabilitation Plan required by condition 11-1 publicly available.

- 11-5 The proponent shall prepare and implement the Decommissioning and Final Rehabilitation Plan referred to in conditions 11-1, 11-2, 11-3 and 11-4 to be consistent with current best practice (where practicable, and having regard for site conditions) and subject to independent peer review every five years or unless otherwise agreed with the administering authority, to ensure that there is continuous improvement, based on adaptive management and benchmarking against similar projects in Australia and internationally.

Procedures

1. Where a condition states "to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority", the Environmental Protection Authority will provide that advice to the Department of Environment 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.
3. Where a condition lists 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.

Notes

1. The Minister for the Environment will determine any dispute between the proponent and the Environmental Protection Authority or the Department of Environment over the fulfilment of the requirements of the conditions.
2. The proponent is required to apply for a Works Approval and Licence for this project under the provisions of Part V of the *Environmental Protection Act 1986*.
3. Compliance and performance reporting will endeavour to be in accord with the timing requirements of reporting under the *Iron Ore (McCamey's Monster) Agreement Authorisation Act 1972*.

Dr Judy Edwards MLA
MINISTER FOR THE ENVIRONMENT; SCIENCE

16 AUG 2005

The Proposal (Assessment No. 1558)

The proposal is to mine iron ore within Mining Lease 266SA, approximately 40 kilometres east of Newman, in the Hamersley Ranges of the Pilbara Region (Figure 1). The proponent holds the mining lease which is operated in accordance with the *Iron Ore (McCamey's Monster) Agreement Authorisation Act 1972*.

The Wheelarra Hill deposits occur as in-situ ores within the Brockman Iron Formation and scree deposits downslope. Previous environmental approvals for the mining operation were given to the proponent to mine at a rate of 8 million tonnes per annum. The proponent proposes to mine the remaining areas of the Wheelarra Hill ridge within Mining Lease 266SA with progressive increases in annual tonnages to 12 million tonnes per annum, and to rehabilitate all out-of-pit areas. As individual pits are mined, the voids may be partially infilled with overburden materials from other pits within the leases.

The project comprises:

- open-cut mining of ore from the existing W4 deposit as well as from W1, W2, W3, W5 and W6 in-situ deposits and other scree deposits;
- progressive associated construction of haul and access roads in addition to the existing layout;
- placement of overburden in mine voids and out-of-pit storage areas;
- replacing the existing ore crushing, screening and train-loading facilities;
- crushing, loading and transportation of ore, with increased train frequencies;
- sealing of the main access road from Newman;
- upgrading of the Jimblebar Wellfield water supply system;
- increased requirements for power from Newman; and
- the provision of existing service infrastructure (e.g. workshops and administration areas).

Significant features of the proposal are:

- progressive mining and rehabilitation of the site over the life of the mine (expected to be at least 50 years); and
- permanent changes to the final landforms, including hill-like features of the out-of-pit overburden dumps, and residual final voids.

The key proposal characteristics are shown in Table 1 below.

Table 1 - Key Proposal Characteristics (Assessment No. 1558)

| Characteristic | Quantities / Description |
|-----------------------|--|
| Location | Jimblebar, 40 kilometres east of Newman, on Sylvania Station, East Pilbara Region. |
| Main activity | Continue mining in the currently approved W4 deposit, and extend the pit beyond the currently approved area. |
| | Progressively develop other hard rock mining areas designated W1, W2, W3, W5 and W6 over the life of the mine, as well as previously approved, and new, detrital deposits. |
| | Increase production to approximately 12 million tonnes per annum iron ore. |
| Contingent activities | Extend existing, and create new, overburden dumps adjacent to new hard rock pits. Some overburden material will be placed in mined-out pits. |
| | Progressively construct access and haul roads to proposed mine areas, overburden dumps and other infrastructure. |
| | Rehabilitate mined-out areas, completed dumps and redundant roads. |
| | Replace the existing ore processing facility (crushing and screening). |
| | Upgrade the ore-train loading facilities. |
| | Staged increase of ore-train movements to Newman from 14 to 40 a week. |
| | Increase water uptake from the Jimblebar Wellfield, from the current 1500 kilolitres per day to approximately 3750 kilolitres per day. |
| | Periodically relocate the administration and workshop facilities to remain close to active mining areas. |
| | Bituminise the access road from Newman. |
| Area disturbed | 1960 hectares |
| Power supply | 750kVA from Newman Power Station. |
| Duration | Approximately 50 years. |
| Employment | Approximately 110 personnel. |

Figures (attached)

Figure 1 – Project location

Figure 2 – Existing project

Figure 3 – Wheelarra Hill Extension Project.

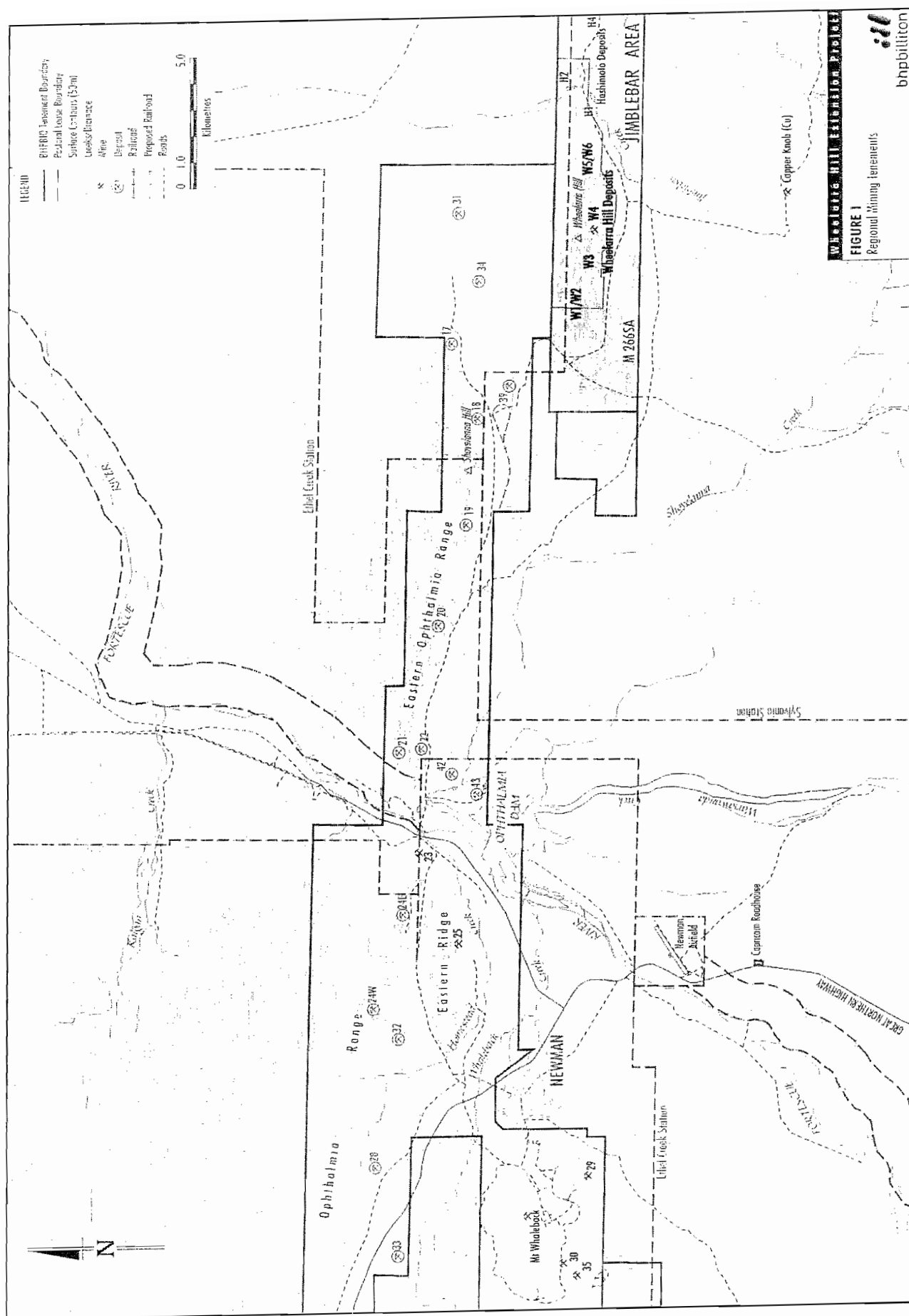


Figure 1: Project location



Figure 2: Existing project



Figure 3: Wheelarra Hill Extension Project

Proponent's Environmental Management Commitments

July 2005

WHEELARRA HILL IRON ORE MINE EXTENSION
LIFE-OF-MINE PROPOSAL

MINING LEASE 266SA, 40KM EAST OF NEWMAN
SHIRE OF EAST PILBARA

(Assessment No. 1558)

BHP Billiton Iron Ore Pty Ltd

Wheelarra Hill Iron Ore Mine Extension (Assessment No. 1558)

Proponent's Environmental Management Commitments (July 2005)

Note: The term "commitment" as used in this schedule includes the entire row of the table and its six separate parts as follows:

- a commitment number;
- a commitment topic;
- the objective of the commitment;
- the 'action' to be undertaken by the proponent;
- the timing requirements of the commitment; and
- the body/agency to provide technical advice to the Department of Environment.

| No. | Topic | Objective | Action | Timing | Advice |
|-----|--------------------------------|--|---|---|-----------------------|
| 1 | Environmental Management Plan. | Protection of key environmental aspects during all phases of mining. | <ul style="list-style-type: none"> Prepare and implement an Environmental Management Plan which includes the following: <ol style="list-style-type: none"> key components of the project (ie. mining method, overburden management, ore processing, ore loading and transportation, water and power supply, and service infrastructure); the Environmental Management System, and the Environmental Risk Assessment and Management systems which will be used at the project. This section will include a description of the findings of BHP Billiton's most recent Environmental Risk Assessment of the Wheelarra Hill Mine. It will also include a description of how best practicable environmental measures have been applied to risks which are identified (through the Risk Assessment Process) as requiring this level of management to reduce residual risk to an acceptable level; the environmental management procedures and practices to be used to minimise impacts on key environmental aspects. These aspects are to include: soil resources, landforms, surface water, groundwater, flora (including priority species and species of interest), fauna (including priority species and species of interest), air quality, noise, waste, dangerous goods and hazardous materials, and Aboriginal heritage; for each environmental aspect the Environmental Management Plan will describe the overall management objective, potential impacts, management measures, and monitoring programme to track performance. | Revised at intervals of no more than five years during operations. | DOIR CALM DOCEP |
| 2 | | | <ul style="list-style-type: none"> The Environmental Management Plan will be reviewed and revised. | At intervals of no more than five years, or when significant changes occur at the Mine. | DOIR CALM DOCEP |

| | | | | | |
|---|------------------------------|---|--|------------------------------|------------|
| 3 | | | <ul style="list-style-type: none"> A copy of each revision of the Environmental Management Plan will be provided to key stakeholders, and to other interested parties if requested. | | |
| 4 | Annual Environmental Report. | To enable environmental management and rehabilitation activities to be progressively monitored | <ul style="list-style-type: none"> Prepare Annual Environmental Reports which discuss environmental management actions, summarise monitoring results and describe rehabilitation activities over the 12-month reporting period. The Annual Environmental Reports will be distributed to key stakeholders and copies will be provided to other interested parties if requested. | Annually during operations. | CALM, DOIR |
| 5 | Mine Planning Process | Include consideration of key environmental aspects in mine planning process, and adjust designs where possible to minimise environmental impacts. | <ul style="list-style-type: none"> Implement the mine planning process described in Section 3.4.2 and illustrated in Figure 3-6 of the Environmental Protection Statement. | During the life of the mine. | CALM, DOIR |

Abbreviations

CALM = Department of Conservation & Land Management
 DOCEP = Department of Consumer & Employment Protection
 DOIR = Department of Industry & Resources

Attachment to Statement 683

Change to Description of Proposal

Proposal: Wheelarra Hill Iron Ore Mine Extension, Mining Lease 266SA

Proponent: BHP Billiton Iron Ore Pty Ltd

Change: Increase in area of disturbance

Amendment of Schedule 1 – Key Proposal Characteristics

Features of previously approved Proposal:

| Element | Quantities/Description |
|----------------|------------------------|
| Area disturbed | 1960 hectares |
| | |

Features of changed Proposal:

| Element | Quantities/Description |
|----------------|------------------------|
| Area disturbed | 2022 hectares |
| | |

Approval date: 17 November 2006