



MINISTER FOR THE ENVIRONMENT; SCIENCE

Statement No.

000857

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

YANDICOOGINA JUNCTION SOUTH-EAST MINE
MINING LEASE 274SA
SHIRE OF EAST PILBARA

Proposal: The mining of iron ore within Mining Lease 274SA at a rate of approximately 16 million tonnes per annum, and subsequent rehabilitation and decommissioning of the site, as documented in schedule 1 of this statement.

Proponent: Hamersley Iron Pty Limited

Proponent Address: Level 22, 152-158 St George's Terrace, PERTH WA 6000

Assessment Number: 1590

Report of the Environmental Protection Authority: Bulletin 1195

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 Nomination and Contact Details

- 2-1 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.

Published on

25 OCT 2005

- 2-2 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.
- 2-3 The nominated proponent shall notify the Department of Environment of any change of contact name and address within 60 days of such change.

3 Commencement and Time Limit of Approval

- 3-1 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.

- 3-2 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 3-1.

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.

4 Compliance Audit and Performance Review

- 4-1 The proponent shall prepare an audit program 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
 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 and procedures contained in this statement.

- 4-2 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.
- 4-3 The proponent may submit a report prepared by an independent auditor to the Chief Executive Officer of the Department of Environment on each condition of this statement which requires the preparation of a management plan, programme, strategy or system, stating whether the requirements of each condition have been fulfilled within the timeframe stated within each condition.

5 Decommissioning and Rehabilitation

- 5-1 Within 12 months following commissioning, the proponent shall review and revise the existing Yandicoogina Decommissioning and Rehabilitation Plan to include the Yandicoogina Junction Southeast Mine, 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 objectives of this Plan are to:

- achieve construction of landforms which are stable, non-polluting and aesthetically compatible with the surrounding landscape;
- establish sustainable endemic vegetation communities, consistent with the reconstructed landscape and surrounding vegetation; and

- ensure that closure planning and rehabilitation are carried out in a coordinated, progressive manner and are integrated with development planning, consistent with current best practice, and the agreed land uses.

The Plan shall set out procedures to:

1. manage long-term hydrogeological impacts of mining the channel iron deposit;
2. model the long-term hydrogeological impacts, particularly the water levels and quality in the pit void;
3. manage over the long-term the surface water systems affected by the open pit;
4. progressively rehabilitate all disturbed areas to a standard suitable for the agreed end land use(s), with consideration and incorporation of:
 - the characteristics of the pre-mining ecosystems within the project area (through research and baseline surveys);
 - the performance of previously rehabilitated areas within the mining lease;
 - the performance of rehabilitation areas at the proponent's other operations in the Pilbara; and
 - best practice rehabilitation techniques used elsewhere in the mining industry;
5. develop and identify completion criteria;
6. monitor rehabilitation to assess the performance of all rehabilitated areas against the completion criteria;
7. report on the rehabilitation and monitoring results;
8. remove all infrastructure;
9. develop management strategies and/or contingency measures in the event that operational experience and/or monitoring identify any significant environmental impact as a result of the proposal; and
10. develop 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.

- 5-2 The proponent shall implement the Yandicoogina Decommissioning and Rehabilitation Plan required by condition 5-1.
- 5-3 The proponent shall review and revise the Yandicoogina Decommissioning and Rehabilitation Plan required by condition 5-1 at intervals not exceeding five years.

- 5-4 The proponent shall make revisions of the Yandicoogina Decommissioning and Rehabilitation Plan required by condition 5-1 publicly available.

6 Post-closure Backfill Source

- 6-1 At least six months prior to decommissioning, the proponent shall complete Aboriginal ethnographic and archaeological surveys and vegetation, flora and fauna surveys of the preferred backfill source, "Backfill Hill", located approximately two kilometres west of the proposed pit.
- 6-2 Prior to removal of material from "Backfill Hill" for the purpose of backfilling the pit void, the proponent shall prepare a Backfill Hill 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 Indigenous Affairs.

The objective of the Plan is to minimise impacts on vegetation, flora, fauna, surface drainage patterns and Aboriginal sites arising from the use of the nearby hill for backfill.

This Plan shall include:

1. the results of the Aboriginal ethnographic and archaeological surveys and the biological surveys required by condition 6-1; and
 2. measures to minimise and manage impacts on vegetation, flora, fauna, Aboriginal sites and surface water flows associated with taking material from the hill.
- 6-3 The proponent shall only implement the Backfill Hill Management Plan if the following criteria are met:
1. no loss of Declared Rare Flora;
 2. no loss of Threatened Ecological Communities;
 3. no significant impact on other flora species and vegetation communities considered of conservation significance;
 4. no impact on Threatened Fauna;
 5. no significant impact on other fauna species of conservation significance; and
 6. Archaeological and ethnographic sites to be managed in accordance with the *Aboriginal Heritage Act 1972*.
- 6-4 The proponent shall make the Backfill Hill Management Plan required by condition 6-2 publicly available, subject to matters regarding indigenous heritage being included with the consent of the relevant Traditional Owners.

7 Groundwater

- 7-1 Prior to commencement of dewatering, the proponent shall prepare a Groundwater 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:

- monitor the impacts of the proposal on key water parameters; and
- maintain the quantity and quality of water so that existing and potential environmental values, including ecosystem maintenance, are protected.

This Plan shall set out procedures to:

1. model the short-term hydrogeological impacts;
 2. establish baseline data on groundwater levels, quality and through-flow at the downstream boundary of Mining Lease 274SA, and at appropriate locations along the channel iron deposit aquifer;
 3. monitor the groundwater levels, quality and through-flow at appropriate locations along the channel iron deposit aquifer and along Weeli Wolli Creek during all phases of mining;
 4. monitor the dewatering and discharge rates (both cumulative and direct);
 5. re-inject surplus water from dewatering into the Billiards channel iron deposit aquifer if investigation studies indicate that it is feasible;
 6. manage and minimise impacts on groundwater; and
 7. report on the management actions and monitoring results.
- 7-2 The proponent shall review and revise the Groundwater Management Plan required by condition 7-1 at intervals not exceeding five years.
- Note: In revising the Groundwater Management Plan, the proponent shall adopt current best practice, while having regard for continuous improvement in groundwater management, based on adaptive management.
- 7-3 The proponent shall implement the Groundwater Management Plan required by condition 7-1.
- 7-4 The proponent shall make the Groundwater Management Plan required by condition 7-1 publicly available.

8 Riparian Vegetation

- 8-1 Prior to commencement of dewatering, the proponent shall prepare a Riparian Vegetation 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:

- minimise impact on riparian vegetation from dewatering and discharge; and
- maintain the abundance, diversity, geographical distribution and productivity of vegetation communities through the avoidance or management of adverse impacts and improvement in knowledge.

This Plan shall set out procedures to:

1. maintain the flow paths, quantity and quality of water within Marillana, Yandicoogina and Weeli Wolli Creeks and the underlying aquifers to protect surface water and groundwater dependent ecological systems;
 2. monitor the effects of dewatering on riparian vegetation communities in areas where the water table is predicted to be lowered by at least two metres (during and after mining), and to implement remedial measures if impacts are detected;
 3. manage and minimise potential impacts on riparian vegetation associated with dewatering and at the discharge point;
 4. evaluate alternative discharge locations and methodologies, including the re-injection of surplus water from dewatering into the Billiards channel iron deposit aquifer;
 5. avoid disturbance and weed introduction to vegetation in creek lines, particularly vegetation which is currently in good or excellent condition; and
 6. maintain a riparian vegetation buffer of not less than 200 metres around Marillana, Yandicoogina and Weeli Wolli Creeks to protect riparian vegetation and the habitat for fauna associated with the creeks (Note: The buffer does not apply at the two creek crossings. See Figure 2 of Schedule 1.).
- 8-2 The proponent shall review and revise the Riparian Vegetation Management Plan required by condition 8-1 at intervals not exceeding five years.
- 8-3 The proponent shall implement the Riparian Vegetation Management Plan required by condition 8-1.
- 8-4 The proponent shall make the Riparian Vegetation Management Plan required by condition 8-1 publicly available.

9 Conservation of Significant Flora and Fauna

- 9-1 Prior to ground-disturbing activities, the proponent shall commence staged pre-land-clearing surveys of the areas to be disturbed by the proposal for conservation-significant flora and fauna species, and shall provide the summary report of the results of the surveys to the Environmental Protection Authority and the Department of Conservation and Land Management within two weeks of it becoming available.
- 9-2 Prior to any ground-disturbing activities in a particular staged area to be cleared, the proponent shall prepare a Significant Species Management Plan for any conservation-significant flora or fauna species recorded during the pre-land-clearing survey required by condition 9-1, 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.

The Plan shall describe the significant, identified species of flora and fauna, and describe significant vegetation associations and habitat areas, and shall set out procedures to:

1. demarcate identified populations and/or individuals of conservation-significant, identified species of flora and fauna, vegetation associations and habitat areas;
 2. modify land clearing plans and evaluate alternative mine plans, to minimise or avoid impacts on the conservation-significant, identified species of flora and fauna, vegetation associations and habitat areas;
 3. minimise impacts where proposed mining activities are likely to impact on conservation-significant, identified species of flora and fauna, vegetation associations and habitat areas;
 4. monitor and record impacts on conservation-significant, identified species of flora and fauna, vegetation associations and habitat areas; and
 5. implement appropriate contingency measures where impacts on conservation-significant, identified species of flora and fauna, vegetation associations and habitat areas are identified.
- 9-3 The proponent shall review and revise the Significant Species Management Plan required by condition 9-2 at intervals not exceeding five years.
- 9-4 The proponent shall implement the Significant Species Management Plan required by condition 9-2.
- 9-5 The proponent shall make the Significant Species Management Plan required by condition 9-2 publicly available.

10 Weeds

- 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 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 objectives of this Plan are to:

- minimise the spread of weed species;
- prevent the introduction of new weeds; and
- control and/or eradicate both noxious and environmental weeds in the project area.

The Plan shall set out the procedures to:

1. identify target weeds having regard for weed species outside the project area;
 2. control and eradicate target weeds;
 3. monitor the success of weed control; and
 4. report on the weed management actions and monitoring results.
- 10-2 The proponent shall review and revise the Weed Management Plan required by condition 10-1 at intervals not exceeding five years.
- 10-3 The proponent shall implement the Weed Management Plan required by condition 10-1.
- 10-4 The proponent shall make the Weed Management Plan required by condition 10-1 publicly available.

11 Subterranean Fauna

- 11-1 Prior to commissioning, the proponent shall prepare a Subterranean Fauna 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 Western Australian Museum.

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.

The Plan shall set out the procedures to:

1. avoid and/or manage impacts on subterranean fauna species, communities and their habitats where the long-term survival of those species and communities may be at risk as a result of project operations;

2. establish additional data on the distribution of existing stygofauna species and communities, particularly the ostracod *Gomphodella* sp: and water mite *Recifella* sp., to demonstrate that there is no threat to these species;
 3. take timely remedial action in the event that additional data indicates that project operations may compromise the long-term survival of subterranean fauna species and/or communities; and
 4. report on the survey results and management actions.
- 11-2 The proponent shall implement the Subterranean Fauna Management Plan required by condition 11-1.
- 11-3 The proponent shall make the Subterranean Fauna Management Plan required by condition 11-1 publicly available.

12 Liaison with Adjacent Leaseholders

- 12-1 During mining and decommissioning, the proponent shall liaise with adjacent mining leaseholders in order to develop and evaluate options for viable and compatible long-term management strategies and to minimise cumulative environmental impacts.
- 12-2 During mining and decommissioning, the impacts of mining and decommissioning on the Marillana-Yandicoogina-Weeli Wolli Creek systems and the channel iron deposit shall be evaluated jointly with the proponent of the adjacent proposal(s) for the purposes of understanding the hydrological system.

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, Licence and Registration 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 the *Iron Ore (Yandicoogina) Agreement Act 1996*.

Dr Judy Edwards MLA
MINISTER FOR THE ENVIRONMENT; SCIENCE

25 OCT 2005

The Proposal (Assessment No. 1590)

The proposal is to mine a section of the Yandicoogina channel iron deposit, known as the Yandicoogina Junction South-east Mine, and subsequently rehabilitate all the disturbed areas. The proposal is located within Mining Lease 274SA, approximately 90 kilometres north-west of Newman, in the Central Pilbara Region (Figure 1). The Yandicoogina Junction South-east Mine is a downstream extension of the existing channel iron deposit being mined at Yandicoogina Junction Central.

The Yandicoogina Junction South-east proposal comprises:

- conventional open-cut mining of overburden and ore from the channel iron deposit;
- dewatering of the orebody, with a supply pipeline to Yandicoogina Junction Central where the water will be discharged at a licensed location;
- placement of overburden in a temporary out-of-pit storage area for later use as fill material during partial backfill of the pit void;
- construction of the following infrastructure:
 - a light vehicle access road and a heavy vehicle access road, which include crossings of Yandicoogina and Marillana Creeks, respectively;
 - realignment of part of the public access road to Newman;
 - dry primary and secondary crushing plant with run-of-mine (ROM) pad;
 - 4.8 kilometre long overland conveyor (with covers fitted over its length), to link the crushing plant with the existing conveyor system;
 - fuelling facility, connected to the Yandicoogina Junction Central fuel facility by an above-ground pipeline; and
 - administration building and workshop.
- tertiary crushing and screening of the ore at the existing Yandicoogina Junction Central processing plant;
- wet processing of the lower channel iron deposit with a high clay content, at the existing Yandicoogina Junction Central wet processing plant;
- loading and transportation of ore along the Central Pilbara Railway to the ship-loading facilities at Dampier Port and Cape Lambert;
- maintenance of a 200-metre separation distance between the proposed pit and Yandicoogina, Marillana and Weeli Wolli Creeks;
- possible re-injection of a component of the dewatering discharge into the Billiards channel iron deposit aquifer, down-gradient of the proposed pit, near Weeli Wolli Creek;
- permanent loss of at least part of a nearby hill to partially fill the pit void to at least 490 metres Relative Level; and
- progressive rehabilitation of all disturbed areas.

Figures (attached)

Figure 1 – Site location

Figure 2 – Site layout

Table 1 - Key Proposal Characteristics (Assessment No. 1590)

Characteristic	Quantities / Description
Mining	
Project life	Approximately 16 years
Length of deposit to be mined	Approximately 5.8 kilometres
Ore reserve to be mined	Approximately 280 million tonnes
Mining rate	Approximately 16 million tonnes per annum
Pit depth	Approximately 65 metres (45 metres below the present water table).
Overburden	Overburden will be stockpiled in a temporary storage area. Some of the material will be used for constructing drainage embankments. The remaining material will be used as backfill in the pit void.
Total disturbance area <ul style="list-style-type: none"> - Infrastructure - Overburden waste dump - Pit - Post-closure backfill source 	Approximately 669 hectares (within mining lease 274SA) <ul style="list-style-type: none"> - Approximately 79 hectares - Approximately 60 hectares - Approximately 370 hectares - Approximately 160 hectares
Closure and rehabilitation	The final pit void will be backfilled to at least 490 metres Relative Level. The total disturbance area will be rehabilitated with local native vegetation.
Dewatering	
Initial dewatering	Approximately 27 to 30 megalitres per day
Maintenance	Approximately 15 to 20 megalitres per day
Sump dewatering	Approximately 1 megalitre per day
Dewatering well fields	Initially 2 clusters of wells and a sacrificial well. As mining progresses, 3 additional cluster wellfields, plus sumps.
Processing and transport	
Crushing plant	Construction of a dry primary and secondary crushing plant
Conveyor	Construction of a 4.8 kilometre long overland conveyor to link the crushing plant to the existing overland conveyor at Yandicoogina Junction Central. Ore will be conveyed to the Yandicoogina Junction Central mine, where it will undergo additional processing.
Transport	Ore will be transported along the Central Pilbara Railway to the ship-loading facilities at Dampier Port and Cape Lambert.
Infrastructure	
Power	An 8-megawatt diesel-fired power station will be used for additional power during early stages of construction. Connected to grid with power supplied by Hamersley's gas-fired power stations at Dampier and Paraburdoo.
Access roads	<ul style="list-style-type: none"> ▪ Light vehicle access road from the transfer point on the current conveyor to the new crushing plant at Yandicoogina Junction Southeast. A crossing on Yandicoogina Creek will be required. ▪ Heavy vehicle access road from Yandicoogina Junction Central to Junction Southeast. A crossing on Marillana Creek will be required. ▪ Realignment of part of the public access road to Newman to allow bypass of heavy vehicle access road.
Other facilities	Administration building, plant workshop and fuelling facility.
Water	
Water management	Construction of flood protection levees and diversion drains
Water use	Approximately 3 megalitres per day of dewatered water for dust suppression and potable use.

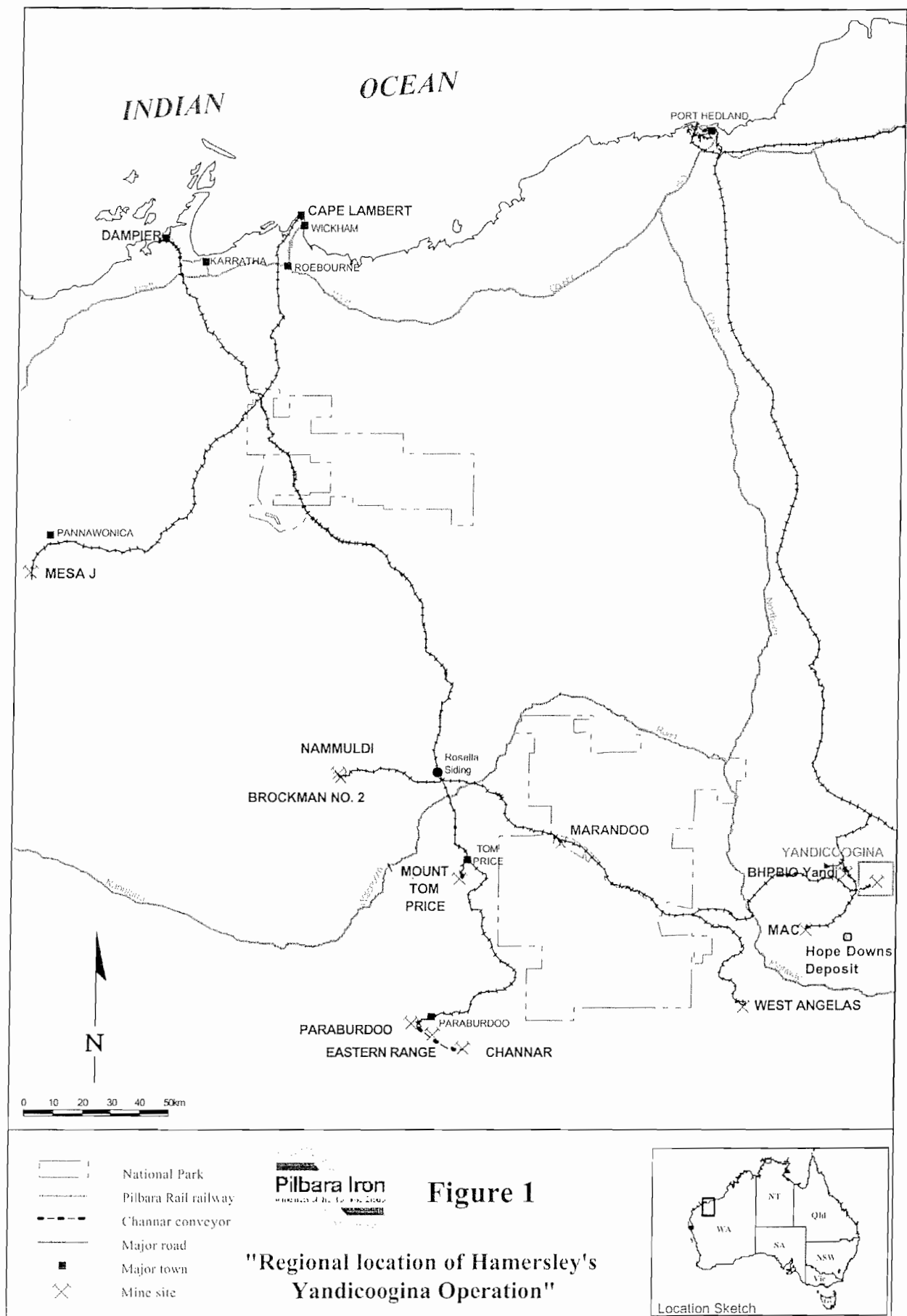


Figure 1: Site location

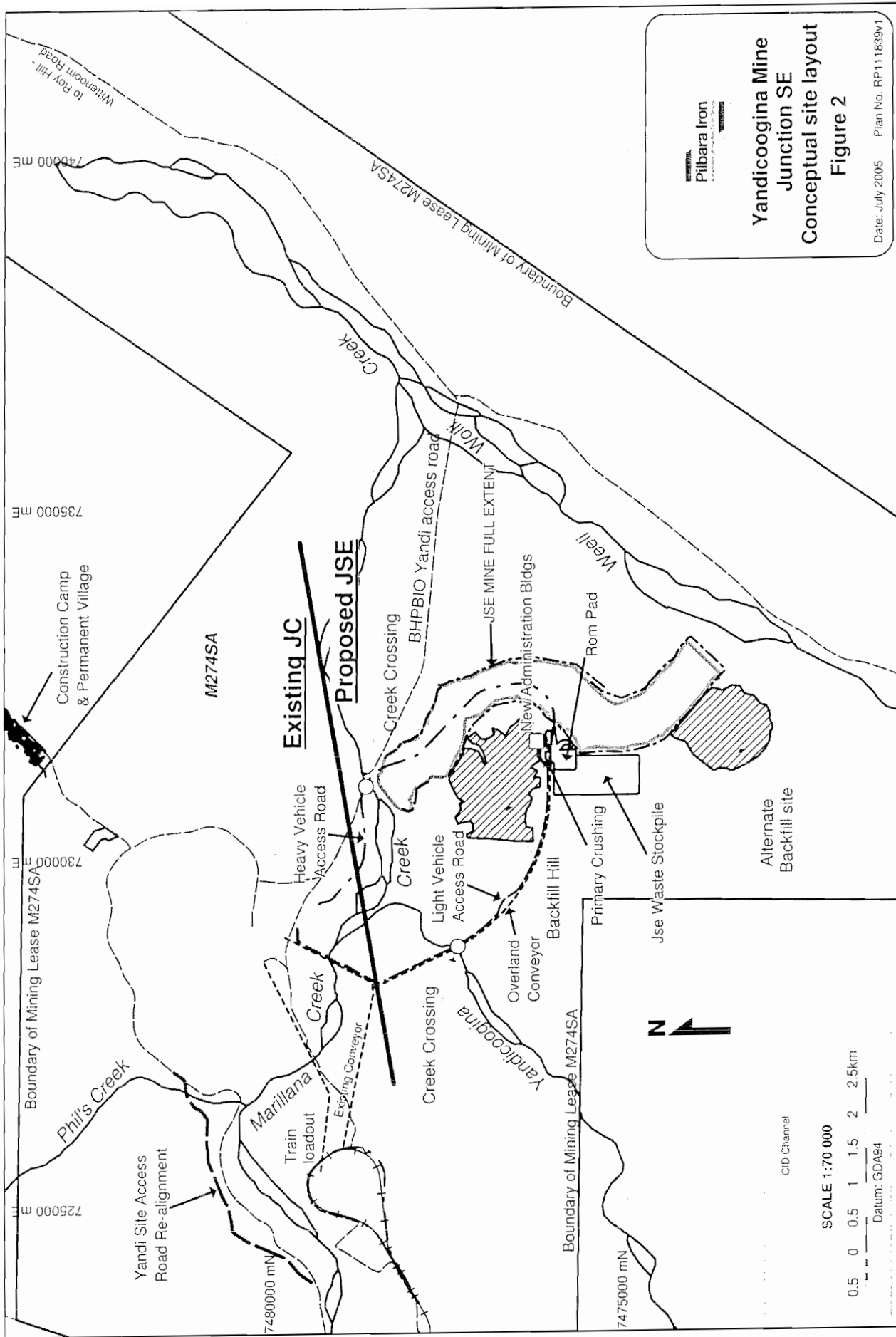


Figure 2: Site layout

Attachment 1 to Statement 695

Change to Proposal

Proposal: Yandicoogina Junction South-East Mine, Mining Lease 274SA, Shire of East Pilbara

Proponent: Hamersley Iron Pty Ltd

Change: Remove the detailed breakdown of the disturbance area.

Components of original Proposal as implemented:

Component	Quantities/Description
Total disturbance area	Approximately 669 hectares (within mining lease 274SA)
- Infrastructure	- Approximately 79 hectares
- Overburden waste dump	- Approximately 60 hectares
- Pit	- Approximately 370 hectares
- Post-closure backfill source	- Approximately 160 hectares

Components of changed Proposal:

Component	Quantities/Description
Total disturbance area	Up to 669 hectares (within mining lease 274SA), including up to 370 hectares for the Pit.

Dr Paul Vogel
CHAIRMAN
Environmental Protection Authority
under delegated authority

Approval date: 4.3.09

Attachment 2 to Statement 695

Change to Proposal

Proposal: Yandicoogina Junction South-East Mine, Mining Lease 274SA, Shire of East Pilbara

Proponent: Hamersley Iron Pty Ltd

Change: Increase of dewatering cap to 23 GL/a – s45C change to proposal

Key Characteristics Table:

Characteristic	Description of Approved Proposal	Description of Approved Changes to Proposal
Mining		
Project life	Approximately 16 years	Approximately 16 years
Length of deposit to be mined	Approximately 5.8 kilometres	Approximately 5.8 kilometres
Ore reserve to be mined	Approximately 280 million tonnes	Approximately 280 million tonnes
Mining rate	Approximately 16 million tonnes per annum	Approximately 16 million tonnes per annum
Pit depth	Approximately 65 metres (45 metres below the present water table)	Approximately 65 metres (45 metres below the present water table)
Overburden	Overburden will be stockpiled in a temporary storage area. Some of the material will be used for constructing drainage embankments. The remaining material will be used as backfill in the pit void.	Overburden will be stockpiled in a temporary storage area. Some of the material will be used for constructing drainage embankments. The remaining material will be used as backfill in the pit void.
Total disturbance area *	Up to 669 hectares (within mining lease 274SA), including up to 370 hectares for the Pit. *	Up to 669 hectares (within mining lease 274SA), including up to 370 hectares for the Pit.
Closure and rehabilitation	The final pit void will be backfilled to at least 490 metres Relative Level. The total disturbance area will be rehabilitated with local native vegetation.	The final pit void will be backfilled to at least 490 metres Relative Level. The total disturbance area will be rehabilitated with local native vegetation.
Dewatering		
Initial Dewatering	Approximately 27 to 30 megalitres per day	Removed – included in “Dewatering Requirements”
Maintenance	Approximately 15 to 20 megalitres per day	Removed – included in “Dewatering Requirements”
Sump Dewatering	Approximately 1 megalitre per day	Removed – included in “Dewatering Requirements”
Dewatering well fields	Initially 2 clusters of wells and a sacrificial well. As mining progresses, 3 additional cluster wellfields, plus sumps.	Initially 2 clusters of wells and a sacrificial well. As mining progresses, 3 additional cluster wellfields, plus sumps.
Dewatering Requirements	Inserted - new Key Characteristics Table element	23 giga litres per annum dewatering: The sum total of abstraction for both Yandi Junction Central (Statement 523) & Junction South East (Statement 695) mines should not exceed 35 giga litres per annum.
Processing and transport		
Crushing plant	Construction of a dry primary and secondary crushing plant	Construction of a dry primary and secondary crushing plant
Conveyor	Construction of a 4.8 kilometre long overland conveyor to link the crushing plant to the existing overland conveyor at Yandicoogina Junction Central. Ore will be conveyed to the Yandicoogina Junction	Construction of a 4.8 kilometre long overland conveyor to link the crushing plant to the existing overland conveyor at Yandicoogina Junction Central. Ore will be conveyed to the Yandicoogina Junction

Characteristic	Description of Approved Proposal	Description of Approved Changes to Proposal
	Central mine where it will undergo additional processing.	Central mine where it will undergo additional processing.
Transport	Ore will be transported along the central Pilbara Railway to the ship-loading facilities at Dampier Port and Cape Lambert.	Ore will be transported along the central Pilbara Railway to the ship-loading facilities at Dampier Port and Cape Lambert.
Infrastructure		
Power	An 8 megawatt diesel-fired power station will be used for additional power during early stages of construction. Connected to grid with power supplied by Hamersley's gas-fired power stations at Dampier and Paraburdoo.	An 8 megawatt diesel-fired power station will be used for additional power during early stages of construction. Connected to grid with power supplied by Hamersley's gas-fired power stations at Dampier and Paraburdoo.
Access roads	<ul style="list-style-type: none"> - Light vehicle access road from the transfer point on the current conveyor to the new crushing plant at Yandicoogina Junction Southeast. A crossing on Yandicoogina Creek will be required. - Heavy vehicle access road from Yandicoogina Junction Central to Junction Southeast. A crossing on Marillana Creek will be required. - Realignment of part of the public access road to Newman to allow bypass of heavy vehicle access road. 	<ul style="list-style-type: none"> - Light vehicle access road from the transfer point on the current conveyor to the new crushing plant at Yandicoogina Junction Southeast. A crossing on Yandicoogina Creek will be required. - Heavy vehicle access road from Yandicoogina Junction Central to Junction Southeast. A crossing on Marillana Creek will be required. - Realignment of part of the public access road to Newman to allow bypass of heavy vehicle access road.
Other facilities	Administration building, plant workshop and fuelling facility	Administration building, plant workshop and fuelling facility
Water		
Water management	Construction of flood protection levees and diversion drains	Construction of flood protection levees and diversion drains
Water use	Approximately 3 megalitres per day of dewatered water for dust suppression and potable use.	Approximately 3 megalitres per day of dewatered water for dust suppression and potable use.

* Original approval for "approximately 669 hectares (within mining lease 274SA)" with differentiation indicated for infrastructure, overburden waste dump, pit and post-closure backfill source areas, granted 25 October 2005, and amended to "Up to 669 hectares (within mining lease 274SA), including up to 370 hectares for the Pit" approved 4 March 2009.

Dr Paul Vogel
CHAIRMAN
Environmental Protection Authority
under delegated authority

Approval date: 16/7/09

Attachment 3 to Statement 695

Change to Proposal

Proposal: Yandicoogina Junction South-East Mine, Mining Lease 274SA at a rate of 16 million tonnes per annum.

Proponent: Hamersley Iron Pty Limited

Change: Increase in mine impact area to up to 980 hectares, and increase in mining rate to 22 million tonnes per annum

Key Characteristics Table:

Characteristic	Description of Approved Proposal	Description of Approved Changes to Proposal
Mining		
Project life	Approximately 16 years	Approximately 16 years
Length of deposit to be mined	Approximately 5.8 kilometres	Approximately 5.8 kilometres
Ore reserve to be mined	Approximately 280 million tonnes	Approximately 280 million tonnes
Mining rate	Approximately 16 million tonnes per annum	Approximately 22 million tonnes per annum
Pit depth	Approximately 65 metres (45 metres below the present water table)	Approximately 65 metres (45 metres below the present water table)
Overburden	Overburden will be stockpiled in a temporary storage area. Some of the material will be used for constructing drainage embankments. The remaining material will be used as backfill in the pit void.	Overburden will be stockpiled in a temporary storage area. Some of the material will be used for constructing drainage embankments. The remaining material will be used as backfill in the pit void.
Total disturbance area *	Up to 669 hectares (within mining lease 274SA), including up to 370 hectares for the Pit.	Up to 980 hectares (within mining lease 274SA), including up to 370 hectares for the Pit.
Closure and rehabilitation	The final pit void will be backfilled to at least 490 metres Relative Level. The total disturbance area will be rehabilitated with local native vegetation.	The final pit void will be backfilled to at least 490 metres Relative Level. The total disturbance area will be rehabilitated with local native vegetation.
Dewatering		
Dewatering well fields	Initially 2 clusters of wells and a sacrificial well. As mining progresses, 3 additional cluster wellfields, plus sumps.	Initially 2 clusters of wells and a sacrificial well. As mining progresses, 3 additional cluster wellfields, plus sumps.
Dewatering Requirements	23 giga litres per annum dewatering: The sum total of abstraction for both Yandi Junction Central (Statement 523) & Junction South East (Statement 695) mines should not exceed 35 giga litres per annum.	23 giga litres per annum dewatering: The sum total of abstraction for both Yandi Junction Central (Statement 523) & Junction South East (Statement 695) mines should not exceed 35 giga litres per annum.
Processing and transport		
Crushing plant	Construction of a dry primary and secondary crushing plant	Construction of a dry primary and secondary crushing plant
Conveyor	Construction of a 4.8 kilometre long overland conveyor to link the crushing plant to the existing overland conveyor at Yandicoogina Junction Central. Ore will be conveyed to the Yandicoogina Junction Central mine where it will undergo additional processing.	Construction of a 4.8 kilometre long overland conveyor to link the crushing plant to the existing overland conveyor at Yandicoogina Junction Central. Ore will be conveyed to the Yandicoogina Junction Central mine where it will undergo additional processing.
Transport	Ore will be transported along the central Pilbara Railway to the ship-loading facilities at Dampier Port and Cape Lambert.	Ore will be transported along the central Pilbara Railway to the ship-loading facilities at Dampier Port and Cape Lambert.
Infrastructure		

Characteristic	Description of Approved Proposal	Description of Approved Changes to Proposal
Power	An 8 megawatt diesel-fired power station will be used for additional power during early stages of construction. Connected to grid with power supplied by Hamersley's gas-fired power stations at Dampier and Paraburdoo.	An 8 megawatt diesel-fired power station will be used for additional power during early stages of construction. Connected to grid with power supplied by Hamersley's gas-fired power stations at Dampier and Paraburdoo.
Access roads	<ul style="list-style-type: none"> - Light vehicle access road from the transfer point on the current conveyor to the new crushing plant at Yandicoogina Junction Southeast. A crossing on Yandicoogina Creek will be required. - Heavy vehicle access road from Yandicoogina Junction Central to Junction Southeast. A crossing on Marillana Creek will be required. - Realignment of part of the public access road to Newman to allow bypass of heavy vehicle access road. 	<ul style="list-style-type: none"> - Light vehicle access road from the transfer point on the current conveyor to the new crushing plant at Yandicoogina Junction Southeast. A crossing on Yandicoogina Creek will be required. - Heavy vehicle access road from Yandicoogina Junction Central to Junction Southeast. A crossing on Marillana Creek will be required. - Realignment of part of the public access road to Newman to allow bypass of heavy vehicle access road.
Other facilities	Administration building, plant workshop and fuelling facility	Administration building, plant workshop and fuelling facility
Water		
Water management	Construction of flood protection levees and diversion drains	Construction of flood protection levees and diversion drains
Water use	Approximately 3 megalitres per day of dewatered water for dust suppression and potable use.	Approximately 3 megalitres per day of dewatered water for dust suppression and potable use.

* Original approval for "approximately 669 hectares (within mining lease 274SA)" with differentiation indicated for infrastructure, overburden waste dump, pit and post-closure backfill source areas, granted 25 October 2005, and amended to "Up to 699 hectares (within mining lease 274SA), including up to 370 hectares for the Pit" approved 4 March 2009.

List of Figures:

Figure 3: Junction South East proposed footprint and layout (Attachment 3)

Dr Paul Vogel
CHAIRMAN
Environmental Protection Authority
under delegated authority

Approval date: 26 October 2010

Attachment 4 to Statement 695

Change to Proposal

Proposal: Yandicoogina Junction South-East Mine, Mining Lease 274SA at a rate of 16 million tonnes per annum.

Proponent: Hamersley Iron Pty Limited

Change: To clear an additional 212 ha of vegetation for waste dumps, topsoil stockpiles and haul road diversions and to increase the mining rate by 2 million tonnes per annum (Mt/a)

Key Characteristics Table:

Characteristic	Description of Approved Proposal	Description of Approved Changes to Proposal
Mining		
Project life	Approximately 16 years	Approximately 16 years
Length of deposit to be mined	Approximately 5.8 kilometres	Approximately 5.8 kilometres
Ore reserve to be mined	Approximately 280 million tonnes	Approximately 280 million tonnes
Mining rate	Approximately 22 million tonnes per annum	Approximately 24 million tonnes per annum
Pit depth	Approximately 65 metres (45 metres below the present water table)	Approximately 65 metres (45 metres below the present water table)
Overburden	Overburden will be stockpiled in a temporary storage area. Some of the material will be used for constructing drainage embankments. The remaining material will be used as backfill in the pit void.	Overburden will be stockpiled in a temporary storage area. Some of the material will be used for constructing drainage embankments. The remaining material will be used as backfill in the pit void.
Total disturbance area *	Up to 980 hectares (within mining lease 274SA), including up to 370 hectares for the Pit.	Up to 1192 hectares (within mining lease 274SA), including up to 370 hectares for the Pit.
Closure and rehabilitation	The final pit void will be backfilled to at least 490 metres Relative Level. The total disturbance area will be rehabilitated with local native vegetation.	The final pit void will be backfilled to at least 490 metres Relative Level. The total disturbance area will be rehabilitated with local native vegetation.
Dewatering		
Dewatering well fields	Initially 2 clusters of wells and a sacrificial well. As mining progresses, 3 additional cluster wellfields, plus sumps.	Initially 2 clusters of wells and a sacrificial well. As mining progresses, 3 additional cluster wellfields, plus sumps.
Dewatering Requirements	23 giga litres per annum dewatering: The sum total of abstraction for both Yandi Junction Central (Statement 523) & Junction South East (Statement 695) mines should not exceed 35 giga litres per annum.	23 giga litres per annum dewatering: The sum total of abstraction for both Yandi Junction Central (Statement 523) & Junction South East (Statement 695) mines should not exceed 35 giga litres per annum.
Processing and transport		
Crushing plant	Construction of a dry primary and secondary crushing plant	Construction of a dry primary and secondary crushing plant
Conveyor	Construction of a 4.8 kilometre long overland conveyor to link the crushing plant to the existing overland conveyor at Yandicoogina Junction Central. Ore will be conveyed to the Yandicoogina Junction Central mine where it will undergo additional processing.	Construction of a 4.8 kilometre long overland conveyor to link the crushing plant to the existing overland conveyor at Yandicoogina Junction Central. Ore will be conveyed to the Yandicoogina Junction Central mine where it will undergo additional processing.
Transport	Ore will be transported along the central Pilbara Railway to the ship-loading facilities at Dampier Port and Cape	Ore will be transported along the central Pilbara Railway to the ship-loading facilities at Dampier Port and Cape

Characteristic	Description of Approved Proposal	Description of Approved Changes to Proposal
	Lambert.	Lambert.
Infrastructure		
Power	An 8 megawatt diesel-fired power station will be used for additional power during early stages of construction. Connected to grid with power supplied by Hamersley's gas-fired power stations at Dampier and Paraburdoo.	An 8 megawatt diesel-fired power station will be used for additional power during early stages of construction. Connected to grid with power supplied by Hamersley's gas-fired power stations at Dampier and Paraburdoo.
Access roads	<ul style="list-style-type: none"> - Light vehicle access road from the transfer point on the current conveyor to the new crushing plant at Yandicoogina Junction Southeast. A crossing on Yandicoogina Creek will be required. - Heavy vehicle access road from Yandicoogina Junction Central to Junction Southeast. A crossing on Marillana Creek will be required. - Realignment of part of the public access road to Newman to allow bypass of heavy vehicle access road. 	<ul style="list-style-type: none"> - Light vehicle access road from the transfer point on the current conveyor to the new crushing plant at Yandicoogina Junction Southeast. A crossing on Yandicoogina Creek will be required. - Heavy vehicle access road from Yandicoogina Junction Central to Junction Southeast. A crossing on Marillana Creek will be required. - Realignment of part of the public access road to Newman to allow bypass of heavy vehicle access road.
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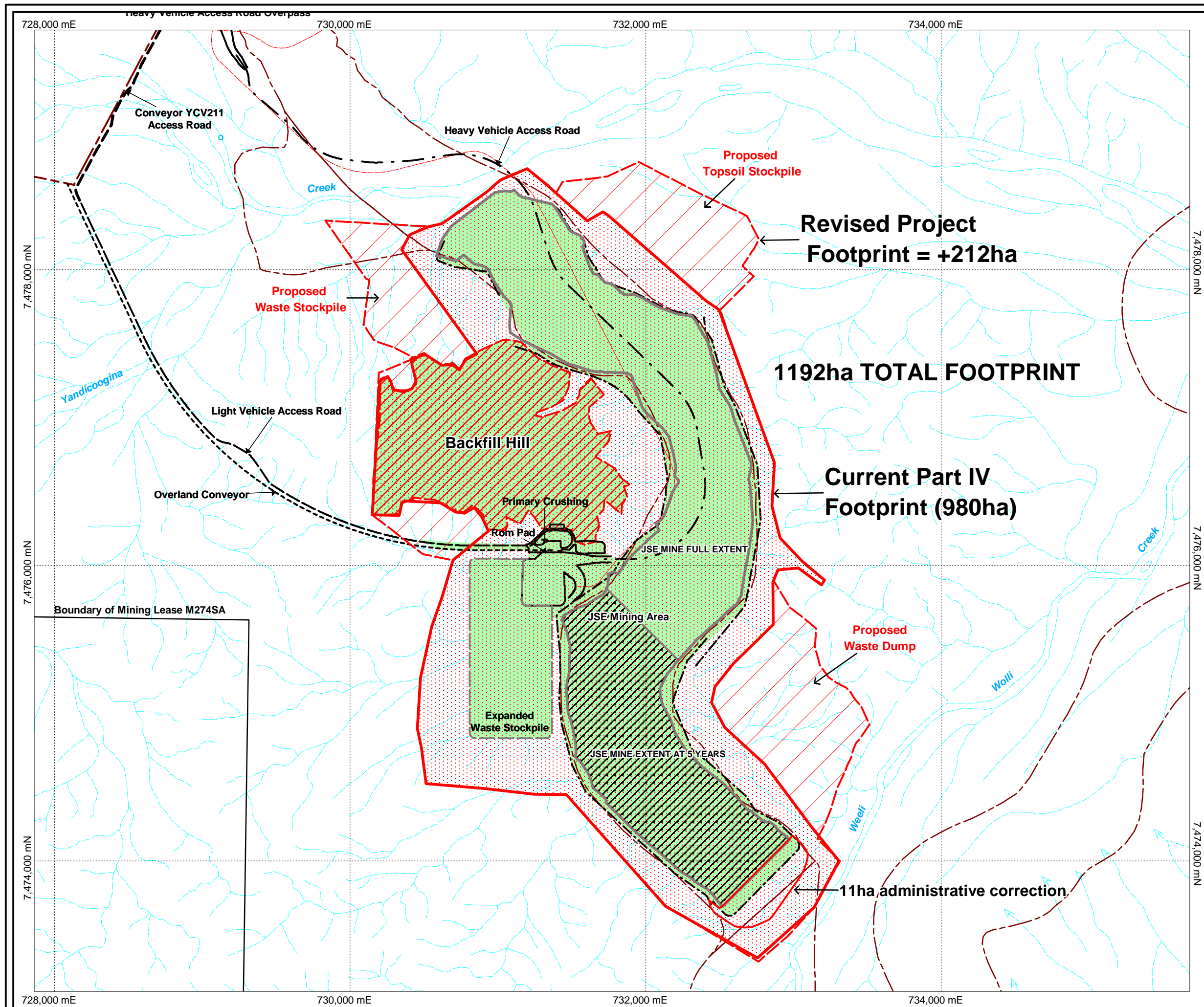
* Original approval for "approximately 669 hectares (within mining lease 274SA)" with differentiation indicated for infrastructure, overburden waste dump, pit and post-closure backfill source areas, granted 25 October 2005, and amended to "Up to 699 hectares (within mining lease 274SA), including up to 370 hectares for the Pit" approved 4 March 2009.

List of Figures:

Figure 4: Junction South East proposed footprint and layout (Attachment 4)

Dr Paul Vogel
CHAIRMAN
Environmental Protection Authority
under delegated authority

Approval date: 12 October 2011



LEGEND

- Revised Project Footprint
- Current Part IV Footprint
- CID palaeo channel
- Backfill Hill
- Original Part IV Approval (MS695)
- Conveyor
- Railway
- Road

Location Map

SCALE
0 0.25 0.5 0.75 1km
1:25 000 @ A3

Rio Tinto

Resource Strategy & Planning

Figure 4
Revised Yandicoogina Junction South East Project Footprint (MS695)

Drawn: M.Swebbs
Date: October, 2011

Plan No: PDE0082092v4
Proj: MGA94 Zone50