



Statement No.

MINISTER FOR THE ENVIRONMENT AND HERITAGE

000611

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

HOPE DOWNS IRON ORE PROJECT – RAIL AND PORT FACILITY

Proposal: The construction of a 324 kilometre rail line, from Weeli Wolli Creek to Port Hedland, and port facilities adjacent to Owen and Stanley Point, Port Hedland, to support the development of an iron-ore mine, based on the Hope 1 deposit, as documented in schedule 1 of this statement.

Proponent: Hope Downs Management Services Pty Ltd

Proponent Address: P O Box 309
WEST PERTH WA 6872

Assessment Number: 1397

Report of the Environmental Protection Authority: Bulletin 1066

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

Procedural conditions

1 Implementation and Changes

- 1-1 The proponent shall implement the proposal as documented in schedule 1 of this statement subject to the conditions of this statement.
- 1-2 Where the proponent seeks to change any aspect of the proposal as documented in schedule 1 of this statement in any way that the Minister for the Environment and Heritage determines, on advice of the Environmental Protection Authority, is substantial, the proponent shall refer the matter to the Environmental Protection Authority.

Published on

25 NOV 2002

- 1-3 Where the proponent seeks to change any aspect of the proposal as documented in schedule 1 of this statement in any way that the Minister for the Environment and Heritage determines, on advice of the Environmental Protection Authority, is not substantial, the proponent may implement those changes upon receipt of written advice.

2 Proponent Commitments

- 2-1 The proponent shall implement the environmental management commitments documented in schedule 2 of this statement.
- 2-2 The proponent shall implement subsequent environmental management commitments which the proponent makes as part of the fulfilment of conditions and procedures in this statement.

3 Proponent Nomination and Contact Details

- 3-1 The proponent for the time being nominated by the Minister for the Environment and Heritage 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 and Heritage 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 Environmental Protection 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 provide evidence to the Minister for the Environment and Heritage within five years of the date of this statement that the proposal has been substantially commenced or the approval granted in this statement shall lapse and be void.

Note: The Minister for the Environment and Heritage 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 and Heritage, prior to the expiration of the five-year period referred to in condition 4-1.

The application shall demonstrate that:

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

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

Environmental conditions

5 Compliance Auditing and Performance Review

5-1 The proponent shall prepare an audit programme in consultation with and submit compliance reports to the Department of Environmental Protection which address:

- the implementation of the proposal as defined in schedule 1 of this statement;
- evidence of compliance with the conditions and commitments; and
- 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 Environmental Protection is empowered to audit 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.

Usually, the Department of Environmental Protection prepares an audit table which can be utilised by the proponent, if required, to prepare an audit program to ensure that the proposal is implemented as required. The Chief Executive Officer is responsible for the preparation of written advice to the proponent, which is signed off by either the Minister or, under an endorsed condition clearance process, a delegate within the Environmental Protection Authority or the Department of Environmental Protection that the requirements have been met.

5-2 The proponent shall submit a performance review report every five years after the start of the operations phase, to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority, which addresses:

1. the major environmental issues associated with the project; the targets for those issues; the methodologies used to achieve these; and the key indicators of environmental performance measured against those targets;
2. the level of progress in the achievement of sound environmental performance, including industry benchmarking, and the use of best available technology where practicable;
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 targets over the next five years, including improvements in technology and management processes.

6 Noise Emissions

Noise emissions from the proposal are to be reduced as far as is reasonably practicable.

- 6-1 Where it is not reasonably practicable for the noise emitted from the proposal to meet the prescribed standard in the *Environmental Protection (Noise) Regulations 1997*, as amended from time to time, hereinafter referred to as the Noise Regulations, when received in the Port Hedland townsite, the proponent shall ensure that the noise emitted from the proposal, when received at any part of a noise-sensitive premises that is within 15 metres of a building that is directly associated with a noise-sensitive use, does not exceed the following L_{A10} levels -

Noise-receiving Premises		L_{A10} (dB)
Noise-sensitive Premises in Port Hedland	West of Crowe Street	50
	East of Crowe Street	44

Notes:

1. A L_{A10} level means a level which, measured as a $L_{A\text{slow}}$ value, is not exceeded for more than 10% of any four-hour period.
2. The terms $L_{A\text{slow}}$, L_{A10} , and noise-sensitive premises, have the same meaning as in the Noise Regulations.
3. An emission of noise that contravenes this condition is taken not to breach the condition if:
 - (a) the proponent demonstrates to the satisfaction of the Minister for the Environment and Heritage, on advice of the Environmental Protection Authority, that the level of the emission is within the limits of accuracy of the noise prediction model used for the assessment of the proposal; or
 - (b) the emission is a result of the occurrence of an "abnormal event" which is beyond the immediate control of, and could not reasonably have been foreseen by the proponent (such as an accident or emergency, a breakdown of plant or equipment or extreme weather conditions); and
 - (c) (1) the proponent takes all reasonably practicable measures to stop the emission as soon as is reasonably practicable; and

- (2) the proponent notifies the Chief Executive Officer of the Department of Environmental Protection of the occurrence of the abnormal event within 21 days after the day on which it occurred, or within any further time allowed by the Chief Executive Officer on the application of the proponent.
4. For the purposes of conditions 6-1 and 6-2, the level of noise emissions shall be determined in accordance with:
 - (a) Part 3 of the Noise Regulations; and
 - (b) Regulation 7 (3) of the Noise Regulations.
5. In determining the level of noise emissions for the purposes of conditions 6-1 and 6-2, the following are not taken into account:
 - (a) noise emissions of a kind referred to in regulation 3 of the Noise Regulations;
 - (b) noise emitted as a result of construction work carried on by the proponent;
 - (c) noise emitted by safety devices attached to plant or equipment for the purpose of ensuring that the proponent complies with its obligations under the *Occupational Safety and Health Act 1984*, as amended from time to time;
 - (d) noise received at premises owned by the proponent; and
 - (e) adjustments for the characteristics of tonality, impulsiveness and modulation as specified in Table 2 of the Noise Regulations.
- 6-2 The proponent shall keep a register of reportable noise events as follows:
 - 1 abnormal events referred to in condition 6-1 (3(b)); and
 - 2 other events which may result in an $L_{A\text{Slow}}$ noise level greater than 60 dB(A) when received at any noise-sensitive premises in Port Hedland at any time.

The proponent shall detail in this register the following:

- 1 the nature of the event;
- 2 the date and time of the occurrence of the event;
- 3 details of the emission, including the level and characteristics of the noise (if known) and the duration of the emission;
- 4 the measures taken by the proponent to stop the emission; and

- 5 the measures (if any) taken by the proponent to prevent or minimise the possibility of a similar event occurring in the future, or to minimise the level of noise emission if a similar event occurs in the future,

to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority.

- 6-3 The proponent shall make the register required by condition 6-2 publicly available, to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority.

- 6-4 Within 18 months following the date of commencement of operations, the proponent shall submit to the Minister for the Environment and Heritage an application under Regulation 17 of the Noise Regulations; for approval to exceed or vary from the prescribed standard specified in the regulations.

- 6-5 The proponent shall provide with the application referred to in condition 6-4, a Noise Management Report, prepared to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority.

The objective of this report is to demonstrate that noise emissions from the proposal have been reduced as far as is reasonably practicable.

This report shall:

- 1 identify the sources of noise emissions from the proposal;
 - 2 show revised noise modelling contours based on operations since commencement;
 - 3 identify reference positions for the measurement and monitoring of noise levels;
 - 4 identify noise control measures which have been implemented to reduce noise;
 - 5 specify further noise controls which are being considered for equipment and set out a cost-benefit analysis for the implementation of each of those options;
 - 6 set out the measures which the proponent considers can reasonably and practicably be taken; and
 - 7 set out the minimum noise levels emitted from the proposal which the proponent considers can reasonably and practicably be achieved.
- 6-6 The requirements of conditions 6-1, 6-2 and 6-3, shall remain in force for 18 months from the date of commencement of operations, after which time they shall cease to have effect, unless an application has been submitted in accordance with condition 6-4, in which case the noise levels shall remain in force until the Minister for the Environment and Heritage, acting on advice of the Environmental Protection Authority, grants that application.

7 Decommissioning Plan

- 7-1 Prior to the construction phase, the proponent shall prepare and subsequently implement, a Preliminary Decommissioning Plan for the railway and port, which provides the framework to ensure that the sites are left in an environmentally acceptable condition to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority.

Note: In the preparation of advice to the Minister, the Environmental Protection Authority expects that the advice of the following agencies will be obtained:

- Department of Conservation and Land Management;
- Department of Mineral and Petroleum Resources; and
- Water and Rivers Commission.

The Preliminary Decommissioning Plan shall address:

- 1 rationale for the siting and design of plant and infrastructure as relevant to environment protection, and conceptual plans for the removal or, if appropriate, retention of plant and infrastructure;
 - 2 a conceptual rehabilitation plan for all disturbed areas and a description of a process to agree on the end land use(s) with all stakeholders;
 - 3 a conceptual plan for a care and maintenance phase; and
 - 4 management of noxious materials to avoid the creation of contaminated areas.
- 7-2 At least six months prior to the anticipated date of decommissioning, or at a time agreed with the Environmental Protection Authority, the proponent shall prepare a Final Decommissioning Plan designed to ensure that the site is left in an environmentally acceptable condition to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority.

Note: In the preparation of advice to the Minister, the Environmental Protection Authority expects that the advice of the following agencies will be obtained:

- Department of Conservation and Land Management;
- Department of Mineral and Petroleum Resources; and
- Water and Rivers Commission.

The Final Decommissioning Plan shall address:

- 1 removal or, if appropriate, retention of plant and infrastructure in consultation with relevant stakeholders;
- 2 rehabilitation of all disturbed areas to a standard suitable for the agreed new land use(s); and

- 3 identification of contaminated areas, including provision of evidence of notification and proposed management measures to relevant statutory authorities.
- 7-3 The proponent shall implement the Final Decommissioning Plan required by condition 7-2 until such time as the Minister for the Environment and Heritage determines, on advice of the Environmental Protection Authority, that the proponent's decommissioning responsibilities are complete.
- 7-4 The proponent shall make the Final Decommissioning Plan required by condition 7-2 publicly available, to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority

Procedures

- 1 Where a condition states "to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority", the Chief Executive Officer of the Department of Environmental Protection will obtain that advice for the preparation of written advice to the proponent.
- 2 The Environmental Protection Authority may seek advice from other agencies, as required, in order to provide its advice to the Chief Executive Officer of the Department of Environmental Protection.

Note

- 1 The Minister for the Environment and Heritage will determine any dispute between the proponent and the Environmental Protection Authority or the Department of Environmental Protection 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 the State Agreement Act.
- 4 The conditions for Hope Downs Iron Ore Mine (Assessment No. 1308) were published on 1 February 2002 in Statement No. 584.

Dr Judy Edwards MLA
MINISTER FOR THE ENVIRONMENT AND HERITAGE

25 NOV 2002

Schedule 1

The Proposal (Assessment No. 1397)

The proposal involves the construction of a rail line and port facilities to support the development of the Hope Downs Iron Ore Mine (Assessment No. 1308), based on the Hope Downs 1 Deposit, located approximately 75 kilometres north-west of Newman (see figure 1 attached).

The proposal has the following main components:

- a 324 kilometre rail line from Weeli Wolli Creek as it enters the Fortescue Valley near Marillana Station to Port Hedland (see figure 2); and
- ore handling and export facilities adjacent to Owen and Stanley Point at Port Hedland, including the construction of new shiploading facilities at Harriet Point (see figure 3).

The key characteristics of the proposal are shown in table 1 below.

Table 1 - Key Proposal Characteristics

Element	Characteristics
General	
Construction period	2 years approximately
Project Life	20 years approximately
Export Tonnage	25 Mtpa approximately
Railway	
Length	324 km
Support Infrastructure	Sidings Administration Offices and Warehouses Trip Servicing facilities Service and repair workshop Turnaround "Y" Track maintenance facilities
Port	
Stockyard	2.5 Mt capacity
Materials handling	Car dumper Conveyors and Transfer Points Rescreening Plant Stackers and Reclaimers
Port Development	Piled Wharf 750m long Ships up to 250,000 DWT Shiploaders
Buildings	Dredging – 2.9 Mm ³ . Disposed onshore Administration Office Shift Office Wharf amenities Car dumper control room Substations Workshop / warehouse
Infrastructure	
Power	10.5 Mw from existing system
Water	1.6 GLpa from existing system
Roads	General traffic, port access, rail service
Sewage	Construction – package treatment plant Operations – septic systems
Disturbance Areas	
Area of railway easement	1,000 ha approximately
Area of port facilities	104 ha approximately
Borrow Area A	94 ha approximately
Total area disturbed	1,198 ha approximately

Workforce	
Construction	Rail – 900 personnel approximately Port – 300 personnel approximately
Permanent	Rail – 50 personnel approximately Port – 60 personnel approximately
Accommodation	Construction – single status in Port Hedland Camps for rail Permanent – new or existing residences in Port Hedland
Abbreviations: DWT - dead weight tonnes GLpa - giga litres per annum ha - hectare km – kilometre m – metre Mm ³ - million cubic metres Mtpa - million tonnes per annum Mt - million tonnes MW – megawatts	

Figures (attached)

Figure 1 – Proposal Location

Figures 2a & 2b – Railway Alignment

Figure 3 – Port Layout

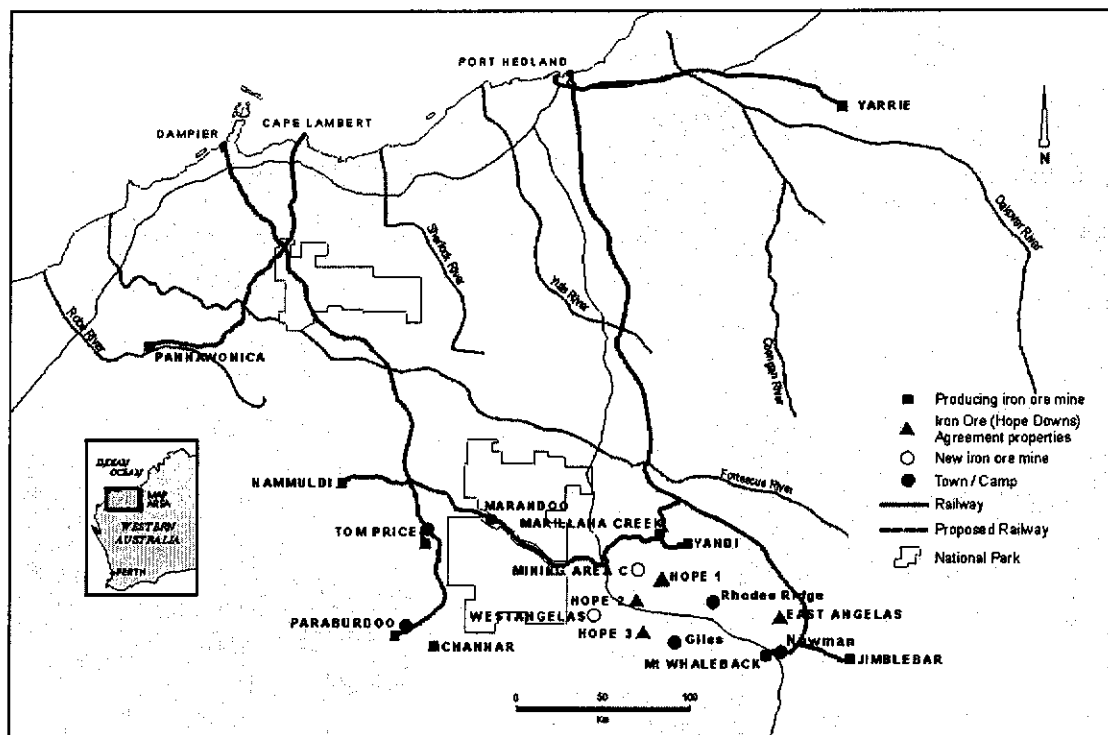


Figure 1: Proposal Location

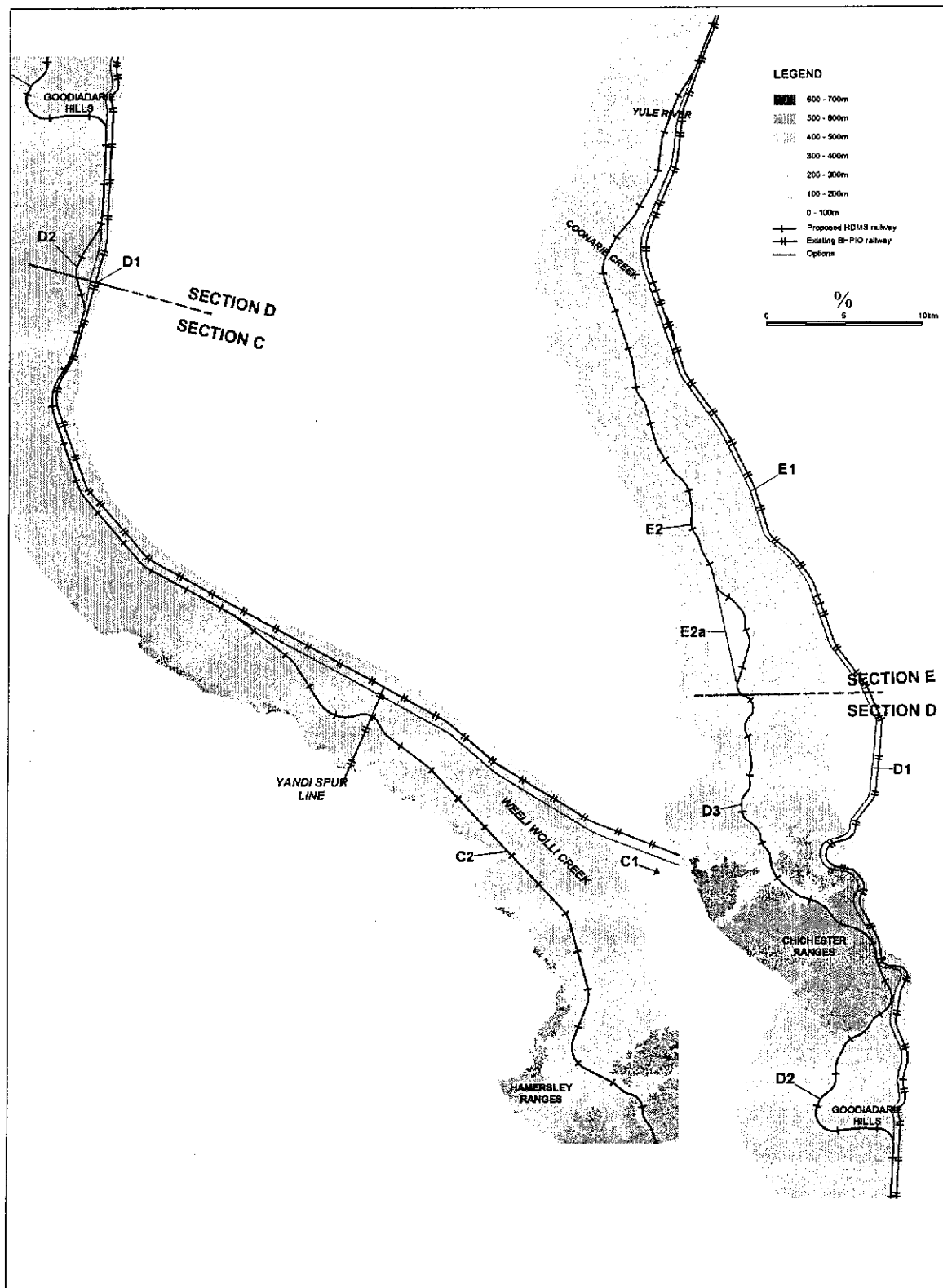


Figure 2a: Railway Alignment

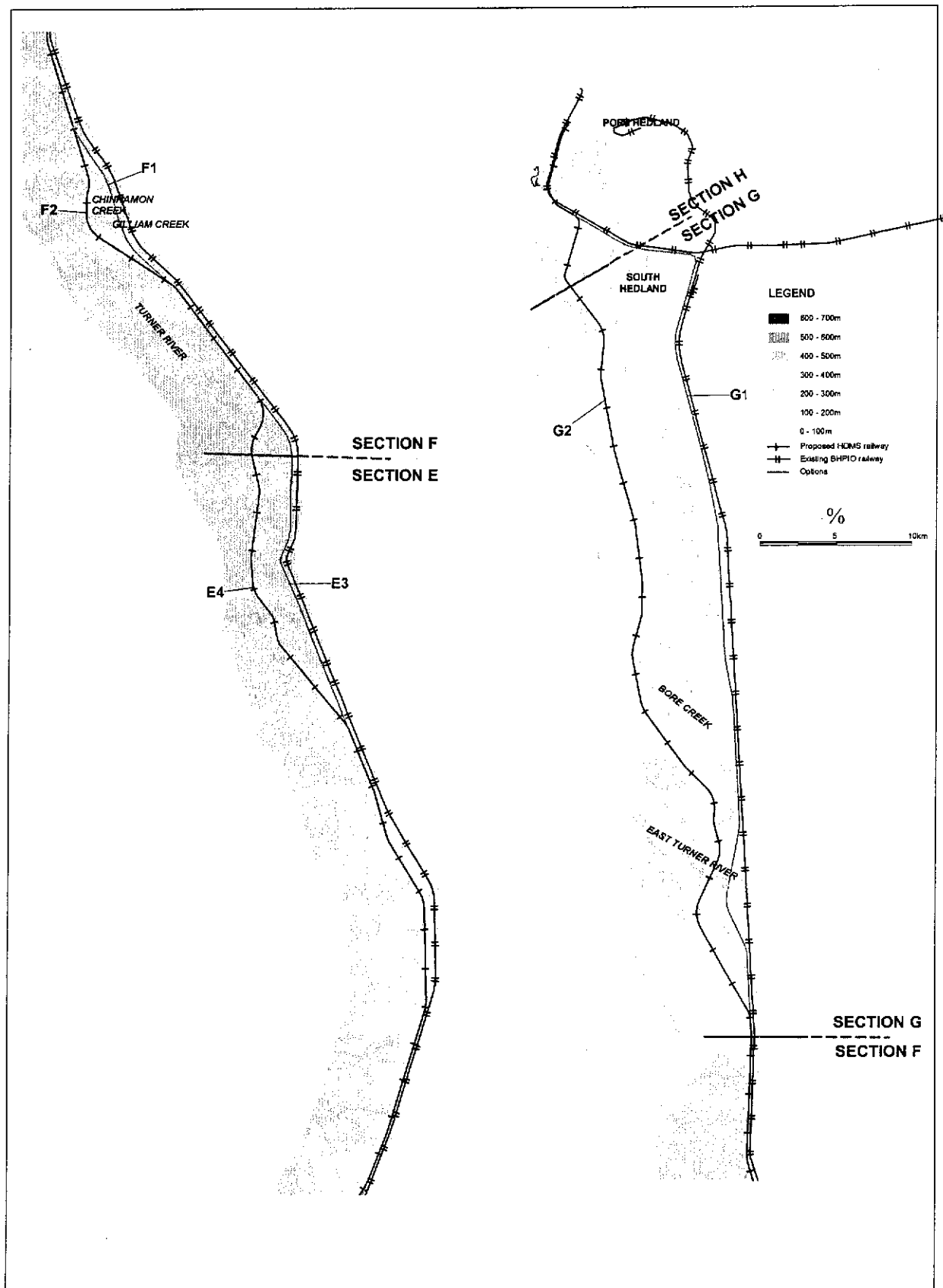


Figure 2b: Railway Alignment

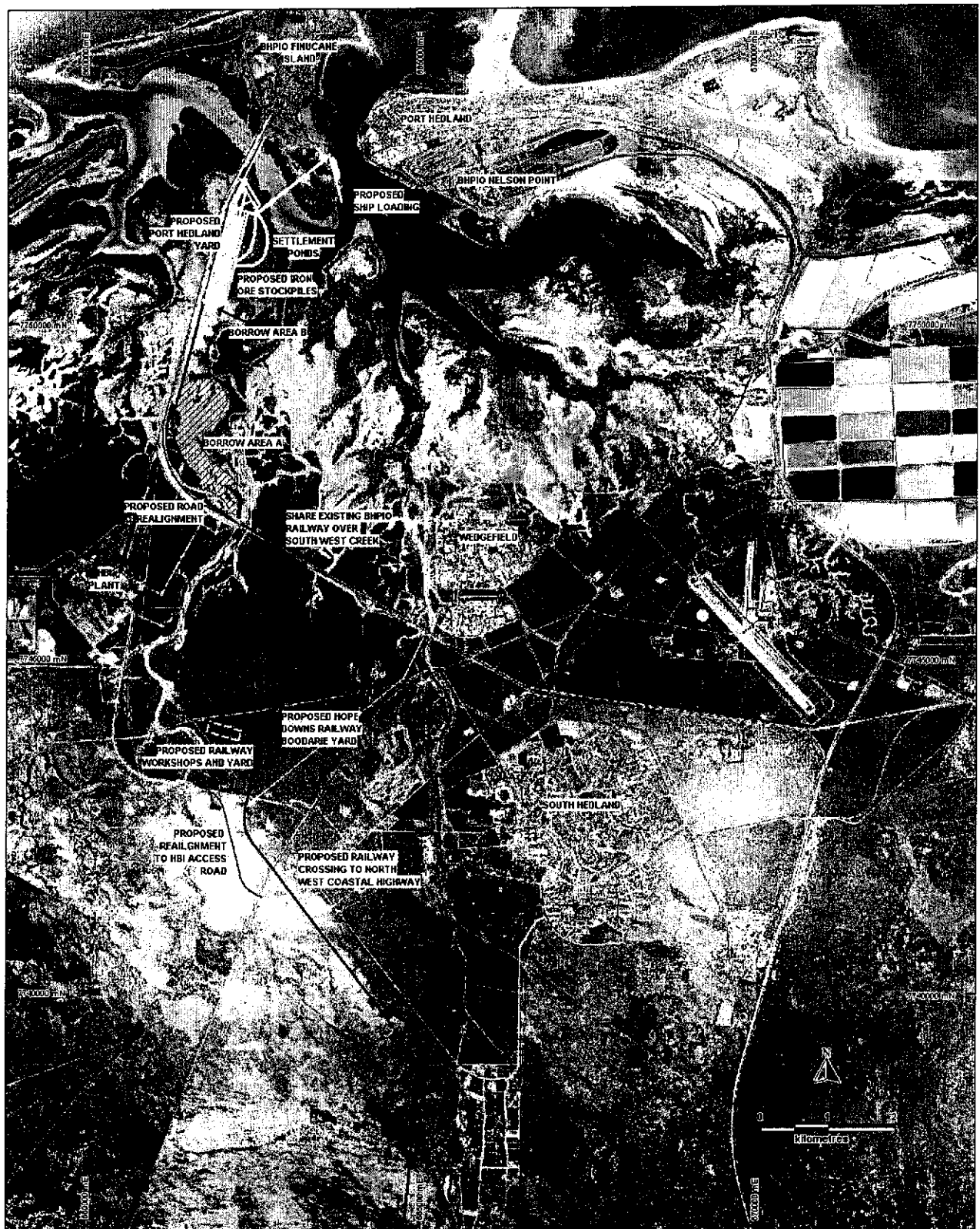


Figure 3: Port Layout

Proponent's Environmental Management Commitments

August 2002

**HOPE DOWNS IRON ORE PROJECT
RAIL AND PORT FACILITY**

(Assessment No. 1397)

Hope Downs Management Services Pty Ltd

HOPE DOWNS IRON ORE PROJECT, RAIL & PORT FACILITY (Assessment No. 1397)

No.	Topic	Action	Objectives	Timing	Advice
1	Environmental Management System (EMS).	Prepare an EMS which includes: 1. an environmental policy and corporate commitment to EMS; 2. planning to meet environmental requirements; 3. specification and implementation of actions to meet environmental requirements; 4. measurement and evaluation of environmental performance; and 5. review and improvement of environmental outcomes.	To manage the relevant environmental factors of the railway and port and to fulfil the requirements of the conditions and procedures in the statement.	An Operations Phase EMS will be substantially completed prior to operations commencing.	Accredited assurance service.
2	EMS.	Implement the EMS referred to in commitment 1.	To achieve the objectives of commitment 1.	Operations Phase.	Accredited assurance service.
3	Construction Phase Environmental Management Programme (EMP).	Prepare an EMP which will contain plans, guidelines and procedures to manage environmental issues associated with construction of the project including: 1. vegetation clearing and management; 2. surface water quality; 3. groundwater quality; 4. flora and fauna; 5. Aboriginal heritage; 6. public access; 7. greenhouse gases; 8. dust and noise; 9. waste and hazardous materials; 10. decommissioning and rehabilitation; 11. management of contractors; and 12. continuous improvement. The relevant Construction Phase components of commitments 7, 9, 11, 13, 15, 17, 19, 21, 23 and 30 will also be included.	To manage and minimise the potential impacts of the Construction Phase of the railway and port.	During the Pre-construction Phase.	DMPR, CALM, WRC, MRWA and Native Title Claimants/PNTS (depending on the project component).

HOPE DOWNS IRON ORE PROJECT, RAIL & PORT FACILITY (Assessment No. 1397)

No.	Topic	Action	Objectives	Timing	Advice
4	Construction Phase EMP.	Implement the EMP referred to in commitment 3.	To achieve the objectives of commitment 3.	Construction Phase.	DMPR, CALM, WRC, MRWA and Native Title Claimants/PNTS (depending on the project component).
5	Dredging and Land Reclamation Management Plan	A Dredging and Land Reclamation Management Plan will be prepared to address issues related to the movement and disposal of dredge spoil, effluent, and borrow material including: 1. construction of bunds, levees and retaining areas; 2. installation of batter armour; 3. construction of drains; 4. clearing of mangroves; 5. acid sulphate soils; 6. return water disposal; 7. dredging and disposal of dredge spoil; 8. transportation of fill material; 9. heritage sites; 10. sediment sampling; 11. management of suspended sediments; 12. contingency plans for turbidity and contamination; 13. quarantine measures for dredge vessels; and 14. management, monitoring and reporting. The above plan is complementary to the Construction Phase EMP referred to in commitments 3 and 4.	To manage and minimise the potential impacts of dredging and land reclamation.	During the Pre-construction Phase	CALM, PHPA, Town of Port Hedland, Department of Fisheries and Native Title Claimants/PNTS
6	Dredging and Land Reclamation Management Plan	Implement the Dredging and Land Reclamation Management Plan referred to in commitment 5	To achieve the objectives of commitment 5	Construction Phase	CALM, PHPA, Town of Port Hedland, Department of Fisheries and Native Title Claimants/PNTS

HOPE DOWNS IRON ORE PROJECT, RAIL & PORT FACILITY (Assessment No. 1397)

No.	Topic	Action	Objectives	Timing	Advice
7	Operations Phase Environmental Management Programme	Prepare an EMP which will contain plans, guidelines and procedures to manage environmental issues associated with operation of the project including: 1. vegetation clearing and management; 2. surface water quality; 3. groundwater quality; 4. flora and fauna; 5. Aboriginal heritage; 6. public access; 7. greenhouse gases; 8. dust and noise; 9. waste and hazardous materials; 10. decommissioning and rehabilitation; 11. management of contractors; and 12. continuous improvement. The relevant Operations Phase components of commitments 7, 9, 11, 13, 15, 17, 19, 21, 23 and 30 will also be included.	To manage and minimise the potential impacts of the Operations Phase of the railway and port.	Prior to commissioning.	DMPR, CALM, WRC, MRWA and Native Title Claimants/PNTS (depending on the project component).
8	Operations Phase EMP.	Implement the EMP referred to in commitment 7.	To achieve the objectives of commitment 7	Operations Phase.	DMPR, CALM, WRC, MRWA and Native Title Claimants/PNTS (depending on the project component).
9	Noise Management Plan.	A Noise Management Plan will be prepared to: 1. establish state-of-the-art noise specifications for the major noise-generating equipment; 2. design noise controls to minimize the generation and impacts of noise; 3. set out procedures and practices to be adopted in the event of noise exceedances including complaints register, recording etc; and 4. communicate performance and progress to affected communities.	To manage and minimise the impacts of noise on the communities in the vicinity of the operations.	Pre-construction Phase.	Town of Port Hedland

HOPE DOWNS IRON ORE PROJECT, RAIL & PORT FACILITY (Assessment No. 1397)

No.	Topic	Action	Objectives	Timing	Advice
10	Noise Management Plan.	Implement the Noise Management Plan referred to in commitment 9.	To achieve the objectives of commitment 9.	Construction Phase.	Town of Hedland
11	Fire Management Plan.	A Fire Management Plan will address procedures to minimise project-induced fires, including: 1. work procedures for all welding and grinding work; 2. personnel fire hazard procedures; 3. fire response vehicles on site; and 4. bushfire contingency plans.	To minimise the risk of fires occurring in the rail corridor and port as a result of construction and operations.	Pre-construction Phase.	CALM, FESA.
12	Fire Management Plan.	Implement the Fire Management Plan referred to in commitment 11.	Achieve the objectives of commitment 11.	Construction Phase.	CALM, FESA.
13	Weed Hygiene and Control Plan.	A Weed Hygiene and Control Plan will be prepared which will contain procedures to minimise the risk of introducing or spreading weeds, including: 1. identification of serious weed infestations; 2. hygiene and washdown procedures for all plant and equipment; 3. topsoil and materials management; 4. control measures that may be necessary for some species; and 5. monitoring and any follow-up control including reporting to relevant authorities.	To minimise the risk of introducing or spreading weeds along the rail corridor, during construction, operations and maintenance.	Pre-construction Phase.	CALM, APB.
14	Weed Hygiene and Control Plan.	Implement the Weed Hygiene and Control Plan referred to in commitment 13.	To achieve the objectives of commitment 13.	Construction Phase.	CALM, APB.
15	Rehabilitation and Topsoil Management Plan.	A Rehabilitation and Topsoil Management Plan will be prepared which will address: 1. siting, access tracks, opening, operation and closure of borrow pits and other material sources; 2. topsoil recovery, stockpiling and respread; 3. provenance seed collection, mixes and application; 4. surface stabilisation and other treatments; and 5. monitoring and maintenance.	To ensure that disturbed areas along the railway are rehabilitated as efficiently and thoroughly as possible.	Pre-construction Phase.	CALM.

HOPE DOWNS IRON ORE PROJECT, RAIL & PORT FACILITY (Assessment No. 1397)

No.	Topic	Action	Objectives To achieve the objectives of commitment 15.	Timing Construction Operations Phase.	Advice CALM.
16	Rehabilitation and Topsoil Management Plan.	Implement the Rehabilitation and Topsoil Management Plan referred to in commitment 15.			
17	Marine Waters Monitoring and Management Plan.	A Marine Waters Monitoring and Management Plan will be prepared which will contain guidelines, procedures and criteria to manage the impact of the project on the marine environment including: 1. establishment of baseline conditions; 2. management of suspended sediment levels; 3. minimising the potential for contaminants to enter the harbour during construction and operations; and 4. regular monitoring and reporting of sediment and return water.	To ensure protection of the marine environment at the port.	Pre-construction Phase.	CALM, Department of Fisheries, Port Hedland Port Authority.
18	Marine Waters Monitoring and Management Plan.	Implement the Marine Waters Monitoring and Management Plan referred to in commitment 17.	To achieve the objectives of commitment 17.	Construction Operations Phase.	CALM, Department of Fisheries, Port Hedland Port Authority.
19	Mangrove Rehabilitation Plan.	A Mangrove Rehabilitation Plan will be prepared which will contain management procedures and plans aimed at the re-establishment of mangroves in areas disturbed during construction that are not required for operations. This will include: 1. earthworks, materials management and contouring; 2. specification of elevations for the establishment of mangroves and littoral vegetation; 3. species selection, proportions and densities; 4. propagation and establishment methods; and 5. monitoring and maintenance plans.	To minimise the net loss of mangrove and littoral vegetation associated with the port.	Pre-construction Phase.	CALM, Department of Fisheries, Port Hedland Port Authority.
20	Mangrove Rehabilitation Plan.	Implement the Mangrove Rehabilitation Plan referred to in commitment 19.	To achieve the objectives of commitment 19.	Construction Operations Phase.	CALM, Department of Fisheries, Port Hedland Port Authority.

HOPE DOWNS IRON ORE PROJECT, RAIL & PORT FACILITY (Assessment No. 1397)

No.	Topic	Action	Objectives	Timing	Advice
21	Surface Water and Groundwater Management Plan.	A Surface Water and Groundwater Management Plan will be prepared which will contain plans, guidelines and procedures to manage and minimise environmental issues relating to the potential effects on the surface and groundwater regimes and any dependent ecological systems. This will include: 1. establishing baseline conditions; 2. regular monitoring and reporting; 3. minimising the potential for contaminants to enter waterways; and 4. maintaining existing flow paths wherever possible. Furthermore: • Any variation to the plans submitted will be referred to the Water and Rivers Commission; • Existing flow paths will be maintained where possible, such that the railway and associated works do not act as a hazardous impediment or cause long-term ponding of stream flow; • Works will be undertaken with a minimum of disturbance to the natural environment; and • All sites affected by construction will be stabilised.	To manage and minimise the potential effects of the railway and port on the surface and groundwater regimes.	Pre-construction Phase.	WRC, CALM.
22	Surface Water and Groundwater Management Plan.	Implement the Surface Water and Groundwater Management Plan referred to in commitment 21.	To achieve the objectives of commitment 21.	Construction and Operations Phase.	WRC, CALM.

HOPE DOWNS IRON ORE PROJECT, RAIL & PORT FACILITY (Assessment No. 1397)

No.	Topic	Action	Objectives	Timing	Advice
23	Aboriginal Heritage Management Plan.	Prepare an Aboriginal Heritage Management Plan in consultation with all affected parties which protects cultural associations with the local area.	To ensure that changes to the biological and physical environment as a result of the railway and port do not adversely affect cultural associations with the area. To increase the cultural understanding of the area by implementing an ongoing programme of investigation and cultural management. To manage access to important sites for purposes of their ongoing preservation.	Pre-construction Phase.	Native Claimants/PNTS, DIA.
24	Aboriginal Heritage Management Plan.	Implement the Aboriginal Heritage Management Plan referred to in commitment 23.	To achieve the objectives of commitment 23.	Construction Operations Phase.	Native Claimants/PNTS, DIA.
25	Conservation Areas.	Conduct additional confirmation surveys of borrow pits, access tracks and other disturbance areas for threatened species as required. Take account of the locations of features of higher conservation significance as part of the final design of the railway and associated clearing envelopes.	To avoid or eliminate impacts on significant fauna habitats, threatened fauna, significant vegetation types and threatened flora populations along the railway.	Construction Phase.	CALM.
26	Flood diversion.	Flood diversion works will be designed to maintain existing catchment flow volumes and quality. Existing flow paths will be maintained where possible.	To ensure that the railway and port do not adversely impact on the surface water resources of the area.	Pre-construction Phase.	WRC, CALM.
27	Aboriginal heritage surveys.	Undertake additional Aboriginal heritage surveys in areas not already surveyed and that are likely to be disturbed or otherwise affected by port operations or the construction of associated transportation infrastructure.	To identify any heritage sites associated with the railway and port.	Pre-construction Phase.	Native Claimants/PNTS, DIA.

HOPE DOWNS IRON ORE PROJECT, RAIL & PORT FACILITY (Assessment No. 1397)

No.	Topic	Action	Objectives	Timing	Advice
28	Aboriginal consultation.	Consult with the affected native title claimant working groups regarding the unavoidable disturbance of sites.	To consult with affected native title claimant working groups in respect of heritage sites in the project area before any Section 18 (<i>Aboriginal Heritage Act 1972</i>) application is developed for the railway and/or port.	Pre-construction Phase.	Native Claimants/PNTS, DIA.
29	Conservation Offsets.	Support of ongoing research into fire history, fire ecology and related processes in the Pilbara. Additional research into the utilisation of mangroves by bats.	To contribute to improvement in the level of knowledge on regional ecology in the Pilbara.	Construction Phase, Operations Phase.	CALM.
30	Scientific information.	Provide scientific data to government agencies relating to flora and fauna baseline studies. Other studies undertaken as part of environmental reporting in a form that is compatible, and in line, with the best practice, to enable the integration of this information into regional databases.	To assist in a better understanding of biodiversity and regional impact.	Contributions have already commenced and will be reviewed regularly.	CALM, WRC, and Native Title Claimants/PNTS.
31	Section 16 (<i>Conservation and Land Management Act 1984</i>) Agreements.	Assist, where possible, in the implementation and supervision of compliance with management guidelines for Section 16 (<i>Conservation and Land Management Act 1984</i>) Agreements, in respect of areas falling within the boundaries of its project leases. Seek agreement with CALM and pastoral station owners on management guidelines and responsibilities for: • water resources; • fencing; • stock control; • flora; • fauna; • fire management; • rehabilitation; • access and infrastructure; • including roads; • signage; and • management plans for areas of special significance and future activities.	To improve management of conservation, recreation, heritage and research for the nominated areas affected by the railway and port.	As soon as required.	CALM, Pastoral Station Owners, Native Title Claimants/PNTS, DPI, Conservation Commission of Western Australia.

Assessment No. 1397

Abbreviations:

APB	Agriculture Protection Board
CALM	Department of Conservation and Land Management
DIA	Department of Indigenous Affairs
DPI	Department for Planning and Infrastructure
DMPR	Department of Mineral and Petroleum Resources
MRWA	Main Roads WA
PHPA	Port Hedland Port Authority
PNTS	Pilbara Native Title Service
WRC	Water and Rivers Commission