



Report and recommendations of the Environmental Protection Authority



Cape Lambert to Emu Siding Rail Duplication

Rio Tinto Iron Ore

Report 1408

July 2011

Assessment on Proponent Information Environmental Impact Assessment Process Timelines

Date	Progress stages	Time (weeks)
02/05/11	Proponent's Referral/ API document received by EPA	
30/05/11	Level of assessment set	4
25/07/11	Publication of EPA report	8
08/08/11	Close of appeals period	2

Timelines for an assessment may vary according to the complexity of the project and are usually agreed with the proponent soon after the level of assessment is determined.

In this case, the Environmental Protection Authority met its timeline objective in the completion of the assessment and provision of a report to the Minister.



Dr Paul Vogel
Chairman
20/7/2011

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1. Introduction and background

This report provides the Environmental Protection Authority's (EPA's) advice and recommendations to the Minister for Environment on the proposal to duplicate an existing 70 kilometre (km) rail line from Cape Lambert to Emu Siding by Rio Tinto Iron Ore (RTIO).

Section 44 of the *Environmental Protection Act 1986* (EP Act) requires the EPA to report to the Minister for Environment on the outcome of its assessment of a proposal. The report must set out:

- the key environmental factors identified in the course of the assessment; and
- the EPA's recommendations as to whether or not the proposal may be implemented, and, if the EPA recommends that implementation be allowed, the conditions and procedures to which implementation should be subject.

The EPA may include in the report any other advice and recommendations as it sees fit.

The proponent has submitted a referral document setting out the details of the proposal, potential environmental impacts and proposed commitments to manage those impacts.

The EPA considers that the proposal, as described, can be managed to meet the EPA's environmental objectives, subject to the EPA's recommended conditions being made legally binding.

The EPA has therefore determined under Section 40 of the EP Act that the level of assessment for the proposal is Assessment on Proponent Information (API), and this report provides the EPA's advice and recommendations in accordance with Section 44 of the EP Act.

2. The proposal

The proposal is to construct and operate approximately 70 km of duplicate rail line and supporting infrastructure from the Cape Lambert Port facilities to Emu Siding (Figure 1). Supporting infrastructure would include the following:

- marshalling yard and associated infrastructure adjacent to Cape Lambert Port;
- locomotive refuelling facility at Cape Lambert;
- extension from Emu Siding to service the Deepdale Line;
- ballast load out facility adjacent to the existing quarry at Cape Lambert;
- crossovers between the existing and duplicate rail line at four points to facilitate movement of trains between the tracks; and
- installation of communication cabling, asset protection and signalling equipment.

The main characteristics of the proposal are summarised in the table below.

Table 1: Summary of key proposal characteristics

Element	Description
Length	Up to 77 kilometres
Clearing	<ul style="list-style-type: none">• Up to 1925 hectares total clearing.• Up to 150 hectares within the Millstream Chichester National Park.
Deviation from original line	Up to 500 metres.
Drainage structures	Replication of culverts and bridges of the existing rail line, and additional culverts as required to maintain surface water drainage patterns.
Borrow	Up to 1305000 cubic metres, to be sourced from within the development envelope, but from outside of the Millstream Chichester National Park.
Water requirements	Up to 2.75 gigalitres over the construction period.
Trenching	Fibre optic cables to be laid in a rift created by dozer tine, to be immediately backfilled thus preventing opportunities for fauna entrapment. No other trenching required.

The potential impacts of the proposal are discussed by the proponent in the referral document (Strategen 2011).

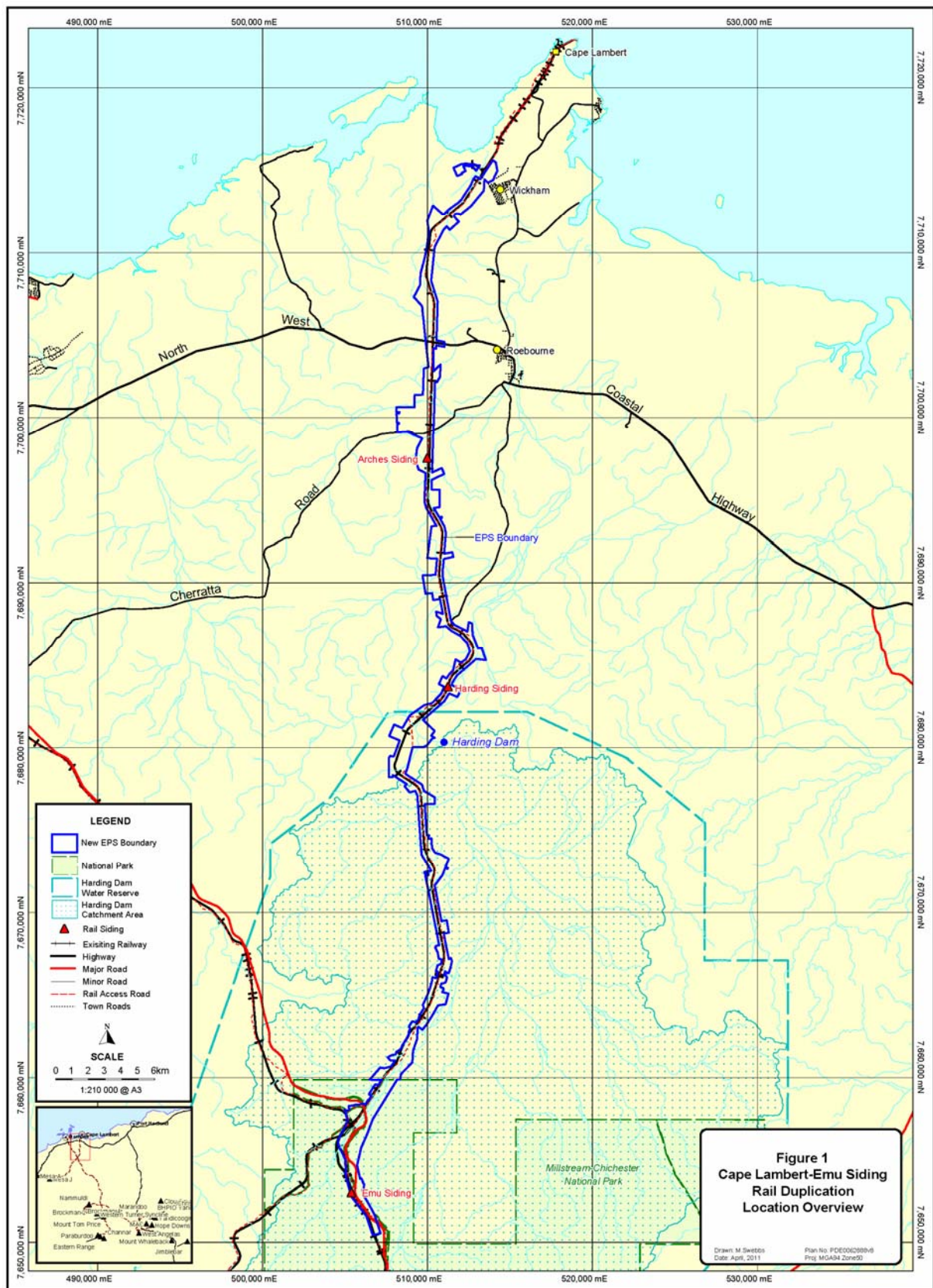


Figure 1: Location overview

3. Consultation

During the preparation of the API, the proponent has undertaken consultation with government agencies and key stakeholders. The agencies, groups and organisations consulted, the comments received and the proponent's response are detailed in Table 8 of the Proponent's referral document (Strategen 2011).

Key changes to the proposal arising from the stakeholder consultation process include:

- removal of the use of borrow pits within the Millstream-Chichester National Park (MCNP) from the proposal; and
- removal of the Western Alignment option from the proposal.

The EPA considers that the consultation process has been appropriate and that reasonable steps have been taken to inform the community and stakeholders on the proposed development.

4. Key environmental factors

It is the EPA's opinion that the following key environmental factors relevant to the proposal require evaluation in this report:

- (a) flora and vegetation; and
- (b) Millstream Chichester National Park.

The key environmental factors are discussed in Sections 4.1 and 4.2. The description of each factor shows why it is relevant to the proposal and how it will be affected by the proposal. The assessment of each factor is where the EPA decides whether or not a proposal meets the environmental objective set for that factor.

4.1 Flora and vegetation

Description

The project is located in the Pilbara region, within the Fortescue Botanical District. Vegetation of this area is typically open, dominated by spinifex, acacia species and occasionally Eucalyptus.

The project would require clearing of up to 1925 hectares (ha), with the subsequent rehabilitation of up to 910 ha in areas not required for the operation of the rail. Given the location of the project area adjacent to the existing rail, significant areas of the project area have been previously cleared for the existing rail and infrastructure (Strategen, 2011).

Indirect impacts to flora and vegetation as a result of the proposal would include the introduction and spread of weed species along the rail corridor, interception of surface water flows, increased risk of fire, and increased dust emissions.

Flora and vegetation surveys were conducted within the project area in April and August 2008 in accordance with EPA Guidance Statement 51 (EPA 2004). No

Threatened Ecological Communities (TECs) or Declared Rare Flora (DRF) are expected to occur within the project area.

The majority of the vegetation types within the project area are well represented in the region and are not considered to be of high conservation significance; however some areas of moderate to high conservation significance have been identified by the proponent, including two Priority Ecological Communities (PECs).

A description of the vegetation units within the project area which the proponent has identified as being of conservation significance is included in section 6.4 of the proponent's API (Strategen 2011), and in the Flora and Vegetation report included at Appendix 1 of the API (Biota 2008). Table 13 of the API indicates the area of each of these vegetation units within the project area, and the percentage of that area which would be disturbed by the proposal.

Weeds are widespread throughout the project area. The proponent has conducted weed surveys throughout the project area, and has identified 17 weed species. Ruby Dock is expected to occur within the project area, and is considered to be a particular problem within the MCNP.

The proponent has proposed a number of management strategies to minimise impacts to flora and vegetation as a result of the proposal. These are described in section 6.5 of the API document (Strategen 2011) and in the proponent's Construction Environmental Management Plan (CEMP) (Calibre Rail 2010). Key management actions include:

- identification of environmentally sensitive areas including conservation significant vegetation types and priority flora;
- minimising disturbance to environmentally sensitive areas through planning and location of infrastructure within previously disturbed areas, and restriction of clearing to authorised areas through an internal clearing approval process;
- progressive rehabilitation of disturbed areas using local native species;
- baseline weed mapping and routine weed inspections of the project area;
- implementation of weed hygiene practices for vehicles and machinery within the project area;
- treatment of new and emerging weed infestations; and
- culvert design and erosion control measures to ensure that existing surface water drainage patterns are maintained.

Assessment

The EPA's environmental objectives for this factor are to:

- maintain the abundance, species diversity, geographic distribution and productivity of vegetation communities; and
- protect Declared Rare and Priority Flora, consistent with the provisions of the *Wildlife Conservation Act 1950*.

The maximum disturbance to any conservation significant vegetation type is expected to be less than 12% of the population within the project area. The EPA notes that actual disturbance is likely to be much lower following refinement of the rail route in

accordance with the proposed management actions described in section 6.5 of the API document. Given the extent of each vegetation type outside the project area, the EPA considers that the impact to the regional distribution of conservation significant vegetation types as a result of clearing associated with the proposal is not likely to be significant.

The EPA notes that approximately 910 ha of the area proposed to be disturbed would be rehabilitated following construction of the rail line. The EPA has recommended a condition to ensure that rehabilitation is undertaken appropriately using current best practice methodology.

Weeds are widespread throughout the proposed disturbance area. The Department of Environment and Conservation (DEC) has advised that Ruby Dock is of particular concern in the project area, and that RTIO's previous weed management along the existing rail line has been inadequate.

The EPA considers that appropriate management of weeds is an important factor for this proposal, with particular regard to the section of the railway within the MCNP. The EPA has therefore recommended a condition to ensure that weeds are appropriately surveyed and managed during and following the construction of the rail line.

The EPA notes that surface water drainage patterns in the project area have been modified through the construction of the existing rail line and access roads. Current drainage patterns would be maintained by replicating the existing culverts and drainage structures. The EPA considers that impacts to flora and vegetation as a result of changes to surface water related to this proposal are not likely to be significant.

The EPA notes that there is also a potential for flora and vegetation in the project area to be impacted by the proposal indirectly through factors including increased dust emissions, increased risk of fire, and vehicle movement. The EPA also notes that the proponent has detailed management actions for these factors within the API document and considers these management actions are appropriate.

Summary

Having particular regard to the:

- regional distribution of the vegetation types within the project area; and
- proponent's proposed management actions,

it is the EPA's opinion that the proposal can be managed to meet the EPA's environmental objective for this factor provided that the EPA's recommended conditions 6 and 7 in relation to control of weeds and rehabilitation of cleared areas are implemented.

4.2 Millstream Chichester National Park

Description

Approximately 10 km of the rail corridor would occur within the MCNP. This would require disturbance within the MCNP of up to 150 ha. Approximately 50% of this area

would be rehabilitated subsequent to construction. (Strategen 2011). Of the area to be cleared, approximately 75 ha occurs outside the area previously excised from the MCNP for the original rail line.

As a result of consultation with key stakeholders and decision making authorities, RTIO has agreed to source all borrow required for the construction of the rail from outside the MCNP.

Potential sources of impact to the values of the MCNP associated with the proposal include impacts to flora and vegetation, impacts to visual amenity, and workforce access to the National Park.

Impacts to flora and vegetation within the MCNP would include clearing, introduction and spread of weeds, changes to surface water drainage patterns, increased risk of fire, and increased dust emissions. These issues have been addressed in section 4.1 above, and would be managed according to the management actions described in section 6.4 of the API (Strategen 2011). Further management actions to be applied within the MCNP are detailed in section 8.5 of the API (Strategen 2011), with particular regard to weed control and hygiene measures for borrow material to be brought into the Park.

The visual landscape in the project area has been previously disturbed by the existing rail line and access roads. The rail duplication therefore represents only a small modification to a previously disturbed landscape and is unlikely to represent a significant impact to the visual amenity of the MCNP.

It is expected that the proposal would require the presence of a construction and associated workforce within the MCNP for approximately two years. There is potential for workforce presence within the Park to result in impacts to the values of the MCNP including additional wear on visitor facilities, increased risk of fire, disorderly and nuisance behaviour and additional waste disposal.

Management actions to reduce potential impacts associated with workforce presence are detailed in section 8.5.5 of the API (Strategen 2011) and include workforce induction and education, prohibition of alcohol and firearms within the project area, organised and supervised activities within the Park, and control of vehicle use within the Park.

Assessment

The EPA's environmental objective for this factor is to ensure that the purpose and usage of conservation reserves and National Parks are not compromised.

EPA Report 924 *West Angelas Iron Ore Project* (EPA 1999) concluded that *"the construction of a new railway line through the Millstream-Chichester National Park cannot be managed to meet the EPA's environmental objectives for national parks"* The report also noted that the expanded use of the existing rail line could be managed to meet the EPA's objectives, and that any new railway line within the MCNP should be within 1 km of the existing line. The currently proposed rail duplication is in accordance with this requirement.

The EPA notes that the proposal would require approximately 150 ha of clearing within the boundaries of the MCNP, with 75 ha of this occurring outside the area previously excised from the Park.

The EPA considers that the scale of the impact to flora and vegetation is likely to be small given the location of the rail duplication in close proximity to existing infrastructure, and that implementation should be subject to the EPA's recommended conditions in relation to rehabilitation and weed management, and the management actions proposed by RTIO. However, the EPA considers that, given the high conservation values associated with flora and vegetation within the Park, any impact to flora and vegetation should be considered significant and mitigated as far as possible.

The EPA notes that some residual impact to the conservation and tourism values of the MCNP may occur as a result of increased use of the Park by the construction workforce.

The proponent has prepared a Residual Impact and Risk Management Measures package in consultation with the DEC and the Conservation Commission of Western Australia. The EPA notes that this package addresses the residual impacts of the proposal related to clearing and workforce presence within the MCNP.

The EPA has therefore recommended a condition to ensure that the agreed Residual Impact package is implemented by the proponent in consultation with relevant stakeholders and decision making authorities in order to address the residual impacts of the proposal to the MCNP.

Summary

Having particular regard to the:

- small scale of potential impacts within the National Park;
- location of the duplicate rail line within 1 km of the existing rail line; and
- proponent's proposed management actions,

it is the EPA's opinion that the proposal can be managed to meet the EPA's environmental objective for this factor provided that the EPA's recommended conditions are implemented, and that appropriate residual impact and risk management measures are developed by the proponent in consultation with relevant stakeholders

5. Recommended conditions

Having considered the information provided in this report, the EPA has developed a set of conditions that the EPA recommends be imposed if the proposal by Rio Tinto Iron Ore to duplicate the existing rail line from Cape Lambert to Emu Siding is approved for implementation. These conditions are presented in Appendix 2.

6. Other advice

Land use conflicts

During the assessment of this proposal the EPA has received advice from companies operating within and around the Anketell area regarding potential conflicts in land use arising from this proposal.

The EPA considers that these conflicts are more appropriately dealt with by the Department of State Development's coordination of infrastructure developments in the region rather than through the environmental assessment process. The EPA has therefore not considered these issues in its assessment of this proposal.

In the event that conflicts in land use result in a significant change to this proposal, the EPA expects that those changes would be referred to the EPA for separate assessment.

Construction Environmental Management Plan

It is the EPA's expectation that the proponent and other agencies will ensure that the management actions detailed in the proponent's Construction Environmental Management Plan (CEMP) are implemented in the area of their responsibility.

Noise

Noise would be generated during construction of the project through blasting, cutting and filling operations, and during operations through the movement and operation of vehicles. The proponent is expected to comply with the Environmental Protection (Noise) Regulations (1997) and the State Planning Policy 5.4: Road and Rail Transport Noise and Freight Considerations in Land Use Planning (WAPC 2009).

7. Conclusions

The EPA has considered the proposal by Rio Tinto Iron Ore to construct and operate a duplicate rail line and associated infrastructure adjacent to the existing rail line from Cape Lambert to Emu Siding.

The EPA notes that the project would require clearing of approximately 1750 ha, with the subsequent rehabilitation of up to 910 ha in areas not required for the operation of the rail.

The EPA notes that significant areas of the project area have been previously cleared for the existing rail and infrastructure, and that the majority of the vegetation types within the project area are well represented in the region and are not considered to be of high conservation significance. The maximum disturbance to any conservation significant vegetation type is expected to be less than 12% of the population within the project area. Given the extent of each vegetation type outside the project area, the EPA considers that the impact to the regional distribution of flora and vegetation as a result of clearing associated with the proposal is not likely to compromise the EPA's objectives for this factor.

The EPA has recommended a condition to ensure that areas of vegetation cleared during the construction of the rail line, but not required for its operation, are rehabilitated appropriately.

The EPA notes that weeds are widespread throughout the proposed disturbance area. The EPA considers that appropriate management of weeds is an important factor for this proposal, with particular regard to the section of the railway within the MCNP. The EPA has therefore recommended a condition to ensure that weeds are appropriately surveyed and managed during and following the construction of the rail line.

The EPA also notes that approximately 10 km of the rail corridor would occur within the MCNP. This would require disturbance within the MCNP of up to 150 ha. Approximately 50% of this area would be rehabilitated subsequent to construction.

The EPA considers that the proposal is likely to result in a small residual impact on the values of the MCNP as a result of direct and the indirect impacts to flora and vegetation, and increased use of the National Park by construction workforce. The EPA notes that the scale of the impact to flora and vegetation is likely to be small given the location of the rail duplication in close proximity to existing infrastructure.

The EPA considers that impacts to the overall values of the MCNP as a result of the proposal are unlikely to be significant, provided that the EPA's recommended conditions with regards to weeds and rehabilitation are implemented. However, the EPA also considers that any impact within a National Park should be mitigated as far as possible. The EPA has therefore recommended a condition to ensure that appropriate residual impact and risk management measures are implemented by the proponent in consultation with relevant stakeholders and decision-making authorities, in order to address the residual impacts of the proposal to the MCNP.

The EPA has therefore concluded that the proposal can be managed to meet the EPA's environmental objectives, provided there is satisfactory implementation by the proponent of the recommended conditions set out in Appendix 2.

8. Recommendations

The EPA submits the following recommendations to the Minister for Environment:

1. That the Minister notes that the proposal being assessed is to construct and operate a duplicate rail line and associated infrastructure adjacent to the existing rail line from Cape Lambert to Emu Siding.
2. That the Minister considers the report on the key environmental factors as set out in Section 4.
3. That the Minister notes that the EPA has concluded that the proposal can be managed to meet the EPA's environmental objectives, provided there is satisfactory implementation by the proponent of the recommended conditions set out in Appendix 2.

4. That the Minister imposes the conditions and procedures recommended in Appendix 2 of this report.

Appendix 1

References

Biota (2008) *A Vegetation and Flora Survey of the Rio Tinto Rail Duplication Project – Cape Lambert to Emu Siding*. Prepared for Rio Tinto Iron Ore, August 2008, Leederville, WA.

Calibre Rail (2010) *Rail Capacity Enhancement Project – Construction Environmental Management Plan*. Prepared for Rio Tinto by Calibre Rail, May 2010, Perth, WA.

EPA (1999) *West Angelas Iron Ore Project – Report and Recommendations of the Environmental Protection Authority*. January 1999. Environmental Protection Authority, Perth, Western Australia,

EPA (2004) *Terrestrial Flora and Vegetation Surveys for Environmental Impact in Western Australia*. Guidance Statement 51, Environmental Protection Authority, June 2004, Perth, Western Australia.

Strategen (2011) *Cape Lambert to Emu Siding Rail Duplication – Assessment on Proponent Information*. Prepared for Rio Tinto by Strategen, April 2011, Subicao, WA.

Appendix 2

Identified Decision-making Authorities and Recommended Environmental Conditions

Identified Decision-making Authorities

Section 44(2) of the *Environmental Protection Act 1986* (EP Act) specifies that the EPA's report must set out (if it recommends that implementation be allowed) the conditions and procedures, if any, to which implementation should be subject. This Appendix contains the EPA's recommended conditions and procedures.

Section 45(1) requires the Minister for Environment to consult with decision-making authorities, and if possible, agree on whether or not the proposal may be implemented, and if so, to what conditions and procedures, if any, that implementation should be subject.

The following decision-making authorities have been identified for this consultation:

Final decision making authorities identified* for consultation	
Decision making authority	Approval
1. Minister for Water	Water extraction licence – <i>RiWI Act 1914</i>
2. Minister for Indigenous Affairs	<i>Aboriginal Heritage Act 1972</i> – s18 approval
3. Minister for Mines and Petroleum	<i>Mining Act 1978</i>
4. Minister for Lands	<i>Land Administration Act</i>
5. Minister for State Development	<i>Iron Ore (Hamersley Range) Agreement Act 1963</i> <i>Iron Ore (Robe River) Agreement Act 1964</i>
6. Shire of Ashburton	Planning approval
7. Shire of Roebourne	Planning approval
8. Department of Environment and Conservation	<i>Environmental Protection Act 1986</i>
9. Department of Mines and Petroleum	<i>Mining Act 1978</i>

Note: In this instance, agreement is required with DMA's #1-5 since these DMAs are Ministers.

Statement No.

RECOMMENDED ENVIRONMENTAL CONDITIONS

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

Cape Lambert to Emu Siding Rail Duplication

Proposal: The proposal is to construct and operate a rail line and associated infrastructure adjacent to the existing rail line from Cape Lambert to Emu Siding.

The proposal is further documented in schedule 1 of this statement.

Proponent: Rio Tinto Iron Ore

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

Assessment Number: 1892

Report of the Environmental Protection Authority: Report 1408

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

1 Proposal Implementation

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

Published on

2 Proponent Nomination and Contact Details

- 2-1 The proponent for the time being nominated by the Minister for Environment under sections 38(6) or 38(7) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal.
- 2-2 The proponent shall notify the Chief Executive Officer of the Office of the Environmental Protection Authority of any change of the name and address of the proponent for the serving of notices or other correspondence within 30 days of such change.

3 Time Limit of Authorisation

- 3-1 The authorisation to implement the proposal provided for in this statement shall lapse and be void five years after the date of this statement if the proposal to which this statement relates is not substantially commenced.
- 3-2 The proponent shall provide the Chief Executive Officer of the Office of the Environmental Protection Authority with written evidence which demonstrates that the proposal has substantially commenced on or before the expiration of five years from the date of this statement.

4 Compliance Reporting

- 4-1 The proponent shall prepare and maintain a compliance assessment plan to the satisfaction of the Chief Executive Officer of the Office of the Environmental Protection Authority.
- 4-2 The proponent shall submit to the Chief Executive Officer of the Office of the Environmental Protection Authority the compliance assessment plan required by condition 4-1 at least six months prior to the first compliance report required by condition 4-6, or prior to implementation, whichever is sooner.

The compliance assessment plan shall indicate:

- 1 the frequency of compliance reporting;
- 2 the approach and timing of compliance assessments;
- 3 the retention of compliance assessments;
- 4 the method of reporting of potential non-compliances and corrective actions taken;

- 5 the table of contents of compliance assessment reports; and
- 6 public availability of compliance assessment reports.
- 4-3 The proponent shall assess compliance with conditions in accordance with the compliance assessment plan required by condition 4-1.
- 4-4 The proponent shall retain reports of all compliance assessments described in the compliance assessment plan required by condition 4-1 and shall make those reports available when requested by the Chief Executive Officer of the Office of the Environmental Protection Authority.
- 4-5 The proponent shall advise the Chief Executive Officer of the Office of the Environmental Protection Authority of any potential non-compliance within seven days of that non-compliance being known.
- 4-6 The proponent shall submit to the Chief Executive Officer of the Office of the Environmental Protection Authority the first compliance assessment report fifteen months from the date of issue of this Statement addressing the twelve month period from the date of issue of this Statement and then annually from the date of submission of the first compliance assessment report.

The compliance assessment report shall:

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

5 Public Availability of Data

- 5-1 subject to condition 5-2, within a reasonable time period approved by the Chief Executive Officer of the Office of the Environmental Protection Authority of the issue of this Statement and for the remainder of the life of the proposal the proponent shall make publicly available, in a manner approved by the Chief Executive Officer of the Office of the Environmental Protection Authority, all validated environmental data (including sampling design, sampling methodologies, empirical data and derived information

products (e.g. maps)) relevant to the assessment of this proposal and implementation of this Statement.

- 5-2 If any data referred to in condition 5-1 contains particulars of:
- i. A secret formula or process; or
 - ii. Confidential commercially sensitive information

The proponent may submit a request for approval from the Chief Executive Officer of the Office of the Environmental Protection Authority to not make this data publically available. In making such a request the Proponent shall provide the CEO with an explanation and reasons why the data should not be made publically available.

6 Weeds

6-1 The Proponent shall ensure that:

- i. No new species of declared weeds and environmental weeds are introduced into the proposal area within the Millstream-Chichester National Park or other area of remnant vegetation as a result of implementation of the proposal, and that the abundance and distribution of existing weeds is not increased as a direct or indirect result of implementation of the proposal.
- ii. Prior to ground disturbing activities the Proponent shall undertake a baseline weed survey to determine the species and extent of declared weeds and environmental weeds present at weed monitoring sites within 50 metres of the proposed rail line.
- iii. Within 12 months of approval, the proponent shall undertake a baseline survey at regular distances along transects from the disturbance footprint, including reference sites on undisturbed land at least 200m from the disturbance footprint. These transects are to be distributed along the length of the rail line at intervals no greater than 5 kilometres and at locations agreed by the Department of Environment and Conservation for sites within the Millstream Chichester National Park
- iv. Baseline and reference weed monitoring sites surveyed as required by condition 6-1(ii) and 6-1(iii) are to be monitored annually for 2 years following the completion of construction, and every 2 years for the life of the proposal to determine whether changes in weed cover and type within 50 metres of the disturbance footprint have occurred and are likely to have resulted from implementation of the proposal or broader regional changes.
- v. If the results of monitoring under condition 6-1(iv) indicate that adverse changes in weed cover and type within 50 metres of the disturbance footprint are occurring, the Proponent shall report the monitoring findings to the Office of the Environmental Protection Authority within 3 months of completion of the monitoring.

- vi. If the adverse changes in weed cover reported under condition 6-1(v) are determined to be proposal attributable by the Chief Executive Officer of the Office of the Environmental Protection Authority the proponent shall immediately undertake weed control and rehabilitation in the affected areas, where Proposal attributable weed cover has adversely changed, using native flora species of local provenance.
- vii. The proponent shall continue to implement the remedial measures required by condition 6-1(iv) until approval is given by the Chief Executive Officer of the Environmental Protection Authority to cease.

7 Rehabilitation

- 7-1 The proponent shall undertake progressive rehabilitation of all areas not required for the operation of the rail line during and following construction to achieve the following outcome:
 - 1. The percentage cover and species diversity of living self sustaining native vegetation in all rehabilitation areas shall be comparable to that of undisturbed natural analogue sites as demonstrated by a methodology acceptable to the Chief Executive Officer of the Office of the Environmental Protection Authority.
- 7-2 Rehabilitation activities shall continue until such time as the requirements of condition 7-1 are met, and are demonstrated by inspections and reports to be met, for a minimum of five years following the completion of construction to the approval of the Chief Executive Officer of the Office of the Environmental Protection Authority, on advice of the Department of Environment and Conservation.

8 Millstream-Chichester National Park Residual Impact and Risk Management Measures

- 8-1 Given the residual impacts and risks of the Proposal to the values of the Millstream Chichester National Park as a result of vegetation clearing and workforce use of the Park, the proponent shall undertake measures during the implementation of the proposal, in accordance with the proposal and with the agreed Residual Impact package described in the *Cape Lambert to Emu Siding Rail Duplication Project Offsets Strategy* (June 2011) and summarised in Schedule 2.

10 Decommissioning

- 10-1 At least six months prior to the anticipated date of closure, the proponent shall submit a report demonstrating how the following criteria will be met:

1. removal or, if agreed in writing by the appropriate regulatory authority, retention of plant and infrastructure agreed in consultation with relevant stakeholders;
2. rehabilitation of all disturbed areas to a standard suitable for the new land use(s) as agreed pursuant to the consultation referred to in condition 10-2(1); and
3. identification of contaminated areas, including provision of evidence of notification and proposed management measures to relevant statutory authorities.

11 Definitions

In these conditions:

“Suitably qualified botanists” is a person who has a minimum of five years relevant field survey experience.

Notes

1. The Minister for Environment will determine any dispute between the proponent and the Office of the Environmental Protection Authority over the fulfilment of the requirements of the conditions.

The Proposal (Assessment No. 1892)

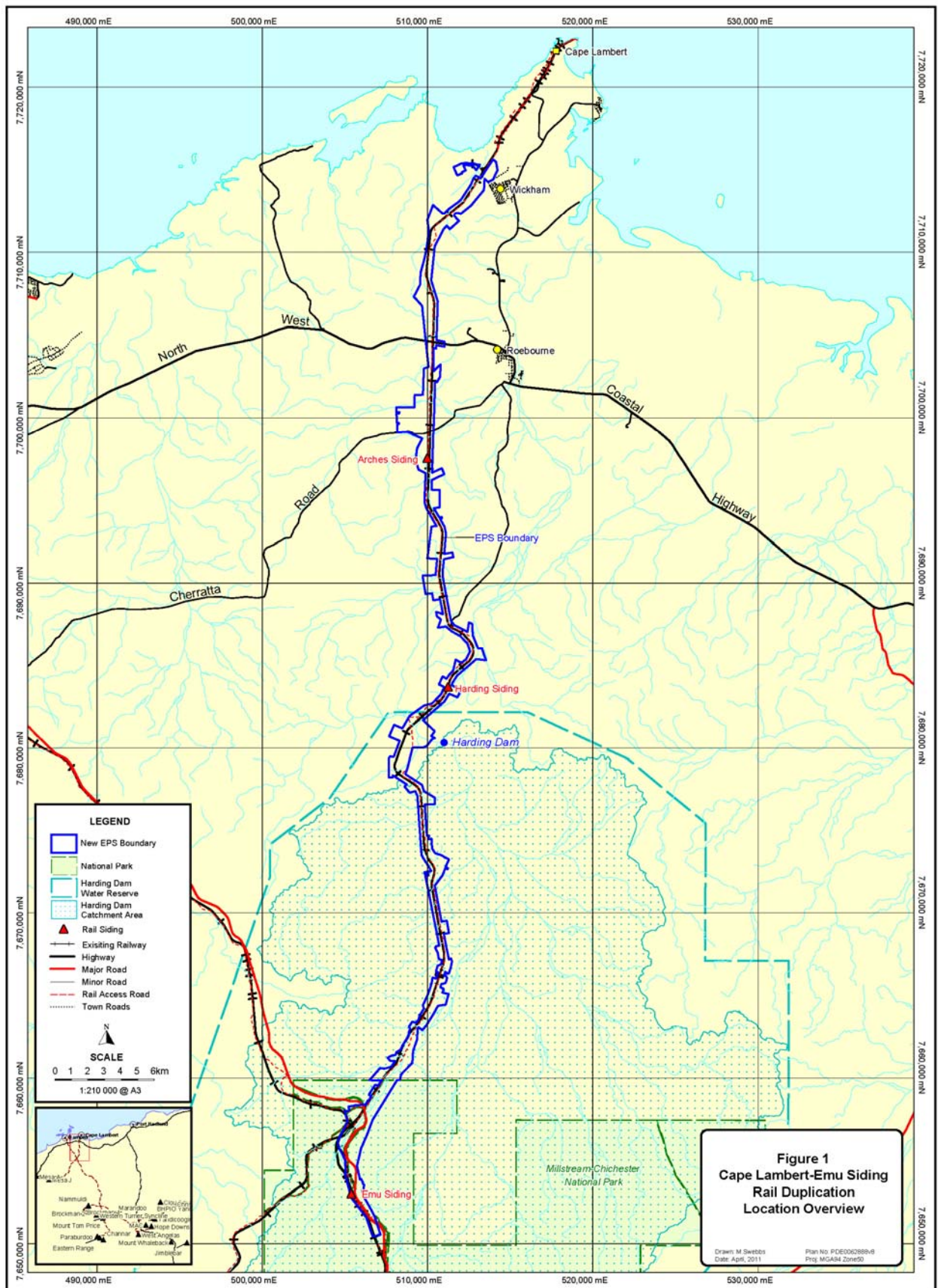
The proposal is to construct and operate approximately 70km of duplicate rail line and supporting infrastructure from the Cape Lambert Port facilities to Emu Siding. (Figure 1) Supporting infrastructure would include the following:

- marshalling yard and associated infrastructure adjacent to Cape Lambert Port;
- locomotive refuelling facility at Cape Lambert;
- extension from Emu Siding to service the Deepdale Line;
- ballast load out facility adjacent to the existing quarry at Cape Lambert;
- crossovers between the existing and duplicate rail line at four points to facilitate movement of trains between the tracks; and
- installation of communication cabling, asset protection and signalling equipment.

The main characteristics of the proposal are summarised in the table below.

Table 1: Summary of key proposal characteristics

Element	Description
Length	Up to 77 kilometres
Clearing	<ul style="list-style-type: none"> • Up to 1925 hectares total clearing. • Up to 150 hectares within the Millstream Chichester National Park.
Deviation from original line	up to 500 metres
Drainage structures	Replication of culverts and bridges of the existing rail line, and additional culverts as required to maintain surface water drainage patterns.
Borrow	Up to 1305000 cubic metres, to be sourced from within the development envelope, but from outside of the Millstream Chichester National Park
Water requirements	Up to 2.75 GL over the construction period
Trenching	Fibre optic cables to be laid in a rift created by dozer tine, to be immediately backfilled thus preventing opportunities for fauna entrapment. No other trenching required.



Schedule 2 Rio Tinto Residual Impact and Risk Management Package

Residual Impact Management Project	Value and Timeframe	Responsibility to Implement	Governance	Cost
Direct Offset				
Project A: <ul style="list-style-type: none"> Managing the impacts and risks associated with the proposed clearing of native vegetation within the MCNP (permanent and temporary). Managing the impacts and risks associated with a potential increase in activities within the MCNP as a result of construction of the Project. (To include rehabilitation or other activities deemed more beneficial to the MCNP).	\$275,000 per annum. Service Order will be raised by 31 January of each year (2012, 2013*, 2014*, 2015*, 2016*) (* indexed to CPI)	RTIO / DEC	RTIO / DEC	\$1,375,000 Over 5 years Note: The disturbance footprint may change as a result of detailed feasibility studies and heritage surveys. Rio Tinto will provide resources to DEC for the actual permanent and temporary disturbances on a pro-rata basis in accordance with the rates and ratios agreed in this Agreement.
Contributory Offset: Management				
Project B: Managing the impacts and risks associated with the following threatening processes as a result of the Project: <ul style="list-style-type: none"> Spread and/or introduction of weeds within MCNP. Increased risk of fire within the MCNP. 	\$250,000 per annum. Service Order will be raised by 31 January of each year (2012, 2013*, 2014*, 2015*, 2016*) (* indexed to CPI)	RTIO / DEC	RTIO / DEC	\$1,250,000 Over 5 years Note: The disturbance footprint may change as a result of detailed feasibility studies and heritage surveys. Rio Tinto will provide resources to DEC for the actual permanent and temporary disturbances on a pro-rata basis in accordance with the rates and ratios agreed in this Agreement.
				\$2,625,000