



Referral of a Proposal to the Environmental Protection Authority under Section 38 of the *Environmental Protection Act 1986*.

PURPOSE OF THIS FORM

Section 38 of the *Environmental Protection Act 1986* (EP Act) makes provision for the referral to the Environmental Protection Authority (EPA) of a proposal (significant proposals, strategic proposals and proposals under an assessed scheme) by a proponent, a decision making authority (DMA), or any other person.

The purpose of this form is to ensure that EPA has sufficient information about a proposal to make a decision about the nature of the proposal and whether or not the proposal should be assessed under Part IV of the EP Act. Information provided in the referral form must be brief (no more than 30 pages), sharp and succinct to achieve the purposes of this form.

This form does not prevent the referrer from providing a supplementary referral report. Should a referrer choose to submit a supplementary referral report please ensure the following.

- i. Information is short, sharp and succinct.
- ii. Attachments are below eight megabytes (8 MB) as they will be published on the EPA's website (exemptions apply) for public comment. To minimise file size, "flatten" maps and optimise pdf files.
- iii. Cross-references are provided in the referral form to the appropriate section/s in the supplementary referral report.

This form is to be used for all proposals¹ which can be referred to the EPA under section 38 of the EP Act; i.e. referrals from: **proponents** of proposals (significant proposals, strategic proposals, derived proposals, proposals under an assessed scheme); **DMAs** (significant proposals); and **third parties** (significant proposals).

This form is divided into several sections, including; Referral requirements and Declaration; Part A - Information of the proposal and proponent; and Part B Environmental Factors. Guidance on successfully completing this form is provided throughout the form and is also available in the EPA's *Environmental Assessment Guideline for Referral of a Proposal under s38 of the EP Act* (EAG 16).

Send completed forms to

Office of the Environmental Protection Authority
Locked Bag 10, East Perth WA 6892

or

Email: Registrar@epa.wa.gov.au

Enquiries

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¹ Please note that this form consolidates and replaces the following forms: *Referral of a Proposal by the Proponent to the EPA under section 38(1) of the EP Act*; *Referral of a Proposal by a third party to the EPA under section 38(1) of the EP Act*; and *Referral of a development proposal to the EPA by the decision making authority*.

Referral requirements and Declaration

The following section outlines the referral information required from a proponent, decision making authority and third party.

(a) Proponents

Proponents are expected to complete all sections of the form and provide GIS spatial data to enable the EPA to consider the referral. Spatial GIS data is necessary to inform the EPA's decision.

The EPA expects that a proponent will address Part B of the form as thoroughly as possible to demonstrate whether or not the EPA's objectives for environmental factors can be met.

If insufficient information is provided the EPA will request more information and processing of the referral will commence once the information is provided or the EPA decides to make a precautionary determination on the available information.

Proponent to complete before submitting form	
Completed all the questions in Part A (essential)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Completed all the questions in Part B	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Completed all other applicable questions	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Included Attachment 1 – any additional document(s) the proponent wishes to provide	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Included Attachment 2 – confidential information (if applicable)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (N/A)
Enclosed an electronic copy of all referral information, including spatial data and contextual mapping but clearly separating any confidential information	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Completed the Declaration	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What is the type of proposal being referred? <i>* a referred proposal seeking to be declared a derived proposal</i>	<input checked="" type="checkbox"/> significant <input type="checkbox"/> strategic <input type="checkbox"/> derived* <input type="checkbox"/> under an assessed scheme
Do you consider the proposal requires formal environmental impact assessment?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If yes, what level of assessment? <i>API = Assessment of Proponent Information</i> <i>PER = Public Environmental Review</i>	<input type="checkbox"/> API Category A <input type="checkbox"/> API Category B <input checked="" type="checkbox"/> PER

NB: The EPA may apply an Assessment on Proponent Information (API) level of assessment when the proponent has provided sufficient information about:

- the proposal;
- the proposed environmental impacts;
- the proposed management of the environmental impacts; and
- when the proposal is consistent with API criteria outlined in the Environmental Impact Assessment (Part IV Division 1 and 2) Administrative Procedures 2012.

If an API A formal level of assessment is considered appropriate, please refer to Environmental Assessment Guideline No. 14 *Preparation for an Assessment on Proponent Information (Category A) Environmental Review Document EAG 14 (EAG14)*.

Declaration

I,Gavin Price....., (*full name*) declare that I am authorised on behalf of.....BHP Billiton Iron Ore Pty Ltd.... (being the person responsible for the proposal) to submit this form and further declare that the information contained in this form is true and not misleading.

Signature				Name (print)	GAVIN PRICE		
Position	Head of Environment	Organisation	BHP Billiton Iron Ore Pty Ltd				
Email	Gavin.H.Price@bhpbilliton.com						
Address	125	St Georges Tce					
	Perth		WA	6000			
Date	20 May 2016						

(b) Decision-making authority

The EPA expects decision-making authorities to complete applicable sections of Part A of the form and provide the proponent an opportunity to provide additional information in Part B of the form where appropriate.

Wherever possible the DMA should obtain relevant spatial information from the proponent and provide this to the EPA with the referral.

DMA to complete before submitting form	
Completed all the questions in Part A (essential)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Provided Part B to the proponent for completion	<input type="checkbox"/> Yes <input type="checkbox"/> No
Completed all other applicable questions	<input type="checkbox"/> Yes <input type="checkbox"/> No
Included Attachment 1 – any supporting information	<input type="checkbox"/> Yes <input type="checkbox"/> No
Enclosed an electronic copy of all referral information, including spatial data and contextual mapping	<input type="checkbox"/> Yes <input type="checkbox"/> No
Completed the below Declaration	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do you consider the proposal requires formal environmental impact assessment?	<input type="checkbox"/> Yes <input type="checkbox"/> No
What is the type of proposal being referred?	<input type="checkbox"/> significant proposal <input type="checkbox"/> significant proposal under an assessed scheme

Declaration

I,, (*full name*) submit this referral to the EPA for consideration of the environmental significance of its impacts.

Signature		Name (print)	
Position		Organisation	
Email			
Address	Street No.	Street Name	
	Suburb	State	Postcode
Date			

(c) Third Party

Third parties are asked to have consideration for the Significance Test outlined in Part A Section 1.5 of this form before referring a significant proposal to the EPA. The EPA will only consider proposals that are likely, if implemented, to have a significant effect on the environment.

Third parties are to provide sufficient information to clearly identify the significant proposal, the proponent, and their reasons for referring the proposal. This can be done by completing as much of Part A of the form as possible, taking into consideration the information available. Third parties may wish to fill in Part B of the form to advance their own views of the significance of the environmental impacts and the need for EPA assessment.

In most cases the EPA will seek additional information from the proponent. This will be to confirm or amend the identity of the proponent, the proposal, and to allow the proponent opportunity to provide its views on the significance of the environmental impacts and the need for EPA assessment.

Third Party to complete before submitting form	
Complete all applicable questions in Part A and B	<input type="checkbox"/> Yes <input type="checkbox"/> No
Completed the Declaration	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do you consider the proposal requires formal environmental impact assessment?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Declaration

I,, (*full name*) submit this referral to the EPA for consideration of the environmental significance of its impacts.

Signature		Name (print)		
Email				
Position		Organisation		
Address	Street No.	Street Name		
	Suburb	State	Postcode	
Date				

PART A: Information on the proposal and the proponent

All fields of Part A must be completed by the proponent and/or decision-making authority for this document to be processed as a referral. Third party referrers are only expected to fill in the fields they have information for.

1 PROPONENT AND PROPOSAL DESCRIPTION

1.1 The proponent of the proposal

Proponent and/or DMA to complete	
Name of the proponent	BHP Billiton Iron Ore Pty Ltd
Joint Venture parties (if applicable)	Joint Venture Ownership is: <ul style="list-style-type: none"> • BHP Billiton Minerals Pty Ltd - 85%; • Itochu Minerals and Energy of Australia Pty Ltd - 8%; and • Mitsui Iron Ore Corporation Pty Ltd - 7%.
Australian Company Number(s) (if applicable)	4600870098
Postal Address <i>(Where the proponent is a corporation or an association of persons, whether incorporated or not, the postal address is that of the principal place of business or of the principal office in the State)</i>	125 St Georges Terrace PERTH WA 6000
Key proponent contact for the proposal <i>Please include: name; physical address; phone; and email.</i>	Mark Garrahy Manager Environmental Approvals BHP Billiton Iron Ore 125 St Georges Terrace PERTH WA 6000 Phone: 6321 2181 Email: mark.garrahy@bhpbilliton.com
Consultant for the proposal (if applicable) <i>Please include: name; physical address; phone; and email.</i>	Not applicable

1.2 Proposal

Proposal is defined under the EP Act to mean a “project, plan, programme policy, operation, undertaking or development or change of land use, or amendment of any of the foregoing, but does not include scheme”. Before completing this section please refer to [Environmental Protection Bulletin 17 – Strategic and derived proposals \(EPB 17\)](#) and [Environmental Assessment Guideline for Defining the Key Characteristics of a proposal \(EAG 1\)](#).

Proponent and/or DMA to complete	
Title of the proposal	Mining Area C Revised Proposal
What project phase is the proposal at?	<input checked="" type="checkbox"/> Scoping <input type="checkbox"/> Feasibility <input type="checkbox"/> Detailed design <input type="checkbox"/> Other _____
Proposal type <i>More than one proposal type can be identified, however for filtering purposes it is recommended</i>	<input type="checkbox"/> Power/Energy Generation <ul style="list-style-type: none"> <input type="checkbox"/> Hydrocarbon Based – coal <input type="checkbox"/> Hydrocarbon Based – gas

Proponent and/or DMA to complete

that only the primary proposal type is identified.

- Waste to energy
- Renewable – wind
- Renewable – wave
- Renewable – solar
- Renewable – geothermal

Mineral / Resource Extraction

- Exploration – seismic
- Exploration – geotechnical
- Development

Oil and Gas Development

- Exploration
- Onshore – seismic
- Onshore – geotechnical
- Onshore – development
- Offshore – seismic
- Offshore – geotechnical
- Offshore – development

Industrial Development

- Processing
- Manufacturing
- Beneficiation

Land Use and Development

- Residential – subdivision
- Residential – development
- Commercial – subdivision
- Commercial – development
- Industrial – subdivision
- Industrial – development
- Agricultural – subdivision
- Agricultural – development
- Tourism

Linear Infrastructure

- Rail
- Road
- Power Transmission
- Water Distribution
- Gas Distribution
- Pipelines

Water Resource Development

- Desalination
- Surface or Groundwater
- Drainage
- Pipelines
- Managed Aquifer Recharge

Marine Developments

- Port

Proponent and/or DMA to complete	
	<input type="checkbox"/> Jetties <input type="checkbox"/> Marina <input type="checkbox"/> Canal <input type="checkbox"/> Aquaculture <input type="checkbox"/> Dredging <i>If other, please state below:</i> <input type="checkbox"/> Other _____
Proponent and/or DMA to complete	
<p>Description of the proposal – describe the key characteristics of the proposal in accordance with EAG 1.</p>	<p>The revised Proposal includes the development of a new satellite ore body at Southern Flank, which is located approximately 8 km to the south of the existing approved Mining Area C operations under Ministerial Statement 491 (Figure 2). The revised Proposal will require additional ground disturbance (including areas within the existing approved Mining Area C licence boundary and the development of the proposed new satellite deposits at Southern Flank). Conventional open pit mining methods will continue to extract ore from the existing approved Mining Area C deposits and the proposed Southern Flank deposits. Overland conveyors will transport ore from the Southern Flank deposits to existing processing facilities at Mining Area C (Figure 3). Incremental mining activity will be supported by the construction of new infrastructure as follows :</p> <ul style="list-style-type: none"> • Primary crushing facilities nominally located to the north of the proposed Southern Flank deposits; • Run of Mine (ROM) pads; • Overland conveyors to Coarse Ore Stockpile (COS) and Ore Handling Plant (OHP) infrastructure at Mining Area C; • Upgrade to the existing stockyards and outflow facilities; • Duplication of the existing rail loop and addition of a second Train Loadout (TLO); • Advanced mine de-watering in accordance with the mine plan; • Expansion of the existing Mulla Mulla Accommodation Village; • Installation of supporting non-process infrastructure (e.g. power lines, access roads) to support the new mining areas; and

Proponent and/or DMA to complete	
	<ul style="list-style-type: none"> Expansion of existing non-processing infrastructure (NPI) and industrial facilities to support production.
Timeframe in which the proposal is to occur (including start and finish dates where applicable).	<p>Part of the Proposal is already operating and is known as the <i>Multiple Iron Ore Development Mining Area C Northern Flank</i> (deposits A, B, C, D, E, F, R, P1, P2, P3, P4, P5, P6 and the Brockman Detrital Deposit) as approved under Ministerial Statement 491 in 1998. The Proposal includes continuing existing operations at Mining Area C and development of the new satellite deposits at Southern Flank. The timing for development of the Southern Flank deposits will be designed as a sustaining tonnes option to coincide with the rate of resource depletion at other BHP Billiton Iron Ore existing operations in the Pilbara region.</p> <p>Mining commenced at Mining Area C (initially at C Deposit) in 2003. Taking into consideration the existing approved and proposed new deposits at Southern Flank, this new Revised Proposal provides sufficient resource to continue operations well into the future (~ another 30 years).</p>
Details of any staging of the proposal.	Not applicable.
What is the current land use on the property, and the extent (area in hectares) of the property?	The Proposal is located on Mineral Lease ML281SA and the current land use is for the exploration and extraction of iron ore. The current Ministerial Statement 491 boundary covers an area of 25,814 hectares (ha). An additional 10,218 ha will be added to the Development Envelope as part of the Revised Proposal to encompass a new total Development Envelope area of 36,032 ha (Figure 3).
<p>Have pre-referral discussions taken place with the OEPA?</p> <p>If yes, please provide the case number. If a case number was not provided, please state the date of the meeting and names of attendees.</p>	<p>Yes: Case Number CMS16091</p> <p>Pre-referral discussions with the OEPA have been undertaken:</p> <ul style="list-style-type: none"> 3 March 2016 (Sally Bowman and Peter Tapsell). 13 May 2016 (Peter Tapsell).
DMA (Responsible Authority) to complete	
<p>For a proposal under an assessed scheme (as defined in section 3 of the EP Act, applicable only to the proponent and DMA) provide details (in an attachment) as to whether:</p> <ul style="list-style-type: none"> <i>The environmental issues raised by the proposal were assessed in any assessment of</i> 	Not applicable.

Proponent and/or DMA to complete	
<i>the assessed scheme.</i> <ul style="list-style-type: none"> <i>The proposal complies with the assessed scheme and any environmental conditions in the assessed scheme.</i> 	

1.3 Strategic / derived proposals

Complete this section if the proposal being referred is a strategic proposal or you are seeking the proposal to be declared a derived proposal. Note: Only a proponent may refer a strategic proposal and seek a proposal to be declared a derived proposal.

Proponent to complete	
Is this referred proposal a strategic proposal?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are you seeking that this proposal be declared a derived proposal?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If you are seeking that this proposal be declared a derived proposal, what is the Ministerial Statement number (MS #) of the associated strategic proposal?	MS #: <u>Not applicable</u>

1.4 Location

Proponents and DMAs must provide spatial data. Please refer to [EAG 1](#) for more detail.

Proponent, DMA and Third Party to complete	
Name of the Local Government Authority in which the proposal is located.	The Proposal is located in the Shire of East Pilbara.
Location: a) street address; lot number; suburb; and nearest road intersection; or b) if remote the nearest town; and distance and direction from that town to the proposal site.	Mineral Lease ML281SA, located approximately 100 km north-west of Newman (Figure 2).
Have maps and figures been included with the referral (consistent with EAG 1 where appropriate)? <i>The types of maps and figures which need to be provided (depending on the nature of the proposal) include:</i> <ul style="list-style-type: none"> maps showing the regional location and context of the proposal; and figures illustrating the proposal elements. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Figure 1: Regional Overview Figure 2: Tenure and Existing Ministerial Statement Disturbance Boundary Figure 3: Proposed General Arrangement
Proponent and DMA to complete	
Have electronic copies of spatial data been included with the referral? NB: <i>Electronic spatial (GIS or CAD) data, geo-referenced and conforming to the following parameters:</i> <ul style="list-style-type: none"> GIS: polygons representing all activities and named; CAD: simple closed polygons representing all activities and named; datum: GDA94; projection: Geographic (latitude/longitude) or Map Grid of Australia (MGA); format: ESRI geodatabase or shapefile, MapInfo Interchange Format, Microstation or AutoCAD.. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

1.5 Significance test and environmental factors

Proponent, DMA and Third Party to complete	
What are the likely significant environmental factors for this proposal?	<input type="checkbox"/> Benthic Communities and Habitat <input type="checkbox"/> Coastal Processes <input type="checkbox"/> Marine Environmental Quality <input type="checkbox"/> Marine Fauna <input checked="" type="checkbox"/> Flora and Vegetation <input type="checkbox"/> Landforms <input checked="" type="checkbox"/> Subterranean Fauna <input type="checkbox"/> Terrestrial Environmental Quality <input checked="" type="checkbox"/> Terrestrial Fauna <input checked="" type="checkbox"/> Hydrological Processes <input type="checkbox"/> Inland Waters Environmental Quality

Proponent, DMA and Third Party to complete	
	<input type="checkbox"/> Air Quality & Atmospheric Gases <input type="checkbox"/> Amenity <input type="checkbox"/> Heritage <input type="checkbox"/> Human Health <input checked="" type="checkbox"/> Offsets <input checked="" type="checkbox"/> Rehabilitation and Decommissioning
<p>Having regard to the Significance Test (refer to Section 7 of the <i>EIA Administrative Procedures 2012</i>) in what ways do you consider the proposal may have a significant effect on the environment and warrant referral to the EPA?</p>	<p>BHP Billiton Iron Ore has undertaken baseline surveys and is in the process of completing the required environmental impact assessment to review the potential impacts of the Proposal on the environmental values of the area. Based on the available baseline information and following a preliminary assessment, a number of key environmental factors have been identified for the Proposal that warrant referral to the EPA (these factors are summarised in Part B of this form). BHP Billiton Iron Ore is of the opinion that the Proposal will meet the requirements of the significance test in relation to assessment.</p>

1.6 Confidential information

All information will be made publically available unless authorised for exemption under the EP Act or subject to the Freedom of Information Act 1992.

Proponent to complete	
<p>Does the proponent request that the EPA treat any part of the referral information as confidential?</p> <p><i>Ensure all confidential information is provided in a separate attachment in hard copy.</i></p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

2 REGULATORY CONSIDERATIONS

This section applies to the Local, State and Commonwealth regulatory considerations for the referred proposal.

2.1 Government approvals

2.1.1 State or Local Government approvals

DMA to complete	
<p>What approval(s) is (are) required from you as a decision-making authority?</p>	
<p>Is rezoning of any land required before the proposal can be implemented? If yes, please provide details.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No

2.1.2 Regulation of aspects of the proposal

Complete the following to the extent possible.

Proponent to complete	
<p>Do you have legal access required for the implementation of all aspects of the proposal?</p> <p><i>If yes, provide details of legal access authorisations / agreements / tenure.</i></p> <p><i>If no, what authorisations / agreements / tenure is required and from whom?</i></p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>The tenure is State Agreement Mineral Lease ML281SA under the <i>Iron Ore (Mount Goldsworthy) Agreement Act 1964</i>.</p> <p>The application for tenure conversion to State Agreement is in progress for the E47/1432-I, E47/1767-I and E47/2500-I tenements (Figure 3).</p>

Outline both the existing approvals and approvals that will be / are being sought as a part of this proposal.

Proponent to complete			
Aspects* of the proposal	Type of approval	Legislation regulating this activity	Which State agency /entity regulate this activity?
Clearing of Native Vegetation for mining, waste storage and processing and non-process infrastructure	Public Environmental Review (PER)	<i>Environmental Protection Act 1986 – Part IV</i>	Office of Environmental Protection Authority
Groundwater abstraction/dewatering	5C Licence	<i>Rights in Water Irrigation Act 1914</i>	Department of Water
Operation of new infrastructure and increase in throughput	Environmental Licence	<i>Environmental Protection Act 1986 – Part V</i>	Department of Environmental Regulation
Clearing for Mulla Mulla Accommodation Camp	Native Vegetation Clearing Permit	<i>Environmental Protection Act 1986 – Part V</i>	Department of Environmental Regulation

*e.g. mining, processing, dredging

2.1.3 Commonwealth Government Environment Protection and Biodiversity Conservation Act 1999 approvals

Refer to the [assessment bilateral agreement](#) between the Commonwealth of Australia and the State of Western Australia for assistance on this section.

Proponent to complete	
<p>1. Does the proposal involve an action that may be or is a controlled action under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act)?</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><i>If no continue to Part A section 2.3.4.</i></p>

Proponent to complete	
2. What is the status of the decision on whether or not the action is a controlled action?	The proposal is within the scope of the BHP Billiton Iron Ore Pilbara Strategic Assessment under the EPBC Act.
3. If the action has been referred, when was it referred and what is the reference number (Ref #)?	Date: 18 September 2012 The action is subject to an Agreement to undertake a strategic assessment for mining iron ore in the Pilbara. All parts of question 8 below were addressed in Strategic Assessment.
4. If the action has been assessed, provide the decision in an attachment. Has an attachment been provided?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Do you request this proposal to be assessed under the bilateral agreement?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Complete the following to the extent possible for the Public Comment of EPBC Act referral documentation.

Proponent to complete	
6. Have you invited the public to comment on your referral documentation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
7. How was the invitation published?	<input checked="" type="checkbox"/> newspaper <input checked="" type="checkbox"/> website
8. Did the invitation include all of the following?	
(a) brief description of the action	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(b) the name of the action	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(c) the name of the proponent	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(d) the location of the action	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(e) the matters of national environmental significance that will be or are likely to be significantly impacted	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(f) how the relevant documents may be obtained	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(g) the deadline for public comments	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(h) available for public comment for 14 calendar days	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(i) the likely impacts on matters of national environmental significance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(j) any feasible alternatives to the proposed action	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(k) possible mitigation measures	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Proponent to complete	
9. Were any submissions received during the public comment period?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
10. Have public submissions been addressed? If yes provide attachment.	<input type="checkbox"/> Yes <input type="checkbox"/> No No submissions were received

2.1.4 Other Commonwealth Government Approvals

Proponent, DMA and Third Party to complete			
Is approval required from other Commonwealth Government/s for any part of the proposal?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes, please complete the table below.</i>	
Agency / Authority	Approval required	Application lodged?	Agency / Local Authority contact(s) for proposal
		<input type="checkbox"/> Yes <input type="checkbox"/> No	
		<input type="checkbox"/> Yes <input type="checkbox"/> No	

3. SUPPORTING INFORMATION

Please attach copies of any relevant information on the proposal, supporting evidence and / or existing environmental surveys, studies or monitoring information undertaken and list the documents below.

Proponent, DMA and Third Party to complete			
	<i>Title</i>	<i>Author</i>	<i>Document Description</i>
(1)	N/A		

PART B: ENVIRONMENTAL FACTORS

The purpose of Part B is to assist the EPA to determine the significance of the likely environmental impacts of the proposal in accordance with the EPA's *Environmental Assessment Guideline for Environmental factors and objectives* (EAG 8) and *Environmental Assessment Guideline for Application of a significant framework in the EIA process* (EAG 9). Referrers completing Part B should refer closely to EAG 8 and EAG 9.

The EPA has prepared [Referral of a Proposal under s38 of the EP Act EAG No.16 - Appendix A](#) (Appendix A) to assist in identifying factors and completing the below table. Further guidance can be found in the guidance and policy documents cited in Appendix A under each factor.

How to complete Part B

For each environmental factor, that is likely to be significantly impacted by the implementation of the proposal, make a copy of the table below and insert a summary of the relevant information relating to the proposal. The table can be broken down into more than one table per factor, if the need arises. For example the hydrological processes factor can be presented in two separate tables, one for surface water and one for groundwater, or similarly one for construction and one for operations.

For complex proposals a supplementary referral report can be provided in addition to the referral form. If this option is chosen the table must still be completed (summaries are acceptable) to assist the Office of the EPA with statistical reporting and filtering proposals for processing.

Proponents expecting an API level of assessment must provide information in accordance with the EPA's *Environmental Assessment Guideline for Preparation of an API-A environmental review document* (EAG 14).

For each of the significant environmental factors, complete the following table (Questions 1 – 10).

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
1	Factor, as defined in EAG 8	Flora and Vegetation
2	EPA Objective, as defined in EAG 8	To maintain representation, diversity, viability and ecological function at the species, population and community level.
3	Guidance - what established policies, guidelines, and standards apply to this factor in relation to the proposal?	EAG Guidance Statement 51 – <i>Terrestrial Flora and Vegetation Surveys for Environmental Impact in Western Australia</i> (EPA 2004). Position Statement 2 – Environmental Protection of Native Vegetation in WA (EPA 2000). Position Statement 3 – <i>Terrestrial Biological Surveys as an Element of Biodiversity Protection</i> (EPA 2002). Technical Guide – <i>Flora and Vegetation Surveys for Environmental Impact Assessment</i> (EPA and DPaW 2015).

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
4	<p>Consultation - outline the need for consultation and the outcomes of any consultation in relation to the potential environmental impacts, including:</p> <ul style="list-style-type: none"> • <i>anticipated level of public interest in the impact;</i> • <i>consultation with regulatory agencies; and</i> • <i>consultation with community.</i> 	<p>Pre-referral discussions have been undertaken with the OEPA and the Department of Parks and Wildlife (DPaW) regarding the Proposal scope and the proposed preliminary key factors.</p> <p>Ongoing consultation will be undertaken with the DPaW, OEPA and relevant community groups (eg traditional owners) regarding the proposed clearing of vegetation in 'Good' condition or above and the impacts to significant flora within the proposed Development Envelope.</p>

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
5	<p>Baseline information - describe the relevant characteristics of the receiving environment.</p> <p><i>This may include: regional context; known environmental values, current quality, sensitivity to impact, and current level of cumulative impacts.</i></p>	<p>Extensive baseline surveys have been undertaken within the additional Development Envelope and adjacent areas across multiple seasons and years. Relevant aspects include:</p> <ul style="list-style-type: none"> • Majority of native vegetation is rated in 'Good' or above condition. • There are no Threatened Flora, Declared Rare Flora (DRF), Threatened Ecological Communities (TECs) or PECs within the Development Envelope. • Nine priority flora species have been recorded within the proposed additional Development Envelope: seven P3 taxa and two P4 taxa comprising: <ul style="list-style-type: none"> - <i>Aristida jerichoensis</i> var. <i>subspinulifera</i> (P3) - <i>Grevillea saxicola</i> (P3) - <i>Nicotiana umbratica</i> (P3) - <i>Rhagodia</i> sp. <i>Hamersley</i> (M. Trudgen 17794) (P3) - <i>Rostellularia adscendens</i> var. <i>latifolia</i> (P3) - <i>Sida</i> sp. <i>Barlee Range</i> (S. van Leeuwen 1642) (P3) - <i>Triodia</i> sp. <i>Mt Ella</i> (M.E. Trudgen 12739) (P3) - <i>Acacia bromilowiana</i> (P4) - <i>Eremophila magnifica</i> subsp. <i>magnifica</i> (P4) • Groundwater-dependent ecosystems (GDE) associated with the Weeli Wolli Creek Priority Ecological Community (PEC) fall within the modelled groundwater drawdown area. • Nine introduced species have been recorded within the additional Development Envelope.

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
6	<p>Impact assessment - describe the potential impact/s that may occur to the environmental factor as a result of implementing the proposal.</p>	<p>Preliminary results from the environmental impact assessment indicate:</p> <ul style="list-style-type: none"> • Clearing of approximately 19,850 additional hectares of native vegetation in good or above condition, within a proposed disturbance envelope of 36 032 Ha. • Possible minor impacts to six species of Priority flora listed as P3 or P4 may occur. • Potential for moderate impacts to three species of Priority flora listed as P3 or P4. • Potential groundwater drawdown within areas along Weeli Wolli Creek containing groundwater dependent vegetation (<i>Eucalyptus camaldulensis</i>, <i>E. victrix</i> and <i>M. argentea</i>). • Possible spread or introduction of weeds due to movement of mining related vehicles. • No direct impacts to the Coondewanna Flats PEC are anticipated.
7	<p>Mitigation measures - what measures are proposed to mitigate the potential environmental impacts? The following should be addressed:</p> <ul style="list-style-type: none"> • <i>Avoidance - avoiding the adverse environmental impact altogether;</i> • <i>Minimisation - limiting the degree or magnitude of the adverse impact;</i> • <i>Rehabilitate – restoring the maximum environmental value that is reasonably practicable; and</i> • <i>Offsets – actions that provide environmental benefits to counterbalance significant residual environmental impacts or risks of a project or activity.</i> 	<p>BHP Billiton Iron Ore has developed a suite of control measures for managing potential impacts to biodiversity based on extensive operating experience in the Pilbara region. The controls are applied in a manner consistent with the outcome-based objective of 'maintaining the representation, diversity, viability and ecological function of flora and vegetation at species, population and community level' and in accordance with the BHP Billiton Iron Ore's mitigation hierarchy (avoid, mitigate, rehabilitate and, where there are significant residual impacts, offset).</p> <p>BHP Billiton Iron Ore uses an adaptive management approach to manage flora and vegetation within its area of influence.</p>

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
8	<p>Residual impacts – review the residual impacts against the EPA objectives.</p> <p><i>It is understood that the extent of any significant residual impacts may be hard to quantify at the referral stage. Referrers are asked to provide, as far as practicable, a discussion on the likely residual impacts and form a conclusion on whether the EPA’s objective for this factor would be met if residual impacts remain. This will require:</i></p> <ul style="list-style-type: none"> • <i>quantifying the predicted impacts (extent, duration, etc.) acknowledging any uncertainty in predictions;</i> • <i>putting the impacts into a regional or local context, incorporating knowable cumulative impacts; and</i> • <i>comparison against any established environmental policies, guidelines, and standards.</i> 	<p>Environmental impact assessments and mitigation strategies are currently being prepared for this project; however as the species and communities present within the proposed additional Development Envelope are consistent with those that occur within the approved Mining Area C Development Envelope, it is considered likely that any residual impacts will meet the outcome based objective for flora and vegetation.</p>
9	<p>EPA’s Objective – from your perspective and based on your review, which option applies to the proposal in relation to this factor? Refer to EAG 9</p>	<p><input checked="" type="checkbox"/> <i>meets the EPA’s objective</i></p> <p><input type="checkbox"/> <i>may meet the EPA’s objective</i></p> <p><input type="checkbox"/> <i>is unlikely to meet the EPA’s objective</i></p>
10	<p>Describe any assumptions critical to your conclusion (in Question 9). <i>e.g. particular mitigation measures or regulatory conditions.</i></p>	<p>An offsets form will be completed and an implementation condition will be suggested for the additional clearing of native vegetation in ‘Good’ or above condition required as part of the Revised Proposal.</p>

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
1	<p>Factor, as defined in EAG 8</p>	<p>Subterranean Fauna</p>
2	<p>EPA Objective, as defined in EAG 8</p>	<p>To maintain representation, diversity, viability and ecological function at the species, population and assemblage level.</p>
3	<p>Guidance - what established policies, guidelines, and standards apply to this factor in relation to the proposal?</p>	<p>EAG 12 – consideration of subterranean fauna in environmental impact assessment in WA (EPA 2013).</p> <p>Guidance statement 54A – sampling methods and survey considerations for subterranean fauna in WA (EPA 2007).</p>

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
4	<p>Consultation - outline the need for consultation and the outcomes of any consultation in relation to the potential environmental impacts, including:</p> <ul style="list-style-type: none"> • <i>anticipated level of public interest in the impact;</i> • <i>consultation with regulatory agencies; and</i> • <i>consultation with community.</i> 	<p>Pre-referral discussions have been undertaken with the OEPA, DPaW, Department of Water (DoW) and relevant community groups (eg traditional owners) regarding the Proposal scope and the proposed preliminary key factors.</p> <p>Ongoing consultation will be undertaken regarding the potential impacts and proposed management of residual impacts to subterranean fauna.</p>
5	<p>Baseline information - describe the relevant characteristics of the receiving environment.</p> <p><i>This may include: regional context; known environmental values, current quality, sensitivity to impact, and current level of cumulative impacts.</i></p>	<p>Extensive baseline surveys have been undertaken within the additional Development Envelope and adjacent areas across multiple seasons and years. Relevant aspects include:</p> <ul style="list-style-type: none"> • A diverse assembly of troglofauna have been recorded within the additional Development Envelope. • Stygofauna species have been recorded in the catchment area containing the additional Development Envelope.
6	<p>Impact assessment - describe the potential impact/s that may occur to the environmental factor as a result of implementing the proposal.</p>	<p>Preliminary results from the environmental impact assessment indicate:</p> <ul style="list-style-type: none"> • Some troglofauna potentially restricted to the indicative additional pit areas. Additional sampling ex-pit and a troglofauna habitat assessment currently underway to determine likely impacts to these species. • Some stygofauna species potentially restricted to additional cumulative groundwater drawdown areas associated within the implementation of the additional project. Additional studies underway to determine likely impacts to these species. <p>Impacts to subterranean fauna from other mine related activity and infrastructure unlikely to be a relevant factor.</p>

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
7	<p>Mitigation measures - what measures are proposed to mitigate the potential environmental impacts? The following should be addressed:</p> <ul style="list-style-type: none"> • <i>Avoidance - avoiding the adverse environmental impact altogether;</i> • <i>Minimisation - limiting the degree or magnitude of the adverse impact;</i> • <i>Rehabilitate – restoring the maximum environmental value that is reasonably practicable; and</i> • <i>Offsets – actions that provide environmental benefits to counterbalance significant residual environmental impacts or risks of a project or activity.</i> 	<p>BHP Billiton Iron Ore has developed a suite of control measures for managing potential impacts to biodiversity based on extensive operating experience in the Pilbara region. The controls are applied in a manner consistent with the outcome-based objective of ‘maintaining the representation, diversity, viability and ecological function of subterranean fauna at species, population and community level’ and in accordance with the BHP Billiton Iron Ore’s mitigation hierarchy (avoid, mitigate, rehabilitate and, where there are significant residual impacts, offset).</p> <p>BHP Billiton Iron Ore uses an adaptive management approach to manage subterranean fauna within its area of influence.</p>
8	<p>Residual impacts – review the residual impacts against the EPA objectives.</p> <p><i>It is understood that the extent of any significant residual impacts may be hard to quantify at the referral stage. Referrers are asked to provide, as far as practicable, a discussion on the likely residual impacts and form a conclusion on whether the EPA’s objective for this factor would be met if residual impacts remain. This will require:</i></p> <ul style="list-style-type: none"> • <i>quantifying the predicted impacts (extent, duration, etc.) acknowledging any uncertainty in predictions;</i> • <i>putting the impacts into a regional or local context, incorporating knowable cumulative impacts; and</i> • <i>comparison against any established environmental policies, guidelines, and standards.</i> 	<p>Environmental impact assessments and mitigation strategies are currently being prepared for this project. Residual impacts currently unknown.</p>
9	<p>EPA’s Objective – from your perspective and based on your review, which option applies to the proposal in relation to this factor? Refer to EAG 9</p>	<p><input checked="" type="checkbox"/> <i>meets the EPA’s objective</i></p> <p><input type="checkbox"/> <i>may meet the EPA’s objective</i></p> <p><input type="checkbox"/> <i>is unlikely to meet the EPA’s objective</i></p>
10	<p>Describe any assumptions critical to your conclusion (in Question 9). e.g. <i>particular mitigation measures or regulatory conditions.</i></p>	<p>An implementation condition will be suggested as part of the Revised Proposal.</p>

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
1	Factor, as defined in EAG 8	Terrestrial Fauna
2	EPA Objective, as defined in EAG 8	To maintain representation, diversity, viability and ecological function at the species, population and assemblage level.
3	Guidance - what established policies, guidelines, and standards apply to this factor in relation to the proposal?	<p>EPA Position Statement No. 3, Terrestrial Biological Surveys as an Element of Biodiversity Protection (EPA 2002).</p> <p>EPA Guidance No. 56, Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia (EPA 2004).</p> <p>Guidance statement 20 – sampling of short range endemic invertebrate fauna for EIA in WA (EPA 2009).</p> <p>Technical Guide – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment (EPA and DEC, 2010).</p>
4	<p>Consultation - outline the need for consultation and the outcomes of any consultation in relation to the potential environmental impacts, including:</p> <ul style="list-style-type: none"> • <i>anticipated level of public interest in the impact;</i> • <i>consultation with regulatory agencies; and</i> • <i>consultation with community.</i> 	<p>Pre-referral discussions have been undertaken with the OEPA, DPaW and relevant community groups (eg traditional owners) regarding the project scope and the proposed preliminary key factors.</p> <p>Ongoing consultation will be undertaken regarding the potential impacts and proposed management of residual impacts to terrestrial fauna.</p>

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
5	<p>Baseline information - describe the relevant characteristics of the receiving environment.</p> <p><i>This may include: regional context; known environmental values, current quality, sensitivity to impact, and current level of cumulative impacts.</i></p>	<p>Extensive baseline surveys have been undertaken within the additional Development Envelope and adjacent areas across multiple seasons and years. Relevant aspects include:</p> <ul style="list-style-type: none"> • Presence of threatened and priority species and suitable habitat within the additional Development Envelope including ghost bat (<i>Macroderma gigas</i>) (Schedule [S] 3 <i>Wildlife Conservation Act 1950</i> [WA] and Vulnerable (VU) <i>Environment Protection and Biodiversity Conservation Act 1999</i> [Cwth]), northern quoll (<i>Dasyurus hallucatus</i>) (EN and S2), Pilbara leaf-nosed bat (<i>Rhinoicterus aurantia</i>) (VU and S3), grey falcon (<i>Falco hypoleucos</i>) (S3), peregrine falcon (<i>Falco peregrinus</i>) (S7), rainbow bee-eater (<i>Merops ornatus</i>) (Migratory and S5), Pilbara barking gecko (<i>Underwoodisaurus seorsus</i>) (P2), western pebble-mound mouse (<i>Pseudomys chapmani</i>) (P4) and Pilbara flat-headed blindsnake (<i>Anilius ganei</i>) (P1) • Four confirmed SRE and three potential SRE present, comprising three millipedes and four mygalomorph spiders. • Local bat (chocolate wattled bat (<i>Chalinolobus morio</i>)) community adjacent to the Development Envelope, along Weeli Wolli Creek.

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
6	<p>Impact assessment - describe the potential impact/s that may occur to the environmental factor as a result of implementing the proposal.</p>	<p>Preliminary results from the environmental impact assessment indicate:</p> <ul style="list-style-type: none"> • Clearing of approximately 19,350 additional hectares of native vegetation in good or above condition (within a proposed disturbance envelope of 36 032 Ha) which is considered suitable habitat for a number of conservation significant species. • Potential removal of caves used as day and/or maternity roosts by the gphst bat <i>Macroderma gigas</i> (but not Pilbara leaf-nosed bat). • Possible indirect impacts to groundwater dependent vegetation and aquatic ecosystems at Weeli Wolli Creek (springs and Ben's Oasis). • Potential Loss of habitat for one SRE taxon potentially restricted to the Southern Flank ridge: the millipede <i>Antichiropus</i> DIP007.
7	<p>Mitigation measures - what measures are proposed to mitigate the potential environmental impacts? The following should be addressed:</p> <ul style="list-style-type: none"> • <i>Avoidance - avoiding the adverse environmental impact altogether;</i> • <i>Minimisation - limiting the degree or magnitude of the adverse impact;</i> • <i>Rehabilitate – restoring the maximum environmental value that is reasonably practicable; and</i> • <i>Offsets – actions that provide environmental benefits to counterbalance significant residual environmental impacts or risks of a project or activity.</i> 	<p>BHP Billiton Iron Ore has developed a suite of control measures for managing potential impacts to biodiversity based on extensive operating experience in the Pilbara region. The controls are applied in a manner consistent with the outcome-based objective of 'maintaining the representation, diversity, viability and ecological function of terrestrial fauna at species, population and community level' and in accordance with the BHP Billiton Iron Ore's mitigation hierarchy (avoid, mitigate, rehabilitate and, where there are significant residual impacts, offset).</p> <p>BHP Billiton Iron Ore uses an adaptive management approach to manage terrestrial fauna within its area of influence.</p>

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
8	<p>Residual impacts – review the residual impacts against the EPA objectives.</p> <p><i>It is understood that the extent of any significant residual impacts may be hard to quantify at the referral stage. Referrers are asked to provide, as far as practicable, a discussion on the likely residual impacts and form a conclusion on whether the EPA’s objective for this factor would be met if residual impacts remain. This will require:</i></p> <ul style="list-style-type: none"> • <i>quantifying the predicted impacts (extent, duration, etc.) acknowledging any uncertainty in predictions;</i> • <i>putting the impacts into a regional or local context, incorporating knowable cumulative impacts; and</i> • <i>comparison against any established environmental policies, guidelines, and standards.</i> 	<p>Environmental impact assessments and mitigation strategies are currently being prepared for this project.</p>
9	<p>EPA’s Objective – from your perspective and based on your review, which option applies to the proposal in relation to this factor? Refer to EAG 9</p>	<p><input checked="" type="checkbox"/> <i>meets the EPA’s objective</i></p> <p><input type="checkbox"/> <i>may meet the EPA’s objective</i></p> <p><input type="checkbox"/> <i>is unlikely to meet the EPA’s objective</i></p>
10	<p>Describe any assumptions critical to your conclusion (in Question 9). <i>e.g. particular mitigation measures or regulatory conditions.</i></p>	<p>An implementation condition will be suggested as part of the Revised Proposal.</p>

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
1	<p>Factor, as defined in EAG 8</p>	<p>Hydrological Processes</p>
2	<p>EPA Objective, as defined in EAG 8</p>	<p>To maintain the hydrological regimes of groundwater and surface water so that existing and potential uses, including ecosystem maintenance, are protected.</p>
3	<p>Guidance - what established policies, guidelines, and standards apply to this factor in relation to the proposal?</p>	<p>Department of Water Operational Policy (No 1 and No 5). WA water in Mining Guideline.</p>
4	<p>Consultation - outline the need for consultation and the outcomes of any consultation in relation to the potential environmental impacts, including:</p> <ul style="list-style-type: none"> • <i>anticipated level of public interest in the impact;</i> • <i>consultation with regulatory agencies; and</i> • <i>consultation with community.</i> 	<p>Pre-referral discussions have been undertaken with the OEPA, DPaW, DoW and relevant community groups (eg traditional owners) regarding the project scope and the proposed preliminary key factors.</p> <p>Ongoing consultation will be undertaken regarding hydrological processes, the potential impacts and proposed management of residual impacts.</p>

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
5	<p>Baseline information - describe the relevant characteristics of the receiving environment.</p> <p><i>This may include: regional context; known environmental values, current quality, sensitivity to impact, and current level of cumulative impacts.</i></p>	<p>Extensive baseline hydrologic data has been gathered within the additional Development Envelope and adjacent areas across multiple seasons and years.</p> <p>The local catchment hosts mine dewatering operations that have established drawdown footprints. Hydrological processes in the catchment (surface and ground water) support ecosystems of value both at the source (Coondewanna Flats) and outflow areas (Weeli Wolli Spring).</p> <p>Sensitivity of the receptors to hydrologic change (both ground and surface water) has been the focus of previous and current studies.</p>
6	<p>Impact assessment - describe the potential impact/s that may occur to the environmental factor as a result of implementing the proposal.</p>	<p>Environmental impact assessments are currently being prepared for this project however; groundwater drawdown is anticipated within the proposed mining areas and adjacent local aquifers. Drawdown generated by works within the additional Development Envelope is anticipated to contribute to the cumulative impacts within the catchment.</p>

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.

<p>7</p>	<p>Mitigation measures - what measures are proposed to mitigate the potential environmental impacts? The following should be addressed:</p> <ul style="list-style-type: none"> • <i>Avoidance - avoiding the adverse environmental impact altogether;</i> • <i>Minimisation - limiting the degree or magnitude of the adverse impact;</i> • <i>Rehabilitate – restoring the maximum environmental value that is reasonably practicable; and</i> • <i>Offsets – actions that provide environmental benefits to counterbalance significant residual environmental impacts or risks of a project or activity.</i> 	<p>BHP Billiton Iron Ore has developed a suite of control measures for managing potential impacts to water resources based on extensive operating experience in the Pilbara region. The controls are applied in a manner consistent with the outcome-based objective of ‘hydrological regimes of groundwater and surface water so that existing and potential uses, including ecosystem maintenance, are protected’ and in accordance with the BHP Billiton Iron Ore’s mitigation hierarchy (avoid, mitigate, rehabilitate and, where there are significant residual impacts, offset).</p> <p>BHP Billiton Iron Ore uses an adaptive management approach to manage hydrological processes within its area of influence. Potential impacts will be monitored against forecasts and mitigation or rehabilitation enacted as appropriate.</p> <p>Surplus water will be managed as outlined in the BHP Billiton Iron Ore Pilbara Regional Water Management Strategy and Central Pilbara Water Resource Management Plan. Where practicable, surplus water will be used to offset current or future impacts with a preference given to return to source aquifers</p> <p>Minor bunds and diversion along the southern side of the pits and overburden storage areas will be constructed to ensure that the pits are not flooded and surface water continues to connect downstream.</p>
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Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
8	<p>Residual impacts – review the residual impacts against the EPA objectives.</p> <p><i>It is understood that the extent of any significant residual impacts may be hard to quantify at the referral stage. Referrers are asked to provide, as far as practicable, a discussion on the likely residual impacts and form a conclusion on whether the EPA’s objective for this factor would be met if residual impacts remain. This will require:</i></p> <ul style="list-style-type: none"> • <i>quantifying the predicted impacts (extent, duration, etc.) acknowledging any uncertainty in predictions;</i> • <i>putting the impacts into a regional or local context, incorporating knowable cumulative impacts; and</i> • <i>comparison against any established environmental policies, guidelines, and standards.</i> 	<p>Environmental impact assessments are currently being prepared for this Revised Proposal. Residual drawdown in surrounding aquifers is likely, although there is uncertainty as to the extent and duration. BHP Billiton Iron Ore uses an adaptive management approach to manage hydrological processes within its area of influence. Residual impacts will be monitored against forecasts and mitigation or rehabilitation enacted as appropriate.</p>
9	<p>EPA’s Objective – from your perspective and based on your review, which option applies to the proposal in relation to this factor? Refer to EAG 9</p>	<p><input checked="" type="checkbox"/> <i>meets the EPA’s objective</i></p> <p><input type="checkbox"/> <i>may meet the EPA’s objective</i></p> <p><input type="checkbox"/> <i>is unlikely to meet the EPA’s objective</i></p>
10	<p>Describe any assumptions critical to your conclusion (in Question 9). <i>e.g. particular mitigation measures or regulatory conditions.</i></p>	<p>An implementation condition similar to the existing Ministerial Statement 491 condition for ‘Groundwater and groundwater dependent ecology’ will be suggested as part of the Revised Proposal.</p>

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
1	Factor, as defined in EAG 8	Offsets
2	EPA Objective, as defined in EAG 8	To counterbalance any significant residual environmental impacts or uncertainty through the application of offsets.
3	Guidance - what established policies, guidelines, and standards apply to this factor in relation to the proposal?	<p><i>WA Environmental Offsets Policy (EPA 2011).</i></p> <p><i>WA Environmental Offsets Guidelines (WA Government 2014).</i></p> <p><i>Environmental Protection Bulletin No. 1 - Environmental Offsets – Biodiversity (EPA 2010).</i></p> <p><i>WA environmental offsets template.</i></p>

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
4	<p>Consultation - outline the need for consultation and the outcomes of any consultation in relation to the potential environmental impacts, including:</p> <ul style="list-style-type: none"> • <i>anticipated level of public interest in the impact;</i> • <i>consultation with regulatory agencies; and</i> • <i>consultation with community.</i> 	<p>BHP Billiton Iron Ore has reviewed the WA Environmental Offsets Guidelines (WA Government 2014) and discussed application of offsets with the OEPA. BHP Billiton Iron Ore will address offsets in accordance with these guidelines. An Offsets Form will be completed for the Revised Proposal and ongoing consultation with the OEPA will be undertaken regarding the implementation of the Offsets condition.</p>
5	<p>Baseline information - describe the relevant characteristics of the receiving environment.</p> <p><i>This may include: regional context; known environmental values, current quality, sensitivity to impact, and current level of cumulative impacts.</i></p>	<p>Additional clearing of approximately 19,850 ha of native vegetation in good or above condition (Figure 3).</p>
6	<p>Impact assessment - describe the potential impact/s that may occur to the environmental factor as a result of implementing the proposal.</p>	<p>Direct impact to approximately 19,850 additional hectares of native vegetation in good or above condition within the Pilbara's Hamersley IBRA sub-region.</p>
7	<p>Mitigation measures - what measures are proposed to mitigate the potential environmental impacts? The following should be addressed:</p> <ul style="list-style-type: none"> • <i>Avoidance - avoiding the adverse environmental impact altogether;</i> • <i>Minimisation - limiting the degree or magnitude of the adverse impact;</i> • <i>Rehabilitate – restoring the maximum environmental value that is reasonably practicable; and</i> • <i>Offsets – actions that provide environmental benefits to counterbalance significant residual environmental impacts or risks of a project or activity.</i> 	<p>BHP Billiton Iron Ore has developed a suite of control measures for managing potential impacts to biodiversity based on extensive operating experience in the Pilbara region. The controls are applied in a manner consistent with the outcome-based objective of 'maintaining the representation, diversity, viability and ecological function of flora and vegetation at species, population and community level' and in accordance with the BHP Billiton Iron Ore's mitigation hierarchy (avoid, mitigate, rehabilitate and, where there are significant residual impacts, offset).</p> <p>BHP Billiton Iron Ore uses an adaptive management approach to manage potential impacts within its area of influence.</p>

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
8	<p>Residual impacts – review the residual impacts against the EPA objectives.</p> <p><i>It is understood that the extent of any significant residual impacts may be hard to quantify at the referral stage. Referrers are asked to provide, as far as practicable, a discussion on the likely residual impacts and form a conclusion on whether the EPA’s objective for this factor would be met if residual impacts remain. This will require:</i></p> <ul style="list-style-type: none"> • <i>quantifying the predicted impacts (extent, duration, etc.) acknowledging any uncertainty in predictions;</i> • <i>putting the impacts into a regional or local context, incorporating knowable cumulative impacts; and</i> • <i>comparison against any established environmental policies, guidelines, and standards.</i> 	<p>Offsets are proposed to address all outstanding residual impacts remaining after all other mitigation actions have been implemented.</p>
9	<p>EPA’s Objective – from your perspective and based on your review, which option applies to the proposal in relation to this factor? Refer to EAG 9</p>	<p><input checked="" type="checkbox"/> <i>meets the EPA’s objective</i></p> <p><input type="checkbox"/> <i>may meet the EPA’s objective</i></p> <p><input type="checkbox"/> <i>is unlikely to meet the EPA’s objective</i></p>
10	<p>Describe any assumptions critical to your conclusion (in Question 9). <i>e.g. particular mitigation measures or regulatory conditions.</i></p>	<p>An offsets form will be completed and an implementation condition will be suggested for the additional clearing of native vegetation in ‘Good’ or above condition required as part of the Revised Proposal.</p>

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
1	<p>Factor, as defined in EAG 8</p>	<p>Rehabilitation and Decommissioning</p>
2	<p>EPA Objective, as defined in EAG 8</p>	<p>To ensure that premises are closed, decommissioned and rehabilitated in an ecologically sustainable manner, consistent with agreed outcomes and land uses, and without unacceptable liability to the State.</p>

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
3	<p>Guidance - what established policies, guidelines, and standards apply to this factor in relation to the proposal?</p>	<p>EPA Guidance Statement No. 6 Rehabilitation of Terrestrial Ecosystems (EPA 2006). Guidelines for Preparing Mine Closure Plans (DMP and EPA 2011). Leading Practice Sustainable Development Program for the Mining Industry – Managing Acid and Metalliferous Drainage (DITR 2007).</p>
4	<p>Consultation - outline the need for consultation and the outcomes of any consultation in relation to the potential environmental impacts, including:</p> <ul style="list-style-type: none"> • <i>anticipated level of public interest in the impact;</i> • <i>consultation with regulatory agencies; and</i> • <i>consultation with community.</i> 	<p>BHP Billiton Iron Ore will consult with the Department of Minerals and Petroleum (DMP) and relevant community groups (eg traditional owners) regarding closure and rehabilitation. A Mine Closure Plan has been developed in consultation with the DMP that documents proposed rehabilitation and the closure strategy for the existing Mining Area C operations. This Plan will be updated to incorporate the Southern Flank deposits in consultation with the DMP and the OEPA.</p>
5	<p>Baseline information - describe the relevant characteristics of the receiving environment. <i>This may include: regional context; known environmental values, current quality, sensitivity to impact, and current level of cumulative impacts.</i></p>	<p>Relevant aspects: Identification of Acid and Metalliferous Drainage (AMD) sources and classification of potentially acid forming (PAF) material in the Southern Flank mining footprint. Waste Rock has been characterised and assessed for suitability for final landform management Utilisation of experience, information and data from progressive rehabilitation activities at Mining Area C to inform the updated Mine Closure Plan.</p>

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
6	<p>Impact assessment - describe the potential impact/s that may occur to the environmental factor as a result of implementing the proposal.</p>	<p>A number of closure studies for the Southern Flank area are currently being assessed as part of a Mining Area C Mine Closure Plan. Studies included but are not limited to:</p> <ul style="list-style-type: none"> • AMD source risk assessment is ongoing. Currently AMD impacts on groundwater, surface water and soil quality are currently considered a low risk. • Post-closure impact assessment of the mine, particularly around potential formation of pit lakes in mine voids (as a worst-case scenario) is being undertaken.
7	<p>Mitigation measures - what measures are proposed to mitigate the potential environmental impacts? The following should be addressed:</p> <ul style="list-style-type: none"> • <i>Avoidance - avoiding the adverse environmental impact altogether;</i> • <i>Minimisation - limiting the degree or magnitude of the adverse impact;</i> • <i>Rehabilitate – restoring the maximum environmental value that is reasonably practicable; and</i> • <i>Offsets – actions that provide environmental benefits to counterbalance significant residual environmental impacts or risks of a project or activity.</i> 	<p>BHP Billiton Iron Ore will, where practicable, undertake progressive rehabilitation activities.</p> <p>BHP Billiton Iron ore will implement an adaptive management approach to closure management, aiming to reduce impact by embedding a cycle of monitoring, reporting and implementing change where required. This will allow an evaluation of mitigation controls over time with progressive improvement and, or alternative solutions adopted, to achieve the desired environmental outcomes. Mitigation approaches are internally governed by the West Australian Iron Ore (WAIO) Closure and Rehabilitation Regional Management Strategy.</p>

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
8	<p>Residual impacts – review the residual impacts against the EPA objectives.</p> <p><i>It is understood that the extent of any significant residual impacts may be hard to quantify at the referral stage. Referrers are asked to provide, as far as practicable, a discussion on the likely residual impacts and form a conclusion on whether the EPA’s objective for this factor would be met if residual impacts remain. This will require:</i></p> <ul style="list-style-type: none"> • <i>quantifying the predicted impacts (extent, duration, etc.) acknowledging any uncertainty in predictions;</i> • <i>putting the impacts into a regional or local context, incorporating knowable cumulative impacts; and</i> • <i>comparison against any established environmental policies, guidelines, and standards.</i> 	<p>The Mining Area C Mine Closure Plan is currently being updated for this project, and will include an understanding and assessment of residual impacts. The Mine Closure Plan will be designed with the objective of creating a safe, stable, non-polluting and sustainable landscape as outlined in the WAIO Closure Planning Standard.</p>
9	<p>EPA’s Objective – from your perspective and based on your review, which option applies to the proposal in relation to this factor? Refer to EAG 9</p>	<p><input checked="" type="checkbox"/> <i>meets the EPA’s objective</i></p> <p><input type="checkbox"/> <i>may meet the EPA’s objective</i></p> <p><input type="checkbox"/> <i>is unlikely to meet the EPA’s objective</i></p>
10	<p>Describe any assumptions critical to your conclusion (in Question 9). <i>e.g. particular mitigation measures or regulatory conditions.</i></p>	<p>The Mining Area C Mine Closure Plan will be updated and an implementation condition will be suggested as part of the Revised Proposal.</p>

In circumstances where there was some uncertainty on the level of significance of a particular factor it is recommended that a brief summary (no longer than 1 - 2 paragraphs) is provided on the steps taken to determine why a factor was not considered to be significant.

Heritage

Cultural heritage management at BHP Billiton Iron Ore is driven by the Sustainable Heritage Strategy. The strategy is underpinned by three elements – legal compliance, scientific research and legacy building – with three key objectives:

- comply with the *Aboriginal Heritage Act 1972*, EPBC Act, Heritage of Western Australia Act and other relevant legislation;
- guide the heritage approvals process by addressing key gaps in the knowledge base; and
- create a positive heritage legacy for future generations.

The strategy enables the effective facilitation of meaningful and effective partnerships that centre on common concerns and improve the ongoing management of the heritage landscape in the Pilbara.

BHP Billiton Iron Ore’s heritage management protocols described below and ongoing consultation with Native Title groups will ensure that potential impacts to heritage sites will continue to be managed to an acceptable level well into the future.

To manage and protect Aboriginal heritage in compliance with the *Aboriginal Heritage Act 1972*, BHP Billiton Iron Ore utilises strict internal processes and procedures implemented by dedicated Heritage staff. Within

surveyed areas, BHP Billiton Iron Ore documents the spatial location of each heritage place and, where practicable, adopts engineering solutions to avoid them. If any heritage site cannot practically be avoided, the Company seeks to consult with the relevant Native Title group and applies for approval from the Minister for Aboriginal Affairs under s. 18 of the *Aboriginal Heritage Act 1972* before the site is disturbed.

BHP Billiton Iron Ore also has in place an internal procedure to internally manage conditions associated with all ground-disturbing activities and to ensure compliance with environmental, Aboriginal heritage, land tenure, legal commitments and regulatory requirements. The procedure provides a mechanism for the heritage specialists within the Heritage and GIS teams to provide technical and professional advice regarding cultural heritage management of sites, including protection requirements to ensure compliance with the *Aboriginal Heritage Act 1972*, EPBC Act and the relevant Native Title agreements.

BHP Billiton Iron Ore has entered into a claim-wide agreement with the Nyiyaparli Native Title group and the Banjima Native Title group; these agreements provide certainty about future tenure requirements beyond the existing lease and mining operations in the areas. As part of these agreements, BHP Billiton Iron Ore and the Native Title groups have agreed to specific cultural heritage commitments in relation to the management of heritage sites, including the recognition, mapping and capture of places of ethnographic importance (referred to as 'confidential areas'). BHP Billiton Iron Ore will seek to avoid impacts to these confidential areas in line with its obligations under the agreement while the agreement is in force.

Table 1 – Summary of Key Elements of Revised Mining Area C Proposal

Element	Location	Existing approval	Proposed change (This assessment)	Proposed Extent (Revised proposal)
Mine and associated infrastructure	Figure 2 and 3	Total clearing of up to 5 385 hectares within a development envelope of 25 814 hectares	Additional clearing of 19 850 hectares and an extension to the development of 10 218 hectares	Total Clearing of 25 235 within a development envelope of 36 032 hectares
Dewatering	Figure 2 and 3	RIWI licence allows for abstraction of up to 15.3 GL/a of groundwater	Additional abstraction is likely (>5 GL/a); confirmation on magnitude of change is part of the hydrological assessment that is being undertaken for this project.	Application for the adjusted abstraction volume will be made to Department of Water once quantified.
Surplus dewater management	Figure 2 and 3	Part V approval for Managed Aquifer Recharge of 5.84 GL/annum	Additional recharge volumes are likely (>6 GL/a); confirmation on magnitude of change is part of the hydrological assessment.	Application for the adjusted recharge volume will be made to Department of Environment and Regulation once quantified.