



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

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

Telephone: 6145 0800

Fax: 6145 0895

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Website: www.epa.wa.gov.au

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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Included Attachment 2 – confidential information (if applicable)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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 checked="" type="checkbox"/> API Category A <input type="checkbox"/> API Category B <input 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,, (*full name*) declare that I am authorised on behalf of..... (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) Wayne Groeneveld		
Position	Sustainability Manager	Organisation	Sheffield Resources Limited	
Email	wgroeneveld@sheffieldresources.com.au			
Address	Level 2, 41-47	Colin Street		
	West Perth	WA	6005	
Date	20 November 2015			

(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	Sheffield Resources Limited
Joint Venture parties (if applicable)	n/a
Australian Company Number(s)	125 811 083
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>	Level 2, 41-47 Colin Street West Perth, WA 6005
Key proponent contact for the proposal <i>Please include: name; physical address; phone; and email.</i>	Shaun Grein Managing Director, Ecologia Environment (Consultant) 1/224 Lord Street Perth, WA 6000 (08) 6168 7208 shaun.grein@ecologia.com.au
Consultant for the proposal (if applicable) <i>Please include: name; physical address; phone; and email.</i>	As above.

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	Thunderbird Mineral Sands Project
What project phase is the proposal at?	<input type="checkbox"/> Scoping <input checked="" 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 that only the primary proposal type is identified.</i>	<input type="checkbox"/> Power/Energy Generation <input type="checkbox"/> Hydrocarbon Based – coal <input type="checkbox"/> Hydrocarbon Based – gas <input type="checkbox"/> Waste to energy <input type="checkbox"/> Renewable – wind <input type="checkbox"/> Renewable – wave

Proponent and/or DMA to complete

- 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
 - Jetties
 - Marina
 - Canal

Proponent and/or DMA to complete	
	<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	
Description of the proposal – describe the key characteristics of the proposal in accordance with EAG 1 .	Mining of mineral sands from the Thunderbird deposit, located on the Dampier Peninsula approximately 60 km west of Derby. The proposal includes the construction of associated mine infrastructure (processing plants, power station, accommodation, pipelines and roads) and discharge of waste to a tailings storage facility. Mineral sands product will be processed onsite and transported via road to the Derby Wharf bulk handling facility for storage and overseas export.
Timeframe in which the proposal is to occur (including start and finish dates where applicable).	Construction proposed to commence in Q4 2016, with mine commissioning in Q4 2018 and first product exports ready for Q2 2019.
Details of any staging of the proposal.	Construction Phase is expected to commence Q4 2016 and take two years to complete. Operational Phase is expected to commence Q4 2018. The Life of Mine (LOM) is estimated at 32 years with the average annual mine rate commencing at 12 million tonnes per annum (Mtpa) and progressing through LOM up to 18 Mtpa. The initial 15 years of mining will be able above ground water table.
What is the current land use on the property, and the extent (area in hectares) of the property?	The Proposal comprises of two separate areas; the Project Development Area (mine pits and associated infrastructure) and the Port Facilities (bulk handling facility and product storage area). The Project Development Area is located across two pastoral leases; Mt Jowlaenga Station (N050161) and Yeeda Station (N050691). The proponent currently operates an exploration program for the Thunderbird Project within exploration licence E04/2083. The Project Development Area encompasses one mining lease (pending) and five miscellaneous licence areas (two pending) covering a total of 5,925 ha. The Port Facilities are located within the existing Port of Derby.
Have pre-referral discussions taken place with the OEPA? 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.	Yes, pre-referral meeting was held with the OEPA on 22 July 2015. Attendees: <ol style="list-style-type: none"> 1. Bruce McQuitty – Sheffield Resources Limited, Managing Director 2. Wayne Groeneveld – Sheffield Resources Limited, Sustainability Manager 3. Shaun Grein – Ecologia Environment, Consultant 4. Peter Tapsell – OEPA

Proponent and/or DMA to complete	
	5. Robert Hughes – OEPA.
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 the assessed scheme.</i> • <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 #: _____

1.4 Location

Proponents and DMAs must provide spatial data. Please refer to [EAG 1](#) for more detail. The latest spatial data **must** be provided with the referral, displaying the current condition of the proposal area.

Proponent, DMA and Third Party to complete	
<p>Name of the Local Government Authority in which the proposal is located.</p>	<p>The Project is located across two LGAs. The majority of the Project Development Area is located within the Shire of Broome, including the mine pit, tailings, power station, processing plants, camps and northern portion of internal haul roads that connect the mine to the Great Northern Highway.</p> <p>The southern portion of the internal haul roads that connect the mine to the Great Northern Highway and the Port Facilities are located in the Shire of Derby-West Kimberley.</p> <p>Proposal areas in relation to Local Government Area boundaries are shown on Figure XX.</p>
<p>Location:</p> <p>a) street address; lot number; suburb; and nearest road intersection; or</p> <p>b) if remote the nearest town; and distance and direction from that town to the proposal site.</p>	<p>The Project Development Area is located approximately 60 km west of Derby and include the following mineral tenements:</p> <ul style="list-style-type: none"> • M04/459 (pending) • L04/82 (pending) • L04/83 (pending) • L04/84 • L04/85 • L04/86 • L04/92 • L04/93. <p>The Port Facilities are located within the Derby Wharf, located to the north of the Derby township.</p>
<p>Have maps and figures been included with the referral (consistent with EAG 1 where appropriate)?</p> <p><i>The types of maps and figures which need to be provided (depending on the nature of the proposal) include:</i></p> <ul style="list-style-type: none"> • maps showing the regional location and context of the proposal; and • figures illustrating the proposal elements. 	<p style="text-align: center;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
Proponent and DMA to complete	
<p>Have electronic copies of spatial data been included with the referral?</p> <p>NB: <i>Electronic spatial (GIS or CAD) data, geo-referenced and conforming to the following parameters:</i></p> <ul style="list-style-type: none"> • GIS: polygons representing all activities and named; • CAD: simple closed polygons representing all activities and named; 	<p style="text-align: center;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>All geospatial data has been provided as per the following:</p> <p>Format – ESRI shapefiles</p> <p>Datum – GDA94</p> <p>Projection – MGA Zone 50.</p>

Proponent, DMA and Third Party to complete	
<ul style="list-style-type: none"> • datum: GDA94; • projection: Geographic (latitude/longitude) or Map Grid of Australia (MGA); • format: ESRI geodatabase or shapefile, MapInfo Interchange Format, Microstation or AutoCAD.. 	

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 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 <input type="checkbox"/> Air Quality & Atmospheric Gases <input type="checkbox"/> Amenity <input checked="" type="checkbox"/> Heritage <input type="checkbox"/> Human Health <input type="checkbox"/> Offsets <input checked="" type="checkbox"/> Rehabilitation and Decommissioning
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?	Based on the limited number of preliminary key environmental factors associated with the Proposal that can be readily managed and for which there is an established condition setting framework considers that the impact to the environment resulting from the construction and operation of the Proposal warrants application of an API (A) level of assessment

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

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	
What approval(s) is (are) required from you as a decision-making authority?	
Is rezoning of any land required before the proposal can be implemented? If yes, please provide details.	<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 style="text-align: center;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>The Proponent has legal rights to conduct mining activities within the Project Development Area through the granting of mineral tenements under the <i>Mining Act 1950</i> by the Department of Mines and Petroleum (DMP). The tenements held by the Proponent relating to this Proposal include:</p> <ul style="list-style-type: none"> • M04/459 (pending) • L04/82 (pending) • L04/83 (pending) • L04/84 • L04/85 • L04/86. <p>In regards to the Port Facilities, the Proponent has been granted preferred proponent status for a bulk handling facility and product storage area at the Derby Wharf.</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?
Abstraction	5C Licence to Take Water	RIWI Act 1914	DoW
Matters of National Environmental Significance	EPBC Act – Not considered a Controlled Action	EPBC Act 1999	Department of the Environment

*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	
1. Does the proposal involve an action that may be or is a controlled action under the <i>Environment Protection and</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Proponent to complete	
<i>Biodiversity Conservation Act 1999 (EPBC Act)?</i>	<i>If no continue to Part A section 2.1.4.</i>
2. What is the status of the decision on whether or not the action is a controlled action?	<input checked="" type="checkbox"/> Proposal not yet referred <input type="checkbox"/> Proposal referred, awaiting decision <input type="checkbox"/> Assessed – controlled action <input type="checkbox"/> Assessed – not a controlled action
3. If the action has been referred, when was it referred and what is the reference number (Ref #)?	Date: _____ Ref #: _____
4. If the action has been assessed, provide the decision in an attachment. Has an attachment been provided?	<input type="checkbox"/> Yes <input type="checkbox"/> No
5. Do you request this proposal to be assessed under the bilateral agreement?	<input type="checkbox"/> Yes <input 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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No
7. How was the invitation published?	<input type="checkbox"/> newspaper <input type="checkbox"/> website
8. Did the invitation include all of the following?	
(a) brief description of the action	<input type="checkbox"/> Yes <input type="checkbox"/> No
(b) the name of the action	<input type="checkbox"/> Yes <input type="checkbox"/> No
(c) the name of the proponent	<input type="checkbox"/> Yes <input type="checkbox"/> No
(d) the location of the action	<input 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 type="checkbox"/> Yes <input type="checkbox"/> No
(f) how the relevant documents may be obtained	<input type="checkbox"/> Yes <input type="checkbox"/> No
(g) the deadline for public comments	<input type="checkbox"/> Yes <input type="checkbox"/> No
(h) available for public comment for 14 calendar days	<input type="checkbox"/> Yes <input type="checkbox"/> No
(i) the likely impacts on matters of national environmental significance	<input type="checkbox"/> Yes <input type="checkbox"/> No
(j) any feasible alternatives to the proposed action	<input type="checkbox"/> Yes <input type="checkbox"/> No

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

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			
1	EPA Referral Supporting Document	Ecologia Environment	Supporting information related to this Referral form including project description, identification of environmental factors and potential impacts, proposed management and relevant figures.

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.		
FLORA AND VEGETATION		
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?	Guidance Statement No. 51 – Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in WA (EPA 2004) Position Statement No. 2 - Environmental Protection of Native Vegetation in Western Australia (EPA 2000) Position Statement No. 3 – Terrestrial Biological Surveys as an Element of Biodiversity Protection (EPA 2002).

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
FLORA AND VEGETATION		
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>Consultation with Office of the Environmental Protection Authority, Department of Mines and Petroleum</p> <p>Details of consultation provided in supporting documentation</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>	See supporting documentation
6	<p>Impact assessment - describe the potential impact/s that may occur to the environmental factor as a result of implementing the proposal.</p>	See supporting documentation
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> 	See supporting documentation

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
FLORA AND VEGETATION		
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> 	See supporting documentation
9	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	<input checked="" type="checkbox"/> <i>meets the EPA’s objective</i> <input type="checkbox"/> <i>may meet the EPA’s objective</i> <input type="checkbox"/> <i>is unlikely to meet the EPA’s objective</i>
10	Describe any assumptions critical to your conclusion (in Question 9). <i>e.g. particular mitigation measures or regulatory conditions.</i>	See supporting documentation

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

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
TERRESTRIAL FAUNA		
3	<p>Guidance – what established policies, guidelines, and standards apply to this factor in relation to the proposal?</p>	<p>Guidance Statement No. 20 – Sampling of Short-Range Endemic Invertebrate Fauna for Environmental Impact Assessment in WA (EPA 2009)</p> <p>Guidance Statement No. 56 – Terrestrial Fauna Surveys for Environmental Impact Assessment in WA (EPA 2004)</p> <p>Position Statement No. 3 – Terrestrial Biological Surveys as an Element of Biodiversity Protection (EPA 2002)</p> <p>Technical Guide on Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment (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>Consultation with Office of the Environmental Protection Authority and Department of Mines and Petroleum</p> <p>Details of consultation provided in supporting documentation</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>	See supporting documentation
6	<p>Impact assessment - describe the potential impact/s that may occur to the environmental factor as a result of implementing the proposal.</p>	See supporting documentation
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> 	See supporting documentation

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
TERRESTRIAL FAUNA		
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> 	See supporting documentation
9	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	<input checked="" type="checkbox"/> <i>meets the EPA’s objective</i> <input type="checkbox"/> <i>may meet the EPA’s objective</i> <input type="checkbox"/> <i>is unlikely to meet the EPA’s objective</i>
10	Describe any assumptions critical to your conclusion (in Question 9). e.g. <i>particular mitigation measures or regulatory conditions.</i>	
Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
HYDROLOGICAL PROCESSES		
1	Factor, as defined in EAG 8	Hydrological Processes - Groundwater
2	EPA Objective, as defined in EAG 8	To maintain the hydrological regimes of groundwater and surface water so that existing and potential uses, including ecosystem maintenance, are protected.
3	Guidance - what established policies, guidelines, and standards apply to this factor in relation to the proposal?	<ul style="list-style-type: none"> • <i>Position Statement No. 4: Environmental Protection of Wetlands (EPA 2004)</i> • <i>Operational Policy 5.12: Hydrological reporting associated with a groundwater well licence (DOW 2009)</i> • <i>Strategic Policy 2.09: Use of mine dewatering surplus (DOW 2013)</i> • <i>Operational Policy 5.08: Use of operating strategies in the water licencing process (DOW 2011)</i> • <i>Western Australian water in mining guideline (DOW 2013).</i>

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
TERRESTRIAL FAUNA		
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>Consultation with Office of the Environmental Protection Authority and Department of Mines and Petroleum</p> <p>Details of consultation provided in supporting documentation</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>	See supporting documentation
6	<p>Impact assessment - describe the potential impact/s that may occur to the environmental factor as a result of implementing the proposal.</p>	See supporting documentation
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> 	See supporting documentation

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
TERRESTRIAL FAUNA		
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> 	See supporting documentation
9	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	<input checked="" type="checkbox"/> <i>meets the EPA’s objective</i> <input type="checkbox"/> <i>may meet the EPA’s objective</i> <input type="checkbox"/> <i>is unlikely to meet the EPA’s objective</i>
10	Describe any assumptions critical to your conclusion (in Question 9). e.g. <i>particular mitigation measures or regulatory conditions.</i>	

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
1	Factor, as defined in EAG 8	Rehabilitation
2	EPA Objective, as defined in EAG 8	To ensure that premises are decommissioned and rehabilitated in an ecologically sustainable manner.
3	Guidance - what established policies, guidelines, and standards apply to this factor in relation to the proposal?	<ul style="list-style-type: none"> • <i>Guidance Statement No. 6: Rehabilitation of Terrestrial Ecosystems (EPA 2006)</i> • <i>Joint Guidelines for Preparing Mine Closure Plans (EPA/DMP 2015).</i>
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>Consultation with Office of the Environmental Protection Authority and Department of Mines and Petroleum</p> <p>Details of consultation provided in supporting documentation</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>	See supporting documentation
6	<p>Impact assessment - describe the potential impact/s that may occur to the environmental factor as a result of implementing the proposal.</p>	See supporting documentation
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> 	See supporting documentation
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> 	See supporting documentation
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>	<input checked="" type="checkbox"/> <i>meets the EPA’s objective</i> <input type="checkbox"/> <i>may meet the EPA’s objective</i> <input type="checkbox"/> <i>is unlikely to meet the EPA’s objective</i>
10	<p>Describe any assumptions critical to your conclusion (in Question 9). e.g. <i>particular mitigation measures or regulatory conditions.</i></p>	

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
1	Factor, as defined in EAG 8	Heritage
2	EPA Objective, as defined in EAG 8	To ensure that historical and cultural associations and natural heritage are not adversely affected.
3	Guidance - what established policies, guidelines, and standards apply to this factor in relation to the proposal?	<ul style="list-style-type: none"> • Guidance Statement No. 41: Assessment of Aboriginal Heritage (EPA 2004) • Guidelines for Preparing Aboriginal Heritage Survey Reports (DAA.) • Aboriginal Heritage Due Diligence Guidelines(DAA 2013).
4	Consultation - outline the need for consultation and the outcomes of any consultation in relation to the potential environmental impacts, including: <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> 	See supporting documentation
5	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>	See supporting documentation
6	Impact assessment - describe the potential impact/s that may occur to the environmental factor as a result of implementing the proposal.	See supporting documentation
7	Mitigation measures - what measures are proposed to mitigate the potential environmental impacts? The following should be addressed: <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> 	See supporting documentation

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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>	<input checked="" type="checkbox"/> <i>meets the EPA’s objective</i> <input type="checkbox"/> <i>may meet the EPA’s objective</i> <input type="checkbox"/> <i>is unlikely to meet the EPA’s objective</i>
10	<p>Describe any assumptions critical to your conclusion (in Question 9). <i>e.g. particular mitigation measures or regulatory conditions.</i></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.