



Environmental Protection Authority

**EPA REFERRAL
FORM
PROPONENT**

Referral of a Proposal by the Proponent to the Environmental Protection Authority under Section 38(1) of the *Environmental Protection Act 1986*.

PURPOSE OF THIS FORM

Section 38(1) of the *Environmental Protection Act 1986* (EP Act) provides that where a development proposal is likely to have a significant effect on the environment, a proponent may refer the proposal to the Environmental Protection Authority (EPA) for a decision on whether or not it requires assessment under the EP Act. This form sets out the information requirements for the referral of a proposal by a proponent.

Proponents are encouraged to familiarise themselves with the EPA’s *General Guide on Referral of Proposals* [see Environmental Impact Assessment/Referral of Proposals and Schemes] before completing this form.

A referral under section 38(1) of the EP Act by a proponent to the EPA must be made on this form. A request to the EPA for a declaration under section 39B (derived proposal) must be made on this form. This form will be treated as a referral provided all information required by Part A has been included and all information requested by Part B has been provided to the extent that it is pertinent to the proposal being referred. Referral documents are to be submitted in two formats – hard copy and electronic copy. The electronic copy of the referral will be provided for public comment for a period of 7 days, prior to the EPA making its decision on whether or not to assess the proposal.

CHECKLIST

Before you submit this form, please check that you have:

	Yes	No
Completed all the questions in Part A (essential).	Yes	
Completed all applicable questions in Part B.	Yes	
Included Attachment 1 – location maps.	Yes	
Included Attachment 2 – additional document(s) the proponent wishes to provide (if applicable).	Y (see Attachment 2)	
Included Attachment 3 – confidential information (if applicable).	N/A	
Enclosed an electronic copy of all referral information, including spatial data and contextual mapping but excluding confidential information.	(see Attachments 1, 2, 3 and 4)	

Following a review of the information presented in this form, please consider the following question (a response is optional).

Do you consider the proposal requires formal environmental impact assessment?	
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Not sure
If yes, what level of assessment?	
<input type="checkbox"/> Assessment on Proponent Information	<input checked="" type="checkbox"/> Public Environmental Review

PROPONENT DECLARATION (to be completed by the proponent)

I,Alan Ferris....., (*full name*) declare that I am authorised on behalf of.....Hinckley Range 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)
Position: Project Manager	Company: Hinckley Range Pty Ltd
Date:	

PART A - PROPONENT AND PROPOSAL INFORMATION

(All fields of Part A must be completed for this document to be treated as a referral)

1 PROPONENT AND PROPOSAL INFORMATION**1.1 Proponent**

Name	Hinckley Range Pty Ltd
Joint Venture parties (if applicable)	Not applicable
Australian Company Number (if applicable)	052 098 496
Postal Address (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)	Level 3, 123 Adelaide Terrace, East Perth WA 6004 GPO Box 2606 Perth WA 6001
Key proponent contact for the proposal: <ul style="list-style-type: none"> • name • address • phone • email 	Mr Alan Ferris Hinckley Range Pty Ltd Level 3, 123 Adelaide Terrace, East Perth WA 6004 9220 5757 alan.ferris@metalsx.com.au
Consultant for the proposal (if applicable): <ul style="list-style-type: none"> • name • address • phone • email 	Adam Parker SNC-Lavalin Australia Pty Ltd Level 17, 191 St George's Terrace Perth WA 6000 9322 0900 Adam.parker@snclavalin.com

1.2 Proposal

Title	Wingellina Nickel Project	
Description	The Wingellina Nickel Project (the Project) involves open pit mining of nickeliferous limonite ore and on-site processing using a high pressure acid leach (HPAL) process to produce an intermediate mixed nickel-cobalt hydroxide product for shipping to third party refineries. See Wingellina Nickel Project Supporting Document (Attachment 1), Section 1.3, for further details.	
Extent (area) of proposed ground disturbance.	The total proposed ground disturbance is 2,571 ha.	
Timeframe in which the activity or development is proposed to occur (including start and finish dates where applicable).	Activity	Estimated date
	Complete detailed design	Quarter 2 2015
	Commence ground disturbance	Quarter 2 2016
	Commission process plant	Quarter 4 2017

	<table border="1"> <tr> <td>First shipment of concentrate</td> <td>Quarter 1 2018</td> </tr> <tr> <td>Project completion date</td> <td>2058*</td> </tr> </table> <p>* Assuming a production rate of 4.3Mtpa</p>	First shipment of concentrate	Quarter 1 2018	Project completion date	2058*
First shipment of concentrate	Quarter 1 2018				
Project completion date	2058*				
Details of any staging of the proposal.	No staging				
Is the proposal a strategic proposal?	Yes, with planning for the project occurring over a number of years.				
<p>Is the proponent requesting a declaration that the proposal is a derived proposal? If so, provide the following information on the strategic assessment within which the referred proposal was identified:</p> <ul style="list-style-type: none"> • title of the strategic assessment; and • Ministerial Statement number. 	No.				
Please indicate whether, and in what way, the proposal is related to other proposals in the region.	Not applicable.				
Does the proponent own the land on which the proposal is to be established? If not, what other arrangements have been established to access the land?	<p>No. The Project is entirely within Aboriginal Reserve 17614, leased for 99 years to the Ngaanyatjarra Land Council (NgLC), and on granted Native Title Land which is managed for and on behalf of the Traditional Owners by the Ngaanyatjarra Council.</p> <p>In July 2010, Hinckley Range signed a Native Title agreement with the Traditional Owners and the granted Native Title holders of the Project area. The agreement provides consent for the grant of a mining lease and subsequent mining operations.</p> <p>The Project is located entirely on Exploration Licence E69/535 which will be converted to a mining lease at an appropriate time.</p>				
What is the current land use on the property, and the extent (area in hectares) of the property?	<p>The physical local land use around Wingellina is low impact, and is generally limited to hunting of both native and feral animals, and cultural ceremonies.</p> <p>The extent of Aboriginal Reserve 17614 is 8,016,568 ha.</p>				

1.3 Location

Name of the Shire in which the proposal is located.	Shire of Ngaanyatjarraku
For urban areas: <ul style="list-style-type: none"> • street address; • lot number; • suburb; and • nearest road intersection. 	Not applicable.
For remote localities: <ul style="list-style-type: none"> • nearest town; and • distance and direction from that town to the proposal site. 	The nearest town is Wingellina, located approximately 3 km west of the Wingellina nickel orebody.
Electronic copy of spatial data - GIS or CAD, geo-referenced and conforming to the following parameters: <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: Arcview shapefile, Arcinfo coverages, Microstation or AutoCAD. 	Yes / No (See Attachment 3)

1.4 Confidential Information

Does the proponent wish to request the EPA to allow any part of the referral information to be treated as confidential?	Yes / No
If yes, is confidential information attached as a separate document in hard copy?	HOLD Yes / No

1.5 Government Approvals

Is rezoning of any land required before the proposal can be implemented? If yes, please provide details.		Yes / No	
Is approval required from any Commonwealth or State Government agency or Local Authority for any part of the proposal? If yes, please complete the table below.		Yes / No	
Agency/ Authority	Approval required	Application lodged Yes / No	Agency/Local Authority contact(s) for proposal
Department of Minerals and Petroleum (DMP)	Mining Lease application Mining Proposal Hazardous substances and explosives (multiple applications) Approval from State Mining Engineer	No	Ian Mitchell
SEWPaC	Federal approval under EPBC Act	No	Contact not yet made
DoW	Exploration License and Abstraction License	No	Michael Kelly
DER (formerly DEC)	Works Approval and Operating License for prescribed premises	No	Jingnan Guo
Local Council/ DMP	Development Approval Building Approval	No	Chris Paget (Local council) Ian Mitchell (DMP)
Department of Health	Wastewater treatment plant (WWTP) - Building licence	No	Mirella Goetzmann

PART B - ENVIRONMENTAL IMPACTS AND PROPOSED MANAGEMENT**2. ENVIRONMENTAL IMPACTS**

Describe the impacts of the proposal on the following elements of the environment, by answering the questions contained in Sections 2.1-2.11:

- 2.1 flora and vegetation;
- 2.2 fauna;
- 2.3 rivers, creeks, wetlands and estuaries;
- 2.4 significant areas and/ or land features;
- 2.5 coastal zone areas;
- 2.6 marine areas and biota;
- 2.7 water supply and drainage catchments;
- 2.8 pollution;
- 2.9 greenhouse gas emissions;
- 2.10 contamination; and
- 2.11 social surroundings.

These features should be shown on the site plan, where appropriate.

For all information, please indicate:

- (a) the source of the information; and
- (b) the currency of the information.

2.1 Flora and Vegetation

2.1.1 Do you propose to clear any native flora and vegetation as a part of this proposal?

[A proposal to clear native vegetation may require a clearing permit under Part V of the EP Act (Environmental Protection (Clearing of Native Vegetation) Regulations 2004)]. Please contact the Department of Environment and Conservation (DEC) for more information.

(please tick) Yes **If yes**, complete the rest of this section.

No **If no**, go to the next section

2.1.2 How much vegetation are you proposing to clear (in hectares)?

It is estimated that approximately 2,571 ha (23%) of native vegetation will be cleared within the mine site area.

2.1.3 Have you submitted an application to clear native vegetation to the DEC (unless you are exempt from such a requirement)?

Yes No **If yes**, on what date and to which office was the application submitted of the DEC?

Clearing will be undertaken after Quarter 2 2016. An application to clear native vegetation will be submitted to the DEC nearer to this date.

2.1.4 Are you aware of any recent flora surveys carried out over the area to be disturbed by this proposal?

Yes

No

If yes, please attach a copy of any related survey reports and provide the date and name of persons / companies involved in the survey(s).

If no, please do not arrange to have any biological surveys conducted prior to consulting with the DEC.

A list of vegetation and flora studies and assessments, with the date and name of persons / companies involved in the survey(s) is provided in the table below. See **Attachment 2** for copies of these surveys.

Flora Survey	Date	Company
Acclaim Exploration NL Wingellina Baseline Biological Survey	April 2002	HGM Maunsell
Flora and Fauna Desktop Study of Tenement L69/12	May 2008	Outback Ecology
Flora and Fauna Desktop Study of Tenement E69/2453	May 2008	Outback Ecology
Terrestrial Flora, Vegetation and Fauna Desktop Review and Preliminary Findings from Selected Survey Data - 497500mE, 7118000mN; and 498100mE, 7117900mN	July 2008	Outback Ecology
Baseline Vegetation and Flora Assessment	April 2009	Outback Ecology
Level 1 Flora and Vegetation Assessment of the Wingellina Borefield	May 2011	Outback Ecology
Level 2 Flora and Vegetation Assessment of the Wingellina Mine	June 2011	Outback Ecology
Proposed Borefield Drill Line Targeted Flora Assessment	October 2011	Outback Ecology
Level 1 Flora and Vegetation Assessment of the Wingellina Borefield (L69/12)	April 2012	Outback Ecology
Level 1 Flora and Vegetation Survey of the Cobb Depression Borefield and Pipeline Route	May 2013	Outback Ecology
Vegetation, Flora and Fauna Desktop Assessment of Tenement E69/3065 WA	August 2013	Outback Ecology

2.1.5 Has a search of DEC records for known occurrences of rare or priority flora or threatened ecological communities been conducted for the site?

Yes

No

If you are proposing to clear native vegetation for any part of your proposal, a search of DEC records of known occurrences of rare or priority flora and threatened ecological communities will be required. Please contact DEC for more information.

2.1.6 Are there any known occurrences of rare or priority flora or threatened ecological communities on the site?

Yes No

If yes, please indicate which species or communities are involved and provide copies of any correspondence with DEC regarding these matters.

During desktop studies and surveys of the Wingellina Project mine site area and the borefield area neither rare flora or threatened ecological communities were found. Priority species were however found in both areas.

Four Priority species defined under the *Wildlife Conservation Act 1972* (WC Act) were recorded during desktop studies and surveys of the mine site area:

- *Goodenia lunata* (Priority 1);
- *Menkea lutea* (Priority 1);
- *Calotis latiuscula* (Priority 3); and
- *Euphorbia inappendiculata* (Priority 3).

One priority species was recorded within the borefield area; *Calotis latiuscula* (Priority 3).

2.1.7 If located within the Perth Metropolitan Region, is the proposed development within or adjacent to a listed Bush Forever Site? (You will need to contact the Bush Forever Office, at the Department for Planning and Infrastructure)

 Yes No

If yes, please indicate which Bush Forever Site is affected (site number and name of site where appropriate).

Not applicable.

2.1.8 What is the condition of the vegetation at the site?

Vegetation condition across the majority of the mine site is rated as being generally good to excellent to pristine condition, with localised areas that were more degraded (Outback Ecology 2011a).

The Cobb Depression borefield area was rated as Very Good to Excellent (Outback Ecology 2013a).

2.2 Fauna

2.2.1 Do you expect that any fauna or fauna habitat will be impacted by the proposal?

(please tick)

 Yes

If yes, complete the rest of this section.

 No

If no, go to the next section.

2.2.2 Describe the nature and extent of the expected impact.

The main impact is from habitat removal, and habitats to be impacted are well represented outside of the Project area.

Other impacts, such as attraction of feral animal populations, will be mitigated through standard environmental management procedures for the operation of the mine.

There will be no direct loss of any critically important habitat areas or significant impact on any World Heritage Properties, Ramsar Wetland or Nationally Important Wetland sites located in the vicinity of the Project.

The construction and operations of mine site Project area or the water supply borefield will not result in a loss of biodiversity or subterranean fauna.

2.2.3 Are you aware of any recent fauna surveys carried out over the area to be disturbed by this proposal?

Yes No

If yes, please attach a copy of any related survey reports and provide the date and name of persons / companies involved in the survey(s).

If no, please do not arrange to have any biological surveys conducted prior to consulting with the DEC.

A list of fauna studies and assessments, with the date and name of persons / companies involved in the survey(s) is provided in the table below. See **Attachment 2** for copies of these surveys.

Flora Survey	Date	Company
Acclaim Exploration NL Wingellina Baseline Biological Survey	April 2002	HGM Maunsell
Pilot Stygofauna Survey	April 2008	Outback Ecology
Flora and Fauna Desktop Study of Tenement L69/12	May 2008	Outback Ecology
Flora and Fauna Desktop Study of Tenement E69/2453	May 2008	Outback Ecology
Terrestrial Flora, Vegetation and Fauna Desktop Review and Preliminary Findings from Selected Survey Data - 497500mE, 7118000mN; and 498100mE, 7117900mN	July 2008	Outback Ecology
Terrestrial Fauna Assessment	April 2009	Outback Ecology
Subterranean fauna Assessment	September 2011	Outback Ecology
Proposed Borefield Drill Line Targeted Vertebrate Fauna Assessment	October 2011	Outback Ecology
Level 1 Terrestrial Fauna Assessment of the Wingellina Borefield and Borefield Pipeline Route	May 2012	Outback Ecology
Wingellina Borefields Subterranean fauna Assessment	May 2013	Outback Ecology
Level 1 Terrestrial Fauna Assessment of the Cobb Depression Borefield and Pipeline Route	May 2013	Outback Ecology
Vegetation, Flora and Fauna Desktop Assessment of Tenement E69/3065 WA	August 2013	Outback Ecology

2.2.4 Has a search of DEC records for known occurrences of Specially Protected (threatened) fauna been conducted for the site?

Yes No (please tick)

2.2.5 Are there any known occurrences of Specially Protected (threatened) fauna on the site?

Yes No

If yes, please indicate which species or communities are involved and provide copies of any correspondence with DEC regarding these matters.

One vertebrate fauna species of conservation significance was recorded within the mine site area during the 2008 fauna survey; the Australian Bustard (*Ardeotis australis*) (Priority 4).

During the Cobb Depression level 1 fauna survey three conservation significant fauna species were recorded:

- Brush-tailed Mulgara (*Dasyercus blythi*) - Listed as Vulnerable (VU) by the EPBC at and Priority 4 by the DEC;
- Major Mitchell's Cockatoo (*Lophocroa leadbeateri*) - Listed as Schedule 4 by the WC Act; and
- Australian Bustard (*Ardeotis australis*) - Listed as Priority 4 by the DEC (Outback Ecology 2013b).

2.3 Rivers, Creeks, Wetlands and Estuaries

2.3.1 Will the development occur within 200 metres of a river, creek, wetland or estuary?

(please tick)

 Yes**If yes**, complete the rest of this section. No**If no**, go to the next section.

2.3.2 Will the development result in the clearing of vegetation within the 200 metre zone?

 Yes No

If yes, please describe the extent of the expected impact.

Not applicable.

2.3.3 Will the development result in the filling or excavation of a river, creek, wetland or estuary?

 Yes No

If yes, please describe the extent of the expected impact.

Not applicable.

2.3.4 Will the development result in the impoundment of a river, creek, wetland or estuary?

 Yes No

If yes, please describe the extent of the expected impact.

Not applicable.

2.3.5 Will the development result in draining to a river, creek, wetland or estuary?

Yes No **If yes**, please describe the extent of the expected impact.

Not applicable.

2.3.6 Are you aware if the proposal will impact on a river, creek, wetland or estuary (or its buffer) within one of the following categories? (please tick)

Conservation Category Wetland	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
Environmental Protection (South West Agricultural Zone Wetlands) Policy 1998	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
Perth’s Bush Forever site	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
Environmental Protection (Swan & Canning Rivers) Policy 1998	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
The management area as defined in s4(1) of the <i>Swan River Trust Act 1988</i>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
Which is subject to an international agreement, because of the importance of the wetland for waterbirds and waterbird habitats (e.g. Ramsar, JAMBA, CAMBA)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure

Not applicable.

2.4 Significant Areas and/ or Land Features

2.4.1 Is the proposed development located within or adjacent to an existing or proposed National Park or Nature Reserve?

Yes No **If yes**, please provide details.

The proposed development is not located within or adjacent to an existing or proposed National Park or Nature Reserve. However, it is located within Place ID: 9861, the Ranges of the Western Desert, which is listed on the Register of the National Estate.

2.4.2 Are you aware of any Environmentally Sensitive Areas (as declared by the Minister under section 51B of the EP Act) that will be impacted by the proposed development?

Yes No **If yes**, please provide details.

2.4.3 Are you aware of any significant natural land features (e.g. caves, ranges etc) that will be impacted by the proposed development?

Yes No **If yes**, please provide details.

2.5 Coastal Zone Areas (Coastal Dunes and Beaches)

2.5.1 Will the development occur within 300metres of a coastal area?

(please tick)

Yes

If yes, complete the rest of this section.

No

If no, go to the next section.

2.5.2 What is the expected setback of the development from the high tide level and from the primary dune?

Not applicable.

2.5.3 Will the development impact on coastal areas with significant landforms including beach ridge plain, cusped headland, coastal dunes or karst?

Yes

No

If yes, please describe the extent of the expected impact.

Not applicable.

2.5.4 Is the development likely to impact on mangroves?

Yes

No

If yes, please describe the extent of the expected impact.

Not applicable.

2.6 Marine Areas and Biota

2.6.1 Is the development likely to impact on an area of sensitive benthic communities, such as seagrasses, coral reefs or mangroves?

Yes

No

If yes, please describe the extent of the expected impact.

2.6.2 Is the development likely to impact on marine conservation reserves or areas recommended for reservation (as described in *A Representative Marine Reserve System for Western Australia*, CALM, 1994)?

Yes

No

If yes, please describe the extent of the expected impact.

2.6.3 Is the development likely to impact on marine areas used extensively for recreation or for commercial fishing activities?

Yes

No

If yes, please describe the extent of the expected impact, and provide any written advice from relevant agencies (e.g. Fisheries WA).

2.7 Water Supply and Drainage Catchments

2.7.1 Are you in a proclaimed or proposed groundwater or surface water protection area?

(You may need to contact the Department of Water (DoW) for more information on the requirements for your location, including the requirement for licences for water abstraction. Also, refer to the DoW website)

Yes No **If yes**, please describe what category of area.

2.7.2 Are you in an existing or proposed Underground Water Supply and Pollution Control area?

(You may need to contact the DoW for more information on the requirements for your location, including the requirement for licences for water abstraction. Also, refer to the DoW website)

Yes No **If yes**, please describe what category of area.

2.7.3 Are you in a Public Drinking Water Supply Area (PDWSA)?

(You may need to contact the DoW for more information or refer to the DoW website. A proposal to clear vegetation within a PDWSA requires approval from DoW.)

Yes No **If yes**, please describe what category of area.

2.7.4 Is there sufficient water available for the proposal?

(Please consult with the DoW as to whether approvals are required to source water as you propose. Where necessary, please provide a letter of intent from the DoW)

Yes No (please tick)

The Cobb Depression, 100 km to the north of the mine site Project area, has sufficient water to support the Project.

An alternative borefield for the Project has been investigated by Hinckley Range. This borefield is situated 100 km to the south of the mine site area and would draw from the Central Officer Basin.

2.7.5 Will the proposal require drainage of the land?

Yes No **If yes**, how is the site to be drained and will the drainage be connected to an existing Local Authority or Water Corporation drainage system? Please provide details.

The site will be drained using drainage channels. The drainage will not be connected to an existing Local Authority or Water Corporation drainage system.

2.7.6 Is there a water requirement for the construction and/ or operation of this proposal?

(please tick) Yes **If yes**, complete the rest of this section.

No **If no**, go to the next section.

2.7.7 What is the water requirement for the construction and operation of this proposal, in kilolitres per year?

The water requirement for the construction and operation of this proposal is 12 GL/yr.

2.7.8 What is the proposed source of water for the proposal? (e.g. dam, bore, surface water etc.)

The proposed source of water is from a borefield that will draw from the Cobb Depression, 100 km to the north of the mine site Project area.

Hinckley Range is also evaluating an alternative water source, located to the south of the Project area (Central Officer Basin).

2.8 Pollution

2.8.1 Is there likely to be any discharge of pollutants from this development, such as noise, vibration, gaseous emissions, dust, liquid effluent, solid waste or other pollutants?

(please tick) Yes **If yes**, complete the rest of this section.

No **If no**, go to the next section.

2.8.2 Is the proposal a prescribed premise, under the Environmental Protection Regulations 1987?

(Refer to the EPA's *General Guide for Referral of Proposals to the EPA under section 38(1) of the EP Act 1986* for more information)

Yes No **If yes**, please describe what category of prescribed premise.

The proposal is not a prescribed premise, however some of the Project infrastructure will be prescribed premises, including a waste water treatment plant (WWTP), dewatering infrastructure, cogeneration power plant, processing plant and landfill.

2.8.3 Will the proposal result in gaseous emissions to air?

Yes No **If yes**, please briefly describe.

The proposal result in gaseous emissions to air, including SO₂, NO₂ and PM₁₀ from the sulphuric acid plant, and SO₂, NO₂, PM₁₀, and sulfuric acid mist from the processing plant. Greenhouse gases (GHG) will also be produced from ore processing, electricity production, sulphur transport, mixed hydroxide precipitate transport, calcrete mining and transport operations, materials transport, clearing, and pumping for water supply.

2.8.4 Have you done any modelling or analysis to demonstrate that air quality standards will be met, including consideration of cumulative impacts from other emission sources?

Yes No **If yes**, please briefly describe.

Predictive modelling, using the Californian Puff model (CALPUF) and the air pollution model (TAPM), was undertaken to determine the potential impacts of plant emissions and fugitive dust. Plant emissions modelling also included a proposed 60 m acid plant stack.

Modelling indicates that the process plant can be operated to comply with all appropriate criteria (Air Assessments 2013). Modelling also determined particulate concentrations (dust) from the mining and tailings, when including background levels, are predicted to below the criteria at the nearest residential sites (Air Assessments 2013).

2.8.5 Will the proposal result in liquid effluent discharge?

Yes No **If yes**, please briefly describe the nature, concentrations and receiving environment.

2.8.6 If there is likely to be discharges to a watercourse or marine environment, has any analysis been done to demonstrate that the State Water Quality Management Strategy or other appropriate standards will be able to be met?

Yes No **If yes**, please describe.

Not applicable.

2.8.7 Will the proposal produce or result in solid wastes?

Yes No **If yes**, please briefly describe the nature, concentrations and disposal location / method.

Solid waste to be generated by Project activities includes: inert and putrescible domestic waste, empty chemical containers and drums, empty oil drums and construction waste. Where possible, domestic and construction waste will be recycled, otherwise it will be disposed at in an on-site landfill licensed under Part V of the *Environmental Protection Act 1986* (EP Act). Hazardous wastes will be removed from site by a licensed contractor for disposal in an approved facility.

2.8.8 Will the proposal result in significant off-site noise emissions?

Yes No **If yes**, please briefly describe.

2.8.9 Will the development be subject to the Environmental Protection (Noise) Regulations 1997?

Yes No

If yes, has any analysis been carried out to demonstrate that the proposal will comply with the Regulations?

Please attach the analysis.

The Wingellina nickel Project Operational Noise Impact Assessment is provided as **Attachment 4**.

2.8.10 Does the proposal have the potential to generate off-site, air quality impacts, dust, odour or another pollutant that may affect the amenity of residents and other “sensitive premises” such as schools and hospitals (proposals in this category may include intensive agriculture, aquaculture, marinas, mines and quarries etc.)?

Yes No

If yes, please describe and provide the distance to residences and other “sensitive premises”.

The Project has the potential to generate off-site, air quality impacts, dust and other pollutants that could affect the amenity of residents of the Wingellina community, situated 3 km west of the Wingellina orebody. However, modelling indicates that during operations, the process plant will comply with appropriate NEPM criteria for SO₂, NO_x, PM₁₀ at the existing Wingellina townsite. Particulate levels from the mining and tailings are also predicted to be below criteria at Wingellina.

2.8.11 If the proposal has a residential component or involves “sensitive premises”, is it located near a land use that may discharge a pollutant?

Yes No Not Applicable

If yes, please describe and provide the distance to the potential pollution source

2.9 Greenhouse Gas Emissions

2.9.1 Is this proposal likely to result in substantial greenhouse gas emissions (greater than 100 000 tonnes per annum of carbon dioxide equivalent emissions)?

Yes No

If yes, please provide an estimate of the annual gross emissions in absolute and in carbon dioxide equivalent figures.

The greenhouse gas (GHG) emissions during normal operation for Wingellina are estimated to be 499.3 kt per year, with 95% certainty that the actual emissions will be between 540.3 kt and 458.6 kt.

2.9.2 Further, if yes, please describe proposed measures to minimise emissions, and any sink enhancement actions proposed to offset emissions.

Management actions to reduce impacts of gas emissions at the site will be provided in the CEMP and operational EMP. These will include implementation of initiatives to reduce diesel and electricity consumption. Options for energy

efficiencies will also be investigated at the administration and accommodation areas.

No sink enhancement actions are proposed to offset emissions.

2.10 Contamination

2.10.1 Has the property on which the proposal is to be located been used in the past for activities which may have caused soil or groundwater contamination?

Yes No Unsure **If yes**, please describe.

2.10.2 Has any assessment been done for soil or groundwater contamination on the site?

Yes No **If yes**, please describe.

2.10.3 Has the site been registered as a contaminated site under the *Contaminated Sites Act 2003*? (on finalisation of the CS Regulations and proclamation of the CS Act)

Yes No **If yes**, please describe.

2.11 Social Surroundings

2.11.1 Is the proposal on a property which contains or is near a site of Aboriginal ethnographic or archaeological significance that may be disturbed?

Yes No Unsure **If yes**, please describe.

Two archaeological sites, located to the north of the central pits, will need to be disturbed during the construction phase of the Wingellina Project. Approval will be sought under Section 18 of the Western Australian *Heritage Act 1972*.

2.11.2 Is the proposal on a property which contains or is near a site of high public interest (e.g. a major recreation area or natural scenic feature)?

Yes No **If yes**, please describe.

2.11.3 Will the proposal result in or require substantial transport of goods, which may affect the amenity of the local area?

Yes No **If yes**, please describe.

3. PROPOSED MANAGEMENT

3.1 Principles of Environmental Protection

3.1.1 Have you considered how your project gives attention to the following Principles, as set out in section 4A of the EP Act? (For information on the Principles of Environmental Protection, please see EPA Position Statement No. 7, available on the EPA website)

- | | | |
|--|---|-----------------------------|
| 1. The precautionary principle. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2. The principle of intergenerational equity. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 3. The principle of the conservation of biological diversity and ecological integrity. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 4. Principles relating to improved valuation, pricing and incentive mechanisms. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 5. The principle of waste minimisation. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |

3.1.2 Is the proposal consistent with the EPA's Environmental Protection Bulletins/Position Statements and Environmental Assessment Guidelines/Guidance Statements (available on the EPA website)?

Yes No

These have been consulted throughout the approvals phase of the Project.

3.2 Consultation

3.2.1 Has public consultation taken place (such as with other government agencies, community groups or neighbours), or is it intended that consultation shall take place?

Yes No **If yes**, please list those consulted and attach comments or summarise response on a separate sheet.

Refer to the Wingellina Project S38 Referral Supporting Document (**Attachment 1**).

References

Air Assessments. (2013) *Wingellina Nickel Project Air Quality Assessment*, July 2013.

Outback Ecology. (2009) *Wingellina Nickel Project, Terrestrial Fauna Assessment*, Unpublished report prepared for Metals X Limited, April 2009.

Outback Ecology. (2011a) *Wingellina Nickel Project, Level 2 Flora and Vegetation Assessment of the Wingellina Mine*, June 2011.

Outback Ecology. (2013a) *Level 1 Flora and Vegetation Survey of the Cobb Depression Borefield and Pipeline Route*, May 2013.

Outback Ecology. (2013b) *Level 1 Fauna Assessment of the Cobb Depression Borefield and Pipeline Route*, May 2013.