

Rio Tinto Exploration – Australasia Region	Regional
ENVT 100 Environment Protection and Biodiversity Conservation (EPBC)	

1.0 ENVT 100 EPBC CHECKLIST

DISTRICT:	<u>Australia</u>
PROGRAM:	<u>Australian Bauxite</u>
PROJECT:	<u>Cape Ford</u>
TENEMENT/S:	<u>Cape Ford EL 1924</u>
DATE:	<u></u>
	<input type="checkbox"/> <input checked="" type="checkbox"/>
	REFERRAL REQUIRED? YES NO
Prepared by	<u>Gerard Anderson</u>
Environmental Officer (or Mgr HSEC)	<u></u>
Approved by	<u></u>
	Exploration Manager

Use this Checklist with ENVT100 Environmental Protection and Biodiversity Conservation.

Step 1

Follow the instructions on the Impact Identification and Management Table to complete the table.

Step 2

Go to:

- Click on 'Interactive Map'
- Click on the 'Interactive Map Search'
- 'Accept' the caveat conditions. This will take you to the EPBC Interactive Map.
- Outline the tenement boundary of the project
- Conduct a search on the selected area.

Step 3

Using the EPBC Interactive map, and the report produced, answer the following questions. This will assist in establishing whether the actions identified in the Impact Management Table will have a significant impact, and if they are a matter of National Environmental Significance (NES).

2.0 IMPACT IDENTIFICATION AND MANAGEMENT

Note: Only complete the sections for planned activities. Leave the remainder blank.

Text in are examples only.

1. Establish the activities planned for this programme.
2. Identify the Actions (Tasks) involved with each Activity.
3. Identify the Potential Impact (without controls ie. Environmental procedures).
4. Establish the existing controls (procedures), and any additional controls needed ie. Monthly water testing.
5. Identify the degree of any residual impact (with controls).
6. Determine if the residual impact is significant or not.
7. Decide if the Impact is a matter of National Environmental Significance (NES).

ENVT 100 Environment Protection and Biodiversity Conservation (EPBC)

Exploration Activity	Impact Identification and Management			Assessment of Impact		
	Action (Identify tasks involved with activity)	Potential Impact (Without Controls)	Controls (Refer to relevant RTE-AR Procedures)	Residual Impact (with Controls) None-Low-Med- High	Residual Impact significant Yes-No	Matter of NES? Y-N If Yes, which NES?
Establishing a field camp	Handling, transport, storage and use of Hydrocarbons and Hazardous Substances	Soil and vegetation contamination, ground water pollution, adversely affect fauna.	ENVT111 Hydrocarbons and Hazardous Substances; SAFE 109 Hazardous Substances (Minimum Standards), and Australia District Field Operations Hazardous Materials Procedure.	Low	No	No
Data Gathering Airborne Survey <ul style="list-style-type: none"> Aerial photographs Spectral scanning Geophysical surveys	Flying aircraft	Transient noise	ENVT101 Environmental Management Plan	Low	No	No
Hand Sampling Geological Mapping <ul style="list-style-type: none"> Hand sampling of rocks and soils Passive gravity measurements Handheld magnetic measurements 	Foot access, Tyred vehicle access Digging, Rock chipping	Compaction, minor ground disturbance (soil and vegetation), water and wind erosion	ENVT110 Sampling ENVT112 Flagging	Low	No	No
Construction of Access Tracks	Construction of tracks and use of vehicles (heavy and light) on tracks	Compaction, vegetation destruction, heritage site damage, impact on local fauna / flora distribution, water and wind erosion, dust generation, river and creek bank damage	ENVT102 Ground Disturbance ENVT112 Flagging	Low	No	No

ENVT 100 Environment Protection and Biodiversity Conservation (EPBC)

Exploration Activity	Impact Identification and Management			Assessment of Impact		
	Action (Identify tasks involved with activity)	Potential Impact (Without Controls)	Controls (Refer to relevant RTE-AR Procedures)	Residual Impact (with Controls) None-Low-Med- High	Residual Impact significant Yes-No	Matter of NES? Y-N If Yes, which NES?
Camping < 8 persons <ul style="list-style-type: none"> Establishing and using fly camp or one caravan or less 	Establishing and utilising an area for temporary use as accommodation and messing facilities.	Compaction, vegetation destruction, heritage site damage, pollution, water and wind erosion, visually unappealing.	ENVT103 Camp Management ENVT102 Ground Disturbance ENVT 111 Hydrocarbons and Hazardous Substances.	Low	No	No
Camping > 8 persons <ul style="list-style-type: none"> Establishing and using camp of size more than one caravan 	Establishing and utilising an area for use as accommodation and messing facilities.	Compaction, vegetation destruction, heritage site damage, pollution, water and wind erosion, visually unappealing.	ENVT103 Camp Management ENVT102 Ground Disturbance ENVT 111 Hydrocarbons and Hazardous Substances	Low	No	No
Geochemical Surveys <ul style="list-style-type: none"> Sampling by pick/shovel/trowels 	Foot access Construction of access tracks, tyred vehicle access, digging of shallow (<30cm deep) trenches/pits	Compaction, minor ground (vegetation and soil) disturbance, water erosion	ENVT110 Sampling ENVT102 Ground Disturbance	Low	No	No
Geophysical Surveys <ul style="list-style-type: none"> Looped conductor wire method Peg and hole method 	Foot access Tyred vehicle access, construction of access tracks	Transient noise, Minor compaction, minor ground disturbance (soil and vegetation), minor water and wind erosion	ENVT110 Sampling ENVT102 Ground Disturbance	Low	No	No

ENVT 100 Environment Protection and Biodiversity Conservation (EPBC)

Exploration Activity	Impact Identification and Management			Assessment of Impact		
	Action (Identify tasks involved with activity)	Potential Impact (Without Controls)	Controls (Refer to relevant RTE-AR Procedures)	Residual Impact (with Controls) None-Low-Med- High	Residual Impact significant Yes-No	Matter of NES? Y-N If Yes, which NES?
<ul style="list-style-type: none"> Seismic Shot hole 						
Drilling <ul style="list-style-type: none"> RAB Air Core RC Diamond 	Construction of access tracks, tyred vehicle access Drill pad construction, heavy equipment mobilisation, drilling waste discharge, drilling	Ground and surface water contamination, vegetation and soil disturbance, water and wind erosion, dust generation	ENVT102 Ground Disturbance ENVT107 Drilling ENVT108 Drill Hole Capping ENVT109 Water Bores ENVT114 Monitoring Equipment	Low	No	No
Bulk Sampling	Tyred vehicle access, construction of access tracks Ground excavation, heavy equipment mobilisation, Soil removal and storage	Ground and surface water contamination, vegetation and soil disturbance, water erosion, dust generation	ENVT110 Sampling ENVT102 Ground Disturbance ENVT114 Monitoring Equipment ENVT 111 Hydrocarbons and Hazardous Substances	Low	No	No

3.0 PRELIMINARY QUESTIONS

If you answer 'Yes' to any of the following questions, please fill out the corresponding section in the Checklist.

Note All questions below are to be answered.

1. Are the actions on, near or likely to adversely affect a World Heritage Property (WHP)?

Yes ☐ No ☒ If 'Yes', complete Section 1. If 'No' go to Question 2

2. Are the actions on, near or likely to adversely affect a Ramsar Wetland?

Yes ☐ No ☒ If 'Yes', complete Section 2. If 'No' go to Question 3.

3.

a) Do any listed Australian flora or fauna, that is, listed in the Act as being extinct in the wild, critically endangered, endangered or vulnerable occur on the project area?

Yes ☐ No ☒ If 'Yes', list the species:

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.....

b) Are the actions likely to have a significant environmental impact on these species?

Yes ☐ No ☐ If 'Yes', complete Section 3. If 'No' go to Question 4.

4.

a) Do any listed migratory species occur on the project area?

Yes ☒ No ☐

b) Are the actions likely to have a significant environmental impact on these listed migratory species?

Yes ☐ No ☒ If 'Yes', complete Section 4. If 'No' go to Question 5.

5. Do the actions involve nuclear material/products, or an activity or facility for processing nuclear material/products?

Yes ☐ No ☒ If 'Yes', Complete Section 5. If 'No' Go To Question 6.

6. Is the action in, near or likely to impact on a Commonwealth Marine area?

Yes ☒ No ☐ If 'Yes', Complete Section 6. If 'No' follow the directions below.

When complete, attach the relevant Sections to these 'Preliminary Questions'.

If the answer is 'Yes' to Questions 1, 2, 3b, 4b, 5, or 6, then the action is likely to have a significant environmental impact on a matter of National Environmental Significance. Submit this completed EPBC checklist must to the Environmental Officer, or the Manager HSEC, before any fieldwork. Fieldwork is not to commence until the Environmental Officer and/or the Manager HSEC have approved the checklist.

If you answered 'No' to all the questions, attach these 'Preliminary Questions' and your EPBC Search Report as an appendice to the Project EMP.

4.0 EPBC CHECKLIST

4.1 Section 1 World Heritage Properties (WHP)

All WHP's are listed at: <http://www.ea.gov.au/heritage/awh/worldheritage/index.html>

1. From your search, select the WHP that was on, near or likely to be affected:

- | | |
|---|---|
| <input type="checkbox"/> Heard and McDonald Islands | <input type="checkbox"/> Macquarie Island |
| <input type="checkbox"/> The Greater Blue Mountains Area | <input type="checkbox"/> Lorde Howe Island |
| <input type="checkbox"/> Australian Fossil Mammal Sites (Naracoorte) | <input type="checkbox"/> Fraser Island |
| <input type="checkbox"/> Australian Fossil Mammal Sites (Riversleigh) | <input type="checkbox"/> Great Barrier Reef |
| <input type="checkbox"/> Central Eastern Rainforest Reserves of Australia | <input type="checkbox"/> Kakadu National Park |
| <input type="checkbox"/> Shark Bay, Western Australia | <input type="checkbox"/> Willandra Lakes Region |
| <input type="checkbox"/> Wet Tropics of Queensland | <input type="checkbox"/> Tasmanian Wilderness |
| <input type="checkbox"/> Ulura-Kata Tjuta National Park | |

2. What are the World Heritage Values for the relevant WHP?

To answer this question, start at: <http://www.ea.gov.au/heritage/awh/worldheritage/index.html>

Select 'Values' next to the relevant WHP.

What values have you identified (if there is insufficient space provided append additional information to the EPBC Checklist)?

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3. Is the action likely to result in one or more of these World Heritage values being lost, damaged or degraded? (To answer this question, you will need to form an opinion. This opinion should be based on the advice of a person with the relevant scientific expertise or experience.)

Yes ☐ No ☐ Unsure ☐

If the answer is 'Yes' or 'Unsure' to any questions in Section 1, then refer the actions.

If the answer is 'No' to all of Section 1, go to Question 2.

4.2 Section 2 Ramsar Wetlands

1. Which Ramsar Wetland have you identified?
2. What is the 'ecological character' of the relevant Ramsar Wetland?
(To answer this question, start at: <http://www.ea.gov.au/cgi-bin/ramsar/search.pl>)

Type in the name of the Ramsar wetland that you have identified and 'submit' query.
The database will produce an 'Information Sheet' on the wetland. This provides information about the wetland, such as the ecological character/features of the wetland.

What ecological character/feature has the database identified?

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2. Is the action likely to have a significant environmental impact on the identified ecological character of the relevant Ramsar Wetland? This will occur if the action is likely to result in:

(To answer the following questions, you will need to form an opinion. This opinion should be based on the advice of a person with the relevant scientific expertise or experience.)

- areas of the wetland being destroyed or substantially modified; Yes ☐ No ☐
- a substantial and measurable change in the hydrological regime of the wetland
Yes ☐ No ☐
- the habitat or life cycle of native species, dependent upon the wetland, being seriously affected; Yes ☐ No ☐
- a substantial and measurable change in the physio-chemical nature of the wetland; or
Yes ☐ No ☐
- an invasive species, that is harmful to the ecological character of the wetland, being established in the wetland. Yes ☐ No ☐

If the answer is '**Yes**' to any of Section 2, then refer the action.

If the answer is '**No**' to all of Section 2 then go to Question 3.

4.3 Section 3 Native Australian Flora and Fauna

All species are listed at: <http://www.ea.gov.au/biodiversity/threatened/index.html>

The EPBC Interactive Map Search Report includes this information.

(Between July 2000 and the end of that year, the species listed on this website are being reclassified to fit in with the classifications required by the Act.)

Note: Do not include migratory species in this section. Address migratory species in Section 4.

Part A

Record the listed species and ecological communities under the following classifications.

Species

Those species that are extinct in the wild:

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Those species that are critically endangered or endangered:

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Those species that are vulnerable:

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.....

Ecological Communities

Those ecological communities that are critically endangered or endangered:

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Continue with the following questions in Part B.

Part B

(To answer the following questions, you will need to form an opinion. This opinion should be based on the advice from a person with the relevant scientific expertise or experience.)

Species

1. For those species that are extinct in the wild, will or is the action, likely to:
 - adversely affect a captive or propagated population, or one recently introduced or re-introduced into the wild? Yes ☐ No ☐
 - or**
 - interfere with the recovery of the species, or its re-introduction to the wild? Yes ☐ No ☐

2. For those species that are critically endangered or endangered, will or is the action, likely to:
 - lead to a long term decrease in the size of a population? Yes ☐ No ☐

 - reduce the area of distribution of the species? Yes ☐ No ☐

- fragment an existing population into two or more populations?

Yes ☐ No ☐
- adversely affect habitat critical to the survival of a species?

Yes ☐ No ☐
- disrupt the breeding cycle of a population?

Yes ☐ No ☐
- modify, destroy, remove isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline?

Yes ☐ No ☐
- result in invasive species that are harmful to a critically endangered or endangered species becoming established in the habitat of the endangered or critically endangered species?

Yes ☐ No ☐
- interfere with the recovery of the species?

Yes ☐ No ☐

3. For those species that are vulnerable, will or is the action, likely to:

- lead to a long-term decrease in the size of an 'important population' of a species?

Yes ☐ No ☐
- reduce the area of distribution of an 'important population'?

Yes ☐ No ☐
- fragment an existing 'important population' into two or more populations?

Yes ☐ No ☐
- adversely affect habitat critical to the survival of a species?

Yes ☐ No ☐
- disrupt the breeding cycle of an important population?

Yes ☐ No ☐
- modify, destroy, remove, isolate or decrease the availability, or quality, of habitat to the extent that the population of the species is likely to decline?

Yes ☐ No ☐
- result in invasive species, that are harmful to a vulnerable species, becoming established in the habitat of the vulnerable species?

Yes ☐ No ☐
- interferes substantially with the recovery of the species?

Yes ☐ No ☐

4.4 Ecological Communities

1. For those ecological communities that are critically endangered, will or is the action, likely to:
- lead to a long-term adverse effect on an ecological community?
Yes ☐ No ☐
 - reduce the area of distribution of a community? Yes ☐ No ☐
 - fragment an existing population of the community? Yes ☐ No ☐
 - adversely affect habitat critical to the survival of an ecological community?
Yes ☐ No ☐
 - modify, destroy, remove, isolate or decrease the availability, or quality, of habitat to the extent that the population of the species is likely to decline?
Yes ☐ No ☐
 - result in invasive species, that are harmful to the critically endangered or endangered community, becoming established in a population of the community?
Yes ☐ No ☐
 - interferes with the recovery of the ecological community? Yes ☐ No ☐
2. Has the Commonwealth adopted any Recovery Plans for this ecological community?
Yes ☐ No ☐

All the existing Recovery Plans adopted by the Commonwealth are listed at:

<http://www.ea.gov.au/biodiversity/threatened/recovery/list.html#swa>

If 'Yes', do they provide any guidance on whether an action is likely to be significant?

What are the guidelines (If this is insufficient space, append the additional information to the EPBC Checklist)?

On the basis of such guidance, will or is the action, likely to have a significant impact?

If the answer is 'Yes' to any of Part B then refer the action.

If the answer is 'No' to all of Part B then go to Question 4.

4.5 Section 4 Migratory Species

All migratory species protected under the EPBC Act are listed at:

<http://www.ea.gov.au/biodiversity/migratory/list.html>

The EPBC Interactive Map Search Report provides this information.

1. What listed migratory species has the search identified?

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2. For those migratory species identified, will or is the action, likely to:

- substantially modify (by, altering fire regimes, nutrient cycles or hydrological cycles, and fragmenting populations), destroy or isolate an area of important habitat of the migratory species? Yes ☐ No ☐ Unsure ☐
- result in an invasive species that is harmful to the migratory species becoming established in an area of important habitat of the migrating species? Yes ☐ No ☐ Unsure ☐
- seriously disrupt the life cycles (breeding, feeding, migration or resting behaviour) of an ecologically significant proportion of the population of the species? Yes ☐ No ☐ Unsure ☐
- For the migratory species listed above, what is an ecologically significant proportion of the population of that species? Yes ☐ No ☐ Unsure ☐

If the answer is 'Yes' or 'Unsure' to any of section 4 then refer the action.

If the answer is 'No' to all of Section 4 then go to Question 5.

4.6 Section 5 Nuclear Action

1. Does the action involve:

- establishing or significantly modifying a nuclear installation or a facility for storing spent nuclear fuel? Yes ☐ No ☐
- transporting spent nuclear fuel or radioactive waste products arising from reprocessing? Yes ☐ No ☐
- establishing or significantly modifying a facility for storing radioactive waste products arising from reprocessing? Yes ☐ No ☐
- mining or milling uranium ore? Yes ☐ No ☐
- establishing or significantly modifying a large-scale disposal facility for radioactive waste? Yes ☐ No ☐
- de-commissioning or rehabilitating of any facility or area on which an activity described above has been undertaken? (as at 31 October 2000, there are no such actions.) Yes ☐ No ☐
- any other action prescribed by the Regulations (as at 31 October 2000, there are no such actions). Yes ☐ No ☐

If the answer is 'Yes' to any of Section 5, then refer the action.

If the answer is 'No' to all of Section 5, then go to Question 6.

4.7 Section 6 Commonwealth Marine Environment

All such Commonwealth marine areas are listed at:

<http://www.ea.gov.au/coasts/information/marinearea.html>

1. Which area is identified?

... *Australian Commonwealth Marine area*

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2. Will, or is, the action likely to:

- result in a known or potential pest species becoming established in the Commonwealth marine area? Yes ☐ No ☒
- modify, destroy, fragment or disturb a substantial area of habitat resulting in an adverse impact on the marine ecosystem function or integrity within a Commonwealth marine area? Yes ☐ No ☒
- have a substantial adverse effect on a population of a marine species or cetacean including its life cycle (breeding, feeding, migration behaviour and life expectancy) and spatial distribution? Yes ☐ No ☒
- result in a substantial change in air or water quality (including temperature) which may adversely impact on biodiversity, ecological integrity, social amenity or human health. Yes ☐ No ☒
- result in organic chemicals, heavy metals, or other potentially harmful chemicals accumulating in the marine environment, which adversely affects the biodiversity, ecological integrity, social amenity or human health? Yes ☐ No ☒