



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 5272/1
Permit Holder:	Robe River Mining Co Pty Ltd
Duration of Permit:	16 November 2013 to 16 November 2028

ADVICE NOTE:

This Permit does not confer upon the Permit Holder authorisation to access the land to which the Permit relates.

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I – CLEARING AUTHORISED

1. Purpose for which clearing may be done

Clearing for the purpose of construction and installation of utilities, mine and port support infrastructure and associated works.

2. Area of Clearing

The Permit Holder must not clear more than 150 hectares of native vegetation within the *specified area* hatched yellow on attached Plan 5272/1.

3. Period in which clearing is authorised

The Permit Holder shall not clear any native vegetation after 16 November 2023.

4. Application

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

PART II – MANAGEMENT CONDITIONS

5. Weed control

When undertaking any clearing or other activity pursuant to this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds*:

- Clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- Ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- Restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

6. Flora management

Prior to undertaking any clearing authorised under this Permit:

- Where the report entitled 'Flora and Vegetation Assessment of the Cape Lambert Area, 2012', dated November 2012, identified potential habitat for *priority flora* within the *specified area*, the Permit Holder shall engage a *botanist* to inspect that area for the presence of *priority flora*.

- (b) Where *priority flora* are identified in relation to condition 6(a) of this Permit, the Permit Holder shall ensure that:
 - (i) no clearing of identified *priority flora* occurs, unless first approved by the CEO; and
 - (ii) no clearing occurs within 10 metres of identified *priority flora*, unless first approved by the CEO.

7. Fauna management – *Lerista neviniae*

Where the report entitled ‘Cape Lambert Terrestrial Fauna Assessment and Targeted Fauna Survey’, dated November 2012, identified *Lerista neviniae habitat* within the *specified area*, the Permit Holder shall ensure that no clearing occurs within the identified *Lerista neviniae habitat*, unless first approved by the CEO.

8. Management plan – Marine Turtles

- (a) The Permit Holder must implement and adhere to the Management Plan entitled ‘Cape Lambert Port B Development Marine Turtle Management Plan, April 2013 V2-5’.
- (b) If it is necessary to modify the Management Plan entitled ‘Cape Lambert Port B Development Marine Turtle Management Plan, April 2013 V2-5’, then the Permit Holder must provide that modified Management Plan to the CEO for the CEO’s approval.
- (c) The modified Management Plan must not be implemented until approved by the CEO.
- (d) An approved modified Management Plan supersedes any previous Management Plan.

9. Fauna management - *Dasyurus hallucatus*

Prior to undertaking any clearing authorised under this Permit:

- (a) Where the report entitled ‘Cape Lambert Terrestrial Fauna Assessment and Targeted Fauna Survey’, dated November 2012, has identified potential habitat for northern quoll (*Dasyurus hallucatus*) within the *specified area*, the Permit Holder shall engage a *fauna specialist* to inspect that area for the presence of habitat on which it has a specific dependence.
- (b) Any habitat areas on which northern quoll (*Dasyurus hallucatus*) has a specific dependence, identified in accordance with condition 9(a), shall be inspected by a *fauna specialist* for the presence of northern quoll (*Dasyurus hallucatus*).
- (c) Where habitat areas on which northern quoll (*Dasyurus hallucatus*) has a specific dependence are identified in accordance with condition 9(a), the Permit Holder must:
 - (i) Avoid areas identified in accordance with condition 9(a); or
 - (ii) Where the areas identified in accordance with condition 9(a) cannot be avoided, the Permit Holder shall prepare, implement and adhere to a *Fauna Management Plan*, designed by a fauna specialist.
- (d) Where northern quoll (*Dasyurus hallucatus*) is identified in accordance with condition 9(b), the Permit Holder must prepare, implement and adhere to a *Fauna Management Plan*, designed by a fauna specialist.
- (e) The *Fauna Management Plan* required in accordance with conditions 9(c) and 9(d), must include the following:
 - (i) a plan for managing the *impacts*;
 - (ii) a plan for managing any fauna identified in accordance with condition 9(b);
 - (iii) a table setting out the Permit Holder’s commitments to the *Fauna Management Plan* requirements; and
 - (iv) a program for monitoring compliance with the Permit Holder’s commitments.
- (f) Once the Permit Holder has developed a *Fauna Management Plan*, the Permit Holder must provide that *Fauna Management Plan* to the CEO for the CEO’s approval. The clearing to which the *Fauna Management Plan* relates and the implementation of the *Fauna Management Plan* shall not take place until the Permit Holder receives approval from the CEO.

- (g) If it is necessary to modify the *Fauna Management Plan* approved by the CEO, then the Permit Holder must provide that modified *Fauna Management Plan* to the CEO for the CEO's approval.
- (h) The modified *Fauna Management Plan* must not be implemented until approved by the CEO.
- (i) An approved modified *Fauna Management Plan* supersedes any previous *Fauna Management Plan*.

10. Revegetation and rehabilitation

- (a) The Permit Holder must *revegetate* and *rehabilitate* any area(s) no longer required for the purpose for which they were cleared under this Permit.
- (b) The Permit Holder need not *revegetate* and *rehabilitate* an area specified in condition 10(a) of this Permit if the Permit Holder intends to use that cleared area for another activity approved under condition 1 of this Permit within 12 months of that area no longer being required for the purpose for which it was originally cleared under this Permit.
- (c) The Permit Holder must prepare a *Revegetation Plan*, designed by an *environmental specialist*, if required to *revegetate* and *rehabilitate* an area specified in condition 10(a) of this Permit.
- (d) The *Revegetation Plan* must include the following:
 - (i) *site preparation*;
 - (ii) *weed control*;
 - (iii) *regeneration or direct seeding*;
 - (iv) a *vegetation establishment period*;
 - (v) *revegetation success completion criteria*;
 - (vi) remedial actions to be undertaken if success completion criteria are not met;
 - (vii) ongoing maintenance and monitoring of the area to be *revegetated* and *rehabilitated*;
 - (viii) timeframes for completion of the activities and
 - (ix) management commitments that will be achieved.
- (e) Once the Permit Holder has developed a *Revegetation Plan*, the Permit Holder must provide that *Revegetation Plan* to the CEO for the CEO's approval.
- (f) If it is necessary to modify the *Revegetation Plan* approved by the CEO, then the Permit Holder must provide that modified *Revegetation Plan* to the CEO for the CEO's approval.
- (g) The Permit Holder shall implement the *Revegetation Plan* approved by the CEO.
- (h) The *revegetation* and *rehabilitation* of an area pursuant to condition 10, must be carried out as soon as possible, but no later than 24 months after the Permit Holder no longer requires the area for activities approved under condition 1 of this Permit.
- (i) The Permit Holder need not comply with condition 10(a) if the area to be *revegetated* and *rehabilitated* is:
 - (i) less than 0.5 hectares; and
 - (ii) not located in an environmentally sensitive area.

PART III – MONITORING, RECORD KEEPING AND REPORTING

11. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit:

- (a) In relation to the clearing of native vegetation authorised under this Permit:
 - (i) The species composition, structure and density of the cleared area;
 - (ii) The location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
 - (iii) The dates on which clearing was done; and

- (iv) The size of the area cleared (in hectares).
- (b) In relation to flora management pursuant to condition 6 of this Permit:
- (i) A copy of the *botanist's* flora survey report.
 - (ii) The location of each *priority flora* species cleared recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
 - (iii) The species name of each *priority flora* cleared;
 - (iv) The date(s) that *priority flora* was cleared; and
 - (v) The estimated number *priority flora* plants that were cleared at each location.
- (c) In relation to fauna management pursuant to condition 9 of this Permit:
- (j) A description and results of the fauna management activities undertaken in accordance with the *Fauna Management Plan* approved by the CEO; and
 - (ii) A copy of the *fauna specialist's* survey report.
- (d) In relation to the *revegetation* and *rehabilitation* of areas pursuant to condition 10 of this Permit:
- (i) The location of any areas *revegetated* and *rehabilitated*, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
 - (ii) A description and results of the *revegetation* and *rehabilitation* activities undertaken in accordance with the *Revegetation Plan* approved by the CEO;
 - (iii) The size of the area *revegetated* and *rehabilitated* (in hectares); and
 - (iv) The species composition, structure and density of areas *revegetated* and *rehabilitated*.

12. Reporting

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
- (i) of records required under condition 11 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding calendar year.
- (b) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar year, a written report confirming that no clearing under this permit has been carried out, must be provided to the CEO on or before 30 June of each year.
- (c) Prior to 16 November 2023, the Permit Holder must provide to the CEO a written report of records required under condition 11 of this Permit where these records have not already been provided under condition 12(a) of this Permit.

13. Interpretation

The following rules of interpretation apply to this Permit:

- (a) A reference to any *written law* includes a reference to that *written law* as amended, repealed or replaced from time to time; and
- (b) If a word or phrase is defined, other parts of speech and grammatical forms of that word or phrase have corresponding meanings.

14. Severance

It is the intent of these conditions that they shall operate so that, if a condition or part of a condition is beyond the CEO's power to impose, or is otherwise ultra vires or invalid, that condition or part of a condition shall be severed and the remainder of these conditions shall nevertheless be valid to the extent that they are within the CEO's power to impose and are not otherwise ultra vires or invalid.

15. Inconsistency

- (a) The *Environmental Protection Act 1986* prevails to the extent of any inconsistency between its provisions and the conditions of this Permit.

- (b) Subject to condition 15(a), this Permit prevails to the extent of any inconsistency between its conditions, and the provisions of any other document referred to in this Permit.

DEFINITIONS

The following meanings are given to terms used in this Permit:

botanist: means a person who holds a tertiary qualification in environmental science or equivalent, and has a minimum of 2 years work experience in identification and surveys of flora native to the bioregion being inspected or surveyed, or who is approved by the CEO as a suitable botanist for the bioregion;

coordinate means a Map Grid of Australia (Geocentric Datum of Australia 1994) coordinate for zone 50;

direct seeding means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

environmentally sensitive area means an area that is the subject of a declaration that is in force under section 51B of the EP Act;

environmental specialist means a person who is engaged by the Permit Holder for the purpose of providing environmental advice, who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit;

EP Act means the *Environmental Protection Act 1986*;

Fauna Management Plan means a plan developed by the Permit Holder for the management of fauna at the site in accordance with condition 9 of this Permit;

fauna specialist: means a person who holds a tertiary qualification specializing in environmental science or equivalent, and has a minimum of 2 years work experience in fauna identification and surveys of fauna native to the region being inspected or surveyed, or who is approved by the CEO as a suitable fauna specialist for the bioregion, and who holds a valid fauna licence issued under the *Wildlife Conservation Act 1950*;

fill means material used to increase the ground level, or fill a hollow;

impacts means any impact of clearing on environmental values;

Lerista neviniae habitat means coastal dune habitat with pale sands vegetated with open hummock grasslands, with acacia species;

local provenance means native vegetation seeds and propagating material from natural sources within 200 kilometres and the same Interim Biogeographic Regionalisation for Australia (IBRA) subregion of the area cleared;

mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

planting means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;

priority flora means those plant taxa described as priority flora classes 1, 2, 3, 4 or 5 in the *Department of Environment and Conservation's Threatened and Priority Flora List for Western Australia* (as amended);

regenerate/ed/ion means re-establishment of vegetation from in situ seed banks and propagating material (such as lignotubers, bulbs, rhizomes) contained either within the topsoil or seed-bearing mulch;

rehabilitate/ed/ion means actively managing an area containing native vegetation in order to improve the ecological function of that area;

revegetate/ed/ion means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as natural *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area;

Revegetation Plan means a plan developed by the Permit Holder for the *revegetation* and *rehabilitation* of a site in accordance with condition 10 of this Permit;

site preparation means management of existing site topsoil and preparation of the finished soil surface, for example by ripping or tilling the soil surface and respreading site topsoil and chipped native vegetation;

specified area means the area bounded by a line joining the *coordinates* listed in Schedule 1 of this Permit consecutively, then directly to the point of commencement;

vegetation establishment period means a period of at least two summers after the *revegetation* during which time replacement and infill *revegetation* works may be required for areas in which revegetation has been unsuccessful, and involves regular inspections of *revegetation* sites to monitor the success of *revegetation*;

weeds/s means any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
- (b) published in the former Department of Environment and Conservation Regional Weed Assessments, regardless of ranking; or
- (c) not indigenous to the area concerned.

written law has the same meaning as it is given in section 5 of the *Interpretation Act 1984*.



M Warnock
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

*Officer delegated under Section 20
of the Environmental Protection Act 1986*

17 October 2013

SCHEDULE 1
Coordinates of the specified area

Point	Easting	Northing
1	519237.4	7722947.28
2	519207.47	7722930.38
3	519168.05	7722899.55
4	519037.87	7722781.39
5	519023.29	7722798.01
6	519117.07	7722884.11
7	519002.38	7723016.82
8	518820.78	7722945.98
9	518494.46	7722818.73
10	518168.05	7722691.37
11	518118.16	7722712.68
12	518064.11	7722743.28
13	518045.89	7722758.9
14	518027.97	7722767.77
15	518015.38	7722784.61
16	518018.22	7722804.64
17	518042.95	7722834.71
18	518058.71	7722862.91
19	518084.7	7722905.06
20	518086.91	7722923.53
21	518081.84	7722957.96
22	518074.87	7722966.26
23	518066.54	7722970.36
24	518033.29	7722969.4
25	518024.85	7722965.2
26	518011.69	7722946.19
27	518003.46	7722939.34
28	517998.77	7722947.42
29	518009.86	7722976.07
30	518007.57	7722985.04
31	517993.31	7723001.99
32	517983.93	7723002.99
33	517966.52	7722998.03
34	517945.86	7722964.85
35	517938.76	7722955.79
36	517871.98	7722870.86
37	517868.43	7722866.32
38	517844.33	7722835.59
39	517826.48	7722805.51
40	517796.96	7722786.28
41	517795.18	7722776.43
42	517798.7	7722757.95
43	517789.91	7722718.99

Point	Easting	Northing
44	517791.15	7722709.59
45	517817.83	7722709.46
46	517828.25	7722709.22
47	517828.75	7722691.96
48	517809.76	7722665.74
49	517808.19	7722656.57
50	517807.04	7722656.79
51	517790.37	7722659.79
52	517783.92	7722668.2
53	517774.14	7722686.04
54	517765.81	7722689.59
55	517757.67	7722683.84
56	517757.13	7722657.62
57	517767.31	7722631.92
58	517773.03	7722613.66
59	517714.18	7722540.57
60	517710.52	7722535.26
61	517707.7	7722531.06
62	517691.71	7722485.7
63	517669.06	7722450.98
64	517648.71	7722421.67
65	517608.56	7722395.59
66	517580.11	7722385.55
67	517504.3	7722338.49
68	517485.95	7722320.91
69	517458.09	7722287.74
70	517433.14	7722248.7
71	517428.53	7722222.15
72	517417.34	7722186.07
73	517397.18	7722138.73
74	517393.11	7722129.66
75	517348.96	7722055.67
76	517340.8	7722027.89
77	517294.74	7721927.02
78	517275.74	7721896.27
79	517252.65	7721827.91
80	517227.69	7721772.82
81	517211.91	7721724.91
82	517187.08	7721692.4
83	517127.11	7721638.78
84	517119.07	7721633.48
85	517012.51	7721567.41

86	516920.04	7721513.83
Point	Easting	Northing
87	516898.35	7721500.01
88	516820.37	7721463.13
89	516724.88	7721423.28
90	516633.15	7721384.97
91	516615.43	7721380.11
92	516599.27	7721370.83
93	516571.62	7721327.59
94	516563.49	7721319.85
95	516527.5	7721285.03
96	516467.45	7721244.57
97	516426.58	7721223.15
98	516403.32	7721199.59
99	516377.67	7721187.01
100	516371.51	7721178.38
101	516366.49	7721151.71
102	516360.54	7721141.65
103	516320.48	7721093.32
104	516287.3	7721046.43
105	516239.85	7721006.08
106	516211.79	7720970.25
107	516175.49	7720933.66
108	516166.51	7720915.07
109	516138.65	7720869.95
110	516093.82	7720835.69
111	515998.93	7720767.82
112	515906.04	7720712.46
113	515819.63	7720670.05
114	515786.97	7720659.52
115	515786.99	7720659.5
116	515722.15	7720533
117	515645.87	7720426.49
118	515644.56	7720424.39
119	515640.51	7720384.51
120	515630.55	7720352.05
121	515625.36	7720314.92
122	515593.44	7720255.94
123	515550.94	7720217.65
124	515544.02	7720211.57
125	515500.81	7720169.49
126	515517.1	7720157.15
127	515539.99	7720094.21
128	515541.73	7720066.33
129	515536.35	7719985.4
130	515508.83	7719921.01
131	515488.25	7719890.79

132	515436.61	7719832.41
133	515383.6	7719793.83
Point	Easting	Northing
134	515346.46	7719765.88
135	515249.98	7719715.6
136	515178.78	7719753.77
137	515094.65	7719652.28
138	515053.01	7719639.4
139	514994.11	7719595.31
140	514967.16	7719578.63
141	514944.71	7719515.73
142	514871.42	7719501.36
143	514828.59	7719500.55
144	514818	7719465.49
145	514796.64	7719436.84
146	514748.01	7719389.27
147	514756.32	7719359.9
148	514759.64	7719318.87
149	514759.69	7719307.98
150	514762.88	7719234.13
151	514733.72	7719183.15
152	514699.38	7719141.68
153	514638.43	7719098.09
154	514607.8	7719083.99
155	514529.34	7719055
156	514515.77	7719054.71
157	514524.77	7719040.3
158	514528	7718991.18
159	514520.45	7718955.65
160	514531.01	7718947
161	514559.56	7718901.53
162	514581.51	7718874.29
163	514624.75	7718796.83
164	514640.84	7718657.74
165	514617.65	7718652.77
166	514601.28	7718612.35
167	514566.17	7718531.5
168	514604.02	7718524.23
169	514636.49	7718476.87
170	514670.12	7718450.71
171	514714.6	7718410.42
172	514713.56	7718289.85
173	514704.28	7718241.68
174	514689.3	7718218.15
175	514633.12	7718116.37
176	514605.37	7718069.54
177	514552.57	7718008.83

178	514510.12	7717958.53
179	514442.56	7717907.84
180	514416.84	7717889.37

Point	Easting	Northing
181	514374.69	7717868.13
182	514369.66	7717867.81
183	514362.39	7717836.28
184	514324.69	7717780.99
185	514292.51	7717725.05
186	514236.57	7717675.9
187	514234.22	7717674.08
188	514206.44	7717641.73
189	514195.99	7717639.36
190	514175.99	7717608.19
191	514178.21	7717491.11
192	514172.09	7717475.4
193	514165.02	7717451.28
194	514163.54	7717442.75
195	514161.69	7717432.05
196	514161.44	7717430.64
197	514161.56	7717428.05
198	514181.39	7717404.41
199	514191.02	7717342.96
200	514187.36	7717307.43
201	514198.21	7717267.6
202	514192.29	7717235.44
203	514208.31	7717164.29
204	514205.38	7717155.89
205	514205.42	7717155.89
206	514219.34	7717103.46
207	514213.63	7717099.65
208	514208.5	7717093.64
209	514205.28	7717085.88
210	514206.59	7717077.08
211	514210.11	7717071.66
212	514201.03	7717063.61
213	514183.74	7717051.16
214	514169.68	7717027.39
215	514163.73	7717017.33
216	514155.21	7717002.95
217	514149.68	7716993.61
218	514134.05	7716967.2
219	514106.97	7716914.25
220	514088.2	7716879.31
221	514072.1	7716852.42
222	514053.94	7716827.51
223	514031.83	7716800.97

224	513987.54	7716738.46
225	513972.08	7716713.16
226	513959.66	7716687.62
227	513933.42	7716623.27

Point	Easting	Northing
228	513936.29	7716615.64
229	513933.42	7716580.28
230	513916.23	7716541.11
231	513887.35	7716521.24
232	513844.57	7716469.47
233	513811.14	7716429.33
234	513807.32	7716396.85
235	513784.39	7716366.29
236	513767.03	7716353.44
237	513748.02	7716318.12
238	513736.24	7716290.04
239	513719.94	7716264.69
240	513670.69	7716215.19
241	513646.07	7716184.31
242	513627.82	7716167.8
243	513602.21	7716140.62
244	513591.09	7716128.53
245	513579.59	7716116.03
246	513552.2	7716093.77
247	513452.09	7716047.45
248	513443.58	7716047.09
249	513428.64	7716046.47
250	513418.49	7716044.7
251	513401.66	7716042.67
252	513328.52	7716024.1
253	513314.01	7716018.01
254	513313.43	7716012.49
255	513301.54	7716004.66
256	513240.3	7715977.09
257	513168.65	7715951.1
258	513120.56	7715928.18
259	513121.08	7715527.71
260	512506.1	7715558.61
261	512506.23	7715738.62
262	512297.8	7715738.28
263	512252.55	7715705.49
264	512249.49	7715650
265	512180.91	7715653.58
266	512139.8	7715623.8
267	512139.55	7715605.73
268	512246.68	7715599.95
269	512236.38	7715413.85

270	512027.92	7715374.95
271	511582.23	7715166.46
272	511492.6	7715154.8
273	511293.45	7715128.92
274	511004.67	7715091.39

Point	Easting	Northing
275	511004.56	7714801.17
276	511004.52	7714691.51
277	511004.56	7714691.46
278	511395.79	7714709.9
279	511787.12	7714728.45
280	511818.94	7714660.47
281	512108.6	7714796.07
282	512076.77	7714863.92
283	512314.03	7714974.98
284	512175.71	7715270.67
285	512241.87	7715301.61
286	512493.51	7715275.09
287	512745.14	7715248.56
288	513312.96	7714625.5
289	513339.5	7714604.46
290	513395.28	7714555.72
291	513459.91	7714490.26
292	513458.97	7714471.78
293	513697.49	7714222.91
294	513693.84	7714215.83
295	513687.1	7714129.63
296	513713.91	7714050.37
297	513745.84	7713995.23
298	513789.49	7714010.25
299	513766.61	7714053.21
300	513749.52	7714174.84
301	514068.54	7714288.46
302	514097.66	7714238.85
303	514135.6	7714262.18
304	514467.14	7714278.38
305	514507.24	7714286.87
306	514529.95	7714291.72
307	514552.56	7714296.46
308	514575.16	7714301.31
309	514597.87	7714306.16
310	514631.73	7714313.32
311	514654.44	7714318.17
312	514677.05	7714322.91
313	514694.34	7714326.66
314	514700.49	7714327.87
315	514714.55	7714330.85

316	514763.75	7714366.77
317	514796.56	7714373.82
318	514819.37	7714378.67
319	514842.29	7714383.53
320	514865.11	7714388.38
321	514887.92	7714393.23

Point	Easting	Northing
322	514910.84	7714398.08
323	514926.68	7714401.49
324	514945.02	7714409.67
325	515008.84	7714266.4
326	515063.2	7714144.29
327	515477.79	7714084.15
328	515509.53	7714170.44
329	515519.13	7714196.44
330	515562.57	7714314.26
331	515700.09	7714687.64
332	515837.62	7715060.91
333	516040.07	7715465.66
334	516242.53	7715870.29
335	516382.21	7715966.99
336	516642.18	7716146.9
337	516902.04	7716326.82
338	517070.68	7716727.82
339	517095.22	7716786.23
340	517148.65	7716881.79
341	517031.58	7716897.74
342	517027.82	7716886.67
343	517019.69	7716881.15
344	516999.16	7716882.5
345	516967.15	7716913.68
346	516942.62	7716900.67
347	516942.51	7716887.65
348	516921.88	7716889.66
349	516920.94	7716887.45
350	516919.09	7716893.02
351	516856.56	7716968.22
352	516818.64	7716994.68
353	516809.28	7717004.09
354	516809.92	7717022.13
355	516811.1	7717022.9
356	516753.7	7717091.93
357	516757.87	7717236.09
358	516769.01	7717621.66
359	516780.15	7718007.23
360	516791.3	7718392.8
361	516799.11	7718463.48

362	516818.24	7718531.96
363	516985.69	7718985.66
364	517001.04	7719033.42
365	517030.09	7719122.63
366	517043.27	7719145.25
367	517066.43	7719171.1
368	517085.07	7719183.48

Point	Easting	Northing
369	517111.85	7719194.23
370	517129.6	7719206.77
371	517131.77	7719217.01
372	517127.07	7719233.7
373	517109.26	7719260.79
374	517105	7719277.8
375	517106.89	7719287.74
376	517112.87	7719296.27
377	517129.99	7719309.53
378	517154.47	7719337.04
379	517167.13	7719362.66
380	517190.62	7719422.99
381	517197.33	7719460.94
382	517204.26	7719488.39
383	517215.09	7719508.72
384	517215.11	7719536.32
385	517206.99	7719544.4
386	517168.48	7719542.4
387	517151.69	7719556.3
388	517143.35	7719553.57
389	517125.86	7719535.96
390	517121.39	7719527.45
391	517109.35	7719508.01
392	517091.04	7719501.18
393	517071.37	7719487.42
394	517061.93	7719487.07
395	517053.3	7719490.94
396	517058.8	7719507.7
397	517058.18	7719515.94
398	517052.32	7719523.91
399	517044.02	7719525.99
400	517038.89	7719534.44
401	517029.93	7719561.1
402	517026.8	7719589.24
403	517024.21	7719670.18
404	517028.01	7719689.17
405	517043.47	7719710.19
406	517073.25	7719728.06
407	517100.22	7719750.98

408	517103.03	7719767.23
409	517104.39	7719788.72
410	517117.07	7719820.79
411	517134.75	7719828.96
412	517161.6	7719829.07
413	517171.51	7719828.22
414	517180.22	7719820.31
415	517182.63	7719791.55

Point	Easting	Northing
416	517163.18	7719760.55
417	517161.14	7719750.15
418	517154.32	7719739.06
419	517150.45	7719730.43
420	517154.39	7719721.66
421	517180.96	7719720.57
422	517212.47	7719698.72
423	517213.56	7719682.25
424	517214.31	7719639.51
425	517217.92	7719631.48
426	517226.97	7719629.12
427	517235.56	7719634.4
428	517246.15	7719651.58
429	517251.46	7719670.29
430	517266.06	7719696.69
431	517308.82	7719746.79
432	517358.21	7719802.57
433	517367.97	7719845.23
434	517367.42	7719864.43
435	517373.92	7719876.4
436	517394.61	7719869.79
437	517401.1	7719824.77
438	517402.35	7719815.05
439	517409.9	7719805.3
440	517418.4	7719807.89
441	517444.85	7719848.79
442	517449.87	7719880.99
443	517448.71	7719951.17
444	517451.6	7719970.58
445	517457.9	7719992.16
446	517474.13	7720019.8
447	517514.68	7720067.45
448	517522.91	7720075.57
449	517525.59	7720083.73
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451	517489.27	7720091.82
452	517487.9	7720128.7
453	517490.19	7720227.45

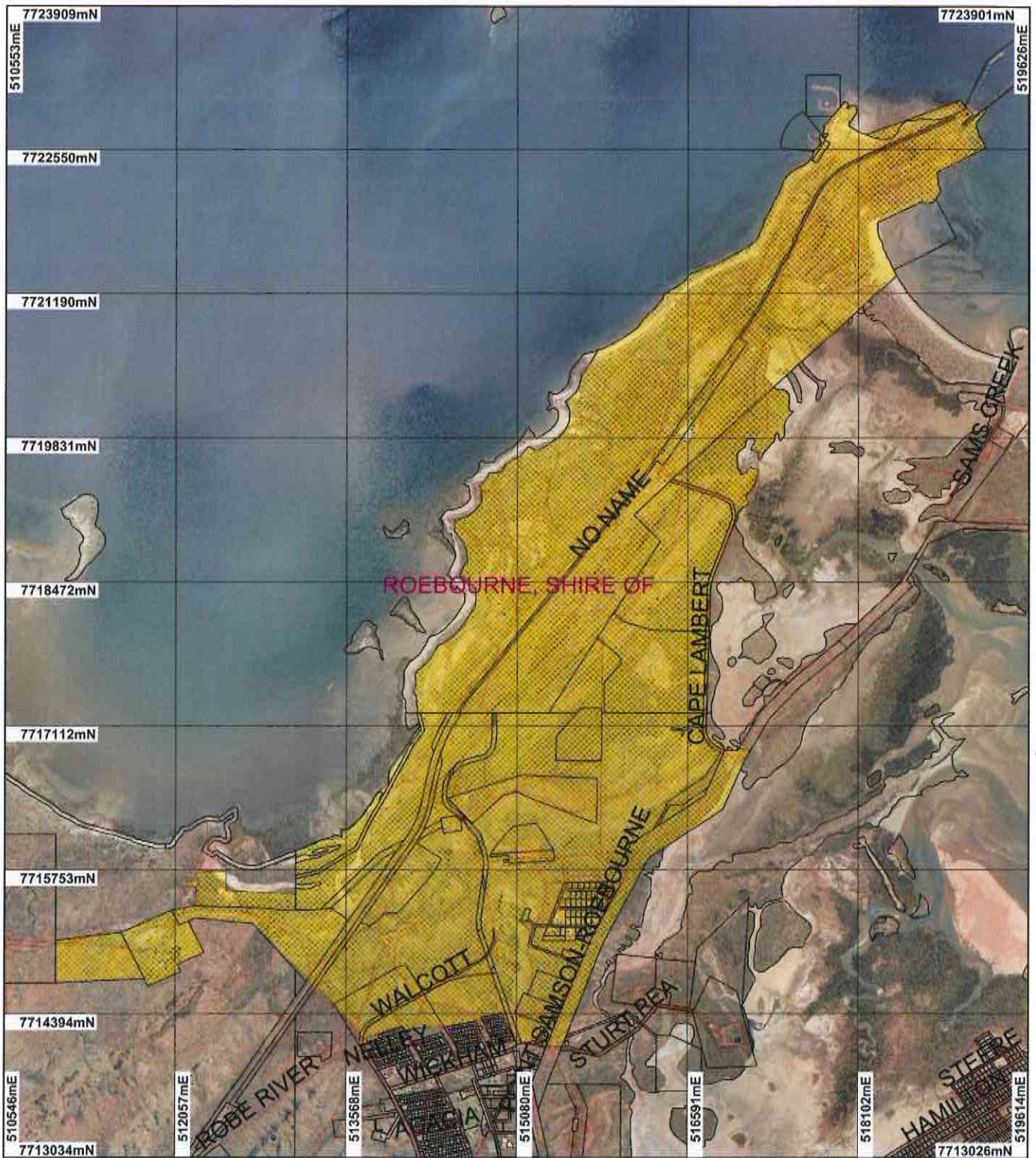
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458	517416.56	7720290.88

459	517394.77	7720285.31
460	517385.32	7720285.86
461	517355.84	7720310.9
462	517353.11	7720314.25

Point	Easting	Northing
463	517353.12	7720314.3
464	517461.79	7720418.88
465	517466.06	7720417.55
466	517507.26	7720457.45
467	517504.97	7720460.33
468	517572.03	7720525.01
469	517574.01	7720522.02
470	517605.72	7720552.75
471	517605.3	7720553.52
472	517603.85	7720555.52
473	517808.17	7720752.18
474	518012.49	7720948.73
475	518012.49	7720948.62
476	518012.28	7720946.19
477	518045.03	7720977.92
478	518045.04	7720980.02
479	518089.16	7721022.47
480	518089.57	7721021.03
481	518143.5	7721073.21
482	518143.18	7721074.54
483	518183.35	7721113.23
484	518184.91	7721113.23
485	518440.35	7721360.52
486	518431.73	7721377.9
487	518422.99	7721395.28
488	518414.36	7721412.67
489	518396.27	7721448.99
490	518377.36	7721496.93
491	518343.14	7721557.06
492	518342.12	7721575.66
493	518333.07	7721584.62
494	518321.63	7721611.09
495	518314.79	7721640.53

Point	Easting	Northing
496	518311.07	7721675.29
497	518291.72	7721704.08
498	518284.15	7721731.86
499	518275.02	7721773.05
500	518272.79	7721829.27
501	518272.58	7721837.79
502	518272.51	7721861.58
503	518665.15	7722060.8
504	518677.65	7722052.38
505	518701.09	7722044.93
506	518709.32	7722044.93
507	518748.39	7722046.54
508	518769.15	7722060.58
509	518778.01	7722070.97
510	518785.74	7722083.02
511	518799.73	7722105.14
512	518818.73	7722135.55
513	518824.36	7722141.63
514	518826.47	7722164.88
515	518822.02	7722189.89
516	518809.85	7722208.16
517	518807.29	7722250.88
518	518801.28	7722278.11
519	518797.89	7722320.95
520	518791.44	7722331.8
521	519012.9	7722448.75
522	519234.36	7722565.7
523	519175.41	7722682.74
524	519143.35	7722798.65
525	519196.56	7722867.97
526	519224.86	7722909.34
527	519233.32	7722928.02
528	519237.4	7722947.28

Plan 5272/1



LEGEND

- | | |
|-----------------------------|---|
| Clearing Instruments | Roebourne 50cm Orthomosaic - Landgate 2007 |
| Area Approved to Clear | Local Government Authorities |
| Road Centrelines | |
| Cadastral | |



0 ————— 1.5 km

Scale 1:50000
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

M Warnock Date 17/10/13

M Warnock

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



Department of Environment and Conservation

Our environment, our future
WA Crown Copyright 2002

* Project Data. This data has not been quality assured. Please contact map author for details.



1. Application details

1.1. Permit application details

Permit application No.: 5272/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Robe River Mining Co Pty Ltd

1.3. Property details

Property:

LOT 1 ON PLAN 211961 (House No. 2 WILSON WICKHAM 6720)
LOT 1000 ON PLAN 44078 (House No. 8 WILSON WICKHAM 6720)
LOT 1001 ON PLAN 40154 (House No. 13 WILSON WICKHAM 6720)
LOT 106 ON PLAN 54397 (Lot No. 106 CAPE LAMBERT POINT SAMSON 6720)
LOT 11 ON PLAN 211961 (House No. 11 WILSON WICKHAM 6720)
LOT 111 ON PLAN 213009 (Lot No. 111 POINT SAMSON-ROEBOURNE WICKHAM 6720)
LOT 112 ON PLAN 213009 (Lot No. 112 POINT SAMSON-ROEBOURNE WICKHAM 6720)
LOT 117 ON PLAN 183809 (ANTONYMYRE 6714)
LOT 12 ON PLAN 211961 (House No. 9 WILSON WICKHAM 6720)
LOT 123 ON PLAN 183607 (Lot No. 123 WALCOTT WICKHAM 6720)
LOT 124 ON PLAN 183607 (WICKHAM 6720)
LOT 13 ON PLAN 211961 (House No. 7 WILSON WICKHAM 6720)
LOT 134 ON PLAN 184076 (Lot No. 134 WALCOTT WICKHAM 6720)
LOT 14 ON PLAN 211961 (House No. 5 WILSON WICKHAM 6720)
LOT 15 ON PLAN 211961 (House No. 3 WILSON WICKHAM 6720)
LOT 16 ON PLAN 211961 (House No. 1 WILSON WICKHAM 6720)
LOT 167 ON PLAN 185321 (WICKHAM 6720)
LOT 168 ON PLAN 185392 (Lot No. 168 WALCOTT WICKHAM 6720)
LOT 17 ON PLAN 211961 (House No. 2 ROBERTS WICKHAM 6720)
LOT 18 ON PLAN 211961 (House No. 4 ROBERTS WICKHAM 6720)
LOT 19 ON PLAN 211961 (House No. 6 ROBERTS WICKHAM 6720)
LOT 2 ON PLAN 211961 (House No. 4 WILSON WICKHAM 6720)
LOT 20 ON PLAN 211961 (House No. 8 ROBERTS WICKHAM 6720)
LOT 21 ON PLAN 211961 (House No. 10 ROBERTS WICKHAM 6720)
LOT 22 ON PLAN 211961 (House No. 12 ROBERTS WICKHAM 6720)
LOT 23 ON PLAN 211961 (House No. 14 ROBERTS WICKHAM 6720)
LOT 26 ON PLAN 211961 (House No. 17 ROBERTS WICKHAM 6720)
LOT 27 ON PLAN 211961 (House No. 15 ROBERTS WICKHAM 6720)
LOT 28 ON PLAN 211961 (House No. 13 ROBERTS WICKHAM 6720)
LOT 280 ON PLAN 217843 (ANTONYMYRE 6714)
LOT 283 ON PLAN 183769 (Lot No. 283 POINT SAMSON-ROEBOURNE WICKHAM 6720)
LOT 29 ON PLAN 211961 (House No. 11 ROBERTS WICKHAM 6720)
LOT 3 ON PLAN 211961 (House No. 6 WILSON WICKHAM 6720)
LOT 30 ON PLAN 211961 (House No. 9 ROBERTS WICKHAM 6720)
LOT 300 ON PLAN 216420 (WICKHAM 6720)
LOT 301 ON PLAN 216421 (WICKHAM 6720)
LOT 307 ON PLAN 218388 (Lot No. 307 CAPE LAMBERT POINT SAMSON 6720)
LOT 31 ON PLAN 211961 (House No. 7 ROBERTS WICKHAM 6720)
LOT 315 ON PLAN 191249 (WICKHAM 6720)
LOT 317 ON PLAN 240126 (House No. 317 CAPE LAMBERT POINT SAMSON 6720)
LOT 32 ON PLAN 211961 (House No. 5 ROBERTS WICKHAM 6720)
LOT 33 ON PLAN 211961 (House No. 3 ROBERTS WICKHAM 6720)
LOT 34 ON PLAN 211961 (House No. 1 ROBERTS WICKHAM 6720)
LOT 35 ON PLAN 211961 (House No. 2 PARKER WICKHAM 6720)
LOT 36 ON PLAN 211961 (House No. 4 PARKER WICKHAM 6720)
LOT 37 ON PLAN 211961 (House No. 6 PARKER WICKHAM 6720)
LOT 38 ON PLAN 211961 (House No. 8 PARKER WICKHAM 6720)

LOT 39 ON PLAN 211961 (House No. 10 PARKER WICKHAM 6720)
 LOT 392 ON PLAN 217328 (WICKHAM 6720)
 LOT 40 ON PLAN 211961 (House No. 12 PARKER WICKHAM 6720)
 LOT 404 ON PLAN 194355 (POINT SAMSON 6720)
 LOT 41 ON PLAN 211961 (House No. 14 PARKER WICKHAM 6720)
 LOT 42 ON PLAN 211961 (House No. 16 PARKER WICKHAM 6720)
 LOT 43 ON PLAN 211961 (House No. 18 PARKER WICKHAM 6720)
 LOT 44 ON PLAN 173674 (POINT SAMSON 6720)
 LOT 44 ON PLAN 211961 (House No. 17 PARKER WICKHAM 6720)
 LOT 45 ON PLAN 211961 (House No. 15 PARKER WICKHAM 6720)
 LOT 46 ON PLAN 211961 (House No. 13 PARKER WICKHAM 6720)
 LOT 47 ON PLAN 211961 (House No. 11 PARKER WICKHAM 6720)
 LOT 48 ON PLAN 211961 (House No. 9 PARKER WICKHAM 6720)
 LOT 49 ON PLAN 211961 (House No. 7 PARKER WICKHAM 6720)
 LOT 50 ON PLAN 211961 (House No. 5 PARKER WICKHAM 6720)
 LOT 500 ON PLAN 53285 (Lot No. 500 CAPE LAMBERT POINT SAMSON 6720)
 LOT 500 ON PLAN 63022 (WICKHAM 6720)
 LOT 51 ON PLAN 211961 (House No. 3 PARKER WICKHAM 6720)
 LOT 52 ON PLAN 211961 (House No. 1 PARKER WICKHAM 6720)
 LOT 542 ON PLAN 43130 (WICKHAM 6720)
 LOT 6 ON PLAN 211961 (House No. 12 WILSON WICKHAM 6720)
 LOT 64 ON PLAN 57724 (Lot No. 64 CAPE LAMBERT WICKHAM 6720)
 LOT 65 ON PLAN 241547 (POINT SAMSON 6720)
 LOT 706 ON PLAN 31274 (WICKHAM 6720)
 LOT 707 ON PLAN 31274 (WICKHAM 6720)
 LOT 708 ON PLAN 31274 (WICKHAM 6720)
 LOT 709 ON PLAN 31274 (WICKHAM 6720)
 LOT 710 ON PLAN 31274 (WICKHAM 6720)
 LOT 711 ON PLAN 31274 (WICKHAM 6720)
 LOT 72 ON PLAN 217843 (ANTONYMYRE 6714)
 LOT 750 ON PLAN 219430 (WICKHAM 6720)
 LOT 751 ON PLAN 193052 (WICKHAM 6720)
 LOT 771 ON PLAN 35754 (WICKHAM 6720)
 LOT 772 ON PLAN 35754 (WICKHAM 6720)
 LOT 775 ON PLAN 31274 (WICKHAM 6720)
 LOT 776 ON PLAN 31274 (WICKHAM 6720)
 LOT 7900 ON PLAN 71098 (DAMPIER ARCHIPELAGO 6713)
 LOT 7901 ON PLAN 71098 (SHERLOCK 6714)
 LOT 791 ON PLAN 31274 (WICKHAM 6720)
 LOT 792 ON PLAN 31274 (WICKHAM 6720)
 LOT 793 ON PLAN 31274 (WICKHAM 6720)
 LOT 794 ON PLAN 31274 (WICKHAM 6720)
 LOT 796 ON PLAN 31274 (WICKHAM 6720)
 LOT 797 ON PLAN 31274 (WICKHAM 6720)
 LOT 798 ON PLAN 31274 (WICKHAM 6720)
 LOT 799 ON PLAN 31274 (WICKHAM 6720)
 LOT 8 ON PLAN 211961 (House No. 14 WILSON WICKHAM 6720)
 PART LOT 265 ON PLAN 220920 (MOUNT ANKETELL 6714)
 PART LOT 63 ON PLAN 54397 (Lot No. 63 CAPE LAMBERT POINT SAMSON 6720)
 ROAD RESERVE (WICKHAM 6720)
 UNALLOCATED CROWN LAND (POINT SAMSON 6720)
 UNALLOCATED CROWN LAND (WICKHAM 6720)
 WATER FEATURE (WICKHAM 6720)

Local Government Area:

Shire of Roebourne

Colloquial name:

Cape Lambert Strategic Purpose Permit

1.4. Application

Clearing Area (ha)

150

No. Trees

Method of Clearing

Mechanical Removal

For the purpose of:

Mineral Production

1.5. Decision on application

Decision on Permit Application:

Grant

Decision Date:

17 October 2013

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description

The majority of the application area is mapped as Beard Vegetation Association 157 - Hummock grasslands, grass steppe; hard spinifex *Triodia wiseana*.

The northeast side of the application area is mapped as Beard Vegetation Association 43 - Low forest; mangroves (Kimberley) or thicket; mangroves (Pilbara). (Shepherd et al., 2001)

A recent flora and vegetation survey of the application area described 27 vegetation units, with one unit (40.67 hectares) from rock piles (RPI1), three (441.7 hectares) from rocky and stony hills (H1 - H3), one (133.14 hectares) from rocky plains (RPL1), five (184.84 hectares) from sandy plains and dunes (SP1 - SP5), five from coastal dunes and plains (C1 - C5), two from saline areas (s1 - S2), three from saline interzones (SI1 - SI3), five from minor drainage lines and broad gullies (D1 - D5) and two from clay flats (CF1 - CF2) (Rio Tinto, 2012b). In addition, 21.81 hectares of the application area were described as rehabilitated areas (R), 35.85 hectares were disturbed areas (D), 718.1 hectares were previously cleared areas (CL) and 37.46 hectares were from beach / coastal rocks or tidal zones (B / R / TZ) (Rio Tinto, 2012b).

Clearing Description

The application is to clear up to 150 hectares of native vegetation from a footprint of 2,022 hectares at Cape Lambert for the purpose of mine and port support infrastructure and associated works.

Vegetation Condition

Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994)

To

Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994)

Comment

The vegetation condition was assessed by Rio Tinto botanists. The vegetation conditions were described using a scale by Trudgen (1998) and have been converted to the corresponding conditions from the Keighery (1994) scale.

The clearing footprint includes various freehold properties, Crown leases and reserves, unallocated Crown land and road reserves within the localities of Wickham, Point Samson and Antonymyre, in the Shire of Roebourne.

Rio Tinto's recent flora and vegetation assessment of the clearing footprint reported the condition of the vegetation varied from excellent to very poor (Trudgen, 1998), with significant areas having been previously cleared or disturbed for infrastructure projects and development (Rio Tinto, 2012b). Rio Tinto (2012b) advised 35.5 percent of the footprint has been previously cleared with an additional 1.8 percent having been significantly disturbed. Therefore there is approximately 1,267 hectares of native vegetation within the clearing footprint.

The application is for a permit that will eventually replace numerous existing clearing permits held by Robe River Mining Co Pty Ltd and its related companies in the Cape Lambert area and will include clearing activities required for future projects in the Cape Lambert area. Clearing will be required for activities including, but not limited to, geotechnical investigations, offices and ablutions, roads, communication systems (Fibre optic cable, signal pads, radio base stations etc), construction camps, services and utilities (gas pipelines, water pipelines, power/transmission lines etc), power station and substation, landfill, quarry, bridges and/ level crossings (Rio Tinto, 2012a).

3. Assessment of application against clearing principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments

Proposal may be at variance to this Principle

The application is to clear 150 hectares of native vegetation from a 2,022 hectare footprint for the purpose of mine and port support infrastructure and associated works. Based on information provided by the applicant regarding the vegetation within the footprint (Rio Tinto, 2012b), there is approximately 1,267 hectares of native vegetation within the clearing footprint.

A flora and vegetation assessment of the clearing footprint has been conducted, including a review of existing biological survey reports and a flora and vegetation survey by Rio Tinto and ENV botanists from the 3rd to the 13th of July 2012; followed by another site visit by the Rio Tinto botanist on the 2nd to the 7th of September 2012. The survey identified 276 flora taxa (257 native species) from 155 genera and 57 families within the application area (Rio Tinto, 2012b). Rio Tinto (2012b) reported the number of species recorded is comparable to other studies in the Cape Lambert area and that it is likely that the current study encapsulated a representative number of native flora taxa for the area.

The application is within the Chichester sub-region of the Pilbara Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA). The Chichester sub-region is characterised by plains supporting shrub steppe of *Acacia inaequilatera* over *Triodia wiseana* hummock grasslands, while *Eucalyptus leucophloia* tree steppes occur on ranges (CALM, 2002). Rio Tinto (2012b) reported that none of the special features associated with the subregion, which are reported to include Ripron Hills sinkhole, Meentheena Carbonate Stromatolite fossils, geological complexity of the Marble bar-Nullagine mineral province and centres of endemism, occur within the application area.

There are records of four priority flora species within the local area (20 kilometre radius). The recent flora and vegetation assessment identified locations of a Priority 1 (P1) and a Priority 3 (P3) species within the application area (Rio Tinto, 2012b).

The P1 flora species is known from coastal dune habitats and was listed as Priority 1 in 2008 due to its restricted distribution and being known from a small number of locations. Since being listed, several small populations have been identified around the Port Hedland area during flora surveys for environmental impact assessments. Cape Lambert is the most western extent of its distribution and therefore it is important that this species is well represented at this location. Approximately 4,196 plants were recorded from 129 locations within the clearing footprint area and approximately 1,452 plants were recorded from 42 locations outside of the clearing footprint (Rio Tinto, 2012b). This species was predominantly recorded from coastal dune communities C1, C2, C3, C4 and C5 from both inside and outside of the application area, however one record was also made from an orange sand dune (SP1), adjacent to coastal dunes, and another from a halophytic flat (S1), also adjacent to coastal dunes (Rio Tinto, 2012b). Rio Tinto (2012b) reported that these two records are likely to be from 'ecotone' records (merging of species from an adjacent community), and are not considered to represent core habitat for this species. Rio Tinto (2012b) also acknowledged that this species has previously been recorded from the area however was not listed as a priority species at the time. While Rio Tinto (2012b) concluded that more intense targeted searches inside the application area is likely to reflect the larger population size recorded there, as only 25 percent of the known locations occur outside the area under application, a large proportion of the P1 flora found within this project area occurs within the footprint and therefore may be subject to clearing. If all known locations were cleared within the footprint area it could be deemed significant to the conservation of the species. Appropriate flora management will minimise impacts to this species. The applicant has advised restriction buffers will be placed around the locations of this flora (Rio Tinto, 2012b), which means that internal consent is required for activities required within these areas.

The P3 flora species recorded within the footprint is a perennial grass that occurs on red sandy clay flats (Western Australian Herbarium, 1998-) and is known from three historical records: the Canning Stock Route (1956), near Point Samson (1921), and the Gibson desert (1878). There is no information on the size and extent of the populations at these locations or even if they are still extant. The population of 20-50 plants found within the clearing footprint may represent the same location as the 1921 Point Samson record. The clearing of this population would therefore be significant to the conservation of this species as it may result in the extinction of the only confirmed extant population of the species. This species was recorded from one location within the study area, within vegetation unit D4. This species has not been recorded from numerous recent surveys of the area, however as appreciation the applicant has advised a restriction buffer will be placed around the D4 polygon that supports this population (Rio Tinto, 2012b).

The Rio Tinto (2012b) report also provided a risk assessment on the likelihood of other Rare and Priority Flora potentially occurring in the area under application based on a habitat analysis. From database searches, Rio Tinto (2012b) identified that a further seven species of Priority Flora may occur on habitat types within the Cape Lambert area (Rio Tinto, 2012b). Of these, Rio Tinto (2012b) determined that a P1 has potential to occur within drainage lines and gullies and clay flats following rainfall events, a P3 may have the potential to occur on rockpiles within the study area and the remainder are unlikely to occur within the application area for various reasons.

Rio Tinto (2012b) advised several vegetation communities within the clearing footprint have moderate to high conservation value due to being poorly reserved or supporting restricted species not found in other vegetation communities.

- RPi1 is described as scattered shrubs of *Acacia coriacea* subsp. *coriacea*, *Clerodendrum tomentosum* var. *tomentosum* and *Capparis spinosa* var. *nummularius* over scattered tussock grasses of *Triodia epactia* and *Cenchrus ciliaris* over scattered vines or climbers of *Cucumis maderaspatanus*, *Rhynchosia minima* and *Tinospora smilacina* (Rio Tinto, 2012b). Rio Tinto (2012b) reported this vegetation type from several rocky hills scattered with rock piles of varying size and considered they have moderate conservation value as they support flora species that tend to be restricted to these habitats, but that these rockpiles are not associated with the rock piles of Burrup Peninsula PEC.
- S1 is described as low open (chenopd) shrubland of *Tecticornia auriculata*, *Tecticornia halocnemoides* subsp. *tenuis*, *Tecticornia indica* subsp. *leiostachya* and *Tecticornia indica* subsp. *bidens* with *Frankenia ambita* and *Muellerolimon salicorniaceum* over very open scattered tussock grassland to scattered tussock grassland of *Sporobolus virginicus* and *Eragrostis falcata* (Rio Tinto, 2012b). Rio Tinto (2012b) reported this community to occur on the margins of saline drainage areas (the large salt flats often devoid of vegetation) and considered it likely to resemble 'Bare areas; mudflats' described by Kendrick and McKenzie (2001) as being 'High' reservation priority as it is poorly reserved in conservation estates.
- S2 is described as low open forest to tall shrubland of *Avicennia marina* (Rio Tinto, 2012b). This mangrove community was recorded in saline, tidal environments. This community is likely to resemble 'Mangroves' described from Kendrick and McKenzie (2001) as being 'High' reservation priority as it is poorly reserved in conservation estates.
- In addition, communities CF1 and CF2, occurring on clay flats, appear to support flora species that tend to be restricted to these communities (Rio Tinto, 2012b).

Nineteen introduced (weed) species were recorded in the application area during the recent Rio Tinto (2012b) survey, including *Tamarix aphylla*, which is a declared plant under the Biosecurity and Agriculture Management Act 2007. In addition, *Cenchrus ciliaris* (buffel grass) is considered a serious environmental weed and is widespread through the application area, particularly in areas of disturbance and the secondary and tertiary coastal dunes (Rio Tinto, 2012b). Rio Tinto (2012b) identified that communities C1, C2, C3, C4, C5, SP1 and SP2 are associated with Land System units susceptible to erosion and weed invasion once cleared.

There are no threatened (TEC) or priority (PEC) ecological communities mapped in clearing footprint. Rio

Tinto's flora and vegetation assessment report identified one vegetation type (CF2) had an affinity to the Priority 1 PEC Stony Chenopod association of the Roebourne Plains. The closest record of this PEC is 8.6 kilometres south of the application area. It occurs on saline clay plains of the Cheerawarra Land system, with patchy tussock grasslands and a predominance of chenopod species on clay soils. The description of this community was derived from 'An inventory and condition survey of the Roebourne Plains and surrounds' Technical Bulletin No. 84 WA Department of Agriculture, Payne and Tille 1992. Currently there are two occurrences of this PEC recorded on the TEC database, with the best example within the fenced area at the Roebourne airfield. Rio Tinto's report described vegetation type CF2 as 'Low open (chenopod) shrubland of *Sclerolaena hostilis* over very open hummock grassland of *Cenchrus ciliaris* (weed), *Eriachne benthamii* and *Dichanthium sericeum* subsp. *humilius*'. Based on the description of the community present, quadrat data for CF2 and associated photograph of the site (Rio Tinto, 2012b) this area appears to be too stony, and lacking in the important element of the community, which is the presence of a suite of associated chenopod species. Rio Tinto's (2012b) report lists two chenopods present within the site, which differs from the recorded occurrence at Roebourne airport, and therefore CF2 is not considered representative of the PEC.

The footprint area includes 159.2 hectares of habitat for the short range endemic skink *Lerista neviniae* (Rio Tinto, 2012b) and several other fauna of conservation significance. Appropriate management of habitats for these species will minimise the impacts of the proposed clearing.

Considering the above, the footprint area contains areas with high biological diversity value and, depending on the location of the proposed clearing of 150 hectares, it may be at variance to this principle. Appropriate management practices will minimise these impacts.

Methodology

References

- CALM, 2002
 - Keighery, 1994
 - Kendrick and McKenzie, 2001
 - Rio Tinto, 2012b
 - Western Australian Herbarium, 1998-
- ##### GIS Databases
- Pre-European vegetation
 - SAC Biodatasets - accessed 08/10/2012

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

Comments

Proposal may be at variance to this Principle

Within the local area (20 kilometre radius), there are records of seven fauna listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 (DEC, 2007-) however, two of these are marine species that are unlikely to be impacted by the proposed clearing.

Biota (2012) recently conducted a targeted terrestrial fauna survey of the clearing footprint and reported that the skink *Lerista neviniae* has previously been recorded on 60 occasions in the vicinity of Cape Lambert, including within the clearing footprint. This species was listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 (WC Act) on 6 November 2012 and is to be nominated for protection under the federal Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). *L. neviniae* has a geographically restricted distribution that extends over coastal habitats from Dixon Island to immediately east of Cape Lambert and is considered to be a Short Range Endemic (SRE) species. Biota (2012) reported its total documented distribution to be 489.9 hectares (4.9 square kilometres). It is a small skink that typically occurs on coastal dune habitat of pale sands vegetated with open hummock grasslands with acacia species. There are no known locations of this species currently under reservation. Biota (2012) recently conducted a targeted survey for this species in the Cape Lambert area and reported 159.2 hectares of habitat for this species within the application area, with no new additional areas of suitable habitat found. Rio Tinto (2012a) has advised that approximately 1 hectare of *L. neviniae* habitat is expected to be disturbed for a power station upgrade project and that there is some old infrastructure within the habitat area that may require some clearing for access when it needs to be decommissioned. In addition, the Environmental Protection Authority approved clearing 19.2 hectares of *L. neviniae* habitat for the Port B Development, in 2010 (Ministerial Statement 840). Given this species is considered an SRE and has such a restricted area of occupancy, any further destruction or damage of suitable habitat would be considered significant and should be avoided. Relocation is not considered a suitable mitigation strategy given this species' restricted range.

Northern quoll (*Dasyurus hallucatus*) is listed as rare or likely to become extinct under the WC Act and Endangered under the EPBC Act. This species was not recorded during the recent fauna survey, however there is a previous record from within the Cape Lambert study area and tracks have also been recorded on nearby Dixon Island (Biota, 2012). Northern quolls appear to be most abundant in habitats within 150 kilometres of the coast and occupy a diversity of habitats, including rocky areas, eucalypt forest and woodlands, rainforests, sandy lowlands and beaches, shrubland, grasslands and desert. Their habitat generally encompasses some form of rocky area for denning purposes, with surrounding vegetated habitats used for foraging and dispersal (SEWPaC, 2013). Rocky habitats are usually of high relief, often rugged and dissected but can also include tor fields or caves in low lying areas. Breeding success is higher in animals that have a den near a creek line (SEWPaC, 2013). In the Pilbara region, the species tends to prefer land systems comprising basalt hills, mesas

(and buttes of limonites), high and low plateaux, lower slopes, occasional tor fields and stony plains supporting either hard or soft spinifex grasslands (SEWPaC, 2013). Considering this, the application area contains suitable habitat for this species and the proposed clearing may impact the species at the local scale, particularly in areas where boulder outcrops and major drainage lines may be cleared. Removal, degradation and fragmentation of habitat have been identified as major threats to northern quolls. Their habitat is fragmented across the landscape and as such rocky outcrops are important refuge and breeding sites and are extremely important for the species, and are diminishing. Avoidance of potential boulder pile northern quoll habitat identified in Biota (2012) would reduce the risk of impacting this species. In addition, clearing in the vicinity of these refuge sites should be minimised to avoid indirect impacts of clearing on the northern quoll, as these areas are important dispersal and foraging habitat.

Little northern freetail bat (*Mormopterus loriae cobourgiana*) is a Priority 1 (P1) species, and has been recorded from mangrove habitat adjacent to the application area (Biota, 2012). Within its range, it is restricted to a few localised habitats, and can appear to be locally common because it aggregates (SEWPaC, 2013). Biota (2012) has reported that clearing of mangrove habitats is likely to be outside the scope of the potential clearing and therefore the clearing is unlikely to significantly impact this species. However, this species is listed as a P1 because there is insufficient data on the populations and its trends and therefore, considering the precautionary principle, indirect impacts may occur, such as in relation to food resources. Avoidance of clearing mangrove habitats would minimise impacts to this species.

A fauna survey undertaken in 2008, of an area within the clearing footprint, identified suitable habitat for the Priority 4 (P4) species western pebble-mound mouse (*Pseudomys chapmani*), which prefers habitat containing stony hills (Western Botanical, 2008). Biota (2012) also reported there is potential habitat for this species in the clearing footprint, particularly where smaller stones exist in close proximity to, or as part of basalt rock piles. Biota (2012) reported that numerous fauna assessments have been conducted in the Cape Lambert area and this species has not previously been recorded within the application area, however a targeted search for this species was not included in the recent survey. Western Botanical (2008) reported this species is common to very common in suitable habitat within the Hamersley and Chichester subregions of the Pilbara bioregion, and is well known for its behaviour of constructing extensive mounds of small stones, typically on scree slopes and stony plains. Suitable habitat for this species is patchy and it is listed as a P4 species as there are indications that they have declined considerably in recent times. The mounds constructed by this species are thought to be used by successive generations so relocation may not be successful given the 'effort' required to build them. An active mound (and associated burrow system) has been recorded to house up to 25 mice, also indicating difficulties in relocation. Avoidance of areas with active mounds would minimise impacts to this species.

Green turtle (*Chelonia mydas*), hawksbill turtle (*Eretmochelys imbricata*) and flatback turtle (*Natator depressus*) have been recorded in the local area (DEC, 2007-) and nest in the Dampier Archipelago area during the summer months with hatchlings emerging from nests between December and March (SEWPaC, 2013). These turtles are listed as rare or likely to become extinct under the WC Act and Vulnerable under the EPBC Act. The clearing footprint includes several beaches, including Cooling Water Beach and Bells Beach, which is listed as one of Australia's major location of flatback turtle (SEWPaC, 2013). Coastal development can directly and indirectly destroy or degrade beach habitats used as nesting sites, as well as marine foraging habitats (SEWPaC, 2013). Therefore, clearing within beach areas may impact upon significant habitat for marine turtles. The EPA approval for the Cape Lambert Port B development required implementation of the Cape Lambert Port B Development Marine Turtle Management Plan (CLBMTMP) in order to manage impacts to marine turtles. The CLBMTMP (Biota, 2011) includes the application area and contains commitments to ensure the final design does not result in any direct clearing of turtle nesting habitat on Bells Beach or Cooling Water Beach, or on the elevated foredune separating Bells Beach from the port facilities. The proponent's internal approval request and permitting system will be applied to ensure no clearing is undertaken without necessary approvals or outside of the specified works area (Biota, 2011).

Six (of the ten) mygalomorph spider species recorded by Biota (2012) in the targeted fauna survey are considered short range endemic species and are currently only known from the application area. Biota (2012) reported that the desktop review did not identify any isolated or restricted habitats that are unique to the study area and the risk of small-scale spatial restriction for these species appears low. As a result, Biota (2012) considered it is probable that these species have a distribution extending beyond the boundaries of the study area.

Considering the above, the clearing footprint contains areas of significant habitat for indigenous fauna and, depending on the location of the proposed clearing of 150 hectares within the 2,022 hectare footprint, it may be at variance to this principle.

The applicant is required to prepare a threatened fauna management plan which includes strategies for avoiding or mitigating any potential impact to Threatened Fauna species.

Any areas identified as providing habitat on which fauna species are dependent or where fauna of conservation significance have been identified are required to be avoided and where this is not possible, fauna management measures including the preparation of, implementation and adherence to an approved fauna management plan is required.

- Biota, 2011
- Biota, 2012
- Rio Tinto, 2012a
- SEWPaC, 2013
- Western Botanical, 2008
- GIS Databases
- SAC Biodatasets - accessed 08/10/2012

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Comments Proposal is unlikely to be at variance to this Principle

The closest mapped record of rare flora is approximately 216 kilometres from the proposed clearing area.

Numerous flora surveys have been conducted within the application area and none have recorded rare flora or potential habitat for rare flora (Rio Tinto, 2012b).

Considering the above, the proposed clearing is unlikely to be at variance to this principle.

Methodology

- References
- Rio Tinto, 2012b
 - GIS Databases
 - SAC Biodatasets - accessed 08/10/2012

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

Comments Proposal is unlikely to be at variance to this Principle

There are no mapped threatened ecological communities (TEC) in the clearing footprint or local area (20 kilometre radius).

Numerous flora surveys have been conducted within the application area and none have identified the potential for TECs to occur (Rio Tinto, 2012b).

Considering the above, the proposed clearing is unlikely to be at variance to this principle.

Methodology

- References
- Rio Tinto, 2012b
 - GIS Databases
 - SAC Biodatasets - accessed 08/10/2012

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

Comments Proposal is not at variance to this Principle

Aerial photography indicates the local area (20 kilometre radius) is approximately 90 percent vegetated, however the Cape Lambert area is undergoing significant development and remaining vegetation in proximity to the harbour is becoming increasingly fragmented. Therefore calculations of remaining vegetation and percentages may not be an accurate reflection of the current vegetation extents.

Approximately 99 percent and 86 percent of the Pre-European vegetation remains of Beard vegetation association 157 and 43 in the Pilbara IBRA bioregion, respectively (Government of Western Australia, 2013).

While the clearing footprint area contains areas with high biological diversity value, priority flora and habitat for fauna of conservation significance, it is not within an extensively cleared area. Therefore the proposed clearing of 150 hectares proposed to be cleared within a 2,022 hectare footprint is not considered to be a significant remnant of native vegetation within an extensively cleared area and the proposed clearing is not at variance to this principle.

	Pre-European (ha)	Current Extent Remaining (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion*				
Pilbara	17,804,427	17,729,352	99	8
Shire*				
Shire of Roebourne	1,535,627	1,496,779	97	1
Beard Vegetation Association in Bioregion*				
43	16,280	14,032	86	0

* Government of Western Australia, 2013

- Methodology** References
- Government of Western Australia, 2013
 - GIS Databases
 - Interim Biogeographic Regionalisation of Australia
 - Pre-European vegetation
 - Roebourne 50cm Orthomosaic - Landgate 2007

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments Proposal may be at variance to this Principle

Numerous minor on-perennial watercourses are mapped through the clearing footprint. Rio Tinto (2012b) advised that these creeklines flow after significant rainfall events. Rio Tinto advised the ephemeral drainage lines are inundated sporadically and only hold water for short periods (Rio Tinto, 2012b).

The clearing footprint also includes mangrove and saline coastal flat areas. Rio Tinto (2012b) has advised that the mangrove areas have been recommended to be avoided and impacts to the saline coastal flats are to be limited.

Given the above, the proposed clearing of 150 hectares within the 2,022 hectare footprint may be at variance to this principle.

The applicant has advised it maintains an ISO 14001 certified environmental management system under which all environmental management plans, including for the management of impacts to riparian vegetation, watercourses and water quality are all managed (Rio Tinto, 2011). Therefore, potential impacts to watercourses will be mitigated through the applicant's environmental management system.

- Methodology** References
- Rio Tinto, 2011
 - Rio Tinto, 2012b
 - GIS Databases
 - Geodata, lakes
 - Hydrology, Linear

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments Proposal may be at variance to this Principle

There are two soil types mapped within the clearing footprint area. The mapped soil types include steep stony hills and ranges with chief soils of shallow stony earthy loams with some iron ore formations and alluvial plains with chief soils of deep cracking clays (Northcote et al., 1960 - 1968).

Annual rainfall in the application area is 300 - 400 millimetres.

Rio Tinto (2012b) reported that the clearing footprint area occupies the Cheerawarra, Littoral, Rocklea, Ruth and Uaroo Land Systems.

Approximately 15 percent of the clearing footprint area is within the Cheerawarra Land System, which consists of sandy coastal plains and saline clay plains supporting soft and hard spinifex grasslands and minor tussock grasslands (Rio Tinto, 2012b). Rio Tinto (2012b) reported that most units of this system are highly susceptible to wind erosion if vegetative cover is depleted.

The Littoral Land System consists of bare coastal mudflats with mangroves on seaward fringes, samphire flats, sandy islands, coastal dunes and beaches (Rio Tinto, 2012b). Approximately 70 percent of the system is tidal flat which supports no vegetation, coastal dunes are highly susceptible to wind erosion if plant cover is lost by fire or other disturbance; mangrove communities are significant habitats (Rio Tinto, 2012b). Rio Tinto (2012b) reported that approximately 21 percent of the clearing footprint comprises this Land System.

The Rocklea Land System (16 percent of the clearing footprint area) consists of Basalt hills, plateaux, lower slopes and minor stony plains supporting hard spinifex (and occasionally soft spinifex) grasslands (Rio Tinto, 2012b). Rio Tinto (2012b) reported this system has very low erosion hazard.

The Ruth Land System (38 percent of the clearing footprint) consists of Hills and ridges of volcanic and other rocks supporting hard spinifex (occasionally soft spinifex) grasslands (Rio Tinto, 2012b). Rio Tinto (2012b)

reported this system is prone to fairly regular burning but is not susceptible to erosion.

The Uaroo Land System (6 percent of the clearing footprint) consists of broad sandy plains supporting shrubby hard and soft spinifex grasslands (Rio Tinto, 2012b). Rio Tinto (2012b) reported this system is generally not susceptible to erosion or significant vegetation degradation (Rio Tinto, 2012b).

Rio Tinto (2012b) identified that seven of the identified vegetation communities within the clearing footprint (C1, C2, C3, C4, C5, SP1 and SP2) are associated with Land System units that are susceptible to erosion and weed invasion once cleared.

Considering the above, the proposed clearing may be at variance to this principle.

The applicant has advised it maintains an ISO 14001 certified environmental management system under which all environmental management plans, including for the management of impacts to watercourses and water quality are all managed (Rio Tinto, 2011). Therefore, potential land degradation in association with waterways should be mitigated through the applicant's environmental management system. In addition, soil management practices and revegetation and rehabilitation of areas after they are no longer required will help to mitigate the risk of long term land degradation within the clearing footprint.

Methodology	References
	- Northcote et al., 1960-68
	- Rio Tinto, 2011
	- Rio Tinto, 2012b
	GIS Databases
	- Mean Annual Rainfall
	- Soils, statewide

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Comments Proposal is not at variance to this Principle

There are no mainland conservation areas within the local area (20 kilometre radius) of the application area.

The nearest conservation areas are on islands off the coast and the application area is unlikely to support the environmental values of these areas. The nearest mainland conservation area is Millstream Chichester National Park, located approximately 57 kilometres south of the application area. At this distance the proposed clearing is unlikely to impact on the environmental values of the National Park.

Therefore, it is unlikely that the proposed clearing will impact the environmental values of any conservation areas and is not at variance to this principle.

Methodology	GIS Databases
	- DEC Tenure

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Comments Proposal is not at variance to this Principle

Numerous minor non-perennial watercourses are mapped through the clearing footprint. Rio Tinto (2012b) advised that these creeklines flow after significant rainfall events. Rio Tinto (2012b) advised the ephemeral drainage lines are inundated sporadically and only hold water for short periods. During these inundation periods the sediment load in such drainage lines are typically high and therefore Rio Tinto (2012b) considers any increase to the sediment load caused by the proposed clearing is likely to be negligible. The sediment loads of the low-lying saline drainage and interzone areas and mudflats are also high as a result of sporadic rainfall events and large tidal movements characteristic of the Pilbara coastal region (Rio Tinto, 2012b). Considering this, the proposed clearing is unlikely to cause appreciable deterioration in the quality of surface water through increased sedimentation and associated impacts.

The clearing footprint also includes mangrove and saline coastal flat areas. Rio Tinto (2012b) has advised that the mangrove areas have been recommended to be avoided and impacts to the saline coastal flats are to be limited.

The clearing footprint is not located within a Public Drinking Water Source Area (PDWSA). The nearest PDWSA is Roebourne Water Reserve, which is approximately 14 kilometres to the south.

The groundwater salinity within the application area is approximately 1,000 - 3,000 milligrams per Litre Total Dissolved Solids. Given the size of the area to be cleared (150 hectares within the 2,022 hectare footprint) is small in the context of the 5,557,665 hectare Pilbara Groundwater Province, the proposed clearing is not likely to cause salinity levels to alter significantly.

The applicant has advised it maintains an ISO 14001 certified environmental management system under which all environmental management plans, including for the management of impacts to riparian vegetation, watercourses and water quality are all managed (Rio Tinto, 2011). Therefore, potential impacts to watercourses will be mitigated through the applicant's environmental management system.

Considering this, the proposed clearing is unlikely to cause appreciable deterioration in water quality and the proposed clearing is not at variance to this principle.

Methodology References:
- Rio Tinto, 2011
- Rio Tinto, 2012b
GIS Databases:
- Geodata, lakes
- Hydrology, Linear
- PDWSA
- Salinity, statewide

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Comments Proposal is not at variance to this Principle

Numerous watercourses are mapped within the clearing footprint area, including areas that are subject to inundation during the wet season.

Seasonal flooding occurs in the Pilbara region between December and March and some flooding of minor watercourses is expected to occur during periods of heavy rain (Rio Tinto, 2012b).

Rio Tinto (2012b) has advised that the clearing footprint area has large areas of free draining soil.

Given the large amount of vegetation remaining in the local area, the proposed clearing is not likely to cause or exacerbate flooding.

The proposed clearing of 150 hectares from the 2,022 hectare footprint is not at variance to this principle.

Methodology References:
- Rio Tinto, 2012b
GIS Databases:
- Hydrology, Linear

Planning instrument, Native Title, Previous EPA decision or other matter.

Comments

The applicant intends for this clearing permit application to eventually replace the numerous existing clearing permits held by Robe River Mining Co Pty Ltd and its related companies in the Cape Lambert area. It will also cover clearing activities required for future projects in the Cape Lambert area and will include, but not be limited to, clearing for geotechnical investigations, offices and ablutions, roads, communication systems (Fibre optic cable, signal pads, radio base stations etc), construction camps, services and utilities (gas pipelines, water pipelines, power/transmission lines etc), power station and substation, landfill, quarry, bridges and/ level crossings (Rio Tinto, 2012a).

The proponent holds numerous leases and licences within the footprint area and has advised that legal land access for the remaining areas will be obtained prior to conducting any clearing.

The clearing footprint covers the area assessed by the Environmental Protection Authority (EPA) in 2010 for the Port B Development at Cape Lambert, which was approved by Ministerial Statement 840 on 30 September 2010 (later amended). Ministerial Statement 840 approves the clearing of up to 19.2 hectares of *Lerista neviniae* habitat, as long as it is not for the purpose of accessing borrow, or for laydown or storage, or for any purpose other than that essential for the construction of port infrastructure.

The application area is within the Pilbara Groundwater and Surface Water Areas proclaimed under the Rights in Water and Irrigation Act 1914 (RIWI Act). The Department of Water (DoW) advised that any interference with the bed or banks of a watercourse in this area will require a permit (DoW, 2012). Any groundwater abstraction and taking of surface water for purposes other than domestic and/or stock watering in this area is also subject to licensing by the DoW.

The clearing footprint includes areas with low-moderate and moderate-high acid sulfate soil (ASS) risk. The Department of Agriculture and Food (DAFWA) previously provided advice for another Rio Tinto clearing application within the clearing footprint (DAFWA, 2009). Provided the proposed clearing does not expose the subsoil or involve dewatering in areas where ASS risks have been identified, then environmental acidity is unlikely to arise (DAFWA, 2009). If disturbance of ASS is unavoidable then ASS should be neutralised and

reburied taking care to ensure that the subsoil is not left exposed to air (DAFWA, 2009). The applicant should be aware of the low-moderate and moderate-high risk of ASS in certain areas of the application area and manage accordingly.

The area under application is subject to native title claims. The claimants and their representing body have been notified of the application. No response has been received.

There are numerous registered Aboriginal Sites of Significance within the application area. It is the proponent's responsibility to comply with the Aboriginal Heritage Act 1972 and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

No submissions from the public have been received in relation to this application.

Methodology

References:

- DAFWA, 2009

- DoW, 2012

- Rio Tinto, 2012a

GIS Databases:

- Aboriginal Sites of Significance

- Native Title Claims

- RIWI Act, Areas

4. References

- Biota (2011) Cape Lambert Port B Development Marine Turtle Management Plan. Prepared for Rio Tinto Pty Ltd, December 2011. Biota Environmental Sciences. DEC Ref: A633535
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5. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now BCS)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)