



MINISTER FOR ENVIRONMENT; WATER

Statement No: 855

STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED (PURSUANT TO THE PROVISIONS OF THE *ENVIRONMENTAL PROTECTION ACT 1986*)

MARILLANA IRON ORE PROJECT, SHIRE OF EAST PILBARA

Proposal: The proposal is to construct and operate a 750 Million tonnes (Mt) iron ore mine, processing facility and associated infrastructure using traditional open pit mining methods of excavating, load and haul approximately 100 km north west of Newman.

The proposal is further documented in schedule 1 of this statement.

Proponent: Brockman Resources Limited

Proponent Address: 117 Stirling Highway
Nedlands, WA 6009

Assessment Number: 1781

Report of the Environmental Protection Authority: Report 1376

The proposal referred to in the above report of the Environmental Protection Authority may be implemented. The implementation of that proposal is subject to the following conditions and procedures:

1 Proposal Implementation

1-1 The proponent shall implement the proposal as documented and described in schedule 1 of this statement subject to the conditions and procedures of this statement.

Published On:

8 FEB 2011

2 Proponent Nomination and Contact Details

- 2-1 The proponent for the time being nominated by the Minister for Environment under sections 38(6) or 38(7) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal.
- 2-2 The proponent shall notify the Chief Executive Officer of the Office of the Environmental Protection Authority (CEO) of any change of the name and address of the proponent for the serving of notices or other correspondence within 30 days of such change.

3 Time Limit of Authorisation

- 3-1 The authorisation to implement the proposal provided for in this statement shall lapse and be void five years after the date of this statement if the proposal to which this statement relates is not substantially commenced.
- 3-2 The proponent shall provide the CEO with written evidence which demonstrates that the proposal has substantially commenced on or before the expiration of five years from the date of this statement.

4 Compliance Reporting

- 4-1 The proponent shall prepare and maintain a compliance assessment plan to the satisfaction of the CEO.
- 4-2 The proponent shall submit to the CEO the compliance assessment plan required by condition 4-1 at least 6 months prior to the first compliance report required by condition 4-6, or prior to ground-disturbing activities, whichever is sooner. The compliance assessment plan shall indicate:
 - 1. the frequency of compliance reporting;
 - 2. the approach and timing of compliance assessments;
 - 3. the retention of compliance assessments;
 - 4. reporting of potential non-compliances and corrective actions taken;
 - 5. the table of contents of compliance reports; and
 - 6. public availability of compliance reports.
- 4-3 The proponent shall assess compliance with conditions in accordance with the compliance assessment plan required by condition 4-1.
- 4-4 The proponent shall retain reports of all compliance assessments described in the compliance assessment plan required by condition 4-1 and shall make those reports available when requested by the CEO.

- 4-5 The proponent shall advise the CEO of any potential non-compliance within 7 business days of that non-compliance being known.
- 4-6 The proponent shall submit to the CEO the first compliance assessment report fifteen months from the date of issue of this Statement addressing the twelve month period from the date of issue of this Statement and then annually from the date of submission of the first compliance report. The compliance assessment report shall:
1. be endorsed by the proponent's Managing Director or a person, approved in writing by the Office of the Environmental Protection Authority, delegated to sign on the Managing Director's behalf;
 2. include a statement as to whether the proponent has complied with the conditions;
 3. identify all potential non-compliances and describe corrective and preventative actions taken;
 4. be made publicly available in accordance with the approved compliance assessment plan; and
 5. indicate any proposed changes to the compliance assessment plan required by condition 4-1.

5 Marillana Sand Dune Community

- 5-1 The proponent shall implement the proposal so that it does not adversely affect the Marillana Sand Dune community shown as vegetation units 6 and 7 in Figure 2 of schedule 1.
- 5-2 The proponent shall monitor, prior to disturbance and at intervals during the operation of the project, the health and condition of the Marillana Sand Dune community shown as vegetation units 6 and 7 in Figure 2 of schedule 1. This monitoring is to be carried out to the satisfaction of the CEO on advice from the Department of Environment and Conservation.
- 5-3 Should any monitoring site show a 25 per cent (or greater) decline in health or condition, the proponent shall provide a report to the CEO within 21 days of the decline being identified which:
1. describes the decline;
 2. provides information which allows determination of the likely root cause of the decline; and
 3. if likely to be caused by activities undertaken in implementing the proposal, states the actions and associated timelines proposed to remediate the decline.

5-4 The proponent shall, on approval of the CEO, implement the actions identified in condition 5-3(3) and continue to implement such actions until the CEO determines that the remedial actions may cease.

6 Weeli Wollli Creek Riparian Vegetation

6-1 The proponent shall ensure that no clearing is undertaken within 30 metres of the bank of Weeli Wollli Creek as defined in schedule 2, unless required for the construction of drainage diversion structures or creek crossings. Areas required for the construction of drainage diversion structures or creek crossings should be reported to the Office of the Environmental Protection Authority prior to clearing.

6-2 The proponent shall ensure that groundwater abstraction and dewatering required to implement the proposal do not adversely impact the riparian vegetation of Weeli Wollli Creek.

6-3 To verify that the requirement of condition 6-2 is met the proponent shall:

1. monitor soil moisture levels within the riparian vegetation area; and
2. monitor the health and cover of vegetation within the riparian vegetation area, particularly *Eucalyptus victrix*.

6-4 Monitoring undertaken as required by condition 6-3 is to be carried out according to a monitoring schedule and using methods developed to the satisfaction of the CEO on advice from the Department of Environment and Conservation, prior to the commencement of dewatering.

6-5 Monitoring undertaken as required by condition 6-3 is to continue until such time as groundwater levels below Weeli Wollli Creek have returned to pre-mining levels, or until such time as the CEO determines that monitoring and management actions may cease.

6-6 Should any monitoring site show a 25 per cent (or greater) decline in health or cover of the riparian vegetation of Weeli Wollli Creek, the proponent shall provide a report to the CEO within 21 days of the decline being identified which:

1. describes the decline;
2. provides information which allows determination of the likely root cause of the decline; and
3. if likely to be caused by activities undertaken in implementing the proposal, states the actions and associated timelines proposed to remediate the decline.

6-7 The proponent shall, on approval of the CEO, implement the actions identified in condition 6-6(3) and continue to implement such actions until the CEO determines that the remedial actions may cease.

7 Weeds

7-1 The proponent shall ensure that:

1. No new species of weeds (including both declared weeds and environmental weeds) are introduced into the proposal area as defined in schedule 1 as a result of the implementation of the proposal;
2. Prior to ground-disturbing activities the proponent shall undertake a baseline weed survey to determine the species and extent of weeds (including both declared weeds and environmental weeds) present within the proposal area as defined in schedule 1 to the requirements of the CEO;
3. Prior to ground-disturbing activities the proponent shall establish at least three reference sites on undisturbed land within one kilometre of the proposal (not impacted by the proposal). Reference sites are to be chosen in consultation with the Office of the Environmental Protection Authority. The reference sites are to be monitored every two years, with a baseline survey to be conducted at the concurrently with the survey required by condition 7-1(2); and
4. The species and extent of weed cover within the proposal area shall not exceed that identified in the baseline survey identified in condition 7-1(2) or exceed that existing on comparable, nearby land, determined by reference sites required by condition 7-1(3) which have not been disturbed during implementation of the proposal.

8 Groundwater – Fortescue Marsh

8-1 The proponent shall ensure that groundwater abstraction and dewatering required to implement the proposal do not adversely impact the hydrology or vegetation health of the Fortescue Marsh.

8-2 To verify that the requirement of condition 8-1 is met, and subject to conditions 8-3 and 8-4, the proponent shall:

1. monitor groundwater levels and quality between the mine site and the Fortescue Marsh;
2. in the event that groundwater monitoring demonstrates that drawdown associated with the proposal extends beyond the northern boundary of the tenement, the proponent shall:

- a. monitor surface water levels at the southern boundary of the Fortescue Marsh; and
- b. monitor the health and cover of vegetation on the southern boundary of the Fortescue Marsh.

Note: The southern boundary of the Fortescue Marsh is defined in the Department of Environment and Conservation Clearing Regulations - Environmentally Sensitive Areas (ESA) dataset (2004).

- 8-3 The proponent shall ensure that the monitoring required by condition 8-2 is conducted in accordance with a Monitoring Plan that addresses monitoring frequency, schedule, methodology and location, developed to the satisfaction of the CEO on the advice of the Department of Environment and Conservation and the Department of Water prior to groundwater abstraction or dewatering.
- 8-4 The proponent shall undertake the monitoring required by condition 8-2:
1. prior to groundwater abstraction or dewatering to establish a baseline, including a baseline of the parameters required to be monitored by condition 8-2(2); and
 2. for the duration of groundwater abstraction or dewatering and shall continue until the CEO determines that monitoring may cease.
- 8-5 The proponent shall, within one year of the commencement of dewatering, provide a report to the CEO which has been prepared in consultation with the Department of Environment and Conservation and the Department of Water. The report shall detail the following:
1. verification of the groundwater model presented in the *Marillana Iron Ore Project Public Environmental Review*, prepared by *ecologia* Environment, Perth, Western Australia (May, 2010) against actual data;
 2. recalibration of the model and implications of any deviations from the model on the Fortescue Marsh;
 3. details of baseline data on the hydrology and vegetation of the southern boundary of the Fortescue Marsh collected in accordance with condition 8-4;
 4. appropriate trigger values developed to the satisfaction of the CEO on advice from the Department of Environment and Conservation to determine compliance with condition 8-1, and discussion of the selection of the trigger levels in relation to the Environmental Protection Authority's objectives;
 5. a detailed strategy developed to the satisfaction of the CEO on advice from the Department of Environment and Conservation to avoid and mitigate any impacts to the Fortescue Marsh detected by the monitoring program required by condition 8-2.

- 8-6 Prior to providing the report required by condition 8-5 to the CEO, the proponent shall have the report peer reviewed by an independent expert acceptable to the Office of the Environmental Protection Authority on the advice of the Department of Environment and Conservation and the Department of Water.
- 8-7 In the event that monitoring required by condition 8-2 indicates an exceedance of the trigger levels determined in condition 8-5(4):
1. the proponent shall immediately implement mitigation measures indicated by the mitigation strategy required to be developed by condition 8-5(5);
 2. report to the CEO within 7 days of the exceedance being identified;
 3. provide evidence which allows determination of the cause of the exceedance;
 4. if determined by the CEO to be a result of activities undertaken in implementing the proposal, the proponent shall submit actions to be taken including those required to be developed by condition 8-5(5); and
 5. implement actions including those required to be developed by condition 8-5(5) upon approval of the CEO on advice from the Department of Environment and Conservation and shall continue until such time the CEO determines that the remedial actions may cease.
- 8-8 The proponent shall submit annually the results of monitoring required by condition 8-2 to the CEO.
- 8-9 The proponent shall make publicly available the monitoring reports required by condition 8-2 in a manner approved by the CEO.

9 Surface Water Flows

- 9-1 The proponent shall not cause disturbances to Weeli Wolli Creek which could lead to alterations in surface water flows to the Fortescue Marsh.
- 9-2 The proponent shall implement the proposal in accordance with the Marillana Surface Water Management Plan (Aquaterra, 2010) provided as Appendix S of the *Marillana Iron Ore Project Public Environmental Review*, prepared by *ecologia* Environment, Perth, Western Australia (May, 2010) or subsequent revisions approved by the CEO.
- 9-3 The proponent shall review and revise the Marillana Surface Water Management Plan required by condition 9-1 when requested by the CEO, to ensure that the mitigation and management techniques remain valid and incorporate any relevant new research.
- 9-4 The proponent shall make the Marillana Surface Water Management Plan required by condition 9-1 publicly available in a manner approved by the CEO.

10 Groundwater and Surface Water Quality

- 10-1 The proponent shall ensure that run-off and/or seepage from the mine and infrastructure do not cause the quality of surface water or groundwater within or adjacent to the proposal area to exceed the trigger values for a slightly to moderately disturbed ecosystem provided for in Table 3.4.2 of Chapter 3 of the Australian and New Zealand Environment and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand (2000) *Australian Water Quality Guidelines for Fresh and Marine Waters* and its updates, taking into consideration natural background water quality.
- 10-2 The proponent shall monitor the quality of surface water and groundwater upstream and downstream of the mine and infrastructure to ensure that the requirements of condition 10-1 are met. This monitoring is to be carried out using methods consistent with Australian and New Zealand Environment and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand (2000) *Australian Guidelines for Water Quality Monitoring and Reporting*, and its updates, and to the satisfaction of the CEO.
- 10-3 The proponent shall commence the water quality monitoring required by condition 10-2 prior to ground-disturbing activities to collect baseline data.
- 10-4 The proponent shall submit annually the results of monitoring required by condition 10-2 to the CEO.
- 10-5 In the event that monitoring required by condition 10-2 indicates that the requirements of condition 10-1 are not being met, the proponent shall:
1. report such findings to the CEO within 21 days of the decline in water quality being identified;
 2. provide evidence which allows determination of the root cause of the decline in water quality; and
 3. if determined to be a result of activities undertaken in implementing the proposal, state the actions and associated timelines proposed to be taken to remediate the water quality.
- 10-6 The proponent shall, on approval of the CEO, implement the actions identified in condition 10-5(3) and continue to implement such actions until the CEO determines that the remedial actions may cease.
- 10-7 The proponent shall make the monitoring reports required by condition 10-2 publicly available in a manner approved by the CEO.

11 Acid and Metalliferous Drainage

- 11-1 Prior to ground-disturbing activities the proponent shall use geochemical testing to characterise the leaching potential of waste material and provide a report with a detailed risk assessment, using national and international

standards*, for any potential Acid or Metalliferous Drainage (as defined in section 2.1 of the Managing Acid and Metalliferous Drainage, February 2007 developed by the Australian Government) to the satisfaction of the CEO to:

1. identify the extent of the acidity or metal contamination hazard associated with the proposal;
 2. identify the potential environmental receptors that could be impacted on exposure to this hazard; and
 3. demonstrate that the proposed use and storage of waste material is unlikely to impact environmental values in or near the project area, including the Fortescue Marsh.
- 11-2 Prior to mining any material with the potential to generate Acid or Metalliferous Drainage, the proponent shall develop and implement long-term prevention, monitoring, contingency and remediation strategies for the management of any potential Acid or Metalliferous Drainage to the satisfaction of the CEO on the advice of the Department of Environment and Conservation and the Department of Mines and Petroleum.
- 11-3 The proponent shall continue to implement the action required by condition 11-2 until such time as the CEO determines that the actions may cease.
- 11-4 The proponent shall continue to undertake geochemical testing for potential Acid or Metalliferous Drainage as part of the long-term monitoring strategies required by condition 11-2 using national and international standards* to the satisfaction of the CEO, until such time as it is determined by the CEO that monitoring may cease.
- 11-5 In the event that monitoring required by condition 11-2 indicates that environmental values are being impacted by Acid or Metalliferous Drainage, the proponent shall:
1. report such findings to the CEO within 21 days of the decline in water quality being identified;
 2. provide evidence which allows determination of the root cause of the decline in water quality; and
 3. if determined to be a result of activities undertaken in implementing the proposal, state the actions and associated timelines proposed to be taken to remediate the water quality.
- 11-6 The proponent shall, on approval of the CEO, implement the actions identified in condition 11-5(3) and continue to implement such actions until the CEO determines that the remedial actions may cease.
- 11-7 The proponent shall make the monitoring reports required by condition 11-2 publicly available in a manner approved by the CEO.

11-8 The proponent shall report the results and assessment of efficacy of the long-term prevention, monitoring, contingency and remediation strategies required by condition 11-2 as part of the compliance assessment report required by condition 4-6 to the CEO.

*Note: The national and international standards referred to in condition 11 are the *Managing Acid and Metalliferous Drainage*, February 2007 developed by the Australian Government, Department of Industry Tourism and Resources, the *Global Acid and Metalliferous Drainage (GARD) Guide*, December (2008) developed by the International Network for Acid Prevention (INAP) and the Australian and New Zealand Environment Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand (2000) *Australian Water Guidelines for Fresh and Marine Waters and its updates*.

12 Rehabilitation

12-1 The proponent shall undertake progressive rehabilitation over the life of the proposal to achieve the following outcomes:

1. The waste rock dumps and other final landforms shall be non-polluting and shall be constructed to ensure that their stability, surface drainage, resistance to erosion and ability to support local native vegetation are similar to undisturbed natural analogue landforms as demonstrated a methodology acceptable to the CEO;
2. Waste rock dumps and other areas disturbed through implementation of the proposal (excluding mine pits), shall be progressively rehabilitated with vegetation composed of native plant species of local provenance;
3. The percentage cover and species diversity of living self sustaining native vegetation in all rehabilitation areas shall be comparable to that of undisturbed natural analogue sites as demonstrated by a methodology acceptable to the CEO; and
4. Weed management for the rehabilitation areas shall be carried out as per condition 7.

12-2 The proponent shall provide rehabilitation completion criteria for the approval of the CEO on advice of the Department of Environment and Conservation within five years of ground-disturbing activities for the proposal.

12-3 Rehabilitation activities shall continue until such time as the requirements of conditions 12-1 and 12-2 are met, for a minimum of five years following mine completion demonstrated by inspections and reports to the satisfaction of the CEO, on advice of the Department of Mines and Petroleum.

13 Final Closure and Decommissioning Plan

- 13-1 At least five years prior to mine completion, the proponent shall prepare and submit a Final Closure and Decommissioning Plan to the requirements of the CEO, on advice of the Department of Environment and Conservation and Department of Mines and Petroleum.
- 13-2 The Final Closure and Decommissioning Plan shall be prepared consistent with:
1. ANZMEC/MCA (2000) *Strategic Framework for Mine Closure Planning*; including any subsequent revisions, and
 2. Department of Industry Tourism and Resources (2006) *Mine Closure and Completion* (Leading Practice Sustainable Development Program for the Mining Industry), Commonwealth Government, Canberra, including any subsequent revisions.
- 13-3 The Final Closure and Decommissioning Plan shall provide detailed technical information on the following:
1. The final closure of all areas disturbed through implementation of the proposal ensuring that they are safe, stable and non-polluting;
 2. decommissioning of all plant and equipment;
 3. disposal of waste materials;
 4. final rehabilitation of waste rock dumps and other areas;
 5. management and monitoring following mine completion; and
 6. inventory of all contaminated sites and proposed management.
- 13-4 The proponent shall close, decommission and rehabilitate the proposal in accordance with the Final Closure and Decommissioning Plan.
- 13-5 The proponent shall make the Final Closure and Decommissioning Plan required by condition 13-1 publicly available in a manner approved by the CEO.

Notes

1. The Minister for Environment will determine any dispute between the proponent and the Office of the Environmental Protection Authority over the fulfilment of the requirements of the conditions.

2. The proponent is required to apply for a Works Approval and Licence for this project under the provisions of Part V of the *Environmental Protection Act 1986*.

Bill Marmion

**HON BILL MARMION MLA
MINISTER FOR ENVIRONMENT; WATER**

8 FEB 2011

Schedule 1

The Proposal (Assessment No. 1781)

The proposal is to construct and operate a 750 Million tonnes (Mt) iron ore mine, processing facility and associated infrastructure within mining leases M47/1414 and M47/1419. The project area is located approximately 100 km north west of Newman in the Fortescue valley.

The proposal would be developed using traditional open pit mining methods of excavating, load and haul. The mine would produce 17-19 Mt of beneficiated ore per annum.

The location of the various project components is shown in Figure 1.

The main characteristics of the proposal are summarised in Table 1 below. A detailed description of the proposal is provided in section 5 of the proponent's document, *Marillana Iron Ore Project Public Environmental Review*, prepared by *ecologia* Environment, Perth, Western Australia (May, 2010).

Table 1: Summary of Key Proposal Characteristics

Element	Description
General	
Proposed Commencement	2012
Project Life Span	20 years
Area of Disturbance	2985 hectares (ha)
Mining	
Total Pit Area	1648 ha
Waste Rock Disposal	587 ha above ground plus in-pit storage.
Fines Rejects Storage	247 ha above ground plus in-pit storage.
Dewatering	120 Gigalitres over the life of the mine.
Dewatering Rate	Peak dewatering of up to 32 Megalitres/day.
Dewater Disposal	<ul style="list-style-type: none"> • Use on site for processing, dust suppression, and use at accommodation camp; • Managed Aquifer Recharge; • Infiltration ponds; and • No dewater discharge to any creekline.
Infrastructure	
Processing Requirements	Crushing, screening and wet gravity beneficiation.
Workforce Accommodation	On-site accommodation camp.
Water Supply	<ul style="list-style-type: none"> • Pit dewatering; • Off-take agreements where possible; and • On or off -tenement bores where necessary.
Power Source	On site diesel-NG/ LNG dual fuel generators.

Figures (attached)

Figure 1 Location of all project components.

Figure 2 Vegetation map.

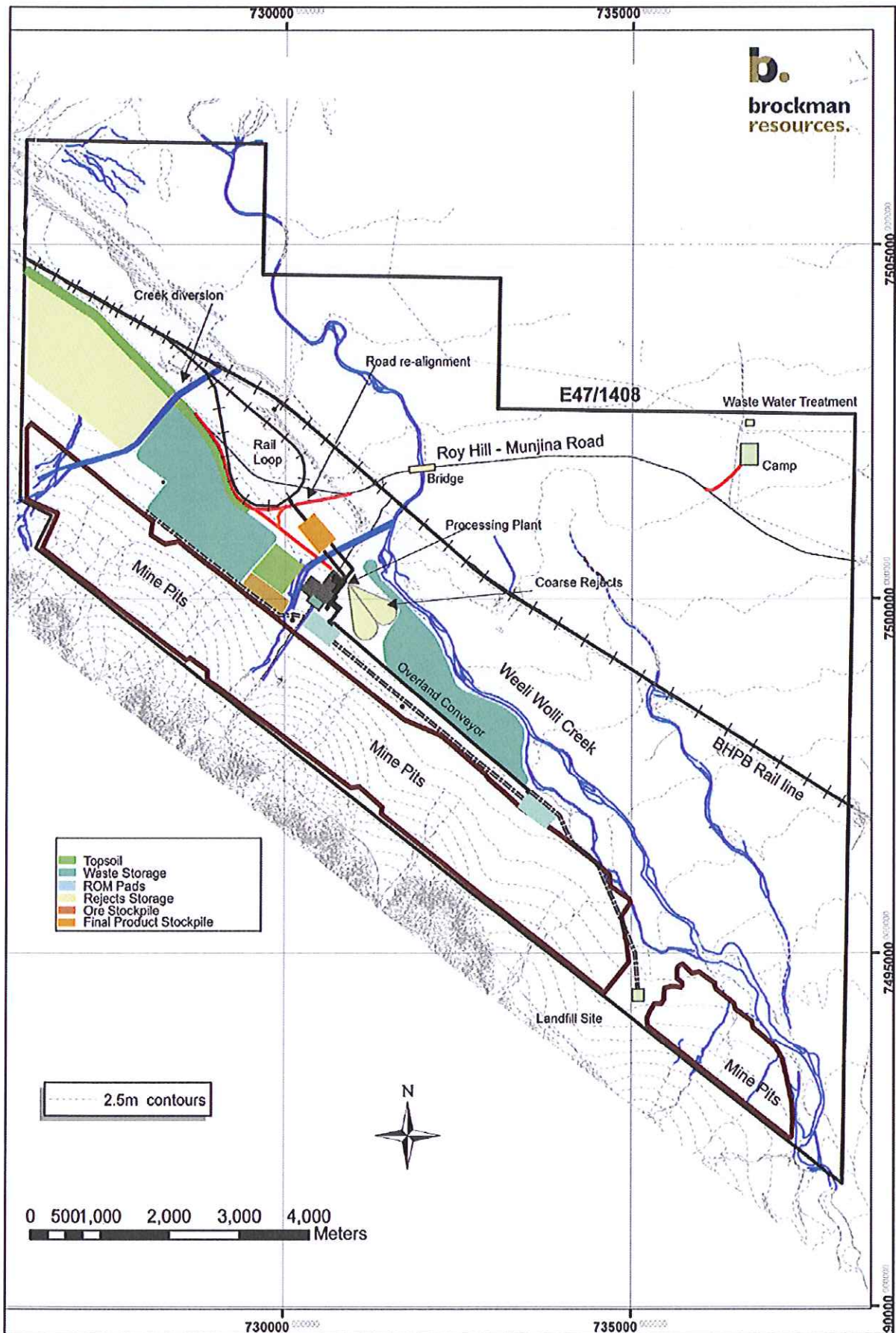


Figure 1 Location of all project components

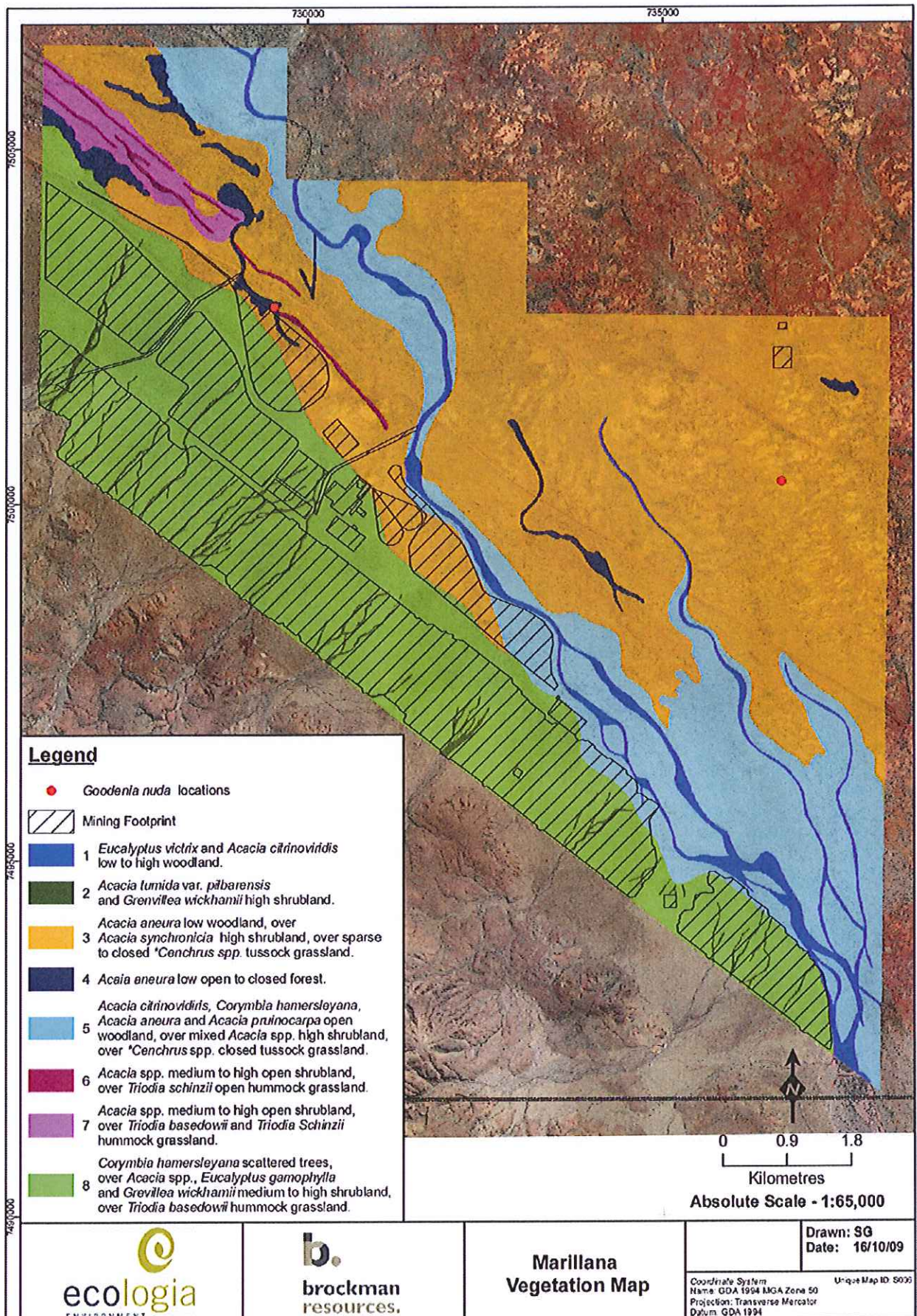


Figure 2 Vegetation map

Schedule 2

MGA94 Zone 50 Co-ordinates defining the southern bank of the Weeli Wolli Creek channel

737,369.52 7,492,260.91	735,668.64 7,495,038.92
737,375.99 7,492,452.81	735,559.33 7,495,051.80
737,342.59 7,492,745.45	735,533.26 7,495,039.27
737,337.01 7,492,952.48	735,469.36 7,495,001.12
737,255.40 7,493,192.55	735,376.83 7,495,017.21
737,214.35 7,493,371.66	735,293.22 7,495,054.07
737,199.81 7,493,462.92	735,245.82 7,495,079.83
737,138.95 7,493,582.58	735,189.05 7,495,116.11
737,035.95 7,493,762.83	735,144.57 7,495,170.53
736,919.64 7,493,883.92	735,118.46 7,495,274.25
736,825.48 7,494,023.91	735,112.36 7,495,332.26
736,777.88 7,494,156.38	735,083.53 7,495,457.01
736,806.55 7,494,298.29	735,037.29 7,495,562.99
736,821.76 7,494,421.18	734,969.48 7,495,704.73
736,766.17 7,494,502.53	734,911.41 7,495,808.03
736,675.45 7,494,591.07	734,873.71 7,495,867.06
736,632.16 7,494,680.43	734,800.87 7,495,963.34
736,574.22 7,494,762.35	734,756.25 7,496,011.90
736,439.62 7,494,839.02	734,677.01 7,496,027.96
736,347.16 7,494,872.37	734,610.80 7,496,092.65
736,293.33 7,494,866.52	734,560.37 7,496,189.32
736,250.02 7,494,860.67	734,513.26 7,496,310.28
736,165.75 7,494,861.84	734,459.83 7,496,394.23
736,073.29 7,494,880.57	734,339.50 7,496,456.55
735,957.42 7,494,915.38	734,220.03 7,496,497.81
735,815.80 7,494,982.68	734,151.04 7,496,551.08

734,100.86	7,496,679.85	732,265.97	7,499,394.81
734,025.08	7,496,771.93	732,153.74	7,499,567.53
733,984.12	7,496,830.46	732,037.14	7,499,680.11
733,964.22	7,496,859.72	731,913.68	7,499,804.46
733,925.60	7,496,911.22	731,809.35	7,499,889.07
733,868.25	7,496,975.59	731,677.25	7,499,928.51
733,795.68	7,497,043.47	731,610.54	7,499,920.32
733,737.16	7,497,183.92	731,564.90	7,499,936.71
733,660.92	7,497,292.15	731,527.93	7,499,964.94
733,574.46	7,497,374.48	731,438.39	7,500,078.47
733,531.83	7,497,506.72	731,370.40	7,500,190.74
733,491.04	7,497,635.09	731,361.25	7,500,266.76
733,475.00	7,497,742.21	731,357.11	7,500,359.16
733,469.60	7,497,828.09	731,361.72	7,500,500.07
733,482.01	7,497,904.88	731,353.52	7,500,589.79
733,499.58	7,498,058.21	731,392.85	7,500,697.48
733,488.86	7,498,174.04	731,458.39	7,500,856.64
733,419.99	7,498,292.30	731,524.47	7,501,055.54
733,312.31	7,498,401.14	731,561.38	7,501,160.95
733,164.84	7,498,483.07	731,646.83	7,501,303.74
732,991.62	7,498,566.17		
732,820.74	7,498,631.71		
732,695.51	7,498,710.13		
732,612.41	7,498,785.04		
732,512.92	7,498,872.82		
732,436.08	7,498,987.44		
732,414.94	7,499,117.58		
732,330.34	7,499,198.18		