



Hon Mark McGowan MLA  
Minister for the Environment;  
Racing and Gaming

Statement No.

197 St George's Terrace, Perth WESTERN AUSTRALIA 6000  
Telephone: (+61 8) 9222 9111 Facsimile: (+61 8) 9222 9410  
Email: mark-mcgowan@dpc.wa.gov.au • Website: www.ministers.wa.gov.au/mcgowan/

000725

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

**WAROONA MINERAL SANDS PROJECT  
SHIRE OF WAROONA**

**Proposal:** To construct and operate a mineral sands mine, within Mining Tenements M70/735, M70/797 and M70/1089, approximately one kilometre north of the township of Waroona.

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

**Proponent:** Iluka Resources Limited

**Proponent Address:** Level 23, 140 St George's Terrace, PERTH WA 6000

**Assessment Number:** 1510

**Report of the Environmental Protection Authority:** Bulletin 1217

The proposal referred to above may be implemented by the proponent subject to the following conditions and procedures:

**1 Proposal Description**

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

**2 Proponent Environmental Management Commitments**

2-1 The proponent shall implement the environmental management commitments documented in schedule 2 of this statement.

Published on

30 JUN 2006

### **3 Proponent Nomination and Contact Details**

- 3-1 The proponent for the time being nominated by the Minister for the Environment under section 38(6) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal.
- 3-2 The proponent shall notify the Chief Executive Officer of the Department of Environment (CEO) of any change of the name and address for the serving of notices or other correspondence within 30 days of such change.

### **4 Time Limit of Authorisation**

- 4-1 The authorisation to implement the proposal provided for in this statement shall lapse and be void within five years of the date of this statement if the proposal to which this statement refers is not substantially commenced.
- 4-2 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.

### **5 Compliance Reporting**

- 5-1 The proponent shall submit to the CEO Compliance Reports in accordance with a schedule approved by the CEO.
- 5-2 The Compliance Reports shall be prepared in accordance with the compliance monitoring guidelines, and shall:
  - 1. describe and provide evidence of the status of implementation of the proposal;
  - 2. include evidence of compliance with the conditions, procedures and commitments of this statement;
  - 3. provide a review of the effectiveness of corrective and preventative actions contained in the environmental management plans and programs;
  - 4. provide verifiable evidence of the fulfilment of requirements specified in the environmental management plans and programs;
  - 5. identify all confirmed non-conformities and non-compliances and describe the related corrective and preventative actions taken; and
  - 6. identify potential non-conformities and non-compliances and provide evidence of how these are being determined for corrective action.

### **6 Fauna Relocation and Habitat**

- 6-1 Prior to ground-disturbing activities, the proponent shall prepare, in consultation with the Department of Conservation and Land Management, a Native Fauna Relocation and Habitat Plan to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

This Plan shall:

1. detail actions to relocate native fauna to other suitable habitats;
  2. address relocation of the following fauna:
    - Quenda (*Isodon obesulus fasciventer*);
    - Possums of any species; and
    - Any other fauna species which the Department of Conservation and Land Management advises should be relocated;
  3. include such monitoring of the success of relocation of fauna, as advised by the Department of Conservation and Land Management; and
  4. address the salvage and relocation of tree hollows and habitat logs from active mining areas to provide habitat for fauna species in rehabilitation areas.
- 6-2 The proponent shall implement the Native Fauna Relocation and Habitat Plan required by condition 6-1.
- 6-3 The proponent shall make the Native Fauna Relocation and Habitat Plan required by condition 6-1 publicly available.

## **7 Audible Warning Signals**

- 7-1 The proponent shall use that form and type of safety warning device to generate "audible warning signals" on items of equipment, which produces the least noise whilst complying with statutory requirements.

## **8 Vegetation and Flora**

- 8-1 Prior to ground-disturbing activities, the proponent shall prepare, in consultation with the Department of Conservation and Land Management, a Vegetation and Flora Management Plan to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

The objectives of this Plan are:

1. to minimise disturbance of vegetation communities and significant flora; and
  2. to identify rare and priority flora species and ensure that they are protected during mining operations.
- 8-2 The Vegetation and Flora Management Plan required by condition 8-1 shall:
1. identify vegetation communities of conservation significance and priority or declared rare flora within the project area;
  2. include the management, monitoring and reporting of impacts on the defined vegetation communities and any identified declared rare flora and priority flora species within the proposal area;

3. include management and mitigation measures for dieback, fire and weeds;
4. avoid unnecessary impacts on vegetation and flora from mine operations; and
5. include any management or mitigation actions required, including modification to the mine layout to provide for retention of significant flora.

8-3 The proponent shall implement the Vegetation and Flora Management Plan required by condition 8-1.

8-4 The proponent shall make the Vegetation and Flora Management Plan required by condition 8-1 publicly available.

## **9 Groundwater Level Management – North Pit and Vegetation Location 8**

9-1 Prior to ground-disturbing activities, the proponent shall install additional groundwater monitoring bores and/or pits adjacent to the North Pit, including within areas of vegetation adjacent to Vegetation Location 8, as indicated in Figure 3 of schedule 1 (attached).

9-2 Prior to ground-disturbing activities at the North Pit, the proponent shall complete at least two summers of groundwater level monitoring in the bores required by condition 9-1.

9-3 Based on the groundwater monitoring referred to in condition 9-2, the proponent shall establish “management criteria” with the objective of ensuring that the health of the vegetation at Vegetation Location 8 is maintained during mining of the North Pit.

9-4 During mining in the North Pit, the proponent shall monitor bores required by condition 9-1 at least once every seven days.

9-5 The proponent shall not commence ground-disturbing activities for the North Pit until the “management criteria” referred to in condition 9-3 have been endorsed by the Minister for the Environment on advice of the Environmental Protection Authority.

9-6 Prior to ground-disturbing activities for the North Pit, the proponent shall prepare a Groundwater Level Contingency Plan setting out management actions to be implemented if the monitoring indicates that groundwater levels are not meeting the “management criteria” required by condition 9-5.

9-7 In the event that “management criteria” are not met, the proponent shall:

1. notify the Department of Environment immediately;
2. implement management measures, set out in the Groundwater Level Contingency Plan required by condition 9-6;
3. report the outcome of management measures taken to the Department of Environment;
4. cease all mining which has the potential to further lower the groundwater in the vegetation adjacent to the North Pit.

## **10 Water Resources Management**

- 10-1 Prior to ground-disturbing activities, the proponent shall prepare a whole-of-site Water Resources Management Plan to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

This Plan shall address:

1. monitoring and reporting of groundwater levels;
2. monitoring and reporting of stream flow and potential impacts of reduced stream flows in Nanga and Ferraro Brooks;
3. monitoring of aquatic biota in Nanga and Ferraro Brooks;
4. measurement and recording of water abstraction and usage;
5. monitoring of water quality and water levels within the piezometer network; and
6. hydrocarbon management.

- 10-2 The proponent shall provide annual reports of monitoring results to the Department of Water.

## **11 Potential Acid Sulphate Soils Management**

- 11-1 Prior to excavation activities, the proponent shall, in consultation with the Department of Environment, undertake sampling for Potential Acid Sulphate Soils (PASS), to demonstrate that the impacts from PASS can be managed to avoid pollution or environmental harm.

## **12 Decommissioning**

- 12-1 Prior to ground-disturbing activities, the proponent shall prepare a Preliminary Decommissioning Plan for approval by the CEO, which provides:

1. rationale for the siting and design of plant and infrastructure as relevant to environmental protection, and conceptual plans for final landform and the removal or, if appropriate, retention of plant and infrastructure; and
2. long-term management of ground and surface water systems affected by the mining operations, including groundwater drawdown and diversion.

- 12-2 At least 18 months prior to the anticipated date of decommissioning, or at a time agreed with the CEO, the proponent shall prepare a Final Decommissioning Plan to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority, for:

1. final landforms and the removal or, if appropriate, retention of plant and infrastructure in consultation with relevant stakeholders;
2. long-term management of ground and surface water systems affected by the operations, including groundwater drawdown and diversion; and
3. identification of contaminated areas, including provision of evidence of notification and proposed management measures to relevant statutory authorities.

12-3 The proponent shall implement the Final Decommissioning Plan required by condition 12-2 until such time as the Minister for the Environment on advice of the Environmental Protection Authority determines that the proponent's decommissioning and closure responsibilities have been fulfilled.

12-4 The proponent shall make the Final Decommissioning Plan required by condition 12-2 publicly available.

#### Notes

1. Where a condition states "to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority", the Environmental Protection Authority will provide that advice to the Department of Environment for the preparation of written notice to the proponent.
2. The Environmental Protection Authority may seek advice from other agencies or organisations, as required, in order to provide its advice to the Department of Environment.
3. Where a condition lists advisory bodies, it is expected that the proponent will obtain the advice of those listed as part of its compliance reporting to the Department of Environment.
4. The proponent is required to apply for a Works Approval and Industry Licence for this project under the provisions of Part V of the *Environmental Protection Act 1986*.
5. The proponent is required to apply for the appropriate Licences / Permits for this project under the provisions of the *Rights in Water and Irrigation Act 1914* and the *Rights in Water and Irrigation Regulations 2000*.



**HON MARK McGOWAN**  
**MINISTER FOR THE ENVIRONMENT;**  
**RACING AND GAMING**

**30 JUN 2006**

## Schedule 1

### The Proposal (Assessment No. 1510)

The proposal is to construct and operate a mineral sands mine within mining tenements M70/735, M70/797 and M70/1089, one kilometre north of the township of Waroona (Figures 1 and 2). This involves the progressive mining of shallow ore bodies for titanium minerals and zircon using dry mining techniques and is expected to yield 245,000 tonnes of Heavy Mineral Concentrate (HMC) per annum over the four-year life of the mine.

The major components of the operation include:

- Three new mine pits;
- Solar drying dams;
- Ore concentrator;
- Associated mine infrastructure; and
- Upgrade to Peel Road and intersection of Peel Road and South West Highway.

The main characteristics of the proposal are summarised in Table 1.

**Table 1 - Key Proposal Characteristics**

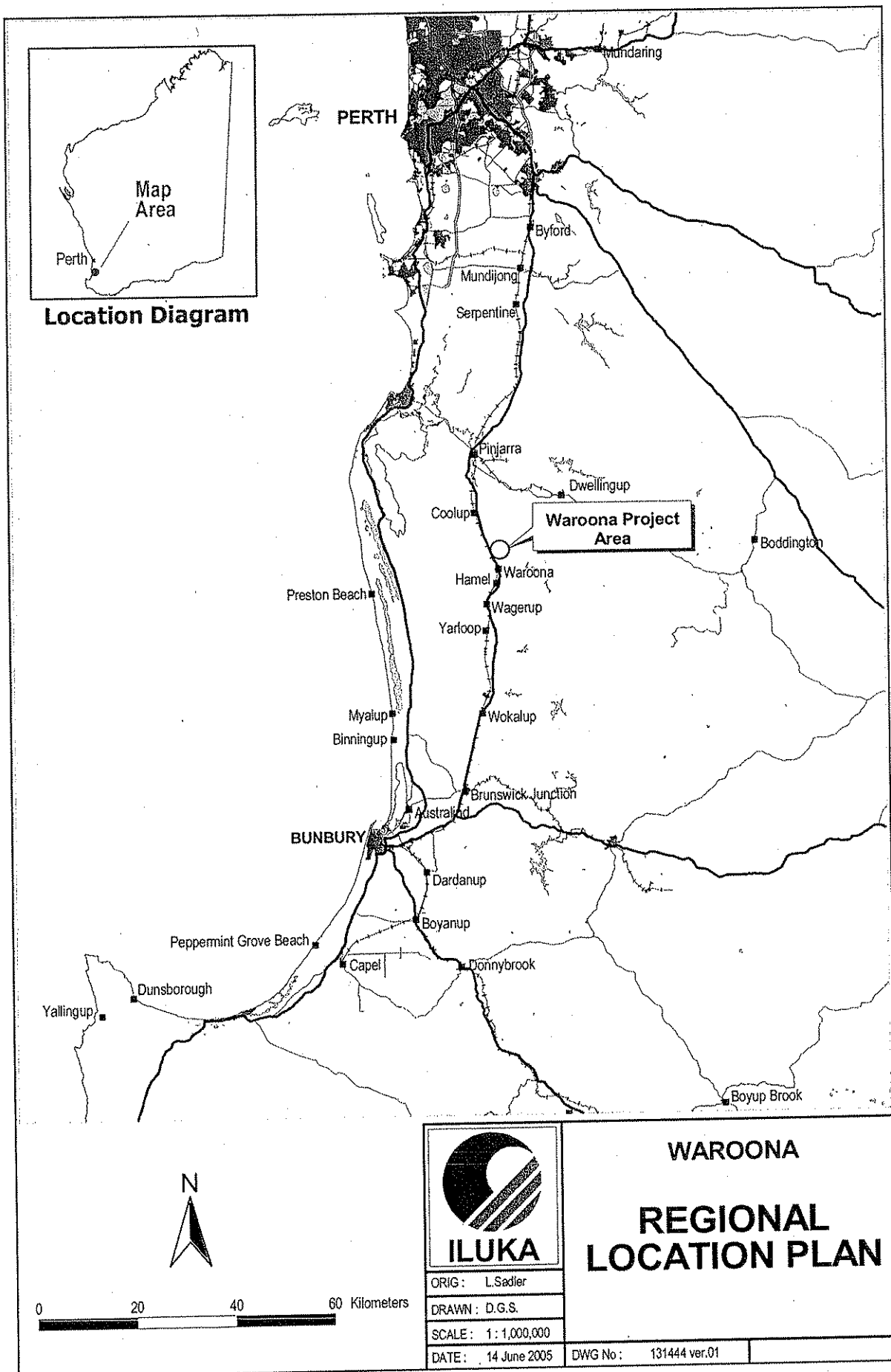
Element	Description
<b>MINE</b>	
Life of Mine (Mine Production)	Approximately 4 years
Size of Ore Body	Approximately 10.8 Mt
Area of Disturbance	Approximately 184 ha
Vegetation Disturbance	Approximately 21.2 ha
<b>ORE PROCESSING</b>	
Nominal Processing Rate	300 t/h
Heavy Mineral Concentrate production	Approximately 245,000 t/a (0.245 Mt/a)

#### Abbreviations:

ha – hectare  
Mt – mega tonnes  
Mt/a – mega tonnes per annum  
t/a – tonnes per annum  
t/h – tonnes per hour

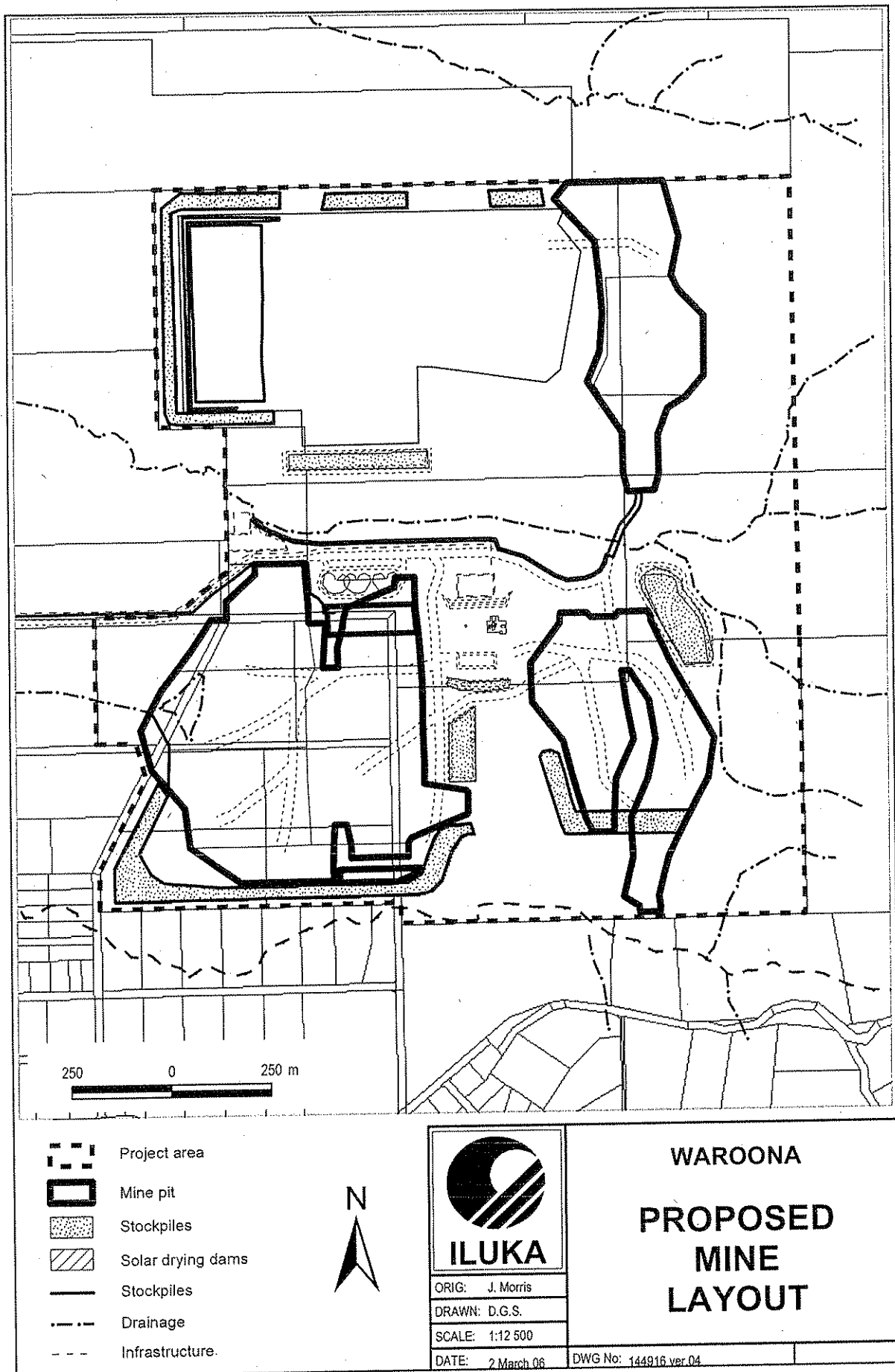
#### Figures (attached)

Figure 1 – Project site location.  
Figure 2 – Project site plan.  
Figure 3 – Proposed offset areas.  
Figure 4 – Project monitoring locations.

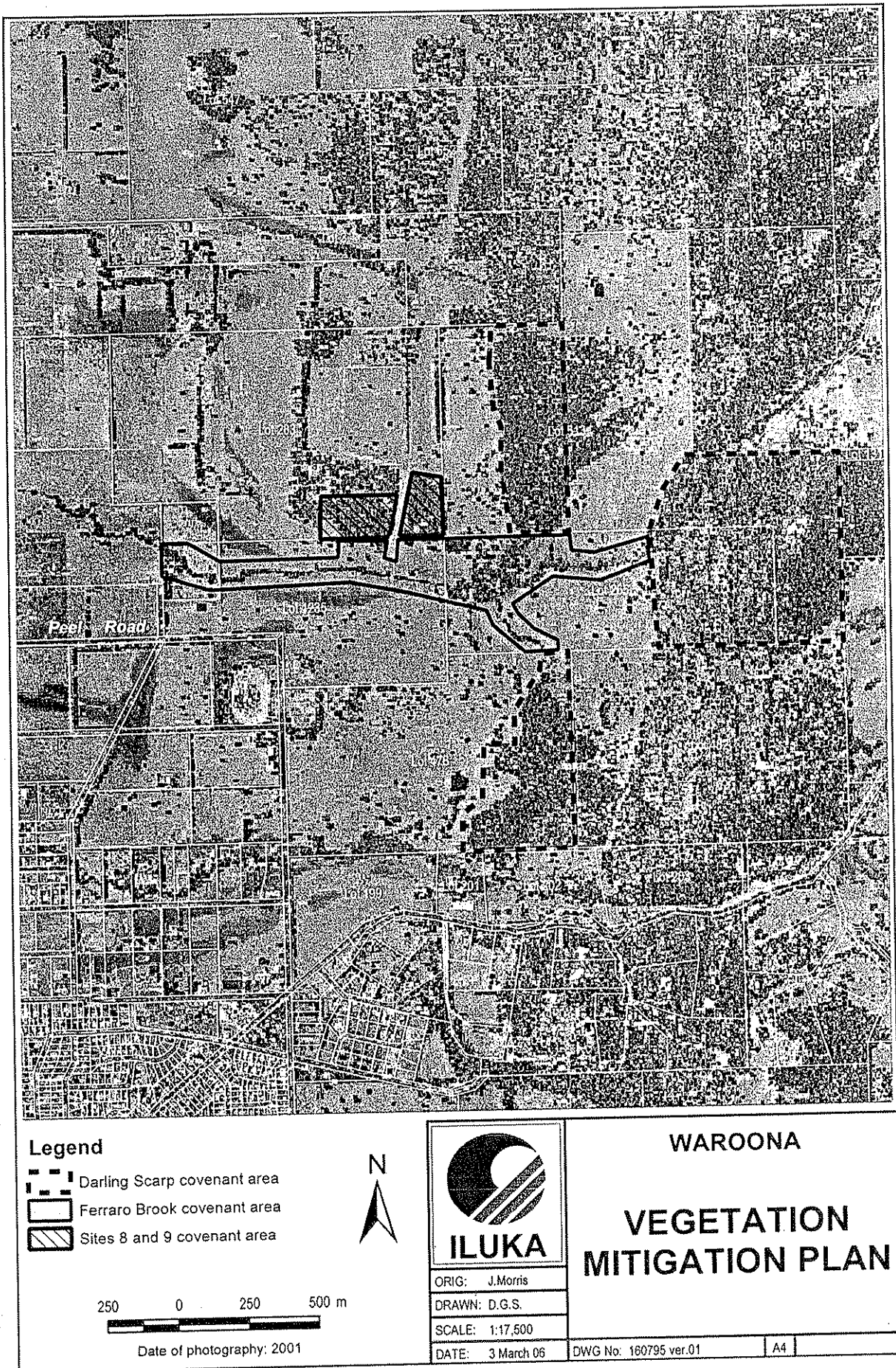


*Figure 1 – Project site location.*





*Figure 2 – Project site plan*



*Figure 3 – Proposed offset areas*



**Proponent's Environmental Management Commitments**

April 2006

**WAROONA MINERAL SANDS PROJECT  
SHIRE OF WAROONA**

(Assessment No. 1510)

**Iluka Resources Limited**

# Proponent's Environmental Management Commitments – April 2006

## WAROONA MINERAL SANDS PROJECT, SHIRE OF WAROONA (Assessment No. 1510)

**Note:** The term "commitment" as used in this schedule includes the entire row of the table and its six separate parts as follows:

- a commitment number;
- a commitment topic;
- the objective of the commitment;
- the 'action' to be undertaken by the proponent;
- the timing requirements of the commitment; and
- the body/agency to provide technical advice to the Department of Environment.

No.	Topic	Objective	Action	Timing	Advice
1	Flora and Vegetation (see Figure 3)	To maintain the abundance, diversity, geographic distribution and productivity of flora at species and ecosystem levels through the avoidance or management of adverse impacts and improvement in knowledge.	Prepare a Vegetation Mitigation Plan which addresses the following: <ol style="list-style-type: none"> <li>1. Fence Ferraro Brook and buffer area, Sites 8 and 9 with buffer areas and the remnant vegetation blocks;</li> <li>2. Undertake weed control within these areas;</li> <li>3. Infill plant these areas with native species, including riparian species around the brook and upland species in other areas;</li> <li>4. Trial translocation of understorey flora from the Speedway site (location 16); and</li> <li>5. Placement of appropriate CALM Conservation Covenants over the identified blocks of remnant native vegetation.</li> </ol>	Prior to ground-disturbing activities	CALM
2	Flora and Vegetation		Implement the Vegetation Mitigation Plan referred to in commitment 1.	Prior to ground-disturbing activities	CALM
3	Fauna Habitat	To maintain the abundance, diversity, geographic distribution and productivity of fauna at species and ecosystem levels through the avoidance or management of adverse impacts and improvement in knowledge.	<ol style="list-style-type: none"> <li>1. Preferentially retain trees identified with hollows on site;</li> <li>2. Inspect those trees within the clearing envelope with hollows for signs of bird nesting;</li> <li>3. Remove hollows from any suitable cleared trees and use within the rehabilitation and mitigation areas as fauna habitats;</li> <li>4. Protect Marri (<i>C. calophylla</i>) favoured by Baudin's Cockatoo as food sources where practicable; and</li> <li>5. Use seed from Marri trees favoured by Baudin's Cockatoo in the Vegetation Mitigation Plan.</li> </ol>	Prior to clearing	CALM

No.	Topic	Objective	Action	Timing	Advice
4	Landform and Soils	To maintain the integrity, ecological functions and environmental values of the soil and landform.	<ol style="list-style-type: none"> <li>1. Backfill mine voids and grade and shape the surface; and</li> <li>2. Reinststate the soil profile at Mullins Sumpland.</li> </ol>	Upon decommissioning	
5	Dust (see Figure 4)	To ensure that emissions do not adversely affect environmental values or the health, welfare and amenity of people and land uses by meeting statutory requirements and acceptable standards.	<p>Prepare a Dust Management Plan which includes:</p> <ol style="list-style-type: none"> <li>1. Minimising open area;</li> <li>2. Dust control measures;</li> <li>3. Monitoring and reporting of dust levels;</li> <li>4. Review and continuous improvement program; and</li> <li>5. Community complaints system.</li> </ol>	Prior to ground-disturbing activities	
6	Dust		Implement the Dust Management Plan referred to in commitment 5.	Prior to ground-disturbing activities	
7	Noise	To protect the amenity of nearby residents from noise impacts resulting from activities associated with the proposal by ensuring the noise levels meet statutory requirements and acceptable standards.	<p>Prepare a Noise Management Plan which includes:</p> <ol style="list-style-type: none"> <li>1. Hours of operation;</li> <li>2. Allowable noise levels of site machinery;</li> <li>3. Regular checking of noise levels of site machinery;</li> <li>4. Management of noise during constructions;</li> <li>5. Management of noise during operations;</li> <li>6. Monitoring and reporting of noise levels;</li> <li>7. Review and continuous improvement program; and</li> <li>8. Community complaints system.</li> </ol>	Prior to ground-disturbing activities	
8	Noise		Implement the Noise Management Plan referred to in commitment 7.	Prior to ground-disturbing activities	

#### Abbreviations:

CALM = Department of Conservation and Land Management.

Attachment to Statement 725

Change to Description of Proposal

**Proposal:** Change to Solar Drying Dams Southern Pit -- Waroona Mineral Sands Project

**Proponent:** Iluka Resources Limited

**Change:** Relocation and increase size of solar drying dams, decreased size of southern mining pit and construction of an access road to the northern solar drying dam.

**From:**

Element	Quantities/Description
Area of disturbance	Approximately 184ha
Vegetation disturbance	Approximately 21.2ha

**To:**

Element	Quantities/Description
Area of disturbance	No more than 189ha
Vegetation disturbance	No more than 15.1ha
Rehabilitation of Ferraro Brook	No less than 30.2ha

Figure 1. Revised Mine Layout

**Approval Date:** 31 JUL 2006