



Spotted Quoll Open Pit Nickel Mine

Ministerial Statement 808

Compliance Assessment Report



Prepared by: Western Areas Ltd

Prepared for: Office of the Environmental Protection Authority –  
Proposal Implementation Management Branch

Date: September 2014


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Western Areas Ltd

Forrestania Nickel Operation – Spotted Quoll Project

MINISTERIAL STATEMENT 808  
COMPLIANCE ASSESSMENT REPORT CERTIFICATION

I declare that the information in this Compliance Assessment Report for Ministerial Statement 808 is correct and not false or misleading in a material particular.

Signature: 

Name (printed): DANIEL R LOUGHER

Position: MANAGING DIRECTOR

Date: 16 / 9 / 2014

Seal (if signing under seal): \_\_\_\_\_

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## **EXECUTIVE SUMMARY**

This Compliance Assessment Report (CAR) outlines the current status of compliance of the Western Areas Ltd (Western Areas) owned Spotted Quoll proposal with the proposal implementation conditions set out in Ministerial Statement 808.

The Spotted Quoll open pit mine ceased production on the 14<sup>th</sup> February 2012.

For the reporting period (i.e. 1<sup>st</sup> July 2013– 30<sup>th</sup> June 2014) there were no non-compliances with the conditions of Statement 808.

The CAR has been signed by the Managing Director of Western Areas.

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## 1.0 INTRODUCTION

The Forrestania Nickel Operation (FNO) is situated approximately 160 kilometres south of Southern Cross and 80 kilometres east of Hyden in the Shire of Kondinin. This is a new mining development by Western Areas Ltd (Western Areas) in an area with a long history of mining and exploration activity. Figure 1 shows the location of the FNO within Western Australia.

Western Areas currently operate the Flying Fox underground nickel mine, Cosmic Boy accommodation camp and the Cosmic Boy nickel concentrator. The previously approved Digger Rocks project sits on care and maintenance. Exploration activities continue throughout the Forrestania area.

On the 17<sup>th</sup> of September 2009 the Environmental Impact Assessment report (1334) for the Spotted Quoll open pit mine (the project) , released by the Western Australian Environmental Protection Authority (EPA) was approved and signed off by the Western Australian Minister for the Environment (Ministerial Statement # 808, henceforth known as Statement 808).

The Western Australian Minister for the Environment signed Ministerial Statement 882 to amend conditions imposed on Statement 808 on 2<sup>nd</sup> December 2011.

A Works Approval (WA 4499/2008/1) for the construction of dewatering infrastructure including dewatering bores and a pipeline system including a settling pond was granted by the Department of Environment and Conservation (DEC) on 24<sup>th</sup> September 2009 (ref: DEC9635).

On the 7<sup>th</sup> of October 2009 the project was signed off (Reg# 22286) by the Environmental Division of the Department of Mines and Petroleum (DMP) and ground disturbance activities commenced on the 9<sup>th</sup> of October 2009.

The Department of Water (DoW) Water Abstraction Licence for Spotted Quoll (GWL170112) was granted on the 19<sup>th</sup> of November 2009.

An amendment was made to the Flying Fox Prescribed Premises Licence (L8041/1991/3) on the 4<sup>th</sup> of February 2010 to include the dewatering activities associated with the Spotted Quoll open pit mine.

Figure 2 shows the general layout of the Spotted Quoll project.

## 2.0 PURPOSE AND SCOPE

Statement 808 contains implementation conditions endorsed by the Western Australian Minister for the Environment, by which the project can be implemented. Condition 4 of Statement 808 provides details of Compliance Reporting commitments.

### **Condition 4-1 states:**

*The proponent shall prepare and maintain a compliance assessment plan to the satisfaction of the Chief Executive Officer of the Department of Environment and Conservation;*

### **Condition 4-6 states:**

*The proponent shall submit a compliance assessment report annually from the date of issue of this Implementation Statement addressing the previous twelve month period or other period as agreed by the Chief Executive Officer of the Department of Environment and Conservation. The compliance assessment report shall:*

- 1 be endorsed by the proponent's Managing Director or a person, approved in writing by the Department of Environment and Conservation, 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.

This document serves to meet the requirements of Condition 4-6 of Statement 808 and shows compliance with the Compliance Assessment Plan (CAP).

### 3.0 STATEMENT 808 COMPLIANCE

Statement 808 lists 8 implementation conditions for the project. This section of the report compares these conditions with the actions that have been undertaken during project implementation to achieve these so that a measure of compliance can be made.

It should be noted that because of the recent establishment of the Office of the Environmental Protection Authority, reference to the Chief Executive Officer (CEO) of the Department of Environment and Conservation in Statement 808 now means the CEO of the Office of the Environmental Protection Authority (OEPA); and The Department of Environment and Conservation means the OEPA.

The reporting period for this Compliance Assessment Report is from the 1<sup>st</sup> July 2013 to the 30<sup>th</sup> of June 2014 with the report to be submitted on or before the 16<sup>th</sup> of September 2014.

#### 3.1 Condition 1

##### **Statement**

Condition 1 of Statement 808 relates to Proposal Implementation and states:

*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.*

##### **Compliance**

This document serves to confirm that the proposal has been implemented subject to the conditions and procedures of Statement 808 hence compliance with Condition 1 is met for the reporting period.

#### 3.2 Condition 2

##### **Statement**

Condition 2 of Statement 808 relates to the Proponent Nomination and Contact details and comprises 2 parts as follows:

*Condition 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;*

*Condition 2-2: The proponent shall notify the Chief Executive Officer of the Department of Environment and Conservation 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.*

##### **Compliance**

Condition 2-1

Western Areas remains the proponent responsible for the implementation of the proposal hence compliance with Condition 2-1 is met for the reporting period.

Condition 2-2

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The business name of Western Areas remained as “*Western Areas Ltd*” during the reporting period. Compliance is met with Condition 2-2 for the reporting period.

### **3.3 Condition 3**

#### **Statement**

Condition 3 of Statement 808 relates to the Time Limit of Authorisation for the proposal and comprises 2 parts as follows:

*Condition 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;*

*Condition 3-2: The proponent shall provide the Chief Executive Officer of the Department of Environment and Conservation with written evidence which demonstrates that the proposal has been substantially commenced on or before the expiration of five years from the date of this statement.*

#### **Compliance**

Condition 3-1

Condition 3-1 is noted. The project was substantially commenced on the 9<sup>th</sup> of October 2009, hence Condition 3-1 has been met and is complete.

Condition 3-2

A letter notifying the OEPA of substantial commencement was provided on the 17<sup>th</sup> September 2010. Hence Condition 3-2 has been met and is complete.

### **3.4 Condition 4**

#### **Statement**

Condition 4 of Statement 808 relates to Compliance reporting and consists of 6 parts as follows:

*Condition 4-1: The proponent shall prepare and maintain a compliance assessment plan to the satisfaction of the Chief Executive Officer of the Department of Environment and Conservation;*

*Condition 4-2: The proponent shall submit to the Chief Executive Officer of the Department of Environment and Conservation, the compliance assessment plan required by condition 4-1 at least 6 months prior to the first compliance report required by condition 4-6. 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.*

*Condition 4-3: The proponent shall assess compliance with conditions in accordance with the compliance assessment plan required by condition 4-1.*

*Condition 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 Chief Executive Officer of the Department of Environment and Conservation.*

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*Condition 4-5: The proponent shall advise the Chief Executive Officer of the Department of Environment and Conservation of any potential non-compliance within two business days of that non-compliance being known.*

*Condition 4-6: The proponent shall submit a compliance assessment report annually from the date of issue of this Implementation Statement addressing the previous twelve month period or other period as agreed by the Chief Executive Officer of the Department of Environment and Conservation. The compliance assessment report shall:*

- 1 be endorsed by the proponents Managing Director or a person, approved in writing by the Department of Environment and Conservation, 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;*
- 5 indicate any proposed changes to the compliance assessment plan required by condition 4-1.*

## **Compliance**

### **Condition 4-1:**

A Compliance Assessment Plan (CAP) was prepared and is being maintained in accordance with Condition 4-1. The CAP was received by the OEPA and the Proposal Implementation Monitoring Branch (PIMB) provided correspondence dated the 12<sup>th</sup> of May 2010 that the compliance monitoring database had been updated to reflect their receipt of the CAP, indicating satisfaction with its content. A letter dated 12<sup>th</sup> October 2010 was provided advising WSA that the revised CAP submitted on the 24<sup>th</sup> September 2010 meets the requirements for Condition 4-1 and 4-2 of Ministerial Statement 808.

### **Condition 4-2**

On the 23<sup>rd</sup> of November 2009, the then Proposal Implementation Management Section of the DEC (PIMS; Claire Adams) advised via email that the CAP required by Condition 4-1 should be submitted by the 17<sup>th</sup> of March 2010 in order to meet Condition 4-2. The Draft CAP was submitted to the OEPA on the 10<sup>th</sup> of March 2010. Hence compliance has been met for Condition 4-2. A final approved copy of the CAP was provided to the newly created Project Implementation Monitoring Branch (PIMB) on the 5<sup>th</sup> May 2010. A letter dated 12<sup>th</sup> October 2010 was provided advising WSA that the revised CAP submitted on the 24<sup>th</sup> September 2010 meets the requirements for Condition 4-1 and 4-2 of Ministerial Statement 808.

### **Condition 4-3**

This Compliance Assessment Report (CAR) provides an assessment of conditions in accordance with the CAP. Hence compliance has been met for Condition 4-3.

### **Condition 4-4**

Appendices 1 and 2 of this CAR provide the summary reports that have been prepared for the reporting period as a result of implementation of Conditions 6-3 and 7-1.

### **Condition 4-5**

There were no known non-compliances for the reporting period hence compliance has been met for Condition 4-5.

### **Condition 4-6**

Statement 808 was issued on the 17<sup>th</sup> of September 2009. Therefore in line with Condition 4-6 and as per Section 2 of the CAP, the CAR is due for submission by (i.e. on or before) the 16<sup>th</sup> of September 2010 and annually thereafter.



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The CAR for the reporting period was submitted on or before the 16<sup>th</sup> of September 2014. Hence compliance has been met for this condition for the reporting period.

This CAR addresses points 1, 2, 3, 4 and 5 under Condition 4-6. The CAR will be placed on the company website within 2 weeks of submission of the CAR to the CEO of the OEPA and the OEPA will be notified once this has been completed.

### 3.5 Condition 5

#### Statement

Condition 5 of Statement 808 relates to Performance Review and Reporting as follows:

*Condition 5-1: The proponent shall submit to the Chief Executive Officer of the Department of Environment and Conservation, a Performance Review Report at the conclusion of the first year after the start of implementation and then annually, which addresses:*

- 1 the major environmental risks and impacts; the performance objectives, standards and criteria related to these; the success of risk reduction/impact mitigation measures and results of monitoring related to management of the major risks and impacts;*
- 2 the level of progress in the achievement of sound environmental performance, including industry benchmarking, and the use of best available technology where practicable; and*
- 3 improvements gained in environmental management which could be applied to this and other similar projects.*

#### Compliance

Condition 5-1

The Performance Review Report (PRR) required by Condition 5-1 was submitted on the 10<sup>th</sup> of October 2013. Compliance with this condition has been met for the reporting period. The PRR for the 2014 - 2015 reporting period will be submitted on the 8<sup>th</sup> October 2013.

### 3.6 Condition 6

Condition 6 of Statement 808 relates to Flora and Vegetation and consists of 6 parts as follows:

#### Statement

*Condition 6-1: The proponent shall not cause the loss of the Declared Rare Flora Eucalyptus steedmanii from the implementation of the proposal.*

*Condition 6-2: Prior to ground disturbing activities, the proponent shall undertake baseline monitoring of the health and abundance of the Declared Rare Flora Eucalyptus steedmanii populations 2, 3a, 3b, 7 and population 1 (including individuals in close proximity to the haul road and the population fragment to the west of the haul road) identified in Figure 3, schedule 1.*

*Condition 6-3: The proponent shall monitor impacts on the health and abundance of the Declared Rare Flora Eucalyptus steedmanii populations as identified in condition 6-2, from activities undertaken in implementing the proposal. This monitoring shall be carried out to the satisfaction of the Chief Executive Officer of the Department of Environment and Conservation.*

*Condition 6-4: The proponent shall submit annually the results of monitoring required by condition 6-3 to the Chief Executive Officer of the Department of Environment and Conservation.*

*Condition 6-5: In the event that monitoring required by condition 6-3 indicates a decline in the health or abundance of Declared Rare Flora Eucalyptus steedmanii outside the areas to be cleared:*

- 
- 1 the proponent shall report such findings to the Chief Executive Officer of the Department of Environment and Conservation within 21 days of the decline being identified;
  - 2 provide evidence which allows determination of the cause of the decline;
  - 3 if determined by Chief Executive Officer of the Department of Environment and Conservation to be a result of activities undertaken in implementing the proposal, the proponent shall submit actions to be taken to remediate the decline to the Chief Executive Officer; and
  - 4 the actions to remediate the decline of Declared Rare Flora shall be undertaken upon approval of the Chief Executive Officer of the Department of Environment and Conservation

Condition 6-6: The proponent shall make the monitoring reports required by condition 6-5 publicly available in a manner approved by the Chief Executive Officer of the Department of Environment and Conservation

## Compliance

### Condition 6-1

As at the 30<sup>th</sup> of June 2014, there has been no recorded loss of the DRF *Eucalyptus steedmanii* through implementation of the project. Hence compliance with Condition 6-1 has been met for the reporting period.

### Condition 6-2

Baseline monitoring of *Eucalyptus steedmanii* populations 2, 3a, 3b, 7 and population 1 was undertaken in September 2009. The baseline report was supplied to the PIMS in September 2009 prior to ground disturbance activities taking place in October. Hence compliance with this condition has been met.

### Condition 6-3

Monitoring of impacts to the health and abundance of *Eucalyptus steedmanii* has been undertaken in line with the Declared Rare Flora Management Plan. The Management Plan has been endorsed by the Chief Executive Officer of the Department of Environment and Conservation. Monitoring results are summarised in the compliance assessment summary report included as Appendix 1 of this CAR. Hence compliance with Condition 6-3 is met for the reporting period.

### Condition 6-4

Monitoring results to the 30<sup>th</sup> of June 2014 for *Eucalyptus steedmanii* are included in the compliance assessment summary report included as Appendix 1 of this CAR. Hence compliance with Condition 6-4 for the reporting period is met.

### Condition 6-5

As at the 30<sup>th</sup> of June 2014 the monitoring required by Condition 6-3 has not indicated a decline in the health or abundance of *Eucalyptus steedmanii*. Hence the requirements of Condition 6-5 are not triggered and compliance is not applicable for the reporting period.

### Condition 6-6

No monitoring reports were required to be produced under the requirements of Condition 6-5 and hence compliance with Condition 6-6 is not applicable for the reporting period.

## 3.7 Condition 7

Condition 7 of Statement 808 relates to fauna and is as follows:

### Statement

Condition 7-1: The proponent shall implement measures identified in Chapter 6.3 of the Environmental Protection Statement for the Proposed Spotted Quoll Mine, prepared by Coffey Environments Pty Ltd, Perth, Western Australia (July 2009) to prevent adverse impacts to Malleefowl along the haul road.

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## Compliance

WSA has implemented measures identified in Chapter 6.3 for the prevention of adverse impacts to Malleefowl along the Spotted Quoll to Flying Fox haul road in previous reporting periods. Educational awareness is ongoing through general environmental inductions at the Forrester Nickel Operation.

### 3.8 Condition 8

Condition 8 of Statement 808 relates to Mine Closure and Rehabilitation and consists of 2 parts as 8-3 was deleted under Section 46(8) of the Environmental Protection Act 1986. Condition 8-3 has been deleted and Condition 8-2 was subsequently changed to reflect the wording as described below:

#### Statement

*Condition 8-1: Prior to the commencement of ground-disturbing activities, the proponent shall conduct surveys of the proposal area to collect baseline information on the following:*

- 1 pre-mining soil profiles;*
- 2 groundwater levels;*
- 3 surface water flows;*
- 4 vegetation complexes;*
- 5 landscape and landforms; and*
- 6 material characterisation.*

*Condition 8-2: The proponent shall submit a Rehabilitation and Mine Closure Plan acceptable to the Chief Executive Officer of the Department of Environment and Conservation and the Director General of the Department of Mines and Petroleum with the advice of other agencies as appropriate within 12 months of the commencement of ground disturbing activities.*

*The Rehabilitation and Mine Closure Plan shall provide for specific outcomes for:*

- 1 Landform design and material characterisation;*
- 2 Rehabilitation completion criteria consistent with Environmental Protection Authority Guidance Statement No.6\* to provide a self sustaining, functional ecosystem comprising, native vegetation of local provenance species;*
- 3 Progressive rehabilitation timelines and monitoring against key performance indicators;*
- 4 Annual reporting procedures; and*
- 5 Procedures to review and revise the Rehabilitation and Mine Closure Plan.*
- 6 Measures for preventing groundwater contamination outside the final pit void; and*
- 7 In the event that a pit lake forms, management measures for ensuring the site is inaccessible to fauna identified as being at risk of impact and for protecting the surrounding native vegetation from potential adverse impacts. The management measures are to be practicable and in accordance with best practice mine closure safety and environmental standards.*

*\* Guidance for the Assessment of Environmental Factors: Rehabilitation of Terrestrial Ecosystems: No 6, Environmental Protection Authority, 2006.*

## Compliance

### Condition 8-1

Baseline data meeting the requirements of Condition 8-1 was supplied to PIMS in September 2009 prior to ground disturbance activities commencing. Hence compliance with Condition 8-1 has been met.

### Condition 8-2

The Rehabilitation and Mine Closure Plan (RMCP) was submitted on the 26<sup>th</sup> July 2010. Comments from the DMP were received on the 14<sup>th</sup> October 2010. Comments from the OEPA were received on the 28<sup>th</sup>

July 2011. Further advice from the OEPA on the 22<sup>nd</sup> August 2011 was that the revised RMCP should be submitted once the Section 46 application (submitted on 3<sup>rd</sup> December 2010) to alter Condition 8-2 and 8-3 of Ministerial Statement 808 has been resolved which has occurred. The latest revision of the RMCP was submitted to the OEPA and the DMP in September 2013. OEPA accepted the plan on the 02/12/2013. DMP accepted the plan on the 06/12/2013 with the next revision due for submission in September 2016. The RMCP has been developed to meet points 1 – 5 of condition 8-2. Compliance has been met for Condition 8-2 for the reporting period.

## 4.0 AUDIT TABLE SUMMARY

Table 1 summarises compliance with the implementation conditions for the reporting period.

Table 1: Summary statement of project compliance with implementation conditions

Number	Subject	Compliance met for current reporting period (1 <sup>st</sup> July 2011 – 30 <sup>th</sup> June 2012)
808:M1.1	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.	Yes.
808:M2.1	The proponent for the time being nominated by the Minister for Environment under sections 38(6) or 38(7) of the <i>Environmental Protection Act 1986</i> is responsible for the implementation of the proposal.	Yes.
808:M2.2	The proponent shall notify the Chief Executive Officer of the Department of Environment and Conservation 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.	Yes.
808:M3.1	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.	Yes. Condition complete.
808:M3.2	The proponent shall provide the Chief Executive Officer of the Department of Environment and Conservation 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.	Not applicable for reporting period.
808:M4.1	The proponent shall prepare and maintain a compliance assessment plan to the satisfaction of the Chief Executive Officer of the Department of Environment and Conservation.	Yes, revised CAP submitted on 24/09/10.
808:M4.2	The proponent shall submit to the Chief Executive Officer of the Department of Environment and Conservation, the compliance assessment plan required by condition 4-1 at least 6 months prior to the first compliance report required by condition 4-6. The compliance assessment plan shall indicate: <ul style="list-style-type: none"> <li>1 the frequency of compliance reporting;</li> <li>2 the approach and timing of compliance assessments;</li> <li>3 the retention of compliance assessments;</li> <li>4 reporting of potential non-compliances and corrective actions taken;</li> <li>5 the table of contents of compliance reports; and</li> <li>6 public availability of compliance reports.</li> </ul>	Yes.
808:M4.3	The proponent shall assess compliance with conditions in accordance with the compliance assessment plan required by condition 4-1.	Yes.
808:M4.4	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 Chief Executive Officer of the Department of Environment and Conservation.	Yes.
808:M4.5	The proponent shall advise the Chief Executive Officer of the Department of Environment and Conservation of any potential non-compliance within two business days of that non-compliance being known.	Yes.
808:M4.6	Condition 4-6: The proponent shall submit a compliance assessment report annually from the date of issue of this Implementation Statement addressing the previous twelve month period or other period as agreed by the Chief Executive Officer of the Department of Environment and Conservation. The compliance assessment report shall:	Yes

	<ol style="list-style-type: none"> <li>1 be endorsed by the proponents Managing Director or a person, approved in writing by the Department of Environment and Conservation, delegated to sign on the Managing Director's behalf;</li> <li>2 include a statement as to whether the proponent has complied with the conditions;</li> <li>3 identify all potential non-compliances and describe corrective and preventative actions taken;</li> <li>4 be made publicly available in accordance with the approved compliance assessment plan;</li> <li>5 indicate any proposed changes to the compliance assessment plan required by condition 4-1.</li> </ol>	
808:M5.1	The proponent shall submit to the Chief Executive Officer of the Department of Environment and Conservation, a Performance Review Report at the conclusion of the first year after the start of implementation and then annually.	Yes, submitted on 10/10/13.
808:M6.1	The proponent shall not cause the loss of the Declared Rare Flora <i>Eucalyptus steedmanii</i> from the implementation of the proposal.	Yes.
808:M6.2	Prior to ground disturbing activities, the proponent shall undertake baseline monitoring of the health and abundance of the Declared Rare Flora <i>Eucalyptus steedmanii</i> populations 2, 3a, 3b, 7 and population 1 (including individuals in close proximity to the haul road and the population fragment to the west of the haul road) identified in Figure 3, schedule 1.	Yes. Condition complete.
808:M6.3	The proponent shall monitor impacts on the health and abundance of the Declared Rare Flora <i>Eucalyptus steedmanii</i> populations and individuals as identified in condition 6-2, from activities undertaken in implementing the proposal. This monitoring shall be carried out to the satisfaction of the Chief Executive Officer of the Department of Environment and Conservation.	Yes.
808:M6.4	The proponent shall submit annually the results of monitoring required by condition 6-3 to the Chief Executive Officer of the Department of Environment and Conservation.	Yes.
808:M6.5	<p>In the event that monitoring required by condition 6-3 indicates a decline in the health or abundance of Declared Rare Flora <i>Eucalyptus steedmanii</i> outside the areas to be cleared:</p> <ol style="list-style-type: none"> <li>1. the proponent shall report such findings to the Chief Executive Officer of the Department of Environment and Conservation within 21 days of the decline being identified;</li> <li>2. provide evidence which allows determination of the cause of the decline;</li> <li>3. if determined by Chief Executive Officer of the Department of Environment and Conservation to be a result of activities undertaken in implementing the proposal, the proponent shall submit actions to be taken to remediate the decline to the Chief Executive Officer; and</li> <li>4. the actions to remediate the decline of Declared Rare Flora shall be undertaken upon approval of the Chief Executive Officer of the Department of Environment and Conservation.</li> </ol>	Not applicable for reporting period.
808:M6.6	The proponent shall make the monitoring reports required by condition 6-5 publicly available in a manner approved by the Chief Executive Officer of the Department of Environment and Conservation.	Not applicable for reporting period.
808:M7.1	The proponent shall implement measures identified in Chapter 6.3 of the <i>Environmental Protection Statement for the Proposed Spotted Quoll Mine</i> , prepared by Coffey Environments Pty Ltd, Perth, Western Australia (July 2009) to prevent adverse impacts to Malleefowl along the haul road.	Yes.
808:M8.1	<p>Prior to the commencement of ground-disturbing activities, the proponent shall conduct surveys of the proposal area to collect baseline information on the following:</p> <ol style="list-style-type: none"> <li>1 pre-mining soil profiles;</li> <li>2 groundwater levels;</li> <li>3 surface water flows;</li> <li>4 vegetation complexes;</li> <li>5 landscape and landforms; and</li> <li>6 material characterisation.</li> </ol>	Yes. Condition complete.

808:M8.2	<p>The proponent shall submit a Rehabilitation and Mine Closure Plan (RMCP) acceptable to the Chief Executive Officer of the Department of Environment and Conservation and the Director General of the Department of Mines and Petroleum with the advice of other agencies as appropriate within 12 months of the commencement of ground disturbing activities.</p> <p>The Rehabilitation and Mine Closure Plan shall provide for specific outcomes for:</p> <ol style="list-style-type: none"> <li>1 landform design and material characterisation;</li> <li>2 rehabilitation completion criteria consistent with Environmental Protection Authority Guidance Statement No.6* to provide a self sustaining, functional ecosystem comprising, native vegetation of local provenance species;</li> <li>3 progressive rehabilitation timelines and monitoring against key performance indicators;</li> <li>4 annual reporting procedures;</li> <li>5 procedures to review and revise the Rehabilitation and Mine Closure Plan;</li> <li>6 <i>Measures for preventing groundwater contamination outside the final pit void; and</i></li> <li>7 <i>In the event that a pit lake forms, management measures for ensuring the site is inaccessible to fauna identified as being at risk of impact and for protecting the surrounding native vegetation from potential adverse impacts. The management measures are to be practicable and in accordance with best practice mine closure safety and environmental standards.</i></li> </ol> <p>* <u>Guidance for the Assessment of Environmental Factors: Rehabilitation of Terrestrial Ecosystems: No 6</u>, Environmental Protection Authority, 2006.</p>	Yes. The current RMCP was accepted by both the OEPA and the DMP during the reporting period.
808:M8.3	DELETED (s46)	Not applicable for reporting period.

The Audit Table for statement 808 should be updated to reflect the current status of compliance with the conditions.

## 5.0 CONCLUSION

This CAR outlines the current status of compliance of the Western Areas NL owned Spotted Quoll proposal with the proposal implementation conditions set out in Ministerial Statement 808 and has been signed off by the Managing Director of Western Areas Ltd.

For the reporting period (i.e. 1<sup>st</sup> July 2013 – 30<sup>th</sup> June 2014) there were no non-compliances with the conditions of Statement 808.

If you have any queries regarding this CAR please do not hesitate to contact the undersigned.



Phil Knapton  
Environmental Manager  
Western Areas NL  
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Email: [pknapton@westernareas.com.au](mailto:pknapton@westernareas.com.au)

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## Figures

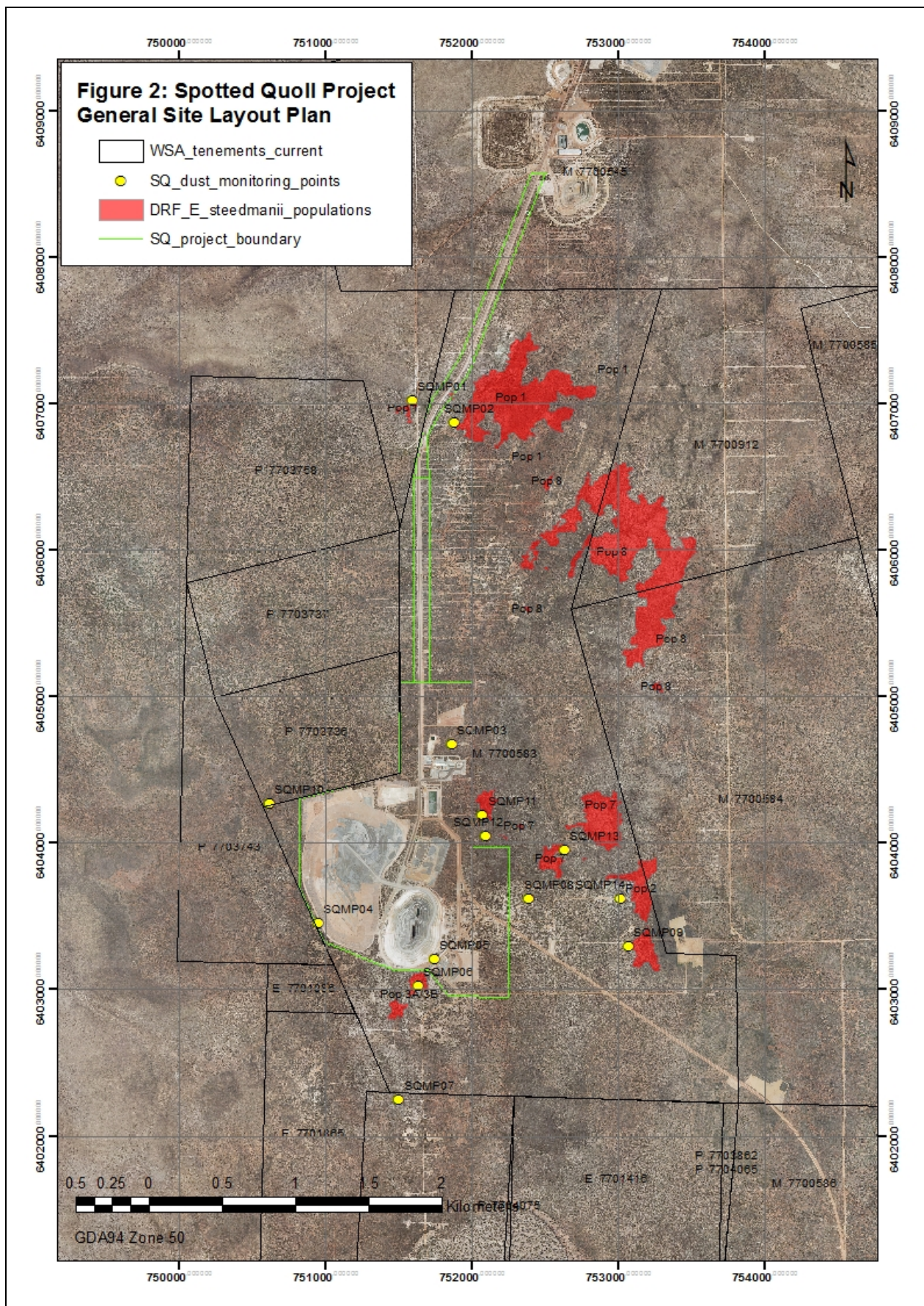
Figure 1 – Location of Forrestania Nickel Project in Western Australia

Figure 2 – Spotted Quoll project – general site layout plan



Figure 1: Location of Forrestania Nickel Project in Western Australia





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## Appendices

### Appendix 1 - *Eucalyptus steedmanii* monitoring summary report





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## APPENDIX 1

### Spotted Quoll Open Pit Nickel Mine - Ministerial Statement 808

#### ***Eucalyptus steedmanii* monitoring summary report 2013-14 reporting period**

Western Areas NL (WSA) received Ministerial Approval (Ministerial Statement 808) to commence development of the Spotted Quoll Open Pit Nickel Mine (the Mine) on the 17<sup>th</sup> of September 2009.

Condition 6 of Ministerial Statement 808 requires that WSA monitor impacts to the health and abundance of Threatened (DRF) *Eucalyptus steedmanii* populations as follows:

*Condition 6-1: The proponent shall not cause the loss of the Declared Rare Flora Eucalyptus steedmanii from the implementation of the proposal.*

*Condition 6-2: Prior to ground disturbing activities, the proponent shall undertake baseline monitoring of the health and abundance of the Declared Rare Flora Eucalyptus steedmanii populations 2, 3a, 3b, 7 and population 1 (including individuals in close proximity to the haul road and the population fragment to the west of the haul road) identified in Figure 3, schedule 1.*

*Condition 6-3: The proponent shall monitor impacts on the health and abundance of the Declared Rare Flora Eucalyptus steedmanii populations as identified in condition 6-2, from activities undertaken in implementing the proposal. This monitoring shall be carried out to the satisfaction of the Chief Executive Officer of the Department of Environment and Conservation.*

*Condition 6-4: The proponent shall submit annually the results of monitoring required by condition 6-3 to the Chief Executive Officer of the Department of Environment and Conservation.*

*Condition 6-5: In the event that monitoring required by condition 6-3 indicates a decline in the health or abundance of Declared Rare Flora Eucalyptus steedmanii outside the areas to be cleared:*

- 1. the proponent shall report such findings to the Chief Executive Officer of the Department of Environment and Conservation within 21 days of the decline being identified;*
- 2. provide evidence which allows determination of the cause of the decline;*
- 3. if determined by Chief Executive Officer of the Department of Environment and Conservation to be a result of activities undertaken in implementing the proposal, the proponent shall submit actions to be taken to remediate the decline to the Chief Executive Officer; and*
- 4. the actions to remediate the decline of Declared Rare Flora shall be undertaken upon approval of the Chief Executive Officer of the Department of Environment and Conservation*

*Condition 6-6: The proponent shall make the monitoring reports required by condition 6-5 publicly available in a manner approved by the Chief Executive Officer of the Department of Environment and Conservation*

#### **Baseline Monitoring**

To ensure compliance with Condition 6-2, on 18th 19th and 20th August 2009 Botanica Consulting (BC) was engaged to complete baseline level vegetation monitoring of seven *E. steedmanii* (DRF) populations as known to the DEC. The boundary of these populations were walked with a GPS and the spatial area of each defined. Monitoring transects were then planned

and positioned so as to be incorporated by these boundaries. Twenty two 50m transects were established within the population boundaries with 4 quadrats established surrounding other trees outside of these boundaries at Population 1. Locations of transects and quadrats are shown in Figure 1.

### Monitoring Outcomes

To ensure compliance with Condition 6-3, WSA developed an *E. steedmanii* Management Plan (the Plan) as a part of the approvals process for the Mine. The Plan detailed a number of monitoring activities that would be undertaken during the construction and operation phase of the Mine to ensure that the *E. steedmanii* populations involved were not impacted. These activities are listed as follows:

- Undertake weekly visual observations of *Eucalyptus steedmanii* populations in close proximity to the haul road and operations (i.e. Populations 1, 3A/3B and other plants identified by Botanica, 2009). Written and photographic records will be kept of the visual inspections of plant conditions.
- Undertake monthly transect monitoring of Populations 1, 2, 3A/3B and 7, and annual transect monitoring in Populations 4, 5 and 6. Transect monitoring will address plant health, recruitment and reproductive status of *E. steedmanii* populations. Plant condition for each individual that intersects the transect will be assessed using a rating method that assigns a score based on species health/vigour (e.g. 0=dead, 1=poor health (i.e. extensive crown decline), 2=moderate health (i.e. some evidence of crown decline) and 3 = very healthy (i.e. no evidence of crown decline)), as well as noting information relating to the stage of seed development.
- Undertake monthly collection and analysis of dust deposition gauges. Results will be correlated with visual plant health observations and monthly transect monitoring results.
- After 12 months of monitoring dust deposition and DRF plant health, in consultation with the DEC, assess the feasibility of developing appropriate operational dust deposition targets.
- In the event that dust levels exceed acceptable limits, dust suppression measures will be immediately reviewed and more stringent measures implemented as appropriate. Remediation actions will be undertaken on the affected plants on consultation with the DEC.
- Undertake a population census of all seven known *Eucalyptus steedmanii* populations in the Forresteria Region every four years until completion of the mining operation. The census will record numbers of plants in each population, plant health, reproductive status and location. This action is in accordance with the Conservation Advice developed by DEHWA (2008) for the management of *E. steedmanii*.

Both weekly and monthly monitoring of known populations of *E. steedmanii* has been undertaken in accordance with the Plan since the commencement of mining activities on tenement M77/583 in October 2009. No deterioration in health of the populations has been observed. The most important change that has been recorded is the development of the reproductive maturity of populations. All populations contain plants that have mature fruit, most populations are showing mature reproductive status as of Autumn 2013.

Only a summary of the monitoring results for each population is presented here. Monitoring data including photographs is available on request if required.

### Weekly, Monthly and Annual Monitoring

#### Population 1

Population 1 is located in close proximity to the new haul road between the Spotted Quoll mine and the Flying Fox mine. Photo monitoring is undertaken on a weekly basis and transect monitoring is undertaken on a monthly basis for this population. This population includes a

number of individual plants located by Botanica Consulting Pty Ltd which are remote from the main population.

No decline in the health assessment of the plants was observed for the reporting period and overall health ratings remain very similar to the original monitoring effort undertaken in 2009. Some plants remain affected by the parasitic creeper *Cassytha melantha* (Large Dodder Laurel), however there has been no indication that the health of the affected plants has deteriorated over the monitoring period due to this. The reproductive maturity of the population is estimated to have increased during the most recent reporting period. As of June 2013 the ratios were as follows; 20% sterile, 16% immature and 64% reproductively mature. As of June 2014 the ratios were as follows; 16% sterile, 9% immature and 75% reproductively mature. Any fluctuations outside of the general increasing trend in the data could be attributable to error due to the subjective nature of the monitoring and changes in personnel undertaking monitoring during the period.

#### **Population 2**

Population 2 is located some 1.8km east of the Spotted Quoll mine. Monthly transect monitoring is undertaken for this population. No decline in the health assessment has been observed. Reproductive maturity has decreased slightly from baseline due to new individuals being recorded in the transect which either have immature fruit or no fruit. Reproductive maturity has remained stable during the reporting period.

#### **Population 3A/3B**

Population 3A and 3B is located immediately south of the Spotted Quoll open pit (~50m from the edge of the pit). Photo monitoring is undertaken on a weekly basis and transect monitoring is undertaken on a monthly basis for this population. No decline in health assessment was observed during the reporting period. Generally reproductive maturity has increased from 45% sterile, 8% immature and 47% mature during baseline surveys in September 2009 to 34% sterile, 5% immature and 61% mature in June 2013. As of June 2014 reproductive maturity is estimated at 16% sterile, 11% immature and 74% mature. Fluctuations outside of the general increasing trend in the data are probably attributable to error due to the subjective nature of the monitoring.

#### **Population 4**

Populations 4 is located approximately 20km north of the Spotted Quoll area. This population is monitored on an annual basis and monitoring during the reporting period was undertaken in June 2014. Population 4 has shown no decline in vegetation health during the reporting period. Reproductive maturity has increased from 40% sterile, 18% immature and 42% mature during baseline monitoring to 36% sterile, 2% immature and 61% mature respectively in June 2013. As of June 2014 reproductive maturity is estimated at 39% sterile, 1% immature and 60% mature which indicates reproductive maturity has remained relatively stable. Fluctuations of the in the data in relation to reproductive maturity are probably attributable to error due to the subjective nature of the monitoring.

#### **Population 5**

Populations 5 is located approximately 20km north of the Spotted Quoll area. This population is monitored on an annual basis. Population 5 shows no decline in vegetation health during the reporting period. Reproductive maturity has shown a gradual decreasing trend in reproductive maturity since baseline data was collected in 2009. In 2009 baseline reproductive maturity was estimated at 47% sterile, 16% immature and 38% mature. As at July 2014 reproductive maturity is estimated at 62% sterile, 2% immature and 36% mature. Fluctuations outside of the general increasing trend in the data are probably attributable to error due to the subjective nature of the monitoring.

#### **Population 6**

Population 6 has not been located to date.

## Population 7

Population 7 is located approximately 800m east of the Spotted Quoll mine. Monthly transect monitoring is undertaken for this population. No decline in health assessment has been observed in this population. The results of the reproductive maturity assessment during the reporting period show a slight increase in the number of plants showing mature fruit and a decrease in plants showing immature which is to be expected. During baseline surveys approximately 43% of trees were sterile, 7% immature and 50% with mature fruit. In June 2013 those figures were 37% sterile, 17% immature and 53% mature. As at June 2014 reproductive maturity was estimated at 42.5% sterile, 2.5% immature and 55% mature. Fluctuations outside of the general increasing trend in the data are probably attributable to error due to the subjective nature of the monitoring.

Visual records have been kept via photographic monitoring of transects and quadrats. No obvious change in populations has been observed during this monitoring.

## Four yearly *E. steedmanii* population census

As per the requirements of the Plan, a 4 yearly population census of all known *E. steedmanii* populations was undertaken in January 2014. A brief description of the census in terms of methodology and outcomes is provided as follows:

From the 13th to 15th of January 2014, Botanica Consulting (BC) was commissioned to complete the vegetation monitoring of eight *Eucalyptus steedmanii* (DRF) known DPaW populations. In previous work, the boundaries of these populations were walked with a GPS and the spatial area of each was determined.

Twenty-six transects were monitored within the eight populations, along each 50m transects the *Eucalyptus steedmanii* were identified and given a health rating (0-3 rating: 0=Dead, 1= poor health, 2= moderate health and 3= very healthy) and the maturity level of the fruit on each individual tree was identified (sterile, immature and mature). Along with this the extrapolated population and average percentage cover of *Eucalyptus steedmanii* for each transect was identified.

Overall the average mature fruit has increased in five out of the eight populations (Populations 1, 3, 4, 5 and 7) which has resulted in a decrease in the immature and sterile fruit for the corresponding populations. The three remaining populations have maintained a constant level of all three fruit maturities (sterile, immature and mature).

Average percentage cover of *E. steedmanii* along the transects has remained constant for four of the eight populations. The remaining four populations (Population 1, 2, 3, and 4) recorded an increase in percentage cover of between 0.5% and 2% when compared to the 2009 baseline survey results.

Three of the eight populations have recorded an increase in extrapolated population size in the 2014 monitoring period, a further four populations remained constant and one population (Population 5) recorded a decrease in extrapolated population size. Population 6 has shown the largest increase in extrapolated population numbers.

The general health condition of all DRF Populations was considered excellent (Keighery, 1994). The health condition "excellent" depicts that the vegetation structure has been affected by disturbances, although retaining its basic structure; it has the ability to regenerate (Keighery, 1994). Disturbances were in the form of a few historic tracks and mine related workings. These tracks and workings were most probably from early exploration some 10-25 years ago.

The populations closer to the Spotted Quoll mine operation, when compared to the population's further away have shown no ascertainable difference in individual tree health assessments,

percentage cover of *E. steedmanii* or the overall population estimations in the 2014 monitoring period.

The full 2014 *E. steedmanii* population census report can be provide upon request.

### Dust Monitoring

Dust monitoring in the form of strategically placed dust deposition gauges has been undertaken at the Spotted Quoll site since June 2009. The location of the dust deposition gauges is shown in Figure 1. Dust deposition gauges provide an indication of deposition for the TSP dust fraction and where possible are located with close proximity to *Eucalyptus steedmanii* populations 1 (SQMP1 and SQMP02), 2 (SQMP09), 3A/3B (SQMP06) and 7 (SQMP11 and SQMP13) although location depends on meeting the Australian Standard for placement of dust gauges. A summary only of the dust deposition results obtained for the reporting period of July 2013 through to June 2014 are presented here. Dust deposition data is available on request if required.

SQMP01 - For the reporting period dust deposition reached a high of 55.3 g/m<sup>2</sup>/month in May 2014 and a low of 0.878 g/m<sup>2</sup>/month in July 2013. The average result is 7.54 g/m<sup>2</sup>/month. This value appears to be higher than is expected, however, if the one anomalous reading for May 2014 (which was caused by nearby site infrastructure works) is removed the average drops back to 2.76 g/m<sup>2</sup>/month which is much more in line with expectations.

SQMP02 - For the reporting period dust deposition reached a high of 5.8 g/m<sup>2</sup>/month in November 2013 and a low of 0.854 g/m<sup>2</sup>/month in December 2013. The average result is 2.63 g/m<sup>2</sup>/month.

SQMP03 – For the reporting period dust deposition reached a high of 4.96 g/m<sup>2</sup>/month in November 2013 and low of 0.897 g/m<sup>2</sup>/month in July 2013. The average result is 2.11 g/m<sup>2</sup>/month.

SQMP04 – This monitor was taken out of service May 2010 due to it close proximity to the waste dump and the fact that it's positioning no longer met the Australian Standard for placement of dust deposition gauges.

SQMP05 – This monitoring point was removed in March 2011 to allow for the installation of infrastructure around the open pit.

SQMP06 – For the reporting period dust deposition reached a high of 7.52 g/m<sup>2</sup>/month in November 2013 and a low of in 1.32 g/m<sup>2</sup>/month in July 2013 and May 2014. The average was 2.68 g/m<sup>2</sup>/month.

SQMP07 – This monitoring point was de-commissioned in June 2013 following the cessation of the open pit mining operations at Spotted Quoll.

SQMP08 – This monitoring point was de-commissioned in June 2013 following the cessation of the open pit mining operations at Spotted Quoll.

SQMP09 – For the reporting period, dust deposition reached a high of 6.46 g/m<sup>2</sup>/month in November 2013 and a low of 0.592 g/m<sup>2</sup>/month in July 2013. The average was 2.21 g/m<sup>2</sup>/month.

SQMP10 – This monitoring point was originally a replacement for SQMP04 however it was de-commissioned in June 2013 following the cessation of the open pit mining operations at Spotted Quoll and the subsequent reduction in the use of the waste dump.

SQMP11 – This monitoring point was commissioned at the start of 2011. For the reporting period dust deposition reached a high of 62.5 g/m<sup>2</sup>/month in June 2014 and a low of 1.33 g/m<sup>2</sup>/month in May 2014. The average was 12.95 g/m<sup>2</sup>/month which is higher than is expected. This higher than expected result is due to nearby site infrastructure works being undertaken periodically but

temporarily during the reporting period. WSA will watch this monitor closely over the coming reporting period and implement appropriate dust suppression measures if required. However, dust deposition levels are expected to return to normal during the coming reporting period.

SQMP13 – This monitoring point was commissioned at the start of February 2012 so that dust deposition related to the operation of the new Flying Fox to Cosmic Boy internal haul road could be monitored. For the reporting period dust deposition reached a high of 4.22 g/m<sup>2</sup>/month in September 2013 and a low of 0.758 g/m<sup>2</sup>/month in May 2014. The average was 2.08 g/m<sup>2</sup>/month.

Monitoring Points SQMP12 and SQMP14 were also established temporarily in February 2012 in response to the establishment and operation of the Flying Fox to Cosmic Boy internal haul road however these points were subsequently considered to be redundant and were decommissioned in June 2013.

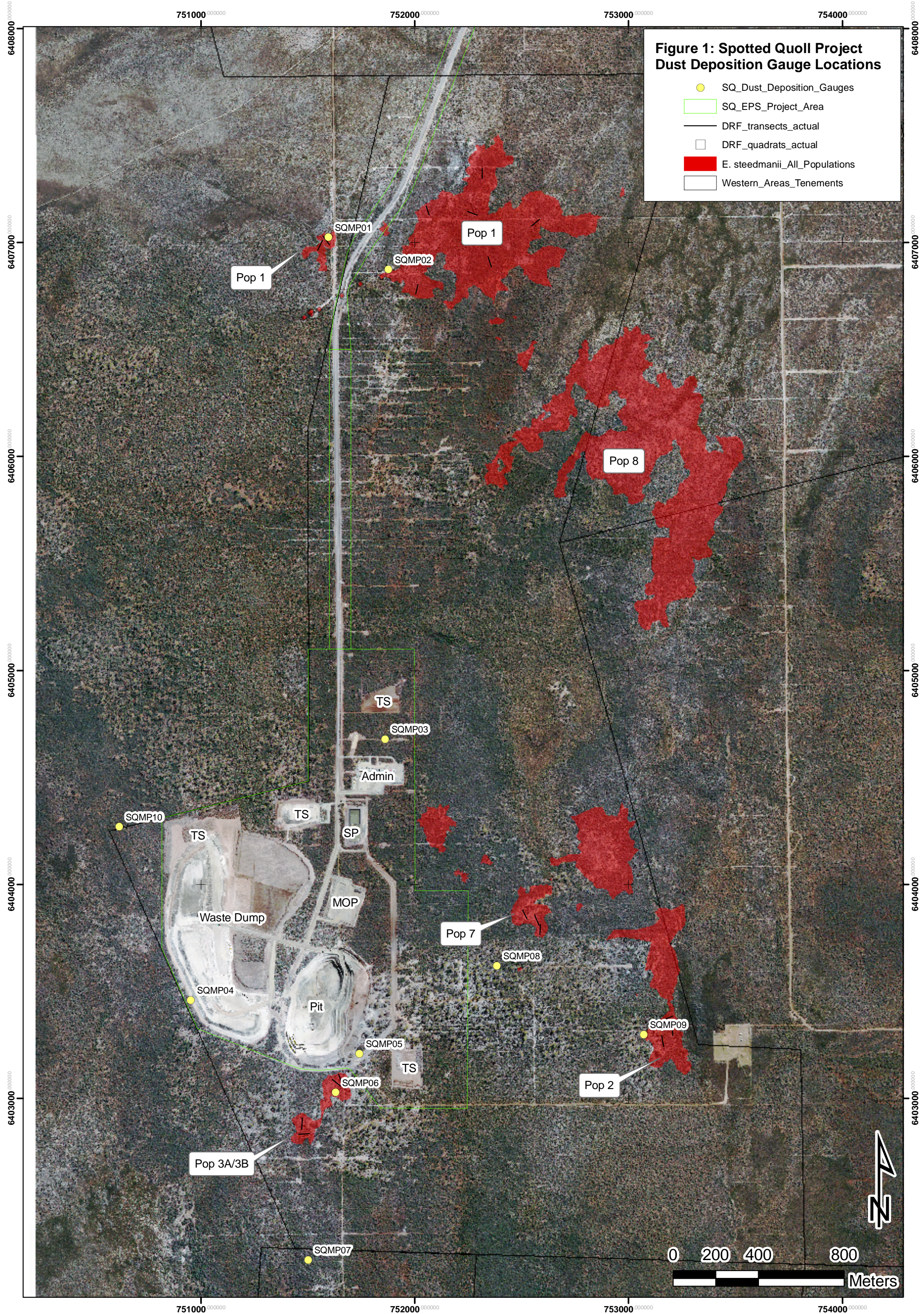
*Eucalyptus steedmanii* monitoring for the reporting period has shown that there has been no visible detrimental impacts to the health of any of the *Eucalyptus steedmanii* populations that occur in the vicinity of the Spotted Quoll project due to dust deposition or other factors.

Regards



Phil Knapton  
Environmental Manager  
Western Areas Ltd





**Figure 1: Spotted Quoll Project  
Dust Deposition Gauge Locations**

- SQ\_Dust\_Deposition\_Gauges
- SQ\_EPS\_Project\_Area
- DRF\_transects\_actual
- DRF\_quadrats\_actual
- E. stedmanii\_All\_Populations
- Western\_Areas\_Tenements

Pop 1

SQMP01

SQMP02

Pop 1

Pop 8

TS

SQMP03

Admin

TS

SP

Waste Dump

MOP

Pit

TS

Pop 7

SQMP08

SQMP09

Pop 2

Pop 3A/3B

SQMP07

0 200 400 800 Meters