

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 – Compliance Branch

Date: September 2015

Western Areas Ltd

Forrestania Nickel Operations - 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: Mang
Name (printed): MANUER LOUGHER
Position: MANAGING DIRECTOR + CEO
Date: 16 109 12015

Seal (if signing under seal):

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 14th February 2012. At the time of submission of this CAR, underground mining continues, and, as confirmed by the Office of the Environmental Protection Authority in their audit report dated 24 April 2015, will continue for a further 10 to 15 years (approximately). Underground mining operations largely utilise infrastructure that was established as a part of the open pit component. Therefore apart from some available sections of the Spotted Quoll waste dump the majority of rehabilitation of the site will not commence until cessation of mining, sometime between 2024 and 2029.

Rehabilitation has commenced on a significant portion of the Spotted Quoll waste dump. Rehabilitation monitoring was undertaken for the first time in Spring 2014. Further rehabilitation monitoring is expected to be undertaken in 2016.

For the reporting period (i.e. 1st July 2014– 30th June 2015) 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 Operations (FNO) are situated approximately 160 kilometres south of Southern Cross and 80 kilometres east of Hyden in the Shire of Kondinin. This is a mining development owned and operated 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 17th 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 2nd 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 24th September 2009 (ref: DEC9635).

On the 7th 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 9th of October 2009.

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

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

Underground mining continues at the Spotted Quoll project and this is likely to continue for a further 10 to 15 years as confirmed by the OEPA in their audit report dated 24 April 2015. Underground mining operations largely utilise infrastructure that was established as a part of the open pit component. Therefore apart from some available sections of the Spotted Quoll waste dump the majority of rehabilitation of the site will not be commence until cessation of mining sometime between 2024 and 2029.

Rehabilitation has commenced on a significant portion of the Spotted Quoll waste dump. Rehabilitation monitoring was undertaken for the first time in Spring 2014. Further rehabilitation monitoring is expected to be undertaken in 2016.

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 CAR is from the 1st July 2014 to the 30th of June 2015 with the report to be submitted on or before the 16th of September 2015.

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

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 9th 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 17th 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.

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 12th of May 2010 that the compliance monitoring database had been updated to reflect their receipt of the CAP, indicating satisfaction with it's content. A letter dated 12th October 2010 was provided advising WSA that the revised CAP submitted on the 24th September 2010 meets the requirements for Condition 4-1 and 4-2 of Ministerial Statement 808.

Condition 4-2

On the 23rd 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 17th of March 2010 in order to meet Condition 4-2. The Draft CAP was submitted to the OEPA on the 10th 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 5th May 2010. A letter dated 12th October 2010 was provided advising WSA that the revised CAP submitted on the 24th 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 17th 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 16th of September 2010 and annually thereafter.

The CAR for the reporting period was submitted on or before the 16th 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 10th of October 2014. Compliance with this condition has been met for the reporting period. The PRR for the 2015 - 2016 reporting period will be submitted on the 8th October 2015.

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 <u>Eucalyptus steedmanii</u> 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 <u>Eucalyptus steedmanii</u> 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 <u>Eucalyptus steedmanii</u> 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 <u>Eucalyptus steedmanii</u> 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 30th of June 2015, 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 OEPA approved Steedman's Gum Conservation Management Plan (CMP). The original CMP was updated in April 2014 and the update approved by the OEPA on the 20th May 2014. During the reporting period there was a transition from monitoring against the original CMP schedule to the monitoring schedule of the updated CMP. Results of the first 2 quarters of the new monitoring schedule 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 30th of June 2015 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 30th 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 <u>Environmental</u> <u>Protection Statement for the Proposed Spotted Quoll Mine</u>, prepared by Coffey Environments Pty Ltd, Perth, Western Australia (July 2009) to prevent adverse impacts to Malleefowl along the haul road.

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. An ongoing Malleefowl mound monitoring program has been established and educational awareness is ongoing through general environmental inductions at the FNO.

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.

* <u>Guidance for the Assessment of Environmental Factors: Rehabilitation of Terrestrial Ecosystems:</u> <u>No 6</u>, 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 and is now complete.

Condition 8-2

The Rehabilitation and Mine Closure Plan (RMCP) was submitted on the 26th July 2010. Comments from the DMP were received on the 14th October 2010. Comments from the OEPA were received on the 28th July 2011. Further advice from the OEPA on the 22^{nd} August 2011 was that the revised RMCP should be submitted once the Section 46 application (submitted on 3rd 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 and this covered all sites across FNO including Spotted Quoll. 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.

To date some progressive rehabilitation activities have been undertaken across FNO in line with the RMCP. This includes rehabilitation undertaken over a significant portion of the Spotted Quoll waste dump. The first round of rehabilitation monitoring was undertaken in Spring 2014. Further rehabilitation monitoring is expected to be undertaken in 2016.

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.

Number	Subject	Compliance met for current reporting period (1 st July 2014 – 30 th June 2015)
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</i> <i>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.	Yes. Condition complete.
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	Yes. Condition complete.

Table 1: Summary statement of project compliance with implementation conditions

	compliance accessment plan shall indicate:	l
	compliance assessment plan shall indicate:	
	1 the frequency of compliance reporting;	
	 the approach and timing of compliance assessments; 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.	
808:M4.3	The proponent shall assess compliance with conditions in	Yes.
	accordance with the compliance assessment plan required by	
808:M4.4	condition 4-1. The proponent shall retain reports of all compliance assessments	Yes.
000.1114.4	described in the compliance assessment plan required by	100.
	condition 4-1 and shall make those reports available when	
	requested by the Chief Executive Officer of the Department of Environment and Conservation.	
808:M4.5	The proponent shall advise the Chief Executive Officer of the	Yes.
	Department of Environment and Conservation of any potential	
	non-compliance within two business days of that non-compliance	
808:M4.6	being known. Condition 4-6: The proponent shall submit a compliance	Yes
	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.	
808:M5.1	The proponent shall submit to the Chief Executive Officer of the	Yes, submitted on 10/10/13.
	Department of Environment and Conservation, a Performance Review Report at the conclusion of the first year after the start of	
	implementation and then annually.	
808:M6.1	The proponent shall not cause the loss of the Declared Rare Flora	Yes.
000 140 0	Eucalyptus steedmanii from the implementation of the proposal.	
808:M6.2	Prior to ground disturbing activities, the proponent shall undertake baseline monitoring of the health and abundance of the Declared	Yes. Condition complete.
	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)	
808:M6.3	identified in Figure 3, schedule 1. The proponent shall monitor impacts on the health and abundance	Yes.
	of the Declared Rare Flora Eucalyptus steedmanii 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.	
808:M6.4	The proponent shall submit annually the results of monitoring	Yes.
	required by condition 6-3 to the Chief Executive Officer of the	
808:M6.5	Department of Environment and Conservation. In the event that monitoring required by condition 6-3 indicates a	Not applicable for reporting period.
500.00.5	decline in the health or abundance of Declared Rare Flora	
	Eucalyptus steedmanii outside the areas to be cleared:	
	1 the propagant shall report such findings to the Object	
	 the proponent shall report such findings to the Chief 	
	Executive Officer of the Department of Environment and	
	Executive Officer of the Department of Environment and Conservation within 21 days of the decline being	
	Conservation within 21 days of the decline being identified;	
	Conservation within 21 days of the decline being identified; 2. provide evidence which allows determination of the	
	Conservation within 21 days of the decline being identified;	

		· · · · · · · · · · · · · · · · · · ·
	 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 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. 	
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</i> <i>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	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.	Yes. Condition complete.
808:M8.2	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. The Rehabilitation and Mine Closure Plan shall provide for specific outcomes for:	Yes. The current RMCP was accepted by both the OEPA and the DMP during the reporting period.
	 landform design and material characterisation; 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; progressive rehabilitation timelines and monitoring against key performance indicators; annual reporting procedures; procedures to review and revise the Rehabilitation and Mine Closure Plan; Measures for preventing groundwater contamination outside the final pit void; and 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. 	
	* <u>Guidance for the Assessment of Environmental Factors:</u> <u>Rehabilitation of Terrestrial Ecosystems: No 6</u> , Environmental Protection Authority, 2006.	
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^{st} July 2014 – 30^{th} June 2015) 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.

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Phil Knapton Environmental Manager Western Areas NL Ph: 9334 7777 Email: <u>pknapton@westernareas.com.au</u>

Figures

Figure 1 – Location of Forrestania Nickel Project in Western Australia Figure 2 – Spotted Quoll project – general site layout plan

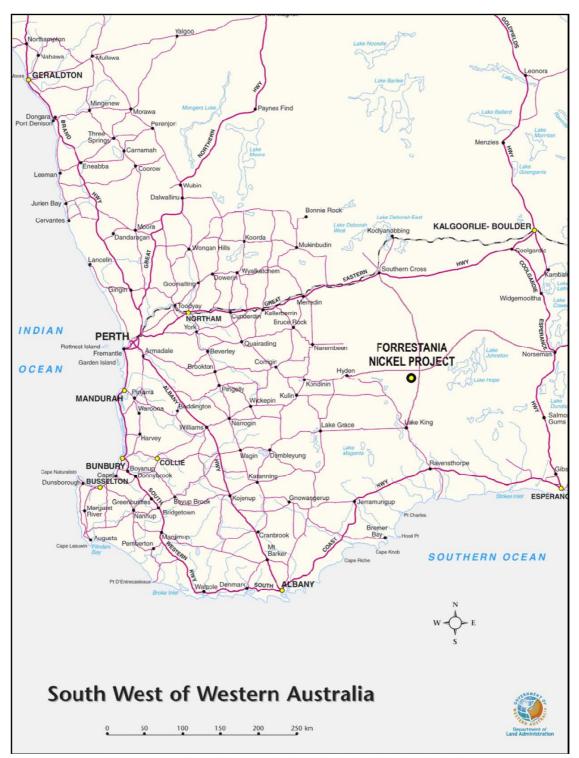
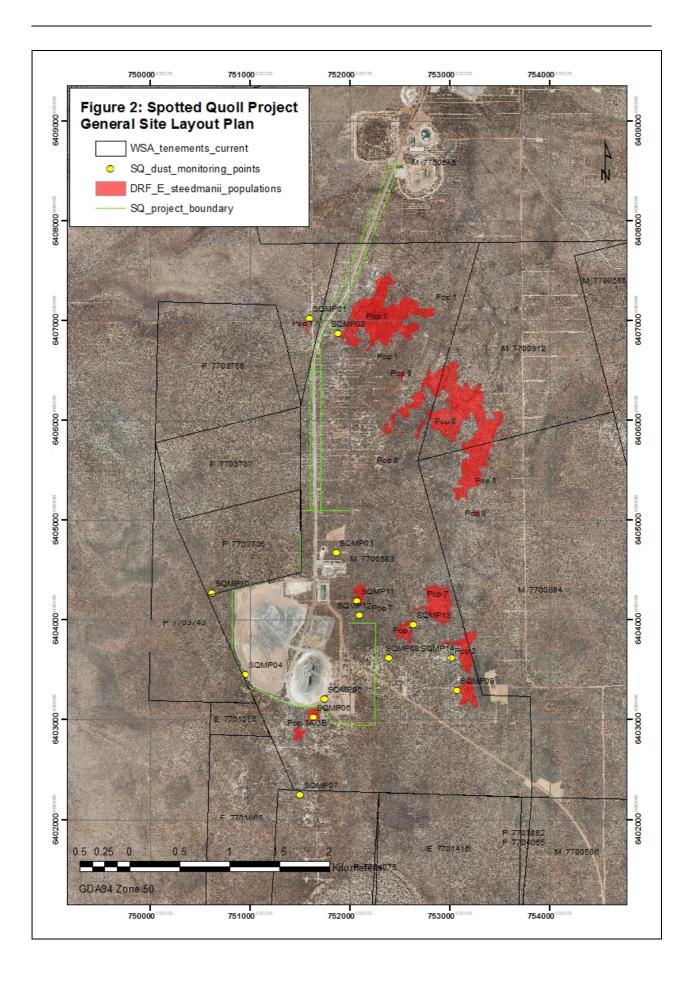


Figure 1: Location of Forrestania Nickel Project in Western Australia



Appendices

Appendix 1 - Eucalyptus steedmanii monitoring summary report



Site Administration: Forrestania Nickel Operations Ph: (08) 98910200 Fax: (08) 98910201 Website: www.westernareas.com.au Head Office: Level 2, 2 Kings Park Road West Perth, Western Australia 6005 (PO Box 1891, West Perth WA 6872) Ph: (08) 9334 7777 Fax: (08) 9486 7866

REPORT

To: Phil Knapton
CC: Cheyne Jowett; Amy Hefferon and Duane Byrnes
From Ashleigh Harris
Date: 07th August 2015
Subject: *Eucalyptus steedmanii* second quarter 2015 health status report

The Declared Rare Flora (DRF) *Eucalyptus steedmanii* populations and dust deposition sample points near the Spotted Quoll mine were monitored as per the *Eucalyptus steedmanii* Management Plan for the 2015 second quarter, which was revised by Astron Environmental in 2014.

It was decided during *E. steedmanii* monitoring that field observers would not refer to previous field results. Some difficulties faced during monitoring were:

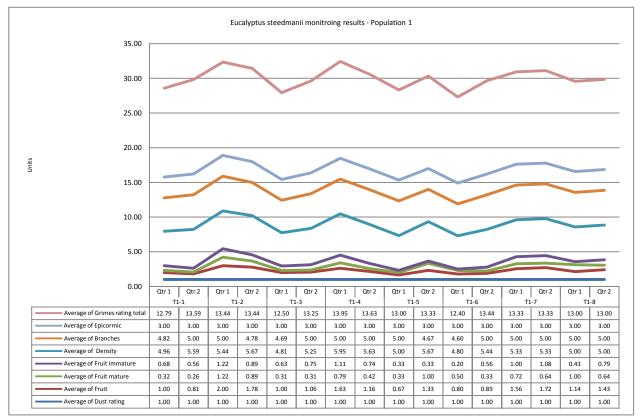
- maintaining objective fruit and density ratings;
- location of T1-1;
- transect signs had fallen over and were no longer visible from a distance; and
- identification of individual trees along transects where tags were no longer present i.e. fallen off or degraded and unreadable.

Dust deposition monitoring bottles were set out on the 05/04/2015 and collected on the 22/07/2015 for SQMP01; 02; 06; 08; 09; and 13. All sampling was undertaken as per AS/NZS 3580.10.1:2003 to measure the amount of dust deposited into population areas of *E. steedmanii*. Wind speed data from the Spotted Quoll weather station has also been included.

Results for *E. steedmanii* transect monitoring:

Population One

Population one has eight transects (T1-1; T1-2; T1-2; T1-4; T1-5; T1-6; T1-7; and T1-8). There is no indication that this populations health is significantly declining.



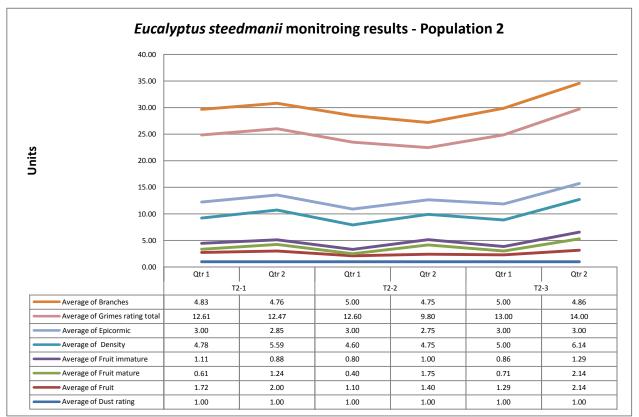
Graph 1: Population One

Population Two

Population two has three transects (T2-1; T2-2; and T2-3). There is some dodder (parasitic plant) present on some trees in T2-1. Three trees were recorded as dead T2-1 (46.8m #2); T2-2 (20.8m #2) and T2-2 (50.0m). The health in T2-2 has declined. It appears that bad weather has caused some trees along and around this transect to fall over, or some branches to snap and fall from individual trees (Figure 1). Overall, there is no indication that this population's health is significantly declining.



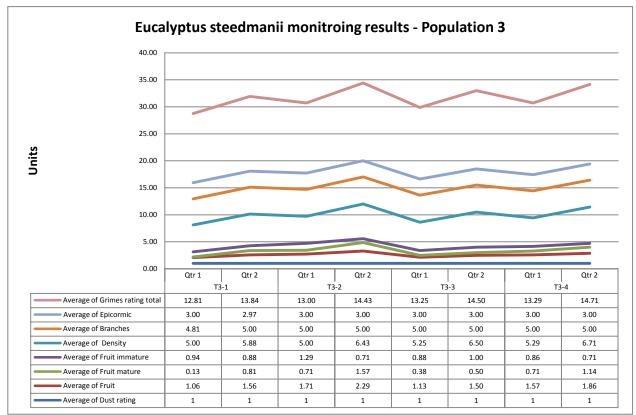
Figure 1: Transect Two – snapped branches on Eucalyptus steedmanii tree



Graph 2: Population Two

Population Three

Population three has four transects (T2-1; T2-2; T2-2 and T2-4). There is no indication that this populations health is significantly declining.



Graph 3: Population Three

Population Seven

Population seven has three transects in total (T7-1; T7-2; and T7-2). Two trees were recorded as dead T7-1 (27.9m) and T7-2 (44.7m #7). One tree was infested with black ants. The fruit on this

tree were also unusual (Figures 2-4). Overall, there is no indication that this populations health is significantly declining.



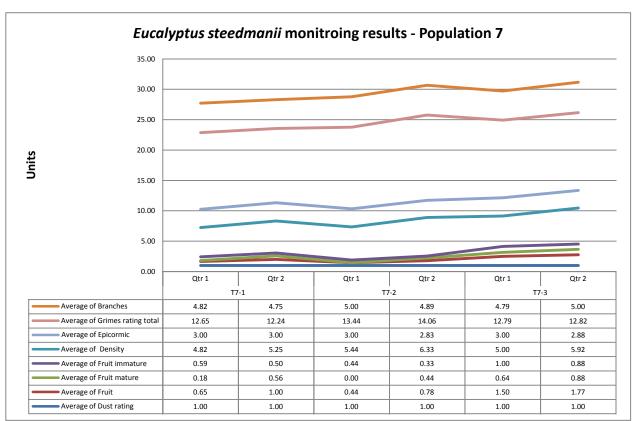
Figure 2



Figure 3



Figure 4

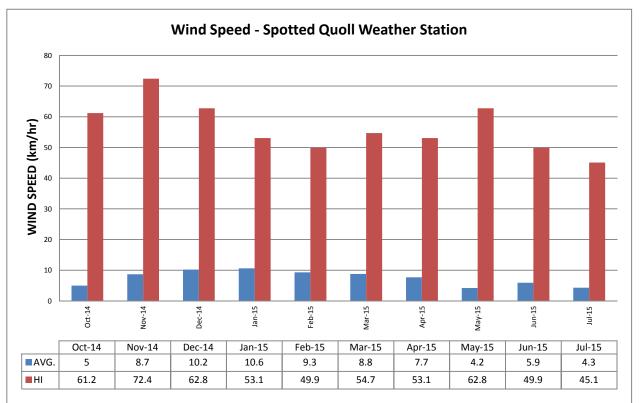


Graph 4: Population Seven

Results for Dust Deposition monitoring:

The average rate of dustiness for all transects was 1; negligible. Dust deposition results ranged from $0.02 - 0.09 \text{ g/m}^2/\text{month}$ for the monitoring period (April 2015 to July 2015), Appendix 1. The highest results were to the south (SQMP06 near Population 3) and east (SQMP08 in Population 7) of the Spotted Quoll pit. Dust Deposition results from either side of the FF-SQ Haul Road in Population 1 were the next highest.

Data from the Spotted Quoll weather station showed that on average April was the windiest month during the second quarter, although the highest wind speed was recorded in May, Graph 5.



Graph 5: Wind Speed Data – Spotted Quoll Weather Station

Conclusion:

The overall health of all populations has remained stable since the first quarter. Dodder is present on some trees within some transects which will have an impact on the health of these trees. Dust was negligible on all trees within all transects. Ratings and their descriptions have been included as Appendix 2. A map of the *E. steedmanii* populations and transects is included as Appendix 3.

Dust is said to stress vegetation by blocking stomata and limit plant growth, and is more likely to be a hazard close to the mine e.g. less than 1,000 m. There was no evidence of extreme levels of dust deposition occurring within any of the populations during this monitoring period.

Recommendations:

The following recommendations have been made to improve the DRF monitoring project:

- tags are replaced on trees where they are no longer present or difficult to interpret;
- monitoring is undertaken by two field observers to improve accuracy and efficiency;
- signs are re-installed and secured where they have fallen over;
- field observers carry a hand-held GPS with transects uploaded into the memory to locate transects during monitoring;
- field record books are updated to include ratings on the same sheet to avoid flipping back and forth through each book while undertaking the monitoring;
- field record books are updated to remove the 'Health (0-3)' column from each transect record sheet;
- field record books are updated to include a section for field observers to write their name/s down when undertaking the monitoring.

Ashleigh Harris Senior Environmental Adviser – Forrestania Nickel Operations

Appendix 1: DUST DEPOSITION RESULTS

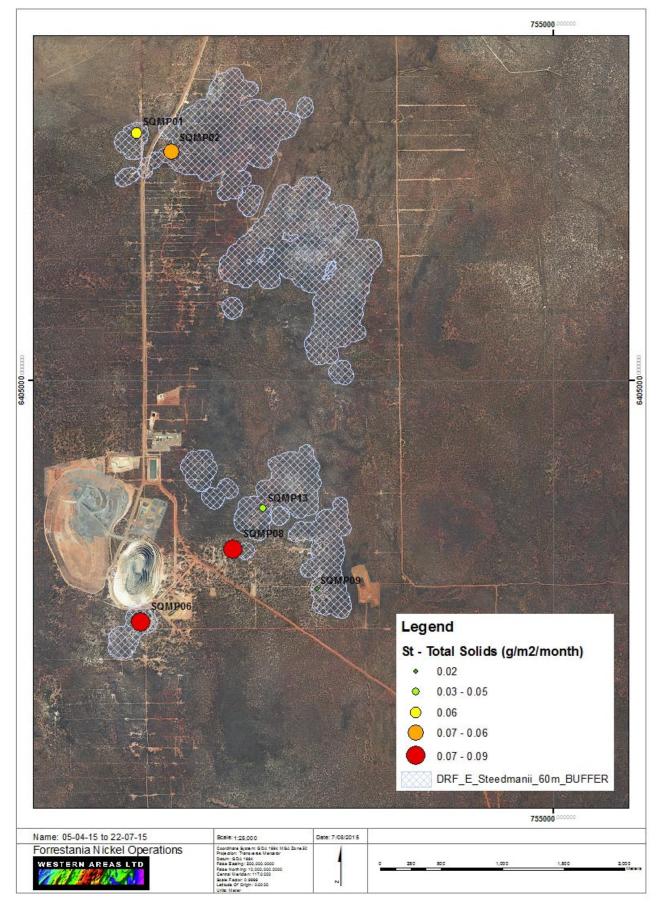


Table 1		
Dust deposition rating	Descriptor	Definition
1	Negligible	No dust obvibusly on plant. Virtually no cloud of dust when plant is shaken. No trace of dust when rubbing plant.
2	Low	Thin layer of dust apparent on leaves/stems. Dust may or may not come off when plant is shaken. Only very small amount of dust can be rubbed off. Amount of dust too little to be noticeable between fingers.
ß	Moderate	Plant obviously covered in dust but leaf colour plainly visible. Dust falls off in a thin cloud when plant is shaken. Dust can be rubbed off plant. Grit/powder noticeable between fingers, smear thin when wet.
4	High	Plant covered in dust, but leaf colour is faintly visible through dust layer. Dust falls off in a cloud when plant is shaken. Dust can be rubbed off plant. Grit/powder noticeable between fingers, smear opaque when wet.
S	Extreme	Dust is caking the plant thickly, leaf/stems take on colour of dust. Dust falls off in a thick cloud when plant is shaken. Dust can be rubbed off leaves or stems. Dust feels powdery/gritty between fingers, smear clayey when wet.

7

Definition	Attribute not present.	Attribute is present but not readily visible.	Attribute is clearly visible throughout the crown.	Attribute dominates the appearance of the crown.
Descriptor	Absent	Scarce	Common	Abundant
Abundance Rating	0	1	2	3

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Table 3 Grimes health rating 0 - 17	g0-17
Crown density 9 very dense	Very dense leaf clumps with even distribution of clumps over the crown. Very little light penetrating the leaf clumps.
7 dense	Dense leaf clumps distributed evenly over the crown.
5 average	Clumps of average density with reasonable distribution or dense clumps very unevenly spread.
3 sparse	Clumps are sparse and poorly spread.
1 very sparse	Very few leaves anywhere in the crown.
Dead branches 5 nil	No visible dead branches or branchlets/shoots in the crown.
4 dead terminal shoots	On close inspection some dead terminal branches are evident but not over all the crown.
3 dead smail branches	Some small branches are dead but not over all the crown. These are easily observed but do not give the impression of seriously affecting the crown.
2 dead main branches	Some large and/or small branches dead over part of the crown with the obvious impression of serious branch death.
1 dead main branches	Large and small branches dead over most of the crown which is obviously dying.
Crown epicormic growth 3 nil	Limbs clean, growth concentrated at branch extremities.
2.5 slight	Slight epicormic growth can be seen in part of the crown.
2 moderate	Moderate epicormic growth is present over most of the crown.
1.5 severe on crown or stem	Epicormic growth is evident over most of the crown.

Appendix 2: RATINGS AND THEIR DESCRIPTIONS

Appendix 3: MAP OF EUCALYPTUS STEEDMANII POPULATIONS AND TRANSECTS

