



# Compliance report

Byerwen Coal Project, Queensland  
EPBC 2010/5778  
9 December 2019 to 8 December 2020



05 March 2021

**Document version control**

Report type	Report to the Commonwealth Department of the Environment and Energy
Reporting period	9 December 2019 to 8 December 2020
Author(s)	Environment – Byerwen Coal Pty Ltd
Address	Level 15, 40 Creek Street, Brisbane Qld 4000 PO Box 10630, Brisbane Qld 4000
Tenure holder	Byerwen Coal Pty Ltd
Date of report	05 March 2021
Dispatched via	Email

**Revision summary**

Author	Version	Date
Environment – Byerwen Coal Pty Ltd	1.0	05 March 2021

## Table of contents

1	Introduction .....	1
1.1	Byerwen Coal corporate details .....	2
1.2	Description of activities .....	2
2	EPBC approval conditions compliance table .....	5
Appendix A	Approval, 2 October 2014 .....	15

## Tables

Table 1 – EPBC approval conditions compliance table.....	6
--	---

## Table of figures

Figure 1 – Byerwen Coal Mine location .....	3
---	---

*Intentionally blank*

# 1 Introduction

The Byerwen Coal Mine (BCM) is an open cut coal mine located in the northern Bowen Basin approximately 20 km west of the town of Glenden and is operated by Byerwen Coal Pty Ltd (Byerwen Coal) ABN 64 133 357 632. Approval under section 130(1) and 133 of the *Environment Protection & Biodiversity Conservation Act 1999* was granted on 2 October 2014 to Byerwen Coal (see **Appendix A**). The EPBC Act referral and approval reference is 2010/5778. A variation to the approval was granted on 2 April 2020 to update Conditions 1 and 3, change the definition of Project Area, and update Attachments A1 and A2 (see **Appendix B**)

Construction commenced on 8 December 2015, and the Byerwen Coal Project is now referred to as the BCM. The approval is subject to 22 conditions and remains in effect until 1 October 2044. This compliance report is required by Condition 16 of the approval and has been prepared for the Commonwealth Department of Environment and Energy (DoEE). The *Annual Compliance Report Guidelines* (DoE, 2014) were referenced during the drafting of this report. The reporting period for this compliance report is 9 December 2019 to 8 December 2020.

The approved action is as follows:

**Approved action:**

*To develop and operate an open-cut coal mine and associated infrastructure, located approximately 20 km west of Glenden in Queensland*

The EPBC Act approval decision encompasses the following controlling provisions:

<b>Controlling Provision</b>	<b>Decision</b>
<i>Listed threatened species and communities (sections 18 &amp; 18A)</i>	<i>Approve</i>
<i>Listed migratory species and communities (sections 20 &amp; 20A)</i>	<i>Approve</i>
<i>A water resource, in relation to coal seam gas developments and large coal mining development (sections 24D &amp; 24E)</i>	<i>Approve</i>

## 1.1 Byerwen Coal corporate details

Byerwen Coal is a joint venture between QCoal Pty Ltd (QCoal) and JFE Steel. QCoal is a privately-owned Queensland company based in Brisbane and has been active in the Queensland coal exploration and mining industry since 1989. JFE Steel is a subsidiary of the JFE Group of Japan. The JFE Group is Queensland's largest export customer and JFE Steel is one of the largest customers of Queensland-sourced coking coal.

Street address:	Byerwen Coal Pty Ltd Level 15/40 Creek Street Brisbane QLD 4000
Postal address:	Byerwen Coal Pty Ltd PO Box 10630 Brisbane QLD 4000
Contact number:	(07) 3002 2900

## 1.2 Description of activities

The BCM is an open-cut mining operation located in the northern Bowen Basin, approximately 20 km west of the township of Glenden. Access to the BCM is via the State-controlled Collinsville-Elphinstone Road, and the Newlands rail system, which connects to the Port of Abbot Point (see **Figure 1**).

The BCM is permitted to extract up to 15 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal to produce approximately 10 Mtpa of combined coking and thermal coal products for the export market. The BCM operates 24 hours a day, 7 days a week.

The main stratigraphic unit of interest is the Moranbah Coal Measures, which are part of the Blackwater Group. The Moranbah Coal Measures are characterised by seven persistent coal seams, with the principal seams of economic interest being the Goonyella Lower (6 to 8 m thick) and Goonyella Middle (6 to 10 m thick). This unit conformably overlies the marginal marine Exmoor Formation.

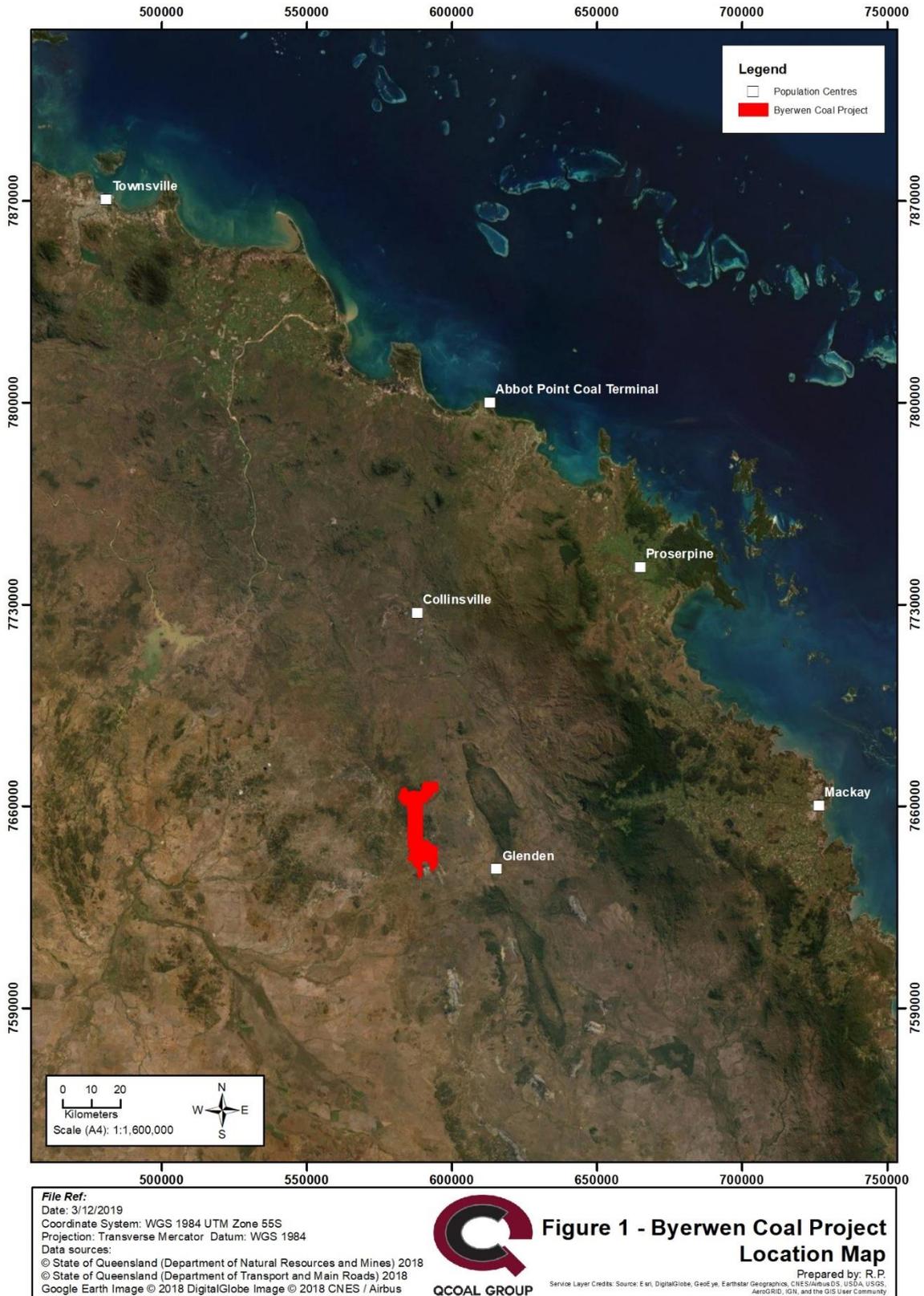


Figure 1 – Byerwen Coal Mine location

## 1.3 Declaration of accuracy

As recommended in section 3.1 of the *Annual Compliance Report Guidelines* (DotE 2014), the following declaration of accuracy is provided by the approval holder.

In making this declaration, I am aware that sections 490 and 491 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) make it an offence in certain circumstances to knowingly provide false or misleading information or documents. The offence is punishable on conviction by imprisonment or a fine, or both. I declare that all the information and documentation supporting this compliance report is true and correct in every particular. I am authorised to bind the approval holder to this declaration and that I have no knowledge of that authorisation being revoked at the time of making this declaration.

Signed: 

Full name: Christopher Ian Wallin

Position: Director

Organisation: Byerwen Pty Ltd ABN 64 133 357 632

Date: 5 March 2021

## 2 EPBC approval conditions compliance table

The conditions attached to the varied approval granted on 2 April 2020 are replicated in **Table 1** and a statement of compliance for each condition is included. A copy of the original approval is provided as **Appendix A**, with the varied approval attached as **Appendix B**.

Table 1 – EPBC approval conditions compliance table

Condition number/reference	Condition	Is the project compliant with this condition?	Evidence/comments
1	The project area is the area designated at Attachments A1 and A2 comprising the following seven mining lease applications (MLA) 10355, 10356, 10357, 70434, 70435, 70436, 700058.	Compliant	Works have only been undertaken within the project area as presented in Attachments A1 and A2 of the approval. Please note: Mining Lease Application (MLA) 70435 was granted on 16 April 2014. MLA 70434 and MLA 70436 were granted on 27 April 2017, and MLA 700058 was granted on 2 September 2020. This has resulted in these tenements becoming granted Mining Leases (MLs)
2	For the purposes of the action, approval holder must not clear outside the project area.	Compliant	No clearing has been undertaken outside of the project area.
3	The approval holder must not clear more than: <ul style="list-style-type: none"> <li>a) 704 hectares of primary habitat for the Squatter Pigeon (southern)</li> <li>b) 908 hectares of primary habitat for the Ornamental Snake</li> <li>c) 1115 hectares of primary habitat for the Black-throated Finch (southern)</li> <li>d) 358 hectares of Brigalow (<i>Acacia harpophylla</i> dominant and co-dominant)</li> <li>e) 179 hectares of Natural Grasslands of the Queensland Central Highlands and the northern Fitzroy Basin</li> <li>f) 109 hectares of Semi-evergreen vine thickets of the Brigalow Belt (North and South) and Nandewar Bioregions</li> </ul>	Compliant	The prescribed disturbance limits have not been exceeded.

4	<p>If the disturbance limits stated in Condition 3 of this approval are predicted to be exceeded, the approval holder must contact the Department in writing 20 business days before reaching the disturbance limit and provide for the Minister's approval:</p> <ul style="list-style-type: none"> <li>a) the actual and predicted amount of disturbance in hectares for each EPBC Act listed species and community</li> <li>b) justification why the approved disturbance limits require increasing, alternatives, and proposed actions to avoid, mitigate and manage impacts</li> <li>c) an assessment of the impact and residual impact to the EPBC Act listed species or community in accordance with the EPBC Act Significant Impact Guidelines</li> <li>d) a proposal to offset additional impacts to EPBC Act listed species and communities in accordance with the EPBC Act Environmental Offsets Policy in force at the time.</li> </ul>	Compliant	The prescribed disturbance limits have not been exceeded.
5	<p>The approval holder must submit a Biodiversity Offset Management Plan (BOMP) to the Department for the Minister's approval, outlining how offsets to address the residual impacts to <i>Brigalow (Acacia harpophylla dominant and co-dominant, Semi-evergreen Vine Thickets of the Brigalow Belt (North and South) and Nandewar Bioregions, Natural Grasslands of the Queensland Central Highlands and the northern Fitzroy Basin</i>, the Ornamental Snake (<i>Denisonia maculata</i>) and the Squatter pigeon (southern) (<i>Geophaps scripta scripta</i>), will be managed. The approved BOMP must be implemented.</p>	Compliant	<p>On 30 September 2016 Byerwen Coal submitted the <i>Byerwen Coal Mine: Offset Delivery Plan</i> (the BOMP) (dated 28 September 2016) to the Department. A revised BOMP was submitted on 23 December 2016 and was approved on 20 January 2017. A Stage 1a BOMP for further disturbance was submitted for assessment on 7 November 2017 and was approved on 10 December 2018. A Stage 2 BOMP was submitted to the department on 22 July 2019, and was approved on 7 February 2020. A Stage 2a BOMP was submitted to the department on 31 March 2020, and was approved on 29 April 2020. The approved BOMP is currently implemented.</p>
6	<p>The BOMP must be submitted for approval within twelve months after the commencement of construction.</p>	Compliant	<p>Construction commenced on 8 December 2015, and the BOMP was submitted on 30 September 2016. No clearing of EPBC Act listed</p>

	<p>Clearing of EPBC Act listed species and communities must not occur until the BOMP is approved by the Minister in writing.</p>		<p>species or communities was undertaken prior to ministerial approval of the BOMP, received on 20 January 2017.</p>
<p style="text-align: center;">7</p>	<p>The BOMP must include, but is not limited to:</p> <ul style="list-style-type: none"> <li>a) maps of the offset area/s inclusive of the distribution and extent (in hectares) of the EPBC Act listed species and communities to be offset in electronic Geographic Information System format</li> <li>b) evidence that the offsets are consistent with the Department's <i>Environmental Offsets Policy</i> (October 2012)</li> <li>c) details of how the offset <i>area/s</i> have been or will be legally secured to provide long-term protection</li> <li>d) detailed on-ground surveys, complying with relevant survey guidelines, and description of the baseline condition, attributes and values of the offset area/s with respect to EPBC Act listed species and communities</li> <li>e) management measures (including timing, frequency and longevity) for each of the EPBC Act listed species and communities and other vegetation within the offset area/s with written evidence of input from a suitably qualified expert who has relevant expertise in the management of native vegetation of the Bowen Basin</li> <li>f) details of how the management measures align with the relevant Conservation Advice, Recovery Plans and Threat Abatement Plans for the EPBC Act listed species and communities to be offset</li> <li>g) discussion of connectivity of the offset area/s with other habitats and biodiversity corridors</li> <li>h) a description of the risks to the successful implementation of the BOMP, including mitigation measures and residual risk ratings</li> </ul>	<p style="text-align: center;">Compliant</p>	<p>The approved BOMP satisfies the requirements of Condition 7.</p> <p>The first annual report for the offset areas has been provided as <b>Appendix B</b>.</p>

	<p>i) a monitoring program for the offset area/s which must:</p> <ul style="list-style-type: none"> <li>i. clearly set out performance indicators and milestones</li> <li>ii. detail how the success of the management measures against the performance indicators and milestones will be measured, recorded and reported</li> <li>iii. include monitoring scope and parameters, timing, frequency, triggers and corrective actions</li> <li>iv. detail how adaptive management strategies will be incorporated</li> <li>v. outline how compliance will be reported</li> <li>vi. detail who will be undertaking monitoring, reporting, review, and implementation of the BOMP (if this person is not the approval holder).</li> </ul>		
8	<p>The BOMP must be updated, within a timeframe specified by the Minister, to include any changes to the offsets approved by the Minister. Updates must be consistent with the requirements in Condition 7.</p>	Compliant	<p>The delegate to the Minister, Greg Manning, approved a change to the impact area and associated offset on 8 March 2018, with a deadline of 12 April 2018 to submit a revised BOMP. A revised BOMP, consistent with the requirements of Condition 7, was submitted for approval on 12 April 2018.</p>
9	<p>The approval holder must, within two years of the commencement of construction (or as required under relevant Queensland legislation), register a legally binding conservation mechanism to provide long-term protection to the offset area/s approved by the Minister in the BOMP.</p> <p>Note 1: To ensure efficiency the approval holder may prepare and align the BOMP required under the conditions of approval with the requirements of the Biodiversity Offset Strategy required under the Queensland Environmental Authority, as long as the</p>	Compliant	<p>Construction commenced on 8 December 2015. A Voluntary Declaration (VDec) (being the elected legally binding conservation mechanism) was lodged on 8 December 2017 and has subsequently been certified. A VDec for the Stage 2 and 2a offsets was lodged on 3 June 2020 and was certified on 16 September 2020.</p>

	relevant matters under the conditions of this approval are clearly and adequately addressed.		
10	The approval holder must submit a Groundwater Monitoring and Management Plan (GMMP) to the Department for the Minister's approval. The approved GMMP must be implemented.	Compliant	A GMMP was submitted to the Department on 17 November 2015 and was approved by the Minister on 22 December 2015. Since receiving ministerial approval, the GMMP has been implemented.
11	The GMMP must be approved by the Minister in writing prior to the commencement of dewatering activities in the mining pits detailed in Chapter 3 of the Environmental Management Plan.	Compliant	The GMMP was approved in writing by the Minister on 22 December 2015.
12	<p>The GMMP must include, but is not limited to:</p> <ul style="list-style-type: none"> <li>a) the groundwater quality and/or level triggers as described in the Queensland Environmental Authority in force at the time</li> <li>b) a detailed description of the actions, including timeframes, the approval holder will take if groundwater quality and level triggers are exceeded or predicted to be exceeded</li> <li>c) a strategy to conduct a landholder bore survey to determine water supply bores and water users in the vicinity of the project that may be impacted by mining activities and the potential to incorporate those bores into the groundwater monitoring program</li> <li>d) details of how the existing groundwater monitoring program will be expanded to better determine surface water/groundwater interaction, including monitoring locations, parameters to be measured, monitoring frequency and reporting requirements</li> <li>e) a groundwater model to simulate and quantify groundwater drawdown extent and flow impacts on the Suttor River, and validate the assumptions and potential risks and impacts of the project on</li> </ul>	Compliant	The approved GMMP satisfies the requirements of Condition 12.

	<p>groundwater resources identified in the EIS documents. The model must be developed with reference to the <i>National Water Commission Groundwater Modelling Guidelines</i> and must include a monitoring strategy to validate the model.</p> <p>f) the methods, frequency and timeframes in which the GMMP and groundwater model will be reviewed.</p> <p>Note 1: The Minister may by written request, require the GMMP be reviewed by a suitably qualified expert. Following any review, the GMMP must be revised and updated accordingly and submitted to the Minister for approval.</p> <p>Note 2: The GMMP does not need to be submitted for an early works bulk sample pit.</p> <p>Note 3: To ensure efficiency the approval holder may prepare and align the GMMP required under the conditions of approval with the requirements of the groundwater monitoring program required under the Queensland Environmental Authority, as long as the relevant matters under the conditions of this approval are clearly and adequately addressed.</p>		
13	<p>The approval holder must notify the Department in writing within 10 business days if the groundwater quality and/or trigger levels referred to in Condition 12 of this approval are exceeded and the results of required investigations indicate the exceedance is a result of mining activities. If requested, the approval holder must provide copies of any exceedance investigation documents to the Department in a timeframe agreed in writing by the Department, which state the cause, response and actions undertaken to prevent further occurrences.</p>	Compliant	No notification requirements have been triggered to date.

14	<p>Within 20 business days after the commencement of construction, the approval holder must advise the Department in writing of the actual date of the commencement of construction.</p>	Compliant	<p>Construction commenced on 8 December 2015. 12 business days later, on 23 December 2015, the Department was notified of the commencement of construction via email and post.</p>
15	<p>The approval holder must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement management plans, strategies, reports required by this approval, and make them available upon request to the Department. Such records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the Department's website. The results of audits may also be publicised through the general media.</p>	Compliant	<p>Records of all activities associated with, or relevant to, the conditions of approval, including measures taken to implement management plans, strategies, and reports required by the approval are held by Byerwen Coal.</p>
16	<p>Within 60 business days of every 12 month anniversary of the commencement of construction, the approval holder must publish a report on their website addressing compliance with each of the conditions of this approval, including implementation of any management plans, strategies, reports as specified in the conditions. Documentary evidence providing proof of the date of publication and non-compliance with any of the conditions of this approval must be provided to the Department at the same time as the compliance report is published. The compliance reports must remain on the website for the period the approval has effect.</p>	Compliant	<p>Publication and submission of this compliance report will be undertaken on or prior to 5 March 2021.</p> <p>All previous compliance reports have complied with this condition.</p>
17	<p>Potential or actual contraventions of the conditions of approval must be reported to the Department in writing within two business days of the approval holder becoming aware of the actual or potential contravention</p>	Compliant	<p>To date, no contraventions of the conditions of approval, potential or actual, have occurred at the BCM.</p>

	unless otherwise stated. All contraventions must be included in the compliance reports.		
18	Upon the direction of the Minister, the approval holder must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the Minister. The independent auditor must be approved by the Minister prior to the commencement of the audit. Audit criteria must be agreed to by the Minister and the audit report must address the criteria to the satisfaction of the Minister.	Not applicable	An independent audit of compliance has not been requested by the Minister during the reporting period.
19	If the approval holder wishes to carry out any activity otherwise than in accordance with the management plans, strategies, reports as specified in the conditions, the approval holder must submit to the Department for the Minister's approval a revised version of that management plan, strategy, report. The varied activity shall not commence until the Minister has approved the varied management plan, strategy, report in writing. If the Minister approves the revised management plan, strategy, report, that management plan, strategy, report must be implemented in place of the management plan, strategy, report originally approved	Not applicable	BCM operations have been undertaken in accordance with the management plans, strategies and reports specified in the conditions.
20	If the Minister believes that it is necessary or convenient for the better protection of EPBC Act listed species and communities or a water resource to do so, the Minister may request that the approval holder make specified revisions to the management plans, strategies, reports specified in the conditions and submit the revised management plans, strategies, reports for the Minister's written approval. The approval holder must comply with any such request. The revised approved management plans, strategies, reports must be implemented. Unless	Not applicable	Requests from the Minister have not been received during the reporting period.

	the Minister has approved the revised management plans, strategies, reports, then the approval holder must continue to implement the management plans, strategies, reports originally approved, as specified in the conditions.		
21	If, at any time after five years from the date of this approval, the approval holder has not substantially commenced the action, then the approval holder must not substantially commence the action without the written agreement of the Minister.	Not applicable	The approval is dated 2 October 2014, and the action commenced on 8 December 2015, within the five-year period.
22	Unless otherwise agreed to in writing by the Minister, the approval holder must publish all management plans, strategies, reports referred to in these conditions of approval on their website. Each management plan, strategy, report must be published on the website within 20 business days of being approved. The approval holder must notify the Department with five business days of publishing the management plan, strategy, report on their website and the management plan, strategy, report must remain on the website for the period the approval has effect.	Compliant	<p>The approved <i>Groundwater Monitoring and Management Plan – Byerwen Coal Project</i>, and <i>Byerwen Coal Mine: Offset Delivery Plan EPBC 2010/5778</i> are currently published on the QCoal website Publication page. Any future revisions of these plans will also be published on the website, and the Department will be notified within five business days.</p> <p>This compliance report is also published on the QCoal website Publications page.</p>

# Appendix A Approval, 2 October 2014



Australian Government  
Department of the Environment

## Approval

### Byerwen Coal Project, 20 kilometres west of Glenden, Queensland (2010/5778)

This decision is made under sections 130(1) and 133 of the *Environment Protection and Biodiversity Conservation Act 1999*.

#### Proposed action

person to whom the approval is granted Byerwen Coal Pty Limited

proponent's ACN 133 357 632

proposed action To develop and operate an open-cut coal mine and associated infrastructure, located approximately 20 km west of Glenden in Queensland [see EPBC Act referral 2010/5778].

#### Approval decision

Controlling Provision	Decision
Listed threatened species and communities (sections 18 & 18A)	Approve
Listed migratory species and communities (sections 20 & 20A)	Approve
A water resource, in relation to coal seam gas development and large coal mining development (sections 24D & 24E)	Approve

#### Proposed conditions of approval

This approval is subject to the conditions specified below.

#### expiry date of approval

This approval has effect until 1 October 2044.

#### Decision-maker

name and position Deb Callister  
Assistant Secretary  
Queensland and Sea Dumping Assessment Branch

#### Signature



#### Date of decision

2 October 2014

---

**Conditions attached to the approval**

- 1) The **project area** is the area designated at Attachments A1 and A2 covering six mining lease applications (MLA) 10355, 10356, 10357, 70434, 70435, 70436.
- 2) For the purposes of the action, **approval holder** must not clear outside the project area.

**Disturbance limits**

- 3) The **approval holder** must not clear more than:
  - a) 650 hectares of primary habitat for the Squatter Pigeon (southern)
  - b) 908 hectares of primary habitat for the Ornamental Snake
  - c) 1115 hectares of primary habitat for the Black-throated Finch (southern)
  - d) 358 hectares of Brigalow (*Acacia harpophylla* dominant and co-dominant)
  - e) 179 hectares of Natural Grasslands of the Queensland Central Highlands and the northern Fitzroy Basin
  - f) 109 hectares of Semi-evergreen vine thickets of the Brigalow Belt (North and South) and Nandewar Bioregions
- 4) If the disturbance limits stated in Condition 3 of this approval are predicted to be exceeded, the **approval holder** must contact the **Department** in writing 20 business days before reaching the disturbance limit and provide for the Minister's approval:
  - a) the actual and predicted amount of disturbance in hectares for each EPBC Act listed species and community
  - b) justification why the approved disturbance limits require increasing, alternatives, and proposed actions to avoid, mitigate and manage impacts
  - c) an assessment of the impact and residual impact to the EPBC Act listed species or community in accordance with the **EPBC Act Significant Impact Guidelines**
  - d) a proposal to offset additional impacts to EPBC Act listed species and communities in accordance with the **EPBC Act Environmental Offsets Policy** in force at the time.

**Biodiversity Offset Management Plan**

- 5) The **approval holder** must submit a Biodiversity Offset Management Plan (BOMP) to the **Department** for the **Minister's** approval, outlining how offsets to address the residual impacts to *Brigalow (Acacia harpophylla* dominant and co-dominant, *Semi-evergreen Vine Thickets of the Brigalow Belt (North and South)* and *Nandewar Bioregions, Natural Grasslands of the Queensland Central Highlands and the northern Fitzroy Basin*, the Ornamental Snake (*Denisonia maculata*) and the Squatter pigeon (southern) (*Geophaps scripta scripta*), will be managed. The approved BOMP must be implemented.
- 6) The BOMP must be submitted for approval within twelve months after the commencement of construction. Clearing of EPBC Act listed species and communities must not occur until the BOMP is approved by the **Minister** in writing.
- 7) The BOMP must include, but is not limited to:
  - a) maps of the offset area/s inclusive of the distribution and extent (in hectares) of the EPBC Act listed species and communities to be offset in electronic Geographic Information System format
  - b) evidence that the offsets are consistent with the **Department's Environmental Offsets Policy** (October 2012)
  - c) details of how the offset area/s have been or will be legally secured to provide long-term protection

- d) detailed on-ground surveys, complying with relevant survey guidelines, and description of the baseline condition, attributes and values of the offset area/s with respect to EPBC Act listed species and communities
- e) management measures (including timing, frequency and longevity) for each of the EPBC Act listed species and communities and other vegetation within the offset area/s with written evidence of input from a suitably qualified expert who has relevant expertise in the management of native vegetation of the Bowen Basin
- f) details of how the management measures align with the relevant Conservation Advice, Recovery Plans and Threat Abatement Plans for the EPBC Act listed species and communities to be offset
- g) discussion of connectivity of the offset area/s with other habitats and biodiversity corridors
- h) a description of the risks to the successful implementation of the BOMP, including mitigation measures and residual risk ratings
- i) a monitoring program for the offset area/s which must:
  - i) clearly set out performance indicators and milestones
  - ii) detail how the success of the management measures against the performance indicators and milestones will be measured, recorded and reported
  - iii) include monitoring scope and parameters, timing, frequency, triggers and corrective actions
  - iv) detail how adaptive management strategies will be incorporated
  - v) outline how compliance will be reported
  - vi) detail who will be undertaking monitoring, reporting, review, and implementation of the BOMP (if this person is not the **approval holder**).
- 8) The BOMP must be updated, within a timeframe specified by the **Minister**, to include any changes to the offsets approved by the **Minister**. Updates must be consistent with the requirements in Condition 7.
- 9) The **approval holder** must, within two years of the commencement of construction (or as required under relevant Queensland legislation), register a legally binding conservation mechanism to provide long-term protection to the offset area/s approved by the **Minister** in the BOMP.

Note 1: To ensure efficiency the **approval holder** may prepare and align the BOMP required under the conditions of approval with the requirements of the Biodiversity Offset Strategy required under the Queensland Environmental Authority, as long as the relevant matters under the conditions of this approval are clearly and adequately addressed.

#### **Groundwater Monitoring and Management Plan**

- 10) The **approval holder** must submit a Groundwater Monitoring and Management Plan (GMMP) to the **Department** for the **Minister's** approval. The approved GMMP must be implemented.
- 11) The GMMP must be approved by the Minister in writing prior to the commencement of dewatering activities in the mining pits detailed in Chapter 3 of the Environmental Management Plan.
- 12) The GMMP must include, but is not limited to:
  - a) the groundwater quality and/or level triggers as described in the Queensland Environmental Authority in force at the time
  - b) a detailed description of the actions, including timeframes, the **approval holder** will take if groundwater quality and level triggers are exceeded or predicted to be exceeded

- c) a strategy to conduct a landholder bore survey to determine water supply bores and water users in the vicinity of the project that may be impacted by mining activities and the potential to incorporate those bores into the groundwater monitoring program
- d) details of how the existing groundwater monitoring program will be expanded to better determine surface water/groundwater interaction, including monitoring locations, parameters to be measured, monitoring frequency and reporting requirements
- e) a groundwater model to simulate and quantify groundwater drawdown extent and flow impacts on the Suttor River, and validate the assumptions and potential risks and impacts of the project on groundwater resources identified in the EIS documents. The model must be developed with reference to the *National Water Commission Groundwater Modelling Guidelines* and must include a monitoring strategy to validate the model.
- f) the methods, frequency and timeframes in which the GMMP and groundwater model will be reviewed.

Note 1: The **Minister** may by written request, require the GMMP be reviewed by a suitably qualified expert. Following any review, the GMMP must be revised and updated accordingly and submitted to the Minister for approval.

Note 2: The GMMP does not need to be submitted for an early works bulk sample pit.

Note 3: To ensure efficiency the **approval holder** may prepare and align the GMMP required under the conditions of approval with the requirements of the groundwater monitoring program required under the Queensland Environmental Authority, as long as the relevant matters under the conditions of this approval are clearly and adequately addressed.

#### Groundwater quality and levels

- 13) The **approval holder** must notify the **Department** in writing within 10 business days if the groundwater quality and/or trigger levels referred to in Condition 12 of this approval are exceeded and the results of required investigations indicate the exceedence is a result of mining activities. If requested, the **approval holder** must provide copies of any exceedence investigation documents to the **Department** in a timeframe agreed in writing by the **Department**, which state the cause, response and actions undertaken to prevent further occurrences.

#### General

- 14) Within 20 business days after the commencement of construction, the approval holder must advise the **Department** in writing of the actual date of the commencement of construction.
- 15) The approval holder must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement management plans, strategies, reports required by this approval, and make them available upon request to the **Department**. Such records may be subject to audit by the **Department** or an independent auditor in accordance with section 458 of the EPBC Act, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the **Department's** website. The results of audits may also be publicised through the general media.
- 16) Within 60 business days of every 12 month anniversary of the commencement of construction, the approval holder must publish a report on their website addressing compliance with each of the conditions of this approval, including implementation of any management plans, strategies, reports as specified in the conditions. Documentary evidence providing proof of the date of publication and non-compliance with any of the conditions of this approval must be provided to the **Department** at the same time as the compliance report is published. The compliance reports must remain on the website for the period the approval has effect.
- 17) Potential or actual contraventions of the conditions of approval must be reported to the

---

**Department** in writing within two business days of the approval holder becoming aware of the actual or potential contravention unless otherwise stated. All contraventions must be included in the compliance reports.

- 18) Upon the direction of the **Minister**, the approval holder must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the **Minister**. The independent auditor must be approved by the **Minister** prior to the commencement of the audit. Audit criteria must be agreed to by the **Minister** and the audit report must address the criteria to the satisfaction of the **Minister**.
- 19) If the approval holder wishes to carry out any activity otherwise than in accordance with the management plans, strategies, reports as specified in the conditions, the approval holder must submit to the **Department** for the **Minister's** approval a revised version of that management plan, strategy, report. The varied activity shall not commence until the **Minister** has approved the varied management plan, strategy, report in writing. If the **Minister** approves the revised management plan, strategy, report, that management plan, strategy, report must be implemented in place of the management plan, strategy, report originally approved.
- 20) If the **Minister** believes that it is necessary or convenient for the better protection of EPBC Act listed species and communities or a water resource to do so, the **Minister** may request that the approval holder make specified revisions to the management plans, strategies, reports specified in the conditions and submit the revised management plans, strategies, reports for the **Minister's** written approval. The approval holder must comply with any such request. The revised approved management plans, strategies, reports must be implemented. Unless the **Minister** has approved the revised management plans, strategies, reports, then the approval holder must continue to implement the management plans, strategies, reports originally approved, as specified in the conditions.
- 21) If, at any time after five years from the date of this approval, the approval holder has not substantially commenced the action, then the approval holder must not substantially commence the action without the written agreement of the **Minister**.
- 22) Unless otherwise agreed to in writing by the **Minister**, the approval holder must publish all management plans, strategies, reports referred to in these conditions of approval on their website. Each management plan, strategy, report must be published on the website within 20 business days of being approved. The approval holder must notify the **Department** with five business days of publishing the management plan, strategy, report on their website and the management plan, strategy, report must remain on the website for the period the approval has effect.

---

#### Definitions

**Approval holder:** person to whom the approval is granted.

**Business days:** measured in Queensland in relation to the doing of any action, any day other than a Saturday, Sunday or public holiday.

**Commencement of construction:** any preparatory works required to be undertaken including clearing vegetation, the erection of any on-site temporary structures and the use of heavy duty equipment for the purpose of breaking the ground for mining, buildings or infrastructure. Commencement of construction does not include an early works bulk sample pit.

**Department:** the Australian Government Department administering the **EPBC Act**.

**Early works bulk sample pit:** a single coal mining pit, 20 hectares in size for extraction of a bulk sample of a maximum of 550,000 tonnes of coal.

**EPBC Act:** the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).

**EPBC Act Environmental Offsets Policy:** the *EPBC Act Environmental Offsets Policy* (October 2012).

**EPBC Act listed species and/or community/ies:** threatened species or ecological communities listed under the **EPBC Act**.

**EPBC Act Significant Impact Guidelines:** the Matters of National Environmental Significance, Significant Impact Guidelines 1.1, *Environment Protection and Biodiversity Conservation Act 1999*.

**Minister:** the Minister administering the EPBC Act and includes a delegate of the Minister.

**Project Area:** The project area is the area designated at Attachments A1 and A2 covering the project site and surrounds and is located within the existing six mining lease applications (MLA) 10355, 10356, 10357, 70434, 70435, 70436 are held by Byerwen Coal Pty Limited.

**Queensland Environmental Authority:** the Environmental Authority (Mining Lease) issued by the Queensland Government under the *State Development and Public Works Organisation Act 1971* for Byerwen Coal Pty Limited.

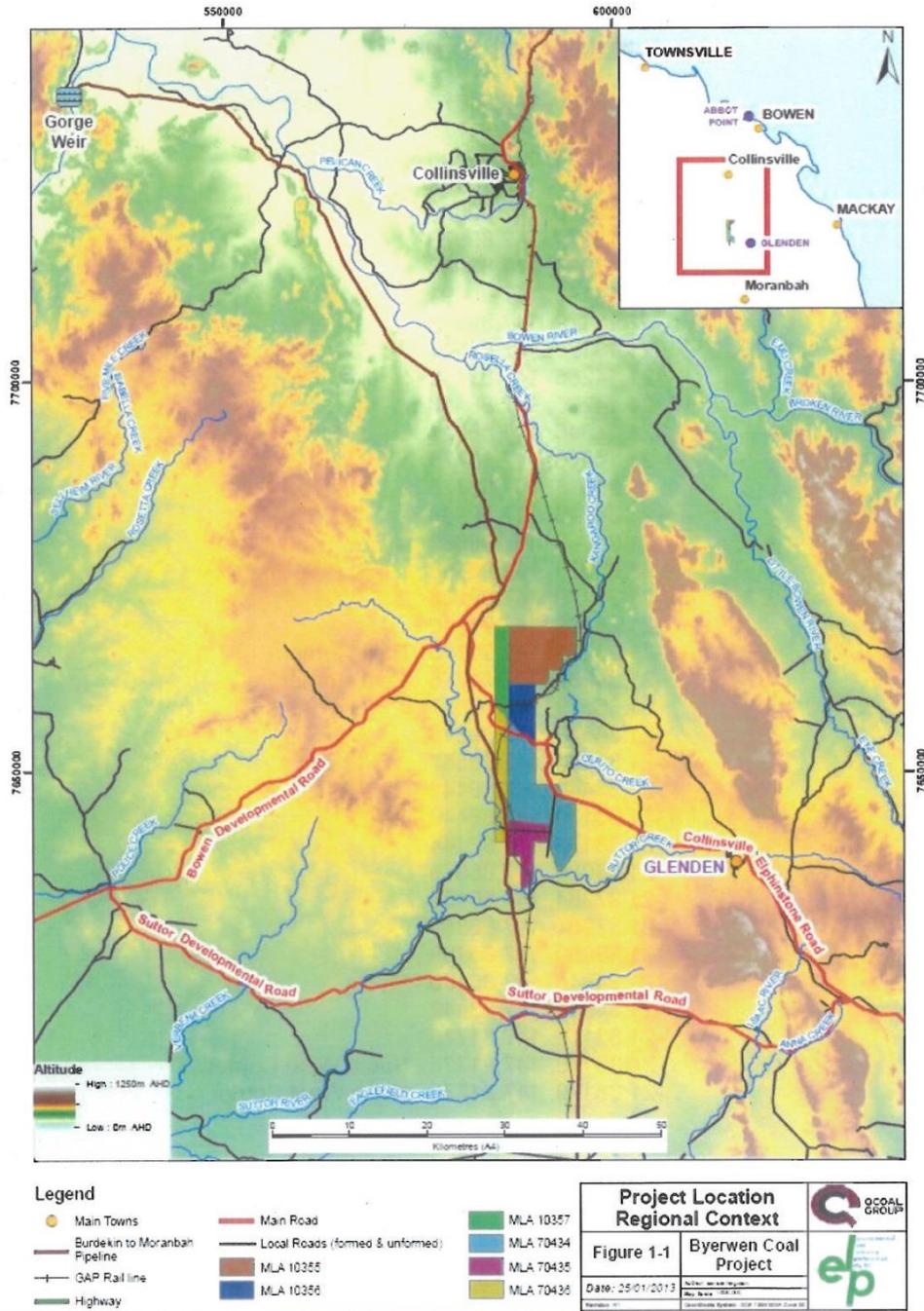
**Substantially commenced:** the extraction of coal from the **project area** for the purpose of commercial production. Substantially commenced does not include test extraction or extraction of coal samples for quality assurance prior to commercial production.

**Survey Guidelines:**

Survey guidelines for Australia's threatened birds, Guidelines for detecting birds listed as threatened under the *Environment Protection and Biodiversity Conservation Act 1999*

Survey guidelines for Australia's threatened reptiles, Guidelines for detecting reptiles listed as threatened under the *Environment Protection and Biodiversity Conservation Act 1999*

**Attachment A1**

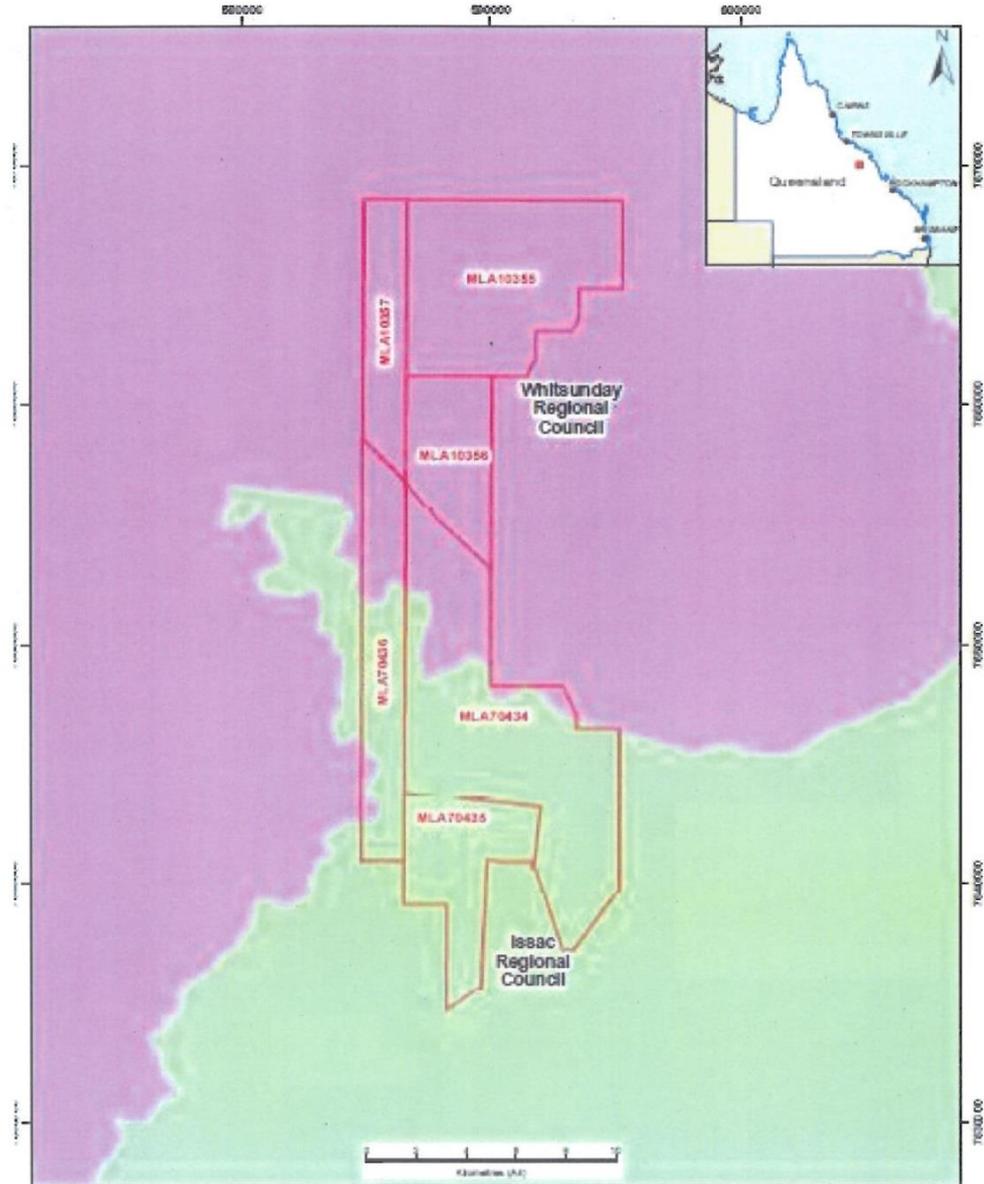


## Latitude and Longitude of Mining Leases

Latitude (South), Longitude (East)

-21.08180, 147.91775 North East corner  
 -21.11513, 147.91775  
 -21.11513, 147.90108  
 -21.12757, 147.90108  
 -21.12840, 147.90053  
 -21.12974, 147.89976  
 -21.13064, 147.89938  
 -21.13147, 147.89891  
 -21.13179, 147.89881  
 -21.13179, 147.88442  
 -21.14265, 147.88442  
 -21.14276, 147.88410  
 -21.14846, 147.88121  
 -21.14846, 147.86775  
 -21.26513, 147.86775  
 -21.26513, 147.89588  
 -21.27683, 147.90083  
 -21.27683, 147.90108  
 -21.28179, 147.90108  
 -21.28179, 147.91140  
 -21.28179, 147.91775 East Corner  
 -21.34230, 147.91775 East Corner  
 -21.36513, 147.90037  
 -21.36513, 147.89618  
 -21.33464, 147.88557  
 -21.33440, 147.88442  
 -21.33179, 147.88442  
 -21.33179, 147.87144  
 -21.33085, 147.86675  
 -21.37984, 147.86456  
 -21.37984, 147.86359  
 -21.38860, 147.85109  
 -21.34846, 147.85109  
 -21.34846, 147.83442  
 -21.33179, 147.81775  
 -21.33179, 147.81775 South West Corner  
 -21.08179, 147.81775 North West Corner

ATTACHMENT A2



Legend

- Mining Lease Boundaries
- Isaac Regional Council
- Whitsunday Regional Council

Project Mining Leases and Local Government Boundaries		
Figure 1-2	Byerwen Coal Project	
Date: 25/01/2012		
Author: [illegible]	Drawn: [illegible]	

This document is confidential and its contents should not be disclosed to the public. It is the property of QCOAL GROUP and is loaned to you for your use only. It is not to be distributed, copied, or otherwise used without the prior written consent of QCOAL GROUP. If you have any queries, please contact the author of this document.

# **Appendix B      Variation Approval, 2 April 2020**

Australian Government  
Department of Agriculture, Water and the Environment**VARIATION OF CONDITIONS ATTACHED TO APPROVAL**  
**Byerwen Coal Project, 20 kilometres west of Glenden, Queensland**  
**(2010/5778)**

This decision to vary conditions of approval is made under section 143 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

**Approved action**

<b>Person to whom the approval is granted</b>	Byerwen Coal Pty Limited ACN: 133 357 632
---	--

<b>Approved action</b>	To develop and operate an open-cut coal mine and associated infrastructure, located approximately 20 km west of Glenden in Queensland [see EPBC Act referral 2010/5778].
------------------------	--

**Variation**

<b>Variation of conditions attached to approval</b>	The variation is:  Delete conditions 1 and 3 attached to the approval and substitute with the conditions specified in the table below  Delete the definition of <b>Project Area</b> attached to the approval and substitute with the definitions specified in the table below  Delete Attachments A1 and A2 attached to the approval and substitute with the attachments specified in the table below
---	---

<b>Date of effect</b>	This variation has effect on the date the instrument is signed
-----------------------	--

**Person authorised to make decision**

<b>Name and position</b>	Greg Manning Assistant Secretary Assessments (WA, SA, NT), Post Approvals and Policy Branch
--------------------------	---

**Signature**

<b>Date of decision</b>	2 April 2020
-------------------------	--------------

Date of decision	Conditions attached to approval
As varied on the date this instrument was signed	<b>1. The project area</b> is the area designated at Attachments A1 and A2 comprising the following seven mining lease applications (MLA) 10355, 10356, 10357, 70434, 70435, 70436, 700058.
Original dated 02/10/2014	<b>2. For the purposes of the action, approval holder</b> must not clear outside the <b>project area</b> .
As varied on the date this instrument was signed	<b>3. The approval holder</b> must not clear more than: <ul style="list-style-type: none"> <li>a) 704 hectares of primary habitat for the Squatter Pigeon (southern)</li> <li>b) 908 hectares of primary habitat for the Ornamental Snake</li> <li>c) 1115 hectares of primary habitat for the Black-throated Finch (southern)</li> <li>d) 358 hectares of Brigalow (<i>Acacia harpophylla</i> dominant and co-dominant)</li> <li>e) 179 hectares of Natural Grasslands of the Queensland Central Highlands and the northern Fitzroy Basin</li> <li>f) 109 hectares of Semi-evergreen vine thickets of the Brigalow Belt (North and South) and Nandewar Bioregions</li> </ul>
Original dated 02/10/2014	<b>4. If the disturbance limits</b> stated in Condition 3 of this approval are predicted to be exceeded, the <b>approval holder</b> must contact the <b>Department</b> in writing <b>20 business days</b> before reaching the disturbance limit and provide for the <b>Minister's</b> approval: <ul style="list-style-type: none"> <li>a) the actual and predicted amount of disturbance in hectares for each <b>EPBC Act</b> listed species and community</li> <li>b) justification why the approved disturbance limits require increasing, alternatives, and proposed actions to avoid, mitigate and manage impacts</li> <li>c) an assessment of the impact and residual impact to the <b>EPBC Act</b> listed species or community in accordance with the <b>EPBC Act Significant Impact Guidelines</b></li> <li>d) a proposal to offset additional impacts to <b>EPBC Act</b> listed species and communities in accordance with the <b>EPBC Act Environmental Offsets Policy</b> in force at the time.</li> </ul>
Original dated 02/10/2014	<b>5. The approval holder</b> must submit a Biodiversity Offset Management Plan (BOMP) to the <b>Department</b> for the <b>Minister's</b> approval, outlining how offsets to address the residual impacts to <i>Brigalow (Acacia harpophylla dominant and co-dominant, Semi-evergreen Vine Thickets of the Brigalow Belt (North and South) and Nandewar Bioregions, Natural Grasslands of the Queensland Central Highlands and the northern Fitzroy Basin, the Ornamental Snake (Denisonia maculata) and the Squatter pigeon (southern) (Geophaps scripta scripta)</i> , will be managed. The approved BOMP must be implemented.
Original dated 02/10/2014	<b>6. The BOMP</b> must be submitted for approval within twelve months after the commencement of construction. Clearing of <b>EPBC Act</b> listed species and communities must not occur until the BOMP is approved by the <b>Minister</b> in writing.

Date of decision	Conditions attached to approval
Original dated 02/10/2014	<p><b>7. The BOMP must include, but is not limited to:</b></p> <ul style="list-style-type: none"> <li>a) maps of the offset area/s inclusive of the distribution and extent (in hectares) of the <b>EPBC Act</b> listed species and communities to be offset in electronic Geographic Information System format</li> <li>b) evidence that the offsets are consistent with the <b>Department's Environmental Offsets Policy</b> (October 2012)</li> <li>c) details of how the offset area/s have been or will be legally secured to provide long-term protection</li> <li>d) detailed on-ground surveys, complying with relevant survey guidelines, and description of the baseline condition, attributes and values of the offset area/s with respect to EPBC Act listed species and communities</li> <li>e) management measures (including timing, frequency and longevity) for each of the <b>EPBC Act</b> listed species and communities and other vegetation within the offset area/s with written evidence of input from a suitably qualified expert who has relevant expertise in the management of native vegetation of the Bowen Basin</li> <li>f) details of how the management measures align with the relevant Conservation Advice, Recovery Plans and Threat Abatement Plans for the <b>EPBC Act</b> listed species and communities to be offset</li> <li>g) discussion of connectivity of the offset area/s with other habitats and biodiversity corridors</li> <li>h) a description of the risks to the successful implementation of the BOMP, including mitigation measures and residual risk ratings</li> <li>i) a monitoring program for the offset area/s which must: <ul style="list-style-type: none"> <li>i) clearly set out performance indicators and milestones</li> <li>ii) detail how the success of the management measures against the performance indicators and milestones will be measured, recorded and reported</li> <li>iii) include monitoring scope and parameters, timing, frequency, triggers and corrective actions</li> <li>iv) detail how adaptive management strategies will be incorporated</li> <li>v) outline how compliance will be reported</li> <li>vi) detail who will be undertaking monitoring, reporting, review, and implementation of the BOMP (if this person is not the <b>approval holder</b>).</li> </ul> </li> </ul>
Original dated 02/10/2014	<p><b>8. The BOMP must be updated, within a time frame specified by the Minister, to include any changes to the offsets approved by the Minister. Updates must be consistent with the requirements in Condition 7.</b></p>

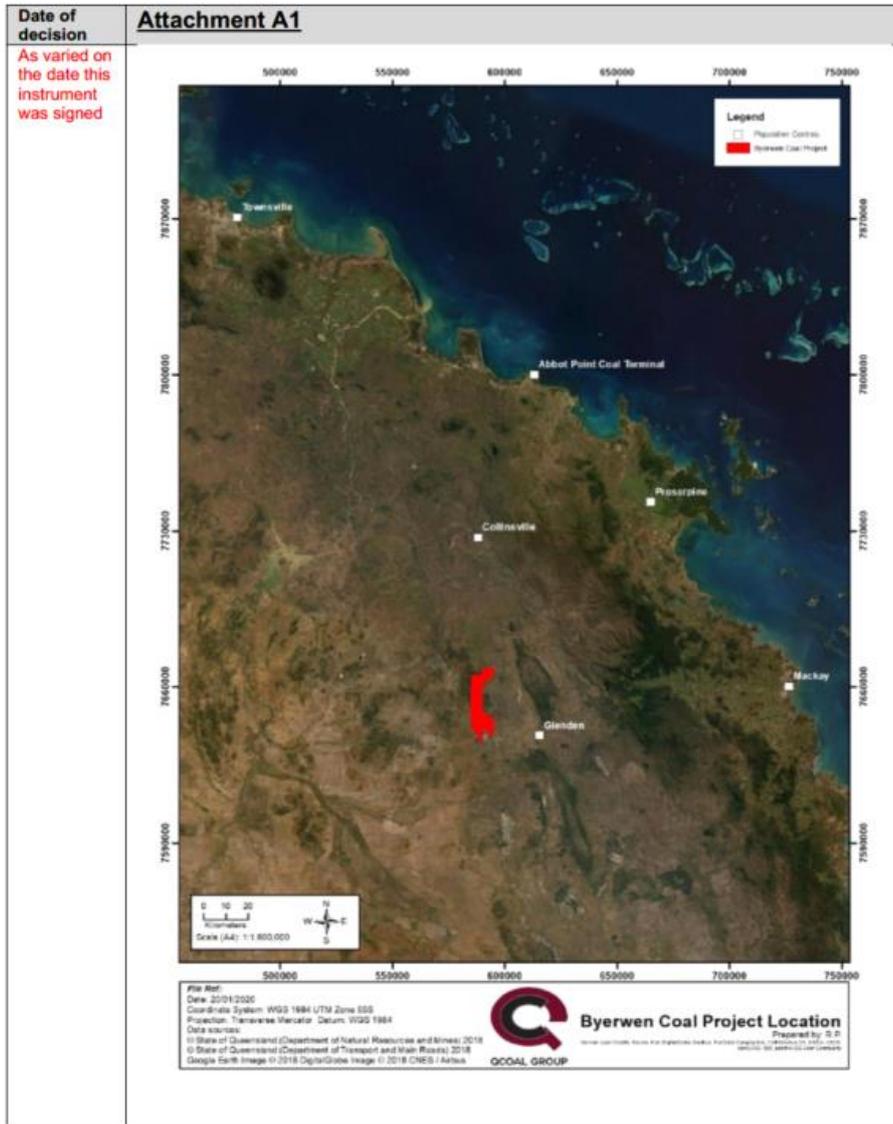
Date of decision	Conditions attached to approval
Original dated 02/10/2014	<p><b>9. The approval holder</b> must, within two years of the <b>commencement of construction</b> (or as required under relevant Queensland legislation), register a legally binding conservation mechanism to provide long-term protection to the offset area/s approved by the <b>Minister</b> in the BOMP.</p> <p>Note 1: To ensure efficiency the <b>approval holder</b> may prepare and align the BOMP required under the conditions of approval with the requirements of the Biodiversity Offset Strategy required under the Queensland Environmental Authority, as long as the relevant matters under the conditions of this approval are clearly and adequately addressed.</p>
Original dated 02/10/2014	<p><b>10. The approval holder</b> must submit a Groundwater Monitoring and Management Plan (GMMP) to the <b>Department</b> for the <b>Minister's</b> approval. The approved GMMP must be implemented.</p>
Original dated 02/10/2014	<p><b>11. The GMMP</b> must be approved by the <b>Minister</b> in writing prior to the commencement of dewatering activities in the mining pits detailed in Chapter 3 of the Environmental Management Plan.</p>
Original dated 02/10/2014	<p><b>12. The GMMP</b> must include, but is not limited to:</p> <ul style="list-style-type: none"> <li>a) the groundwater quality and/or level triggers as described in the Queensland Environmental Authority in force at the time</li> <li>b) a detailed description of the actions, including timeframes, the <b>approval holder</b> will take if groundwater quality and level triggers are exceeded or predicted to be exceeded</li> <li>c) a strategy to conduct a landholder bore survey to determine water supply bores and water users in the vicinity of the project that may be impacted by mining activities and the potential to incorporate those bores into the groundwater monitoring program</li> <li>d) details of how the existing groundwater monitoring program will be expanded to better determine surface water/groundwater interaction, including monitoring locations, parameters to be measured, monitoring frequency and reporting requirements</li> <li>e) a groundwater model to simulate and quantify groundwater drawdown extent and flow impacts on the Suttor River, and validate the assumptions and potential risks and impacts of the project on groundwater resources identified in the EIS documents. The model must be developed with reference to the <i>National Water Commission Groundwater Modelling Guidelines</i> and must include a monitoring strategy to validate the model.</li> <li>f) the methods, frequency and timeframes in which the GMMP and groundwater model will be reviewed.</li> </ul>

Date of decision	Conditions attached to approval
	<p>Note 1: The <b>Minister</b> may by written request, require the GMMP be reviewed by a suitably qualified expert. Following any review, the GMMP must be revised and updated accordingly and submitted to the <b>Minister</b> for approval.</p> <p>Note 2: The GMMP does not need to be submitted for an early works bulk sample pit.</p> <p>Note 3: To ensure efficiency the <b>approval holder</b> may prepare and align the GMMP required under the conditions of approval with the requirements of the groundwater monitoring program required under the Queensland Environmental Authority, as long as the relevant matters under the conditions of this approval are clearly and adequately addressed.</p>
Original dated 02/10/2014	<p><b>13.</b> The <b>approval holder</b> must notify the <b>Department</b> in writing within 10 <b>business days</b> if the groundwater quality and/or trigger levels referred to in Condition 12 of this approval are exceeded and the results of required investigations indicate the exceedence is a result of mining activities. If requested, the <b>approval holder</b> must provide copies of any exceedence investigation documents to the <b>Department</b> in a timeframe agreed in writing by the <b>Department</b>, which state the cause, response and actions undertaken to prevent further occurrences.</p>
Original dated 02/10/2014	<p><b>14.</b> Within 20 <b>business days</b> after the <b>commencement of construction</b>, the approval holder must advise the <b>Department</b> in writing of the actual date of the <b>commencement of construction</b>.</p>
Original dated 02/10/2014	<p><b>15.</b> The approval holder must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement management plans, strategies, reports required by this approval, and make them available upon request to the <b>Department</b>. Such records may be subject to audit by the <b>Department</b> or an independent auditor in accordance with section 458 of the <b>EPBC Act</b>, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the <b>Department's</b> website. The results of audits may also be published through the general media.</p>
Original dated 02/10/2014	<p><b>16.</b> Within 60 <b>business days</b> of every 12 month anniversary of the <b>commencement of construction</b>, the approval holder must publish a report on their website addressing compliance with each of the conditions of this approval, including implementation of any management plans, strategies, reports as specified in the conditions. Documentary evidence providing proof of the date of publication and non-compliance with any of the conditions of this approval must be provided to the <b>Department</b> at the same time as the compliance report is published. The compliance reports must remain on the website for the period the approval has effect.</p>
Original dated 02/10/2014	<p><b>17.</b> Potential or actual contraventions of the conditions of approval must be reported to the <b>Department</b> in writing within two <b>business days</b> of the approval holder becoming aware of the actual or potential contravention unless otherwise stated. All contraventions must be included in the compliance reports.</p>

Date of decision	Conditions attached to approval
Original dated 02/10/2014	<b>18.</b> Upon the direction of the <b>Minister</b> , the approval holder must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the <b>Minister</b> . The independent auditor must be approved by the <b>Minister</b> prior to the commencement of the audit. Audit criteria must be agreed to by the <b>Minister</b> and the audit report must address the criteria to the satisfaction of the <b>Minister</b> .
Original dated 02/10/2014	<b>19.</b> If the approval holder wishes to carry out any activity otherwise than in accordance with the management plans, strategies, reports as specified in the conditions, the approval holder must submit to the <b>Department</b> for the <b>Minister's</b> approval a revised version of that management plan, strategy, report. The varied activity shall not commence until the <b>Minister</b> has approved the varied management plan, strategy, report in writing. If the <b>Minister</b> approves the revised management plan, strategy, report, that management plan, strategy, report must be implemented in place of the management plan, strategy, report originally approved.
Original dated 02/10/2014	<b>20.</b> If the <b>Minister</b> believes that it is necessary or convenient for the better protection of <b>EPBC Act</b> listed species and communities or a water resource to do so, the <b>Minister</b> may request that the approval holder make specified revisions to the management plans, strategies, reports specified in the conditions and submit the revised management plans, strategies, reports for the <b>Minister's</b> written approval. The approval holder must comply with any such request. The revised approved management plans, strategies, reports must be implemented. Unless the <b>Minister</b> has approved the revised management plans, strategies, reports, then the approval holder must continue to implement the management plans, strategies, reports originally approved, as specified in the conditions.
Original dated 02/10/2014	<b>21.</b> If, at any time after five years from the date of this approval, the approval holder has not <b>substantially commenced</b> the action, then the approval holder must not <b>substantially commence</b> the action without the written agreement of the <b>Minister</b> .
Original dated 02/10/2014	<b>22.</b> Unless otherwise agreed to in writing by the <b>Minister</b> , the <b>approval holder</b> must publish all management plans, strategies, reports referred to in these conditions of approval on their website. Each management plan, strategy, report must be published on the website within 20 business days of being approved. The <b>approval holder</b> must notify the <b>Department</b> with five <b>business days</b> of publishing the management plan, strategy, report on their website and the management plan, strategy, report must remain on the website for the period the approval has effect.

Date of decision	Definitions attached to approval
Original dated 02/10/2014	<b>Approval holder:</b> person to whom the approval is granted.
Original dated 02/10/2014	<b>Business days:</b> measured in Queensland in relation to the doing of any action, any day other than a Saturday, Sunday or public holiday.
Original dated 02/10/2014	<b>Commencement of construction:</b> any preparatory works required to be undertaken including clearing vegetation, the erection of any on-site temporary structures and the use of heavy duty equipment for the purpose of breaking the ground for mining, buildings or infrastructure. Commencement of construction does not include an early works bulk sample pit.
Original dated 02/10/2014	<b>Department:</b> the Australian Government Department administering the EPBC Act.
Original dated 02/10/2014	<b>Early works bulk sample pit:</b> a single coal mining pit, 20 hectares in size for extraction of a bulk sample of a maximum of 550,000 tonnes of coal.
Original dated 02/10/2014	<b>EPBC Act:</b> the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth).
Original dated 02/10/2014	<b>EPBC Act Environmental Offsets Policy:</b> the <i>EPBC Act Environmental Offsets Policy (October 2012)</i> .
Original dated 02/10/2014	<b>EPBC Act listed species and/or community/ies:</b> threatened species or ecological communities listed under the EPBC Act.
Original dated 02/10/2014	<b>EPBC Act Significant Impact Guidelines:</b> the Matters of National Environmental Significance, Significant Impact Guidelines 1.1, <i>Environment Protection and Biodiversity Conservation Act 1999</i> .
Original dated 02/10/2014	<b>Minister:</b> the Minister administering the EPBC Act and includes a delegate of the Minister.
As varied on the date this instrument was signed	<b>Project Area:</b> The project area is the area designated at Attachments A1 and A2 covering the project site and surrounds and is located within the seven mining lease applications (MLA) 10355, 10356, 10357, 70434, 70435, 70436 and 700058 held by Byerwen Coal Pty Limited.
Original dated 02/10/2014	<b>Queensland Environmental Authority:</b> the Environmental Authority (Mining Lease) issued by the Queensland Government under the <i>State Development and Public Works Organisation Act 1971</i> for Byerwen Coal Pty Limited.

Original dated 02/10/2014	<p><b>Substantially commenced:</b> the extraction of coal from the <b>project area</b> for the purpose of commercial production. <b>Substantially commenced</b> does not include test extraction or extraction of coal samples for quality assurance prior to commercial production.</p>
Original dated 02/10/2014	<p><b>Survey Guidelines</b></p> <p>Survey guidelines for Australia's threatened birds, Guidelines for detecting birds listed as threatened under the <i>Environment Protection and Biodiversity Conservation Act 1999</i></p> <p>Survey guidelines for Australia's threatened reptiles, Guidelines for detecting reptiles listed as threatened under the <i>Environment Protection and Biodiversity Conservation Act 1999</i></p>



Date of decision	<b>Attachment A1</b>					
	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Comment	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Comment
	-21.388601	147.851088	Southwest corner	-21.108795	147.830188	
	-21.359156	147.851085		-21.108090	147.833392	
	-21.355272	147.846756		-21.109157	147.835636	
	-21.354158	147.845697		-21.109057	147.837569	
	-21.352973	147.844716		-21.110742	147.843496	
	-21.351695	147.843871		-21.110096	147.848285	
	-21.350993	147.843609		-21.112987	147.850296	
	-21.350307	147.843277		-21.111630	147.853677	
	-21.348877	147.842806		-21.111912	147.856175	
	-21.348460	147.842722		-21.110048	147.857178	
	-21.348460	147.834419		-21.103961	147.864096	
	-21.331793	147.834419		-21.101276	147.863609	
	-21.331793	147.817752	West Corner	-21.099398	147.861375	
	-21.317455	147.817752		-21.081795	147.867060	
	-21.317001	147.818689		-21.081795	147.917749	Northeast corner
	-21.317017	147.819362		-21.115128	147.917749	East Corner
	-21.317347	147.820216		-21.115128	147.901083	
	-21.317712	147.821467		-21.127566	147.901083	
	-21.317373	147.822396		-21.129740	147.899763	
	-21.316385	147.823163		-21.130637	147.899383	
	-21.315514	147.823894		-21.131471	147.898911	
	-21.314772	147.824347		-21.131794	147.898812	
	-21.314093	147.824201		-21.131794	147.884416	
	-21.313112	147.825109		-21.142666	147.884418	
	-21.312012	147.825552		-21.142779	147.884102	
	-21.310873	147.825684		-21.148461	147.881216	
	-21.309739	147.825088		-21.148461	147.867750	
	-21.308832	147.824355		-21.265116	147.867753	
	-21.308318	147.823000		-21.265127	147.887579	
	-21.307773	147.821471		-21.272210	147.890730	
	-21.306934	147.820183		-21.274007	147.891486	
	-21.305409	147.819585		-21.274880	147.891929	
	-21.304540	147.819659		-21.275025	147.892534	
	-21.303982	147.819783		-21.275227	147.892817	
	-21.303004	147.820465		-21.275100	147.892696	
	-21.301759	147.821621		-21.275832	147.893535	
	-21.300051	147.822881		-21.276405	147.894346	
	-21.298096	147.824103		-21.276771	147.894975	
	-21.296306	147.825045		-21.277264	147.896046	
	-21.295364	147.825251		-21.277615	147.897097	
	-21.294654	147.825177		-21.278698	147.901085	
	-21.293798	147.824520		-21.281783	147.901085	
	-21.292566	147.822892		-21.281783	147.917752	East Corner
	-21.292027	147.821483		-21.342317	147.917752	
	-21.291597	147.820679		-21.365116	147.900393	Southeast Corner
	-21.291195	147.820091		-21.365116	147.896185	
	-21.290504	147.819656		-21.334637	147.885579	
	-21.289378	147.819248		-21.334404	147.884418	
	-21.288195	147.818656		-21.331794	147.884418	
	-21.287273	147.817972		-21.331794	147.871435	
	-21.286944	147.817752		-21.330852	147.866753	
	-21.112548	147.817826	Northwest corner	-21.379690	147.864561	
	-21.113760	147.822086		-21.379837	147.863592	



# **Appendix C      Wollombi Offsets Annual Monitoring Report**

# Wollombi Station: Offset Implementation Monitoring Report



## earthtrade

Date : 1-Jul-20  
Prepared for : Byerwen Coal Pty Ltd  
Our Reference : QMR109: 20192266B

Environmental Offset Solutions Pty Ltd  
trading as Earthtrade

ACN 128 110 976  
ABN 87 128 110 976

REGISTERED ADDRESS  
Level 11, 300 Queen St  
Brisbane QLD 4000

POSTAL ADDRESS  
PO Box 1069  
Hervey Bay QLD 4655

TELEPHONE : +61 7 4194 5009  
alan.key@earthtrade.com.au  
www.earthtrade.com.au

## DOCUMENT CONTROL

Version No.	Date	Revision details	Prepared by	Approved by
1	3 June 2020	First draft.	Yeonju Jang	
20192266A	10 June 2020	Review, formatting and assembly.	Thomas Key	
20192266A	12 June 2020	Final review	Alan Key	Alan Key
20192266B	29 June 2020	Addition of Landholder records and review	Thomas Key	Alan Key

## ACKNOWLEDGEMENTS & DISCLAIMER

This report should be cited as: *Wollombi Station - Offset Implementation Monitoring Report*

### ACKNOWLEDGEMENTS:

This document has been prepared by Environmental Offset Solutions Pty Ltd t/a Earthtrade with support from Byerwen Coal Pty Ltd (Byerwen).

### DISCLAIMER:

This document may only be used for the purpose for which it was commissioned and in accordance with the contract between Environmental Offsets Solutions Pty Ltd and Byerwen. The scope of services was defined in consultation with Byerwen by time and budgetary constraints imposed by the client, and the availability of reports and other data on the subject area. Changes to available information, legislation and schedules are made on an ongoing basis and readers should obtain up to date information.

Environmental Offsets Solutions Pty Ltd accepts no liability or responsibility whatsoever for or in respect of any use of or reliance upon this report and its supporting material by any third party. Information provided is not intended to be a substitute for site specific assessment or legal advice in relation to any matter. Unauthorised use of this report in any form is prohibited.

# Table of Contents

---

1. Executive summary.....	5
2. Offset management activities report.....	6
2.1. Vegetation impacts.....	9
2.2. Access and signage.....	9
2.3. Fire management.....	9
2.4. Fencing management.....	9
2.5. Extreme weather events.....	9
2.6. Grazing.....	9
2.7. Pest animal management.....	9
2.8. Pest plant management.....	9
3. Offset monitoring and reporting.....	52
3.1. Site inspection - general observations.....	57
3.2. Site inspection - photopoint monitoring.....	57
4. Project details.....	67
a) 650 hectares of primary habitat for the Squatter Pigeon (southern).....	67
e) 179 hectares of Natural Grasslands of the Queensland Central Highlands and the northern Fitzroy Basin.....	67
4.1. Offset Site.....	69
List of abbreviations.....	70
Appendix A: Survey photographs.....	71
Appendix B: Landholder's records.....	72
July - September.....	72
October - December.....	73
January - March.....	74
April - June.....	75
Rainfall Records - offset area.....	76

## Index of Figures

---

Figure 1: Locality map .....	7
Figure 2: Wollombi Station offset areas .....	61
Figure 3a: Monitoring site locations stage 1 and 1a.....	64
Figure 3b: Monitoring site locations stage 2 .....	65
Figure 3c: Monitoring site locations stage 2a.....	66

## Index of Tables

Table 1a: Timetable of management actions.....	8
Table 2A: Schedule of management actions .....	10
Table 2B: Schedule of management actions for the additional offset area for squatter pigeon .....	33
Table 3A: Offset area monitoring schedule.....	52
Table 3B: Monitoring schedule for the additional squatter pigeon offset area .....	54
Table 4a: Locations of quaternary survey sites for Stage 1 and 1a.....	58
Table 4b: Locations of quaternary survey sites for Stage 2 .....	60
Table 4c: Locations of quaternary survey sites for Stage 2a.....	60
Table 5: Project details.....	67
Table 6: EPBC Approval conditions related to the offsets on Wollombi Station.....	68

# 1. Executive summary

The Byerwen Coal Mine, owned by Byerwen Coal Pty Ltd (Byerwen), is located in the northern Bowen Basin region of Queensland, approximately 20 kilometres (km) west of Glenden and 140 km west of Mackay (refer *Figure 1*).

As part of the approval of the Byerwen project (EPBC 2010/5778), offset obligations relating to impacts to Matters of National Environmental Significance (MNES) were imposed by the then Department of Environment (DoE). The residual impacts of Stage 1 of the project were to the brigalow threatened ecological community (TEC) and to primary habitat for the threatened fauna species ornamental snake (*Denisonia maculate*) and squatter pigeon (southern) (*Geophaps scripta scripta*).

The Project underwent 2 expansions during the reporting period and are referred to as:

- The original footprint is addressed in the Byerwen Coal Project: Offset Delivery Plan EPBC 2010/5778, 23 December 2016, Version Number 20151937B6;
- Extended Waste Rock Dump – *Offset Area Management Plan Wollombi Station* (Byerwen Coal Pty Ltd, October 2018) (OAMP);
- Stage 2 – QCoal Byerwen Coal Mine Stage 2 EPBC 2010/5778 Biodiversity Offset Management Plan, Version 'Final', dated 4 February 2020; and
- Stage 2a – Byerwen Coal Mine Stage 2a Biodiversity Offset Management Plan, version 1, dated 30 March 2020.

The offsets to satisfy the obligation for the projects are located on Wollombi Station, a rural property situated adjacent to the mine location. The property lies within the northern Brigalow Belt Bioregion, in the Isaac Regional Council local government area in Central Queensland (see *Figure 1*). As part of the approval conditions, Byerwen was required to develop and implement a monitoring program and a process to review and report on the progress of the offset management plan. These monitoring and reporting requirements are detailed in the respective OMP's.

An annual inspection of the offset area for monitoring and reporting purposes was undertaken on 4 June 2020 by Grant Paterson (Principle ecologist) and Thomas Key of Earthtrade.

## **The offset is compliant with the Offset Area Management Plans.**

There are a large number of wild pigs in the area of the station and the cover of buffel grass is very high and these are emerging risks or threats that are over and above those identified in the management plan, and require the implementation of the actions detailed against them for mitigation purposes.

## **Recommendations:**

- A large mob of cattle be grazed in all the offset areas over winter to reduce the buffel grass cover and the fuel load
- A pig control program be implemented ASAP

## 2. Offset management activities report

In accordance with the OAMP, management actions have been undertaken in the offset areas. *Table 1* shows the timing of each management action as undertaken to date, as extracted from the management records. The schedule of management actions as detailed in the OAMP is shown in *Table 2A*. *Table 2B* shows the schedule of management actions for the additional offset area for squatter pigeon. *Sections 2.1* to *2.8* detail the timing and methods used for the undertaking of each management action and are presented in the same order as *Table 2* for ease of reference. The offset areas on the property are shown in *Figure 2*.

Figure 1: Locality map

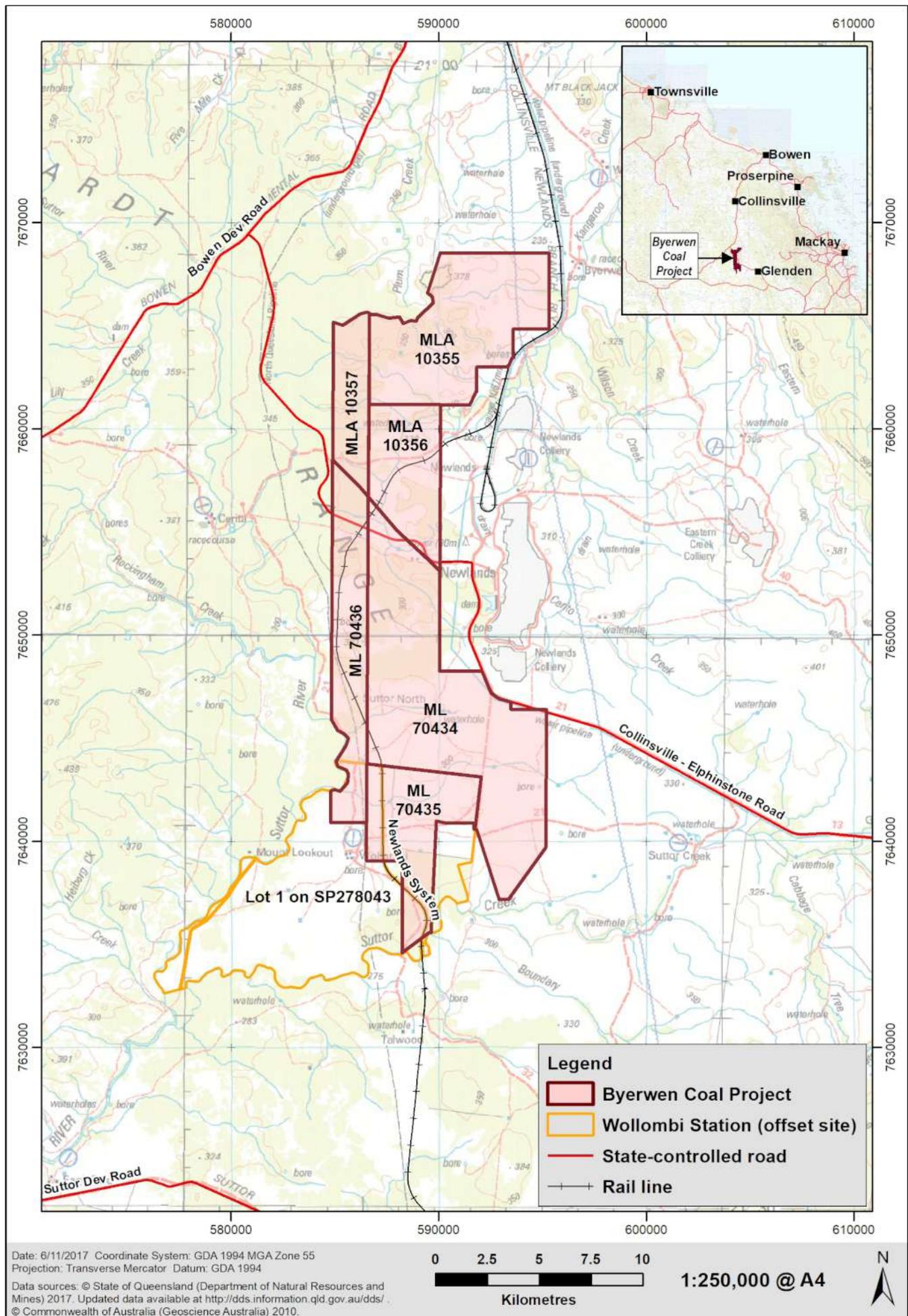


Table 1a: Timetable of management actions

Period	Management Actions								Monitoring and Reporting
	Forestry, timber harvesting, general vegetation impacts	Access and signage	Fire management	Fencing	Cyclones/ extreme weather events	Grazing (livestock in/out of the offset area)	Pest animal management	Pest plant management	Annual Inspection and Report
July 2019									
August									
September									
October									
November									
December									
January 2020									
February									
March									
April									
May									
June 2020									x

## 2.1. Vegetation impacts

No vegetation clearing has been undertaken at the offset area.

## 2.2. Access and signage

The additional offset area established for the Waste Rock Dump has been fenced and signs erected. The offset areas established for Stage 2 and Stage 2A are within the existing fenced area on Wollombi Station.

## 2.3. Fire management

There is no evidence of fire in the offset areas. It is recommended that a cool fire be undertaken in the Poplar Box and alluvial country in spring 2020 after grazing has reduced the fuel load.

## 2.4. Fencing management

All fencing is in a stock proof condition at the time of inspection. The monitoring undertaken in June 2020.

## 2.5. Extreme weather events

No evidence of extreme weather events have affected the offset areas negatively. The drought was interrupted by good rainfall in January 2020.

## 2.6. Grazing

Grazing has been undertaken as per the management plan. There is no evidence of overgrazing and there is no evidence of soil pugging in low lying areas at the June inspection. The entire offset area needs grazing to reduce the high fuel load that has resulted from the January 2020 rainfall.

## 2.7. Pest animal management

There is a large population of wild pigs in the brigalow portion of the offset areas and a control program needs to be implemented ASAP

## 2.8. Pest plant management

There is a significant population of Parthenium in the Gilgai's of the brigalow regrowth areas, however this will reduce with the increasing canopy and the gradual increase in native grass cover and leaf litter from the brigalow. There are no significant incursion of weeds are within the offset area.

Table 2A: Schedule of management actions

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
<p><b>Forestry operations, native timber harvesting and general vegetation impacts</b></p> <p>Consistent with the risk of clearing as identified in the Brigalow Conservation Advice and Draft Recovery Plan, Conservation Advice for Reptiles of the Brigalow Belt and Conservation Advice for the Squatter Pigeon (Southern).</p>	<p>1. Vegetation clearing on the offset area is restricted to:</p> <ul style="list-style-type: none"> <li>a) that necessary for the removal of non-native weeds or declared pests</li> <li>b) ensure public safety</li> <li>c) maintenance of existing roads, fence lines, water pipelines and firebreaks; and</li> <li>d) that necessary to establish and maintain access to BioCondition assessment and photo point monitoring sites.</li> </ul> <p>Where vegetation clearing is sought for any other purpose, the Landholder must contact the relevant department administering the <i>Vegetation Management Act 1999 (Qld)</i>.</p> <p>2. Native forest practice (harvesting of timber for forestry purposes) <u>is not</u></p>	<p>Only in those areas subject to non-native weed control, fire control lines and fences.</p>	<p>Vegetation clearing for approved purposes may occur as required.</p>	<p>Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder.</p>	<p>Monitoring of this management action will be undertaken by the Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder at least four times annually.</p> <p>Quarterly inspections will monitor and document if there is evidence of recent forestry or timber harvesting activities.</p> <p>Quarterly inspections will monitor and</p>	<p><b>Trigger for corrective action:</b> detection of prohibited forestry operations, native timber harvesting and general vegetation impacts.</p> <p><b>Corrective action:</b> upon being notified or becoming aware of prohibited forestry operations, native timber harvesting and general vegetation impacts in the offset area, the Landholder is to reassess access protocols for any lessees etc., signage and general access within one fortnight.</p> <p><b>Reporting:</b> the Offset Area Report will document any known prohibited forestry operations,</p>	<p>No evidence of tree removal of any nature</p> <p><b>Compliant</b></p>

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
	<p>allowed under this Offset Area Management Plan.</p> <p>3. Clearing for new fencing will be on the outside of the offset area boundary or along the property boundary.</p> <p><b>Note:</b></p> <p>Any vegetation clearing must be undertaken in accordance with:</p> <ul style="list-style-type: none"> <li>• best practice management methods; and</li> <li>• any applicable legislative requirements. For example, the clearing of endangered, vulnerable or near-threatened plant species or the tampering with animal breeding places under <i>Nature Conservation Act 1992 (Qld)</i></li> </ul> <p>Under the <i>Vegetation Management Act 1999</i>, clearing in Least Concern</p>				<p>document vegetation clearing that has occurred for an approved purpose.</p> <p>Additional monitoring required as a corrective action/s.</p>	<p>native timber harvesting and general vegetation impacts that have occurred during the reporting period and the correlating corrective actions. The report will document how this management action is performing and contributing to the enhancement of the offset area</p>	

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
	<p>regional ecosystems for fences, roads or tracks is exempt clearing if it is less than 10 m in width. Any new fences, roads or tracks will be less than 10 m in width for each piece of infrastructure. Clearing to establish or maintain a necessary firebreak to protect infrastructure (other than fences, roads and tracks) to a maximum width of 20 m or 1.5 times the height of the tallest adjacent tree, whichever is the greater.</p> <p>Additional management action/s required as a corrective action/s to prevent prohibited clearing.</p>						
<p><b>Access and signage</b></p> <p><b>Note that entry to the offset area can only be gained via the mining lease, which has access restrictions in place under the</b></p>	<ol style="list-style-type: none"> <li>1. Installation of signage along the offset area perimeter to alert traffic of the offset area.</li> <li>2. Installation of slow speed signage at the main entry points to the offset area. Access is restricted to those authorised persons required to undertake actions described in this management plan,</li> </ol>	Boundary/ entrance points to offset area	Signage to be installed by within three months of the Queensland Government approving the voluntary declaration.	Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder.	Monitoring of this management action will be undertaken by the Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder at	<p><b>Trigger for corrective action:</b> detection of prohibited access by unauthorised persons.</p> <p><b>Corrective action:</b> upon being notified or becoming aware of prohibited access to the offset area, the Landholder is to</p>	<b>Compliant</b>

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
<p><i>Mineral Resources Act 1989 (Qld).</i></p> <p>Consistent with the risk of weed incursion as identified in the Brigalow Conservation Advice and Draft Recovery Plan, Conservation Advice for Reptiles of the Brigalow Belt.</p>	<p>including the landholder, QCoal and Byerwen Coal staff and their contractors and assigns. Any other access is to be at the discretion of Byerwen Coal for specific purposes only. Public access to the offset area is prohibited.</p> <p>3. The offset area is not to be utilised for any purpose including recreational activities, or any other activities that deter from achieving the outcomes of this plan.</p>				<p>least four times annually.</p> <p>Quarterly inspections will monitor and document if there is evidence of unauthorised access to the offset area.</p> <p>Quarterly inspections will monitor and document if signage is fit for purpose.</p>	<p>reassess access protocols for any lessees etc., signage and general access within one fortnight.</p> <p><b>Trigger for corrective action:</b> signage is not fit for purpose.</p> <p><b>Corrective action:</b> signage will be repaired and maintained as required by the Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder.</p> <p><b>Reporting:</b> the Offset Area Report will document any known incidences of prohibited access or signage maintenance issues that have occurred during the reporting period and the correlating</p>	

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
						corrective actions. The report will document how this management action is performing and contributing to the enhancement of the offset area	
<p><b>Fire</b></p> <p>Consistent with the risk of inappropriate fire regimes as identified in the Brigalow Conservation Advice and Draft Recovery Plan, Conservation Advice for Reptiles of the Brigalow Belt and Conservation Advice for the Squatter Pigeon (Southern).</p>	<p>1. Fire is to be excluded from the offset area except for low intensity ecological burns at the end of the wet season by:</p> <ul style="list-style-type: none"> <li>a) maintaining firebreaks relative to the offset areas;</li> <li>b) using a low intensity fire &gt;7 years interval; and</li> <li>c) firebreaks are to be co-located with roads and fence lines on the property where possible.</li> </ul> <p><b>Note:</b></p>	<p>May be undertaken throughout the offset areas.</p>	<p>All fire (apart from force majeure events) will be excluded from the offset area during Squatter pigeon (southern) breeding and nesting times being mostly the dry season (April to October).</p> <p>Fire control lines must be inspected quarterly. Maintenance must be</p>	<p>Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder.</p> <p>The undertaking of an ecological burn will be by a suitably qualified person in consultation with an ecologist.</p>	<p>Monitoring of this management action will be undertaken by the Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder at least four times annually.</p> <p>Quarterly inspections will monitor and document if there is evidence of wild fire, prohibited</p>	<p><b>Trigger for corrective action:</b> destruction of regrowth, fallen timber and the occurrence of deliberately lit hot fires</p> <p><b>Corrective action:</b> upon being notified or becoming aware of a prohibited fire in the offset area, the Landholder is to reassess access protocols for any lessees etc., signage and general access within one fortnight.</p> <p><b>Corrective action:</b> subsequent to any</p>	<p>No evidence of fire in the offset areas</p> <p><b>Compliant</b></p>

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
	Fire is not to be used as a tool for regrowth management on the offset areas.		<p>undertaken as required and at least biennially (i.e. once every two years).</p> <p>If fire is used, it must be a low intensity fire at &gt;7 years interval immediately after the end of the wet season, which is generally March to April. Ecological burns should not cover more than 30% of the offset area.</p>		<p>burning or force majeure events.</p> <p>Quarterly inspections will monitor and document if a prescribed low intensity ecological burn has occurred.</p>	<p>occurrence of fire in the offset area, the Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder will:</p> <ol style="list-style-type: none"> <li>1. inspect and repair, and widen if necessary, all firebreaks; and</li> <li>2. reassess fuel load reduction practices; and</li> <li>3. exclude grazing until the grass cover present at the end of the dry season of that year is a minimum: <ul style="list-style-type: none"> <li>o Brigalow communities 60% grass cover or 1500 kg/ha pasture biomass</li> </ul> </li> </ol>	

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
						<ul style="list-style-type: none"> <li>o Eucalypt communities 60% grass cover or 1500 kg/ha pasture biomass.</li> </ul> <p>Grass cover measurements must be in accordance with the methodology stated in the <i>Land Manager's Monitoring Guide</i> (Department of Environment and Resource Management, 2010) (DERM)<sup>1</sup> at <i>Attachment 2</i> of this document, or any subsequent published version of this document.</p> <p><b>Trigger for corrective action:</b> low intensity</p>	

<sup>1</sup> *Land Manager's Monitoring Guide: Ground cover indicator*, Department of Environment and Resource Management, 2010, Queensland Government, Brisbane, available at <http://qldgov.softlinkhosting.com.au/liberty/opac/search.do#>

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
						<p>ecological burn exceeds 30% of the offset area.</p> <p><b>Corrective action:</b> measures to contain the fire are to be implemented immediately. Controlled back burning from the next fire control line is the preferred method.</p> <p><b>Reporting:</b> the Offset Area Report will document any known incidences of fire that have occurred during the reporting period corrective actions. The report will document how this management action is performing and contributing to the enhancement of the offset area</p>	

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
<p><b>Fencing</b></p> <p>Consistent with the risk of excess fire as identified in the Brigalow Conservation Advice and Draft Recovery Plan, and overgrazing as identified in the Conservation Advice for Reptiles of the Brigalow Belt and Conservation Advice for the Squatter Pigeon (Southern).</p>	<p>Install and routinely inspect fencing to secure the offset area and prevent unauthorised access.</p>	<p>All external boundaries of the offset area.</p> <p>Where the boundary coincides with the property boundary, the fence may align with the property boundary. A fenced area may include non-offset areas.</p>	<p>Fencing of offset areas will be established within three months of the Queensland Government approving the voluntary declaration.</p> <p>If stock are grazing the offset area, fencing must be inspected monthly. During non-grazing periods, fencing must be inspected quarterly.</p>	<p>Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder.</p>	<p>Monitoring of this management action will be undertaken by the Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder at least four times annually.</p> <p>Quarterly inspections will identify if fences are preventing stock and unauthorised people from accessing the offset area.</p>	<p><b>Trigger for corrective action:</b></p> <p>detection of prohibited access, stock grazing outside of allowed times and thresholds, overgrazing.</p> <p><b>Corrective action:</b></p> <p>upon being notified or becoming aware of prohibited access to the offset area, the Landholder is to reassess fencing, signage and general access within one fortnight.</p> <p><b>Corrective action:</b></p> <p>upon being notified or becoming aware of an unsecure offset area (i.e. fencing is not fit for purpose), the Pastoral Manager is to undertake fence maintenance and repairs to resecure</p>	<p>At the time of the Annual Inspection, all areas securely fenced; no breakages evident</p> <p><b>Compliant</b></p>

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
						<p>the offset area as soon as possible and within 10 days. This corrective action may include the installation of new fencing.</p> <p><b>Reporting:</b> the Offset Area Report will document the installation, maintenance and repair of fences during the reporting period. The report will document how this management action is performing and contributing to the enhancement of the offset area.</p>	
<p><b>Following extreme weather conditions of drought, flood or cyclone</b></p> <p>Consistent with the general risks as identified in the</p>	<p>Determine the extent of damage to the offset area and fencing caused by the event.</p>	<p>Throughout the offset area with particular attention paid to riparian areas and the</p>	<p>As soon as safely possible post a flood or cyclone event.</p> <p>For a drought event, inspections</p>	<p>Pastoral Manager, Landholder or suitable qualified person appointed by</p>	<p>Monitoring of this management action will be undertaken by the Pastoral Manager, Landholder or suitable qualified</p>	<p><b>Trigger for corrective action:</b></p> <p>extreme weather conditions of flood or cyclone</p> <p><b>Corrective action:</b> upon being notified</p>	<p>No trigger events in the reporting period</p> <p><b>Compliant</b></p>

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
<p>Brigalow Conservation Advice and Draft Recovery Plan, Conservation Advice for Reptiles of the Brigalow Belt and Conservation Advice for the Squatter Pigeon (Southern).</p>		<p>boundary fencing.</p>	<p>must be monthly.</p>	<p>the Landholder.</p>	<p>person appointed by the Landholder within one week of the cessation of an extreme event on Wollombi Station.</p> <p>Within the abovementioned timeframe, fencing will be inspected to determine if the offset area is secure.</p> <p>During drought events, monthly inspections will be conducted to record the vegetation condition in the offset area.</p>	<p>or becoming aware of a flood or cyclone event occurring in offset area, the Pastoral Manager is to undertake fence maintenance and repairs to resecure the offset area within one fortnight.</p> <p><b>Trigger for corrective action:</b></p> <p>extreme weather conditions of drought</p> <p><b>Corrective action:</b></p> <p>upon being notified or becoming aware of a drought event occurring in offset area, the Pastoral Manager is to remove stock from the offset area within one fortnight.</p> <p><b>Reporting:</b> the Offset Area Report will document the</p>	

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
						repair of fences and removal of stock from offset areas, as a result of extreme weather conditions, during the reporting period. The report will document how this management action is performing and contributing to the enhancement of the offset area.	
<p><b>Grazing</b></p> <p>Consistent with the risk of excess fire as identified in the Brigalow Conservation Advice and Draft Recovery Plan, and overgrazing/habitat destruction as identified in the Conservation Advice for Reptiles of the Brigalow Belt and habitat</p>	<p>Stocking rates are not fixed as this region is subject to significant changes in grass cover with seasonal conditions.</p> <p>The use of stock in larger numbers for a short period of time in the late dry season and prior to the wet season and if required, again during winter is the preferred method of controlled grazing.</p> <p><b>Fire and grazing management relating to the Ornamental Snake offset area:</b></p>	<p>Stock will be grazed in the offset areas for fuel reduction purposes only during the dry season.</p>	<p>As required when grass cover in non-remnant areas exceeds 60% during the dry season.</p> <p>The dry season is normally between April and October; however, if unseasonal rainfall should occur, then</p>	<p>Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder.</p>	<p>Monitoring of this management action will be undertaken by the Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder at least monthly during grazing periods.</p> <p>Monthly inspections will</p>	<p><b>Trigger for corrective action:</b></p> <p>detection of stock grazing outside of the dry season</p> <p><b>Corrective action:</b></p> <p>upon being notified or becoming aware of prohibited stock grazing in the offset area, the Pastoral Manager is to remove the stock from the area (if present) and assess the adequacy of</p>	<p>No evidence of wet season grazing</p> <p>Grass cover levels are very high and grazing needs to be increased over the dry months to mitigate the wet summer.</p> <p>Note that in brigalow regrowth areas that the areas under the brigalow sucker</p>

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
destruction and food competition Conservation Advice for the Squatter Pigeon (Southern).	<p>A fire in the offset area is foreseen under one of two scenarios:</p> <ol style="list-style-type: none"> <li>1. a natural event beyond the control of the approval holder or the landholder <ul style="list-style-type: none"> <li>• the establishment of fire control lines (i.e. firebreaks) will assist in mitigating the risk posed by such natural events</li> </ul> </li> <li>2. a low intensity ecological burn permitted by the Pastoral Manager, Landholder or suitably qualified person appointed by the Landholder</li> </ol> <p>A low intensity ecological burn permitted under the OAMP may not occur more frequently than once every seven years and the timing of such burns may only occur immediately after the end of the wet season (usually March or April). Furthermore, these low intensity ecological burns are prohibited during the Squatter Pigeon (southern)</p>		grazing is to be allowed only if there is no evidence of moisture in the stream order one gullies to ensure that "pugging" of the soil by livestock does not occur.		<p>record the minimum grass cover, pasture biomass and security (i.e. fences) of the offset area.</p> <p>Monthly inspections will record the evidence of "pugging" in stream order one gullies.</p>	<p>fencing within one fortnight. The Pastoral Manager is to undertake fence maintenance and repairs to resecure the offset area within one fortnight.</p> <p><b>Trigger for corrective action:</b> in non-remnant areas grass cover is less than 60% or pasture biomass is less than 1500 kg/ha. (Non-remnant and remnant areas are identified in the most recent ecological condition survey.)</p> <p><b>Corrective action:</b> upon being notified or becoming aware of exceedance of either threshold, the Pastoral Manager is to remove stock from the offset area</p>	<p>clumps only have leaf litter and small amounts of native grasses.</p> <p><b>Compliant however needing increased grazing this year</b></p>

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
	<p>breeding and nesting times (i.e. the dry season). Consequently, the opportunity to conduct low intensity ecological burns will be very infrequent.</p> <p>Throughout the offset area, management actions for fire and grazing are interlinked due to the necessity to manage increased fuel loads that will establish as a consequence of reduced grazing intensity. As Brigalow trees in the offset area establish and mature, their resulting canopy cover will naturally diminish the fuel load as Buffel grass will decline in extent as the canopy cover increases. Until such time, intervention in the form of both low intensity grazing and infrequent low intensity ecological burns will achieve this outcome.</p> <p>The use of stock grazing in the Ornamental Snake offset area has the potential to adversely impact on the species' habitat <i>if poorly managed</i>. At the time of the ecological survey, stock</p>					<p>within one fortnight. Grazing may recommence prior to the wet season if the grass cover increases to greater than 60% using the methodology in the <i>Land Manager's Monitoring Guide</i> (DERM, 2010) as attached, or any subsequent published version of this document, and pasture biomass exceeds 1500 kg/ha.</p> <p><b>Trigger for corrective action:</b> in remnant Brigalow communities grass cover is less than 20%. (Non-remnant and remnant areas are identified in the most recent ecological condition survey.)</p> <p><b>Corrective action:</b> upon being notified</p>	

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
	<p>grazing in the offset area was permitted and the area was assessed as suitable habitat for the Ornamental Snake. Therefore the continued use of stock in the area, albeit more restricted, is expected to support the enhancement of the offset area.</p> <p>The management actions seek to avoid adverse impacts by monitoring the offset area more frequently during grazing periods. The Ornamental Snake offset area is comprised of regional ecosystems (RE) 11.4.9 and 11.4.2. Stock occupation will impact on grass cover, therefore upon a predefined minimum grass cover percentage being reached in each of these REs, stock must be removed from the offset area. Stock may not be reintroduced unless the grass cover (again) exceeds 80% during the dry season. Importantly, any sign of significant adverse impacts to low-lying offset areas as a result of stock use (e.g. pugging) will trigger the</p>					<p>or becoming aware of exceedance of the grass cover threshold, the Pastoral Manager is to remove stock from the offset area within one fortnight. Grazing may recommence prior to the wet season if the grass cover increases to greater than 60% using the methodology in the <i>Land Manager's Monitoring Guide</i> (DERM, 2010) as attached, or any subsequent published version of this document.</p> <p><b>Trigger for corrective action:</b> in remnant Eucalypt communities grass cover is less than 35% or pasture biomass is less than 1500 kg/ha. (Non-remnant and</p>	

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
	<p>removal of stock from the offset area.</p> <p>The allowance of stock to the offset area triggers a higher management intensity to mitigate the increased risk of adverse impacts. This management approach will identify adverse impacts as they arise and trigger corrective action/s as necessary. The success of stock grazing in the Ornamental Snake offset area will become apparent during the first dry season under offset area management.</p>					<p>remnant areas are identified in the most recent ecological condition survey.)</p> <p><b>Corrective action:</b> upon being notified or becoming aware of exceedance of either threshold, the Pastoral Manager is to remove stock from the offset area within one fortnight. Grazing may recommence prior to the wet season if the grass cover increases to greater than 60% using the methodology in the <i>Land Manager's Monitoring Guide</i> (DERM, 2010) as attached, or any subsequent published version of this document, and pasture biomass exceeds 1500 kg/ha.</p>	

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
						<p><b>Trigger for corrective action:</b> stock grazing occurs in the offset area during the dry season and pasture biomass is less than 1500 kg/ha at the end of the dry season.</p> <p><b>Corrective action:</b> upon being notified or becoming aware of the pasture biomass being less than 1500 kg/ha at the end of the dry season, the Pastoral Manager is to review and adapt stock grazing practices for the following dry season. Evidence of this review and outcome/s must be included in the Offset Area Report.</p> <p><b>Trigger for corrective action:</b> detection of stock grazing causing</p>	

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
						<p>pugging in stream order one gullies or significant adverse impacts to low-lying offset areas.</p> <p><b>Corrective action:</b> upon being notified or becoming aware of stock causing pugging in stream order one gullies or significant adverse impacts to low-lying offset areas, the Pastoral Manager is to remove stock from the offset area within 72 hours.</p> <p><b>Reporting:</b> the Offset Area Report will document the grazing periods that occurred in the offset areas during the reporting period and the correlating corrective actions that occurred as part of grazing management. The</p>	

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
						report will document how this management action is performing and contributing to the enhancement of the offset area.	
<p><b>Pest animals</b></p> <p>Consistent with the risk of habitat damage and predation identified in the Conservation Advice for Reptiles of the Brigalow Belt and Conservation Advice for the Squatter Pigeon (Southern).</p>	<p>Minimise the introduction of pest animals and control of existing populations of pest animals (wild dogs, pigs, feral cats and foxes) within the offset areas in accordance with the <a href="#">Land Protection (Pest and Stock Route Management) Act 2002</a> (Qld).</p> <p>Wild pig, deer and dog populations are generally small and highly transient, and therefore the scale of impact is small. Major damage to the environment/habitat occurs when large numbers of animals congregate in the area.</p> <p>Current control of pigs and wild dogs is undertaken via a baiting program on the</p>	<p>All offset areas.</p>	<p>Preferably in the winter and spring months to minimise impacts to the Squatter Pigeon (southern) during breeding and nesting.</p> <p>Destruction of wetland habitat by feral pigs is also a threat to the Ornamental Snake, along with the associated destruction of frog habitat</p>	<p>Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder.</p>	<p>Monitoring of this management action will be undertaken by the Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder at least four times annually.</p> <p>Quarterly inspections will record the presence of wallow holes, tracks and visual</p>	<p><b>Trigger for corrective action:</b> detection of twelve or more half grown and/or mature wild pigs, deer or dogs during a quarterly inspection.</p> <p><b>Corrective action:</b> upon being notified or becoming aware of pest animals populations exceeding the threshold, the Pastoral Manager is to implement pest control measures within one month. The Pastoral Manager or Landholder may approach neighbouring</p>	<p>A large number of pigs were seen and are evident in the brigalow portion of the offset area. During the inspection. A pig control program needs to be implemented ASAP</p> <p><b>Non - Compliant</b></p>

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
	<p>property. Additional to this measure, the Pastoral Manager, during quarterly inspections of the offset area may remove any wild pigs, deer or wild dogs that are seen. If an increase in pig, deer or dog activity is noted, an additional trapping, baiting and/or control program is to be instigated until the increased activity has ceased.</p> <p>There was no evidence of extensive damage from deer, foxes, rabbits or wild cats detected during surveys as part of the Environmental Impact Assessment, however, if the occurrence of these animals is detected, a control program integrated with that for wild pigs and dogs will be implemented.</p>		<p>and direct competition for their food source (frogs).</p> <p>When a group of animals is observed, a control program will be implemented. The timing of control program will address the threats to both species.</p>		<p>incidents in the offset area.</p> <p>Note: baseline levels for pest animals are not able to be established due to the transient nature of the animals. Numbers are established via visual signs recorded during quarterly inspections.</p>	<p>landowners to discuss the increased pest animal presence and an integrated control program may be developed.</p> <p><b>Reporting:</b> the Offset Area Report will document the indications or sightings of pest animals during the reporting period and the correlating corrective actions. The report will document how this management action is performing and contributing to the enhancement of the offset area.</p>	

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
<p><b>Pest plants (i.e. weeds)</b></p> <p>Consistent with the risk of excess fire from excessive weed cover as identified in the Brigalow Conservation Advice and Draft Recovery Plan, and and competition food sources and inappropriate habitat as per the Conservation Advice for the Squatter Pigeon (Southern)</p>	<p>Keep the introduction, establishment and spread of non-native weeds including Declared Pest Plants listed under the <a href="#">Land Protection (Pest and Stock Route Management) Act 2002</a> (Qld) to less than 10% weed cover in the offset area.</p> <p>Control existing infestations of non-native weeds including declared pest plants under the <a href="#">Land Protection (Pest and Stock Route Management) Act 2002</a> (Qld) to ensure that the non-native weeds cover less than 10% of the offset area (e.g., Parthenium).</p> <p>Buffel Grass is recognised as being a threat to the vegetation communities and habitat in the offset area however is not referred to as a weed as it is not declared in <i>the Land Protection (Pest and Stock Route Management) Act 2002</i> (Qld). Control measures such as grazing and increasing canopy cover of vegetation are included in this plan to decrease the extent of Buffel Grass over time. Control</p>	Throughout the offset area	Weed control will be undertaken as early as practicable within the natural regeneration process throughout the offset areas and then periodically as required to treat the weeds at the optimum time in their life cycles to control and minimise the spread of the existing weed species.	Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder.	<p>Monitoring of this management action will be undertaken by the Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder at least four times annually.</p> <p>Quarterly inspections will observe and record the presence of weeds and success of previously applied weed control measures. The inspection will include before and after photos of the weed control area. The field data sheets provided in Appendix A may</p>	<p><b>Trigger for corrective action:</b> pest plants occur in greater than 10% of the offset area</p> <p><b>Corrective action:</b> upon being notified or becoming aware of pest plants being present in greater than 10% of the offset area, the Pastoral Manager is to implement pest control measures within one month. These measures may include, and are not limited to:</p> <ul style="list-style-type: none"> <li>• foliar spraying;</li> <li>• basal bark spraying;</li> <li>• stem injection;</li> <li>• cut stump;</li> <li>• cut and swab;</li> </ul>	<p>No significant populations of weeds were observed</p> <p><b>Compliant</b></p>

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
	<p>of Buffel Grass is best managed via grazing during the dry season and increasing tree canopy cover.</p> <p>Spot spraying of patches of Parthenium is permitted.</p>				<p>assist with documenting weed presence and control measures.</p> <p>Quarterly inspections will be conducted by the Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder to record the minimum grass cover in the offset area. The following grass cover is to be present at the end of the dry season as a minimum:</p> <ul style="list-style-type: none"> <li>o Brigalow communities 60% groundcover or 1500kg/ha</li> </ul>	<ul style="list-style-type: none"> <li>• stem scraper; and</li> <li>• wick applicators.</li> </ul> <p><b>Reporting:</b> the Offset Area Report will document the weed presence and weed control measures during the reporting period and the correlating corrective actions. The report will document how this management action is performing and contributing to the enhancement of the offset area.</p>	

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
					pasture biomass  o Eucalypt Communities 60% groundcover or 850kg/ha pasture biomass.		

Table 2B: Schedule of management actions for the additional offset area for squatter pigeon

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
<p><b>Forestry operations, native timber harvesting and general vegetation impacts</b></p> <p>Consistent with the risk of clearing as identified in the Conservation Advice for the Squatter Pigeon (Southern).</p> <p>General Vegetation Impacts are those impacts that occur as a result of weed control, public safety, existing fence, road and fire control line maintenance, stock management and monitoring and reporting.</p>	<ol style="list-style-type: none"> <li>Native forest practice (harvesting of timber for forestry purposes) <u>is not</u> allowed under this Offset Area Management Plan.</li> <li>Clearing for new fencing will be on the outside of the offset area boundary or along the property boundary.</li> </ol> <p><b>Note:</b></p> <p>Any vegetation clearing must be undertaken in accordance with:</p> <ul style="list-style-type: none"> <li>best practice management methods; and</li> <li>any applicable legislative requirements. For example, the clearing of endangered, vulnerable or near-threatened plant species or the tampering with animal breeding places under</li> </ul>	<p>Only in those areas subject to non-native weed control, fire control lines and fences.</p>		<p>Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder.</p>	<p>Monitoring of this management action will be undertaken by the Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder at least four times annually.</p> <p>Quarterly inspections will monitor and document if there is evidence of recent forestry or timber harvesting activities.</p> <p>Quarterly inspections will monitor and document vegetation clearing that has occurred for an</p>	<p><b>Trigger for corrective action:</b> detection of prohibited forestry operations, native timber harvesting and general vegetation impacts.</p> <p><b>Corrective action:</b> upon being notified or becoming aware of prohibited forestry operations, native timber harvesting and general vegetation impacts in the offset area, the Landholder is to reassess access protocols for any lessees etc., signage and general access within one fortnight.</p> <p><b>Reporting:</b> the Offset Area Report will document any known prohibited forestry operations,</p>	<p>No timber harvesting or removal of vegetation was observed or evident</p> <p><b>Compliant</b></p>

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
	<p><i>Nature Conservation Act 1992 (Qld)</i></p> <p>Additional management action/s required as a corrective action/s to prevent prohibited clearing.</p>				<p>approved purpose.</p> <p>Additional monitoring required as a corrective action/s.</p>	<p>native timber harvesting and general vegetation impacts that have occurred during the reporting period and the correlating corrective actions. The report will document how this management action is performing and contributing to the enhancement of the offset area.</p>	
<p><b>Access and signage</b></p> <p>Note that entry to the offset area can only be gained via the mining lease, which has access restrictions in place under the <i>Mineral Resources Act 1989 (Qld)</i>.</p> <p>Any traversing of the offset site for monitoring purposes is to</p>	<ol style="list-style-type: none"> <li>1. Installation of signage along the offset area perimeter to alert traffic of the offset area.</li> <li>2. Installation of slow speed signage at the main entry points to the offset area. Access is restricted to those authorised persons required to undertake actions described in this management plan, including the landholder, QCoal and Byerwen Coal staff and their contractors and assigns. Any other</li> </ol>	Boundary/ entrance points to offset area	Signage to be installed by within three months of the Queensland Government approving the voluntary declaration.	Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder.	Monitoring of this management action will be undertaken by the Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder at least four times annually.	<p><b>Trigger for corrective action:</b> detection of prohibited access by unauthorised persons.</p> <p><b>Corrective action:</b> upon being notified or becoming aware of prohibited access to the offset area, the Byerwen Coal is to reassess access protocols for any lessees etc., signage and general access</p>	<p>Signage was evident and fencing secure</p> <p><b>Compliant</b></p>

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
<p>follow contour lines and minimise impacts to vegetation as much as possible.</p>	<p>access is to be at the discretion of Byerwen Coal for specific purposes only. Public access to the offset area is prohibited.</p> <p>3. The offset area is not to be utilised for any purpose including recreational activities, or any other activities that deter from achieving the outcomes of this plan.</p>				<p>Quarterly inspections will monitor and document if there is evidence of unauthorised access to the offset area.</p> <p>Quarterly inspections will monitor and document if signage is fit for purpose.</p>	<p>within one fortnight.</p> <p>Damage to signage will be repaired within one fortnight of noting the damage</p> <p>Access protocols will be reviewed and amended if necessary and the impacted area's regeneration monitored during the quarterly inspections.</p> <p><b>Trigger for corrective action:</b> signage is not fit for purpose.</p> <p><b>Corrective action:</b> signage will be repaired and maintained as required by the Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder.</p>	

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
						<p><b>Reporting:</b> the Offset Area Report will document any known incidences of prohibited access or signage maintenance issues that have occurred during the reporting period and the correlating corrective actions. The report will document how this management action is performing and contributing to the enhancement of the offset area</p>	
<p><b>Fire</b></p> <p>Consistent with the risk of inappropriate fire regimes as identified in the Conservation Advice for the Squatter Pigeon (Southern).</p>	<p>Fire is to be excluded from the offset area except for low intensity ecological burns at the end of the wet season by:</p> <ul style="list-style-type: none"> <li>a) maintaining firebreaks relative to the offset areas;</li> <li>b) using a low intensity fire &gt;7 years interval; and</li> </ul>	<p>May be undertaken throughout the offset areas.</p>	<p>All fire (apart from force majeure events) will be excluded from the offset area during Squatter pigeon (southern) breeding and nesting times being mostly</p>	<p>Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder.</p> <p>The undertaking of an</p>	<p>Monitoring of this management action will be undertaken by the Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder at</p>	<p><b>Trigger for corrective action:</b> destruction of regrowth, fallen timber and the occurrence of deliberately lit hot fires</p> <p><b>Corrective action:</b> upon being notified or becoming aware of a prohibited fire</p>	<p>No evidence of fire was detected</p> <p>A cool fire in the Poplar Box and alluvial areas is recommended post the grazing period to reduce the fuel load of buffel grass further and allow the</p>

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
	<p>c) firebreaks are to be co-located with roads and fence lines on the property where possible.</p> <p><b>Note:</b></p> <p>Fire is not to be used as a tool for regrowth management on the offset areas.</p> <p>A fire in the offset area is foreseen under one of two scenarios:</p> <p>3. a natural event beyond the control of the approval holder or the landholder</p> <ul style="list-style-type: none"> <li>the establishment of fire control lines (i.e. firebreaks) will assist in mitigating the risk posed by such natural events</li> </ul> <p>4. a low intensity ecological burn permitted by the Pastoral Manager, Landholder or suitably qualified person</p>		<p>the dry season (April to October).</p> <p>Fire control lines must be inspected quarterly. Maintenance must be undertaken as required and at least biennially (i.e. once every two years).</p> <p>If fire is used, it must be a low intensity fire at &gt;7 years interval immediately after the end of the wet season, which is generally March to April. Ecological burns should not cover more than</p>	<p>ecological burn will be by a suitably qualified person in consultation with an ecologist.</p>	<p>least four times annually.</p> <p>Quarterly inspections will monitor and document if there is evidence of wild fire, prohibited burning or force majeure events. Fencing is to be checked and repaired (if necessary) to a stock proof condition within 10 days of any <i>Force Majeure</i> event.</p> <p>Quarterly inspections will monitor and document if a prescribed low intensity ecological burn has occurred.</p> <p>Weed cover is to be monitored by the same</p>	<p>in the offset area, Byerwen Coal is to reassess and implement new access protocols for any lessees etc., signage and general access within one fortnight.</p> <p><b>Corrective action:</b> subsequent to any occurrence of fire in the offset area, the Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder will:</p> <p>4. inspect and repair, and widen if necessary, all firebreaks; and</p> <p>5. reassess fuel load reduction practices; and</p> <p>6. exclude grazing until</p>	<p>regeneration of native grasses</p> <p><b>Compliant</b></p>

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
	<p>appointed by the Landholder</p> <p>A low intensity ecological burn permitted under the OAMP may not occur more frequently than once every seven years and the timing of such burns may only occur immediately after the end of the wet season (usually March or April). Furthermore, these low intensity ecological burns are prohibited during the Squatter Pigeon (southern) breeding and nesting times (i.e. the dry season). Consequently, the opportunity to conduct low intensity ecological burns will be very infrequent.</p>		<p>30% of the offset area.</p> <p>If a Force Majeure fire occurs within the offset areas, controlled burning is not to be undertaken for at least 7 years after.</p>		<p>methodology and at the same time as the grass cover and weed control undertaken post a fire event to ensure weed cover is &lt;5%.</p> <p>Grass cover measurements must be in accordance with Methodology 2B as stated in the <i>Land Manager's Monitoring Guide</i> (Department of Environment and Resource Management, 2010) (DERM)<sup>2</sup> provided as Attachment 2 of the OAMP, or any subsequent published</p>	<p>the ground cover present at the end of the dry season of that year is at a minimum of 60%:</p> <p><b>Trigger for corrective action:</b> low intensity ecological burn exceeds 30% of the offset area.</p> <p><b>Corrective action:</b> measures to contain the fire are to be implemented immediately. Controlled back burning from the next fire control line is the preferred method.</p> <p><b>Reporting:</b> the Offset Area Report will document any known incidences</p>	

<sup>2</sup> *Land Manager's Monitoring Guide: Ground cover indicator*, Department of Environment and Resource Management, 2010, Queensland Government, Brisbane, available at <http://qldgov.softlinkhosting.com.au/liberty/opac/search.do#>

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
					version of this document.	of fire that have occurred during the reporting period corrective actions. The report will document how this management action is performing and contributing to the enhancement of the offset area	
<p><b>Fencing</b></p> <p>The proponent commits to installing fencing to protect the offset area. A fencing plan has been provided in <b>Figure 5</b> of the OAMP as provided at Schedule 1.</p> <p>Consistent with the risk of excess grazing as identified in the Conservation Advice for the</p>	Install and routinely inspect fencing to secure the offset area and prevent unauthorised access.	All external boundaries of the offset area. A fenced area may include non-offset areas.	<p>Fencing of offset areas will be established within three months of the Queensland Government approving the voluntary declaration.</p> <p>If stock are grazing the offset area or adjacent areas, fencing must be inspected</p>	Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder.	<p>Monitoring of this management action will be undertaken by the Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder at least four times annually.</p> <p>Quarterly inspections will identify if fences are preventing</p>	<p><b>Trigger for corrective action:</b></p> <p>detection of prohibited access, stock grazing outside of allowed times and thresholds, overgrazing. Damage to fencing that could allow unauthorised access to people or livestock.</p> <p><b>Corrective action:</b> upon being notified or becoming aware</p>	<p>All offset area fencing was in a stockproof condition and secure</p> <p>New fencing has been erected as per the management plan</p> <p><b>Compliant</b></p>

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
Squatter Pigeon (Southern).			monthly. During non-grazing periods, fencing must be inspected quarterly.		<p>stock and unauthorised people from accessing the offset area.</p> <p>Fencing is to be checked and repaired (if necessary) to a stock proof condition within 10 days of any <i>Force Majeure</i> event.</p>	<p>of prohibited access to the offset area, the Landholder is to reassess fencing, signage and general access within one fortnight.</p> <p><b>Corrective action:</b> upon being notified or becoming aware of an unsecure offset area (i.e. fencing is not fit for purpose), the Pastoral Manager is to undertake fence maintenance and repairs to resecure the offset area as soon as possible and within 10 days. This corrective action may include the installation of new fencing.</p> <p><b>Reporting:</b> the Offset Area Report will document the installation, maintenance and repair of fences</p>	

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
						during the reporting period. The report will document how this management action is performing and contributing to the enhancement of the offset area.	
<p><b>Following extreme weather conditions of drought, flood or cyclone</b></p> <p>Consistent with the general risks as identified in Conservation Advice for the Squatter Pigeon (Southern).</p> <p>Drought is defined as the district or property being Drought Declared by the Qld Government.</p>	Determine the extent of damage to the offset area and fencing caused by the event.	Throughout the offset area with particular attention paid to riparian areas and the boundary fencing.	<p>As soon as safely possible post a flood or cyclone event.</p> <p>For a drought event, inspections must be monthly.</p>	Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder.	<p>Monitoring of this management action will be undertaken by the Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder within one week of the cessation of an extreme event on Wollombi Station.</p> <p>Within the abovementioned timeframe, fencing will be</p>	<p><b>Trigger for corrective action:</b></p> <p>extreme weather conditions of flood or cyclone</p> <p><b>Corrective action:</b></p> <p>upon being notified or becoming aware of a flood or cyclone event occurring in offset area, the Pastoral Manager is to undertake fence maintenance and repairs to resecure the offset area within one fortnight. Stock should be excluded following Force Majure rain events</p>	<p>There was no occurrence of or evidence of extreme weather conditions during the reporting period.</p> <p><b>Compliant</b></p>

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
					<p>inspected to determine if the offset area is secure.</p> <p>During drought events, monthly inspections will be conducted to record the vegetation condition in the offset area.</p> <p>Weed cover is to be monitored by the same methodology and at the same time as the grass cover and weed control undertaken post a fire event to ensure weed cover is &lt;5%.</p> <p>Fencing is to be checked and repaired (if necessary) to a stock proof</p>	<p>until soil is sufficiently dry to prevent pugging.</p> <p><b>Trigger for corrective action:</b></p> <p>extreme weather conditions of drought</p> <p><b>Corrective action:</b></p> <p>upon being notified or becoming aware of a drought event occurring in offset area, the Pastoral Manager is to remove stock from the offset area within 5 days.</p> <p><b>Reporting:</b> the Offset Area Report will document the repair of fences and removal of stock from offset areas, as a result of extreme weather conditions, during the reporting period. The report will document how this</p>	

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
					condition within 10 days of any <i>Force Majeure</i> event.	management action is performing and contributing to the enhancement of the offset area.	
<p><b>Grazing</b></p> <p>Consistent with the risk of excess grazing as identified in the Conservation Advice for the Squatter Pigeon (Southern).</p>	<p>Stocking rates are not fixed as this region is subject to significant changes in grass cover with seasonal conditions.</p> <p>The use of stock in larger numbers for a short period of time in the late dry season and prior to the wet season and if required, again during winter is the preferred method of controlled grazing.</p> <p>Throughout the offset area, management actions for fire and grazing are interlinked due to the necessity to manage increased fuel loads that will establish as a consequence of reduced grazing intensity. As canopy trees and the shrub layers in the offset area establish and</p>	<p>Stock will be grazed in the offset areas for fuel reduction purposes only during the dry season.</p>	<p>As required when ground cover in non-remnant areas exceeds 60% during the dry season.</p> <p>Stock are not to be grazed during Squatter Pigeon breeding season which is between April to August.</p> <p>The dry season is normally between April and December; however, if unseasonal rainfall should</p>	<p>Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder.</p>	<p>Monitoring of this management action will be undertaken by the Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder at least monthly during grazing periods.</p> <p>Monthly inspections will record the minimum grass cover, pasture biomass and security (i.e.</p>	<p><b>Trigger for corrective action:</b></p> <p>detection of stock grazing outside of the dry season, or during the dry season exclusion period</p> <p><b>Corrective action:</b></p> <p>upon being notified or becoming aware of prohibited stock grazing in the offset area, the Pastoral Manager is to remove the stock from the area (if present) and assess the adequacy of fencing within 10 days. The Pastoral Manager is to undertake fence maintenance and repairs to resecure</p>	<p>There is a large body of buffel grass across the offset area that needs to be heavily grazed over winter. This has resulted from the wet summer months and the removal of grazing during the wet season. The buffel grass is now too high and will be impacting the Squatter Pigeon habitat quality due to excessive groundcover and a lack of food as Squatter Pigeon cannot eat buffel grass seeds.</p>

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
	<p>mature, their resulting canopy cover will naturally diminish the fuel load as Buffel grass will decline in extent as the canopy cover increases. Until such time, intervention in the form of both low intensity grazing and infrequent low intensity ecological burns will achieve this outcome.</p> <p>The management actions seek to avoid adverse impacts by monitoring the offset area more frequently during grazing periods. Importantly, any sign of significant adverse impacts to low-lying offset areas as a result of stock use (e.g. pugging) will trigger the removal of stock from the offset area.</p> <p>The allowance of stock to the offset area triggers a higher management intensity to mitigate the increased risk of adverse impacts. This management approach will identify adverse impacts as they arise and trigger corrective action/s as necessary. The success of stock grazing in the</p>		<p>occur, then grazing is to be allowed only if there is no evidence of moisture in the stream order one gullies to ensure that “pugging” of the soil by livestock does not occur.</p>		<p>fences) of the offset area.</p> <p>Monthly inspections will record the evidence of “pugging” in stream order one gullies.</p>	<p>the offset area within 10 days.</p> <p><b>Trigger for corrective action:</b> in non-remnant areas ground cover is less than 60%.</p> <p><b>Corrective action:</b> upon being notified or becoming aware of exceedance of the threshold, the Pastoral Manager is to remove stock from the offset area within 5 days. Grazing may recommence prior to the wet season if the ground cover increases to greater than 60% using methodology 2Bin the <i>Land Manager’s Monitoring Guide (DERM, 2010)</i> as per Attachment 2 of the OAMP, or any subsequent</p>	<p>In the Brigalow regrowth areas, areas under the sucker clumps were dominated by leaf litter and small amounts of native grasses.</p> <p><b>Compliant however a heavy grazing is required over winter to reduce the fuel load and buffel grass cover</b></p>

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
	Ornamental Snake offset area will become apparent during the first dry season under offset area management.					<p>published version of this document.</p> <p><b>Trigger for corrective action:</b> stock grazing occurs in the offset area during the dry season and ground cover falling below 60%..</p> <p><b>Corrective action:</b> upon being notified or becoming aware that the ground cover drops below 60% during the dry season, the Pastoral Manager is to review and adapt stock grazing practices for the following dry season. Evidence of this review and outcome/s must be included in the Offset Area Report.</p> <p><b>Trigger for corrective action:</b> detection of stock grazing causing</p>	

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
						<p>pugging in stream order one gullies or significant adverse impacts to low-lying offset areas, all of which are to be inspected during the quarterly inspections</p> <p><b>Corrective action:</b> upon being notified or becoming aware of stock causing pugging in stream order one gullies or significant adverse impacts to low-lying offset areas, the Pastoral Manager is to remove stock from the offset area within 72 hours.</p> <p><b>Corrective action:</b> upon being notified or becoming aware of a drought event occurring in offset area, the Pastoral Manager is to remove stock from</p>	

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
						<p>the offset area within 5 days.</p> <p><b>Reporting:</b> The Offset Area Report will document the grazing periods that occurred in the offset areas during the reporting period and the correlating corrective actions that occurred as part of grazing management. The report will document how this management action is performing and contributing to the enhancement of the offset area.</p>	
<p><b>Pest animals</b></p> <p>Consistent with the risk of habitat damage and predation identified in the Conservation Advice for the</p>	<p>Minimise the introduction of pest animals and control of existing populations of pest animals (wild dogs, pigs, feral cats and foxes) within the offset areas in accordance with the <a href="#">Land Protection (Pest and</a></p>	<p>All offset areas.</p>	<p>Preferably in the winter and spring months to minimise impacts to the Squatter Pigeon (southern) during</p>	<p>Pastoral Manager, Landholder or suitable qualified person appointed by</p>	<p>Monitoring of this management action will be undertaken by the Pastoral Manager, Landholder or suitable qualified</p>	<p><b>Trigger for corrective action:</b> detection of twelve or more half grown and/or mature wild pigs, deer or dogs during a quarterly inspection.</p>	<p>A large number of pigs were seen and are evident in the brigalow portion of the offset area. During the inspection. A pig</p>

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
Squatter Pigeon (Southern).	<p><a href="#">Stock Route Management Act 2002</a> (Qld).</p> <p>Wild pig, deer and dog populations are generally small and highly transient, and therefore the scale of impact is small. Major damage to the environment/habitat occurs when large numbers of animals congregate in the area.</p> <p>Current control of pigs and wild dogs is undertaken via a baiting program on the property. Additional to this measure, the Pastoral Manager, during quarterly inspections of the offset area may remove any wild pigs, deer or wild dogs that are seen. If an increase in pig, deer or dog activity is noted, an additional trapping, baiting and/or control program is to be instigated until the increased activity has ceased.</p> <p>There was no evidence of extensive damage from deer, foxes, rabbits or wild cats detected during surveys as part of the Environmental</p>		<p>breeding and nesting.</p> <p>Destruction of wetland habitat by feral pigs is also a threat to the Ornamental Snake, along with the associated destruction of frog habitat and direct competition for their food source (frogs).</p> <p>When a group of animals is observed, a control program will be implemented. The timing of control program will address the threats to both species.</p>	the Landholder.	<p>person appointed by the Landholder at least four times annually.</p> <p>Quarterly inspections will involve traversing the offset area with streams, low lying areas and vehicle access tracks being noted for to record the presence of wallow holes, tracks and visual incidents in the offset area. If detected, these areas will be GPS and photographed and rechecked at the next quarterly inspection.</p> <p>Note: baseline levels for pest animals are not</p>	<p><b>Corrective action:</b> upon being notified or becoming aware of pest animal populations exceeding the threshold, the Pastoral Manager is to implement pest control measures within one month. The Pastoral Manager or Landholder may approach neighbouring landowners to discuss the increased pest animal presence and an integrated control program may be developed.</p> <p><b>Reporting:</b> the Offset Area Report will document the indications or sightings of pest animals during the reporting period and the correlating corrective actions. The report will</p>	<p>control program needs to be implemented ASAP</p> <p><b>Non - Compliant</b></p>

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
	Impact Assessment, however, if the occurrence of these animals is detected, a control program integrated with that for wild pigs and dogs will be implemented.				able to be established due to the transient nature of the animals. Numbers are established via visual signs recorded during quarterly inspections.	document how this management action is performing and contributing to the enhancement of the offset area.	
<p><b>Pest plants (i.e. weeds)</b></p> <p>Consistent with the risk of excess fire from excessive weed cover as identified in the Conservation Advice for the Squatter Pigeon (Southern)</p>	<p>Keep the introduction, establishment and spread of non-native weeds including Declared Pest Plants listed under the <a href="#">Land Protection (Pest and Stock Route Management) Act 2002</a> (Qld) to less than 10% weed cover in the offset area.</p> <p>Control existing infestations of non-native weeds including declared pest plants under the <a href="#">Land Protection (Pest and Stock Route Management) Act 2002</a> (Qld) to ensure that the non-native weeds cover less than 10% of the offset area (e.g., Parthenium).</p> <p>Buffel Grass is recognised as being a threat to the</p>	Throughout the offset area	Weed control will be undertaken as early as practicable within the natural regeneration process throughout the offset areas and then periodically as required to treat the weeds at the optimum time in their life cycles to control and minimise the	Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder.	<p>Monitoring of this management action will be undertaken by the Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder at least four times annually.</p> <p>Weed cover is to be monitored by the same methodology and at the same time and at the same time as the</p>	<p><b>Trigger for corrective action:</b> pest plants occur in greater than 10% of the offset area</p> <p><b>Corrective action:</b> upon being notified or becoming aware of pest plants being present in greater than 5% of the offset area, the Pastoral Manager is to implement pest control measures within one month. These measures may include, and are not limited to:</p>	<p>There were no significant outbreaks of weeds in any of the offset areas.</p> <p><b>Compliant</b></p>

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
	<p>vegetation communities and habitat in the offset area however is not referred to as a weed as it is not declared in <i>the Land Protection (Pest and Stock Route Management) Act 2002</i> (Qld). Control measures such as grazing and increasing canopy cover of vegetation are included in this plan to decrease the extent of Buffel Grass over time. Control of Buffel Grass is best managed via grazing during the dry season and increasing tree canopy cover.</p> <p>Spot spraying of patches of Parthenium is permitted.</p>		spread of the existing weed species.		<p>grass cover measurements.</p> <p>Quarterly inspections will observe and record the presence of weeds and success of previously applied weed control measures. The inspection will include before and after photos of the weed control area. The field data sheets provided in Appendix A may assist with documenting weed presence and control measures.</p> <p>Quarterly inspections will be conducted by the Pastoral Manager, Landholder or</p>	<ul style="list-style-type: none"> <li>• foliar spraying;</li> <li>• basal bark spraying;</li> <li>• stem injection;</li> <li>• cut stump;</li> <li>• cut and swab;</li> <li>• stem scraper; and</li> <li>• wick applicators.</li> </ul> <p><b>Reporting:</b> the Offset Area Report will document the weed presence and weed control measures during the reporting period and the correlating corrective actions. The report will document how this management action is performing and contributing to the</p>	

Management action	How the action will be carried out	Where the action will be carried out	When the action will be carried out	Who will be carrying out the action	Monitoring scope, frequency and timing	Triggers, corrective actions and performance reporting	Progress Report
					<p>suitable qualified person appointed by the Landholder to record the ground cover in the offset area. The following ground cover is to be present at the end of the dry season which is to be at the minimum of 60% at the end of the dry season.</p>	<p>enhancement of the offset area.</p>	

### 3. Offset monitoring and reporting

A detailed schedule and the requirements for the offset area monitoring is provided in the OAMP for this offset site and is shown at *Table 3* for ease of reference. The requirements of the monitoring and reporting are a combination of site survey work and landholder record keeping and collation.

A formal reporting process on the Biocondition monitoring will occur immediately following each Biocondition monitoring event as detailed in *Table 3A and Table 3B*. This reporting process will include an evaluation of all data collected during the preceding five years and make a comparison to earlier report findings including baseline conditions. Importantly this reporting process will re-calculate the condition of the offset areas using the Offset Calculator (DoEE) and make a determination regarding achievement of the specific management outcomes and any recommendations for adaptive management required. The evaluation will enable a determination of trajectory for the longer-term condition of the TECs, and if not on an appropriate trajectory then modifications to management actions can be applied. Should recommended management actions vary drastically from those detailed in this OAMP then DoEE will be informed as part of normal reporting processes. The report will be submitted to the administering authority.

**Table 3A: Offset area monitoring schedule**

Monitoring	Attributes monitored	Frequency	Method	Location/s
Surveys undertaken by Ecologists				
Baseline assessment	Refer 'ecological condition' below	Completed in 2015/16 and is an input into the OAMP	Field observations, vegetation assessment as per the <i>Guide to determining terrestrial habitat quality – a toolkit for assessing land-based offsets under the Queensland Environmental Offsets Policy (version 1.1 December 2014)</i> (DEHP, 2014).	Sites listed at <i>Table 10</i> of the OAMP.
Ecological condition assessment	Recruitment of woody perennial species in EDL	In the early dry season (June or July) in years 2020, 2025, 2030, 2035, 2040, and 2044	Field observations, vegetation assessment as per the <i>Guide to determining terrestrial habitat quality – a toolkit for assessing land based offsets under the Queensland Environmental Offsets Policy (version 1.1</i>	Sites listed at <i>Table 10</i> of the OAMP.
	Native plant species richness – trees			
	Native plant species richness – shrubs			
	Native plant species richness - grasses			

Monitoring	Attributes monitored	Frequency	Method	Location/s
	Native plant species richness – forbs		<i>December 2014</i> ) (DEHP, 2014)*.	
	Tree canopy height		Data for each of the ecological condition attributes monitored will be collected at each site listed in <i>Table 10</i> of the OAMP and reported on and presented in a sequential manner (including previous data collected) to quantify change from the benchmark collected in 2015/16. This will record the change in each attribute measured and hence the condition of the ecological community and habitat, thus enabling a statistical comparison to previous years' data and the progression of the offset site condition and EPBC Act Offset Assessment Guide Calculator inputs.	
	Tree canopy cover			
	Shrub canopy cover			
	Native perennial grass cover			
	Organic litter			
	Large trees			
	Coarse woody debris			
	Non-native plant cover			
	Non-remnant or remnant status			
Squatter pigeon survey	As per the EPBC Act guidelines	In the early dry season (June or July) in years 2020, 2025, 2030, 2035, 2040 and 2044.		As per the EPBC Act guidelines
Landholder/Pastoral Manager/Authority Holder Records				
<i>Record keeping commences within three months of the Queensland Government approving the voluntary declaration</i>				
Photo points	General vegetation condition	Annually in the early dry season (June or July) until, and including, May 2044	Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder will undertake quarterly inspections of the offset area to observe and record grass cover levels, pest plants, accessibility (i.e. condition of fencing), signage, evidence of fire and evidence of pest	Sites listed at <i>Table 10</i> of the OAMP.
Grazing	Stocking rates Grass cover Pasture biomass Pugging of the soil by livestock	Monitored monthly during grazing periods and reported annually until, and including, May 2044		Within Offset Areas

Monitoring	Attributes monitored	Frequency	Method	Location/s
Fire	Occurrence/triggers, corrective actions, timing and result of the control measures	Monitored quarterly and reported annually until, and including, May 2044	animal incursion. The inspection records will serve as the primary data source for the Offset Area Report.	
Pest plants	Occurrence/triggers, corrective actions, timing and result of the control measures	Monitored quarterly and reported annually until, and including, May 2044	Photo points to be undertaken as per the method described in the <i>Land Manager's Monitoring Guide</i> (DERM, 2010) (or any subsequent published version of this document) provided at Attachment 2 of the OAMP,	
Pest animals	Occurrence/triggers, corrective actions, timing and result of the control measures	Monitored quarterly and reported annually until, and including, May 2044		
Access and signage	Occurrence/triggers, corrective actions, timing and result of the control measures	Monitored quarterly and reported annually until, and including, May 2044		

**Table 3B: Monitoring schedule for the additional squatter pigeon offset area**

Monitoring	Attributes monitored	Frequency	Method	Location/s
Surveys undertaken by Ecologists				
Baseline assessment	Refer 'ecological condition' below	Completed in 2015/16 and is an input into the OAMP  A baseline survey for weeds and Squatter Pigeon (as per the <a href="#">Survey Guidelines for Australia's Threatened Birds. EPBC Act survey guidelines 6.2</a> ) populations will be undertaken by June 2019 and the results included in the first Annual Report.	Field observations, vegetation assessment as per the <i>Guide to determining terrestrial habitat quality – a toolkit for assessing land-based offsets under the Queensland Environmental Offsets Policy (version 1.1 December 2014)</i> (DEHP, 2014).	Sites listed at <i>Table 10</i> of the OAMP.

Monitoring	Attributes monitored	Frequency	Method	Location/s
Ecological condition assessment	Recruitment of woody perennial species in EDL	Early dry season (June or July) in years 2020, 2025, 2030, 2035, 2040 and 2044	Field observations, vegetation assessment as per the <i>Guide to determining terrestrial habitat quality – a toolkit for assessing land based offsets under the Queensland Environmental Offsets Policy (version 1.1 December 2014)</i> (DEHP, 2014)*.  Data for each of the ecological condition attributes monitored will be collected at each site listed in <i>Table 10</i> of the OAMP and reported on and presented in a sequential manner (including previous data collected) to quantify change from the benchmark collected in 2015/16. This will record the change in each attribute measured and hence the condition of the ecological community and habitat, thus enabling a statistical comparison to previous years' data and the progression of the offset site condition and EPBC Act Offset Assessment Guide Calculator inputs.	Sites listed at <i>Table 10</i> of the OAMP.
	Native plant species richness – trees			
	Native plant species richness – shrubs			
	Native plant species richness - grasses			
	Native plant species richness – forbs			
	Tree canopy height			
	Tree canopy cover			
	Shrub canopy cover			
	Native perennial grass cover			
	Organic litter			
	Large trees			
	Coarse woody debris			
	Non-native plant cover			
Non-remnant or remnant status				
Squatter pigeon survey	Squatter pigeon populations	Early dry season (June or July) in years 2020, 2025, 2030, 2035, 2040 and 2044	As per the <a href="#">Survey Guidelines for Australia's Threatened Birds, EPBC Act survey guidelines 6.2</a>	Sites listed at <i>Table 10</i> of the OAMP.
<p>Quarterly Landholder/Pastoral Manager/Authority Holder Records and monitoring</p> <p><i>Record keeping commences within three months of the Queensland Government approving the voluntary declaration</i></p>				

Monitoring	Attributes monitored	Frequency	Method	Location/s
Photo points	General vegetation condition	Annually in the early dry season (June or July) until, and including, May 2044	<p>Pastoral Manager, Landholder or suitable qualified person appointed by the Landholder will undertake quarterly inspections of the offset area to observe and record grass cover levels, pest plants, accessibility (i.e. condition of fencing), signage, evidence of fire and evidence of pest animal incursion. The inspection records will serve as the primary data source for the Offset Area Report.</p> <p>Photo points and monitoring is to be undertaken as per the <i>Level 1 monitoring in the Land Manager's Monitoring Guide (DERM, 2010)</i> (or any subsequent published version of this document) provided at Attachment 2 of the OAMP,</p>	Sites listed at <i>Table 10</i> of the OAMP.
Grazing	Stocking rates  Grass cover  Pasture biomass  Pugging of the soil by livestock	Monitored monthly during grazing periods and reported annually until, and including, May 2044 <i>Level 1 monitoring as per the Land Manager's Monitoring Guide (DERM, 2010)</i>		Within Offset Areas
Fire	Occurrence/triggers, corrective actions, timing and result of the control measures. as per Table 8.	Monitored quarterly and reported annually until, and including, May 2044		
Pest plants	Occurrence/triggers, corrective actions, timing and result of the control measures. as per Table 8.	Monitored quarterly and reported annually until, and including, May 2044.  Weed cover is to be monitored by the same methodology and at the same time and at the same time as the grass cover measurements.		
Pest animals	Occurrence/triggers, corrective actions, timing and result of the control measures. as per Table 8.	Monitored quarterly and reported annually until, and including, May 2044.  Quarterly inspections will involve traversing the offset area with streams, low lying areas and vehicle access tracks being noted for to record		

Monitoring	Attributes monitored	Frequency	Method	Location/s
		the presence of wallow holes, tracks and visual incidents in the offset area. If detected, these areas will be GPS and photographed and rechecked at the next quarterly inspection.		
Access and signage	Occurrence/triggers, corrective actions, timing and result of the control measures as per Table 8.	Monitored quarterly and reported annually until, and including, May 2044		

### 3.1. Site inspection – general observations

A site visit to the property to undertake the annual inspection was conducted on 1 June 2020 (see *Section 3.2* below). During this visit, a number of general observations were made regarding the state of the property and the offset area.

The brigalow and majority of the offset areas are in a good condition. Some areas of 11.3.2 and grassy woodlands were dominated by buffel grass. These areas should be monitored to see if they improve over a number of years with intervention after year 5 if the buffel is not reducing in area.

The brigalow regrowth vegetation across the brigalow offset area is generally in the range of 3-6 metres in height. The patches of brigalow regrowth are shading out the buffel grass (see site photos at *Appendix A*) and the groundcover was high (>70%) at the time of the annual inspection. This has resulted in a low level of weed presence which consisted of scattered parthenium.

There were no signs of erosion apparent at the time of the site visit.

### 3.2. Site inspection – photopoint monitoring

In accordance with the schedule of offset area monitoring as detailed in the OAMP (shown at *Table 3*) photo point monitoring and a general inspection of the area was undertaken at the quaternary survey sites as utilised in the original ecological survey work undertaken in 2015. This annual inspection was undertaken on 04 June 2020 by Earthtrade's Thomas Key and Grant Paterson. The sites are at the location shown in *Table 4*. The location of the sites is shown at *Figure 3*.

A full set of photos were also produced, taken at the mid-point of each transect, in a north, east, south and west direction, and then a single photo of the groundcover at the site. These photos are shown at *Appendix A*.

Table 4a: Locations of quaternary survey sites for Stage 1 and 1a

Assess ment unit	Polygon	Site number	Related quaternary site number	GPS number	Start point longitude / eastings	Start point latitude/ northings	End point longitude / eastings	End point latitude/ northings
O_AU6	32	EEM-OA-2	-	205	147.79648	-21.36447	147.79557	-21.36406
					582576	7637305	582484	7637350
O_AU1	34	EEM-OA-9	-	218	147.77793	-21.39548	147.77705	-21.39512
					580,637	7,633,883	580,546	7,633,922
O_AU1	34	EEM-OA-12	-	217	147.77659	-21.39216	147.77560	-21.39214
					580,499	7,634,250	580,397	7,634,253
O_AU6	32	EEM-OA-13	-	216	147.78710	-21.37041	147.78706	-21.36950
					581,601	7,636,652	581,598	7,636,753
O_AU1	1	EEM-OA-15	-	219	147.78210	-21.39536	147.78242	-21.39452
					581,069	7,633,893	581,102	7,633,986
O_AU1	31	EEM-OA-19	-	204	147.81798	-21.31844	147.81697	-21.31825
					584,833	7,642,389	584,727	7,642,409
O_AU1	31	EEM-OA-20	-	201	147.80783	-21.32227	147.80705	-21.32280
					583,778	7,641,969	583,697	7,641,912
O_AU1	8	EEM-OA-21	-	200	147.80925	-21.32699	147.80977	-21.32622
					583,922	7,641,446	583,977	7,641,531
O_AU9	60	EEM-OA-24	-	209	147.78968	-21.35195	147.78958	-21.35285
					581,878	7,638,695	581,868	7,638,595
O_AU4	45	EEM-OA-25	-	214	147.78464	-21.35792	147.78375	-21.35745
					581,353	7,638,036	581,261	7,638,088
O_AU4	45	EEM-OA-26	-	210	147.78390	-21.35048	147.78313	-21.35094
					581,280	7,638,860	581,200	7,638,809
O_AU1	53	EEM-OA-27*	-	211	147.78172	-21.34880	147.78087	-21.34834
					581,055	7,639,047	580,968	7,639,098
O_AU10	56	EEM-OA-28	-	212	147.77903	-21.35153	147.77902	-21.35057
					580,775	7,638,746	580,774	7,638,852
O_AU4	45	EEM-OA-29	-	213	147.77648	-21.35732	147.77562	-21.35768
					580,508	7,638,107	580,418	7,638,067
O_AU11	39	EEM-OA-31	T25	216	147.76781	-21.37040	TBC as part of 2020 ecological condition assessment	
					579,601	7,636,664		
O_AU11	43	EEM-OA-32	T26	215	147.77747	-21.36705	TBC as part of 2020 ecological condition assessment	
					580,604	7,637,030		

Assessment unit	Polygon	Site number	Related quaternary site number	GPS number	Start point longitude / eastings	Start point latitude/ northings	End point longitude / eastings	End point latitude/ northings
O_AU6	Adjacent 6 and 7	TBD	-		New EEM site to be established in year 2020 ecological condition survey			
O_AU1	25	EEM-OA-15	-	219	New EEM site to be established in year 2020 ecological condition survey			
O_AU1	7	EEM-OA-16	-	221	147.79725	-21.40281	147.79815	-21.40311
					582,635	7,633,061	582,729	7,633,027
O_AU9	60	EEM-OA-33	-		147.79335	-21.35933	TBC as part of 2020 ecological condition assessment	
					582,255	7,637,876		
O_AU9	60	EEM-OA-34	-		147.78954	-21.35707	TBC as part of 2020 ecological condition assessment	
					581,861	7,638,128		
O_AU6	30	EEM-OA-35	-	220	147.79726	-21.39840	TBC as part of 2020 ecological condition assessment	
					582,638	7,633,550		
O_AU6	30	EEM-OA-36	-	222	147.80848	-21.39820	TBC as part of 2020 ecological condition assessment	
					583,802	7,633,566		
O_AU5	66	EEM-OA_37	-	202	147.81124	-21.32246	TBC as part of 2020 ecological condition assessment	
					584,131	7,641,948		
O_AU5	66	EEM-OA-38	-	203	147.81539	-21.32108	TBC as part of 2020 ecological condition assessment	
					584,562	7,642,098		

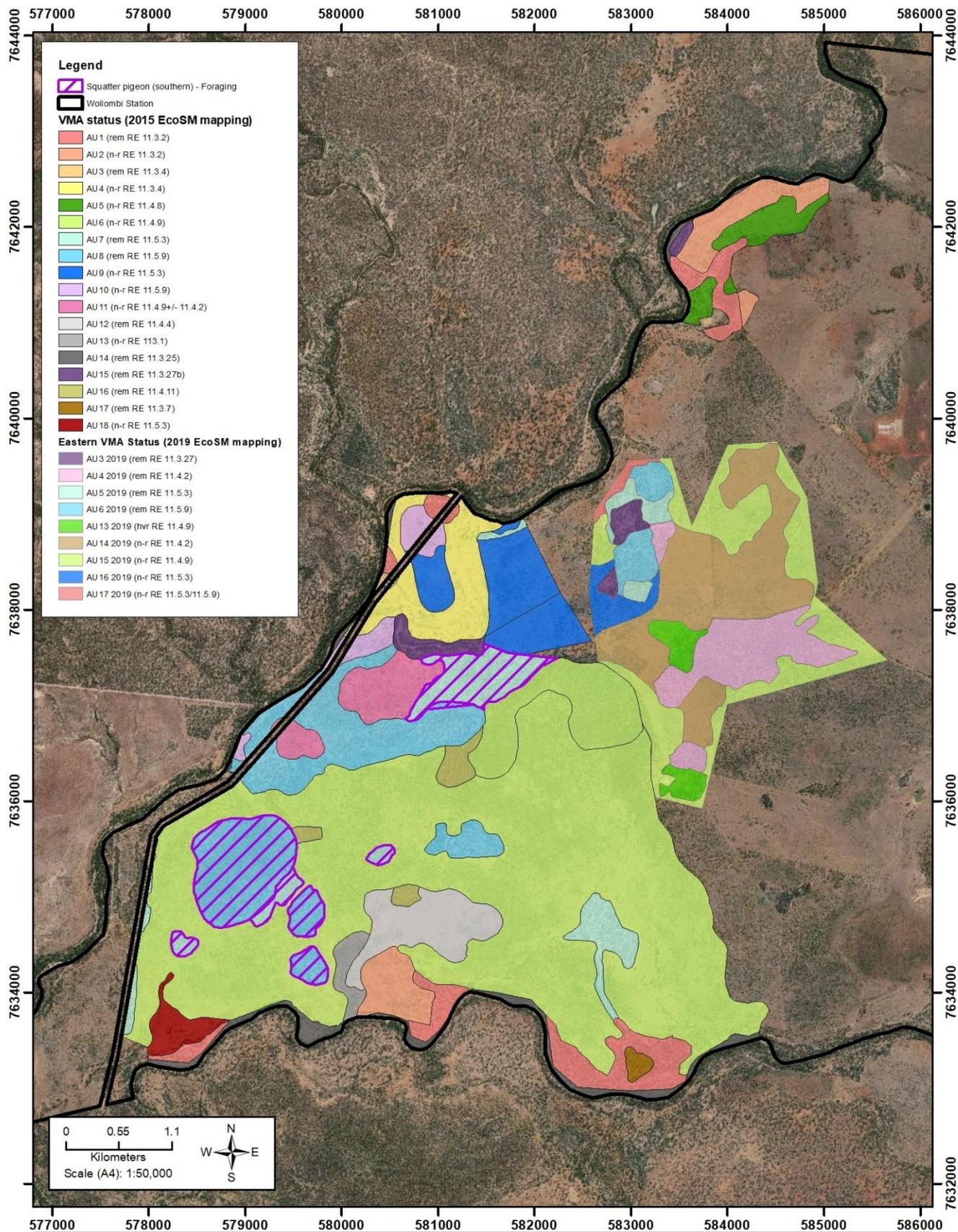
*Table 4b: Locations of quaternary survey sites for Stage 2*

Assessment site number	Monitoring site number	Regional ecosystem	VM Act Status	Location - easting	Location - northing
AU6	1	11.4.9	Endangered	578671	7635885
AU6	2	11.4.9	Endangered	580538	7636005
AU6	3	11.4.9	Endangered	579554	7633973
AU6	4	11.4.9	Endangered	578582	7634189
AU6	5	11.4.9	Endangered	583209	7636963
AU4-2019	1	11.4.2	Of Concern	583426	7637225
AU14 2019	1	11.4.2	Of Concern	583145	7637543
AU14 2019	2	11.4.2	Of Concern	583838	7638305
AU14 2019	3	11.4.2	Of Concern	584364	7638647
AU14 2019	4	11.4.2	Of Concern	583716	7636916

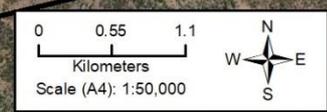
*Table 4c: Locations of quaternary survey sites for Stage 2a*

Assessment site number	Monitoring site number	Regional ecosystem	VM Act Status	Location - easting	Location - northing
AU7	1	11.5.3	Least Concern	581692	7637372
AU7	2	11.5.3	Least Concern	581104	7637180
AU7	3	11.5.3	Least Concern	580416	7635434
AU7	4	11.5.3	Least Concern	579397	7635064
AU7	5	11.5.3	Least Concern	578352	7634495
AU8	1	11.5.9	Least Concern	579126	7635533
AU8	2	11.5.9	Least Concern	578736	7634978
AU8	3	11.5.9	Least Concern	579635	7634806
AU8	4	11.5.9	Least Concern	579655	7634257





- Legend**
- Squatter pigeon (southern) - Foraging
  - Wollombi Station
- VMA status (2015 EcoSM mapping)**
- AU 1 (rem RE 11.3.2)
  - AU 2 (n-r RE 11.3.2)
  - AU 3 (rem RE 11.3.4)
  - AU 4 (n-r RE 11.3.4)
  - AU 5 (n-r RE 11.4.8)
  - AU 6 (n-r RE 11.4.9)
  - AU 7 (rem RE 11.5.3)
  - AU 8 (rem RE 11.5.9)
  - AU 9 (n-r RE 11.5.3)
  - AU 10 (n-r RE 11.5.9)
  - AU 11 (n-r RE 11.4.9+/- 11.4.2)
  - AU 12 (rem RE 11.4.4)
  - AU 13 (n-r RE 11.3.1)
  - AU 14 (rem RE 11.3.25)
  - AU 15 (rem RE 11.3.27b)
  - AU 16 (rem RE 11.4.11)
  - AU 17 (rem RE 11.3.7)
  - AU 18 (n-r RE 11.5.3)
- Eastern VMA Status (2019 EcoSM mapping)**
- AU 3 2019 (rem RE 11.3.27)
  - AU 4 2019 (rem RE 11.4.2)
  - AU 5 2019 (rem RE 11.5.3)
  - AU 6 2019 (rem RE 11.5.9)
  - AU 13 2019 (hvr RE 11.4.9)
  - AU 14 2019 (n-r RE 11.4.2)
  - AU 15 2019 (n-r RE 11.4.9)
  - AU 16 2019 (n-r RE 11.5.3)
  - AU 17 2019 (n-r RE 11.5.3/11.5.9)

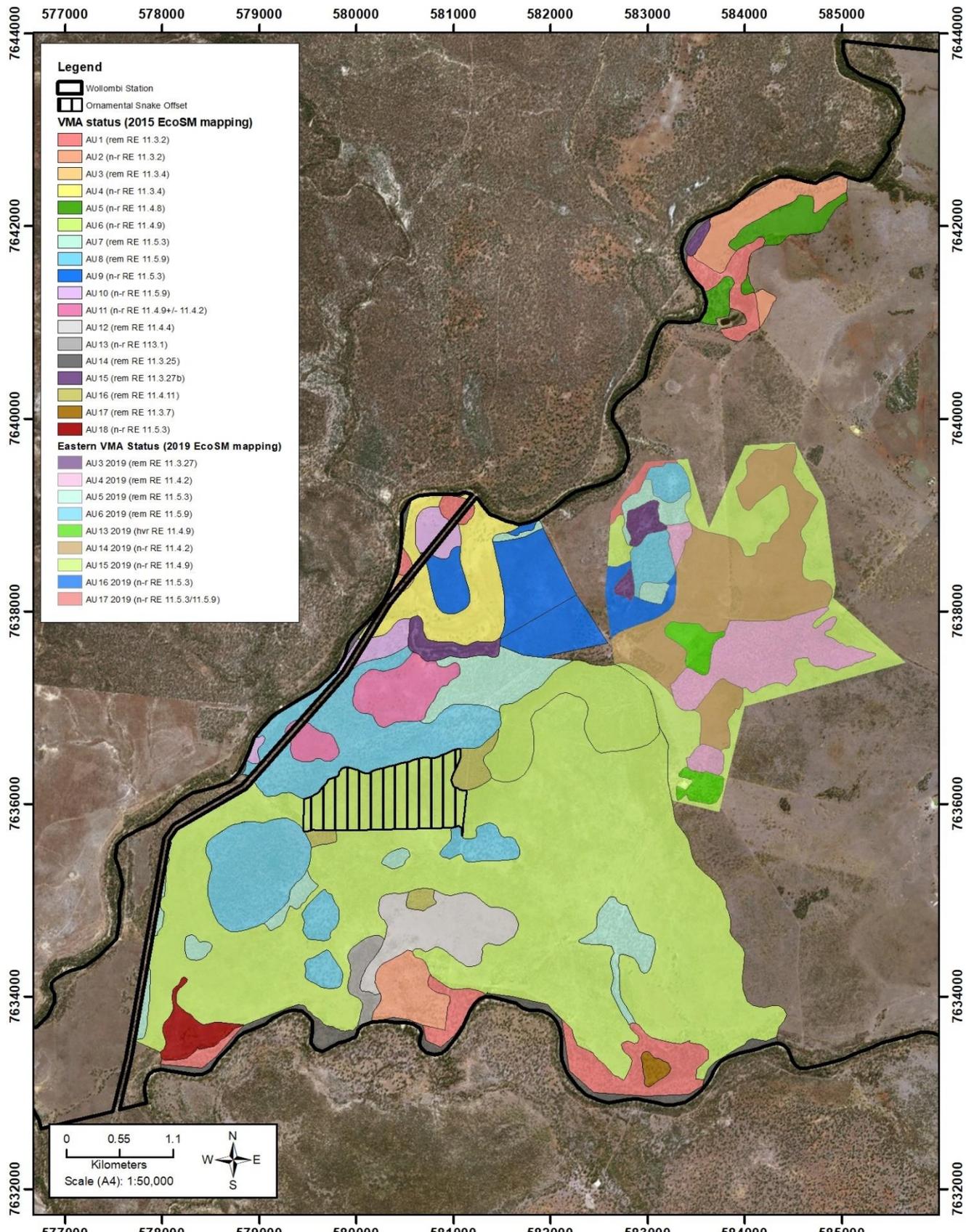


**File Ref:**  
 Date: 20/02/2020  
 Coordinate System: WGS 1984 UTM Zone 55S  
 Projection: Transverse Mercator Datum: WGS 1984  
 Data sources:  
 © State of Queensland (Department of Natural Resources and Mines) 2019  
 © State of Queensland (Department of Transport and Main Roads) 2019  
 Google Earth Image © 2019 DigitalGlobe Image © 2019 CNES / Airbus



## Wollombi Station Squatter Pigeon Offsets

Prepared by: R.P.  
 Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus D.S., USDA, USGS, AeroGRID, IGN, and the GIS User Community



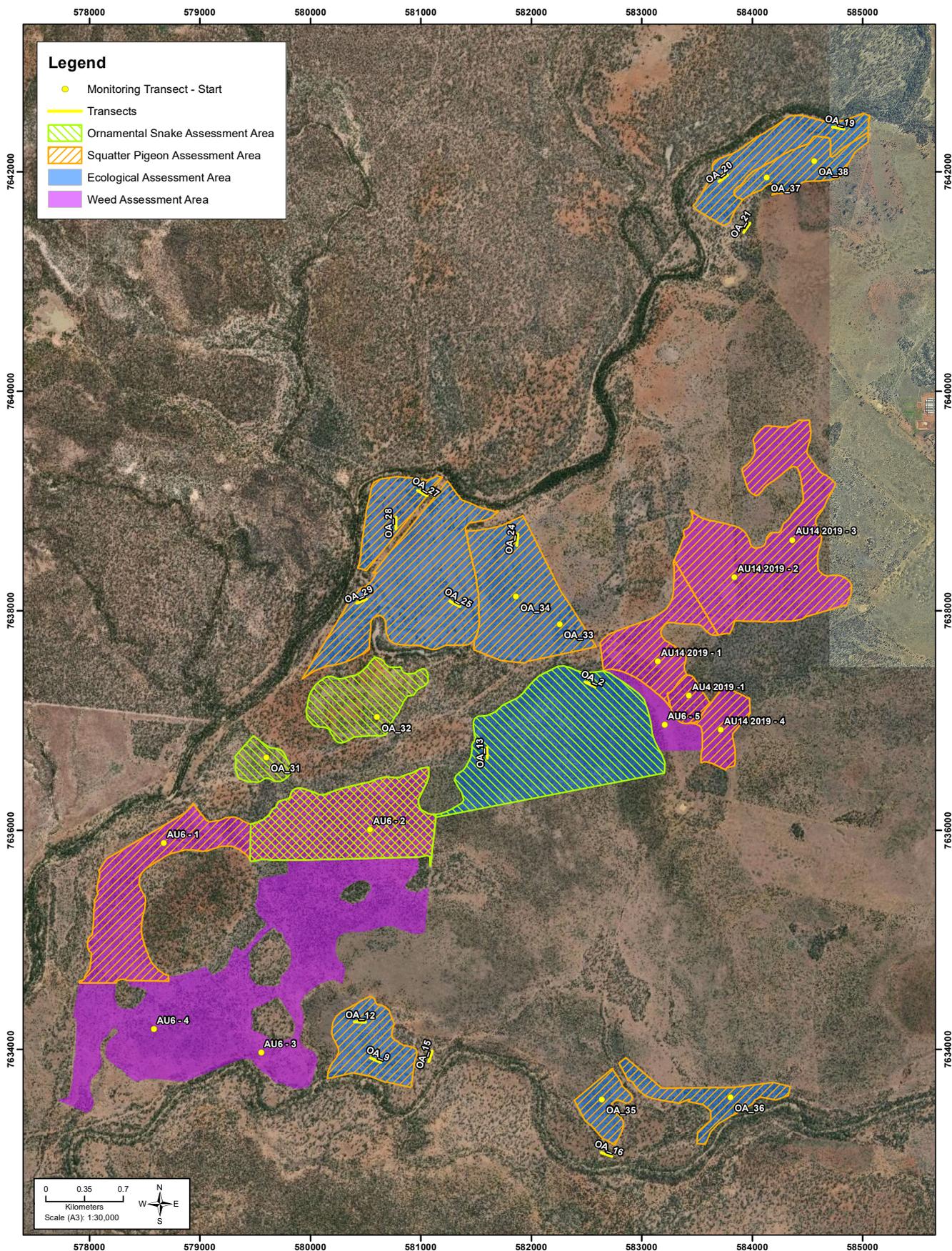
File Ref:  
Date: 4/02/2020  
Coordinate System: WGS 1984 UTM Zone 55S  
Projection: Transverse Mercator Datum: WGS 1984  
Data sources:  
© State of Queensland (Department of Natural Resources and Mines) 2019  
© State of Queensland (Department of Transport and Main Roads) 2019  
Google Earth Image © 2019 DigitalGlobe Image © 2019 CNES / Airbus



## Wollombi Station Ornamental Snake Offsets

Prepared by: R.P.  
Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Figure 3a: Monitoring site locations stage 1 and 1a



File Ref:  
 Date: 18/02/2020  
 Coordinate System: WGS 1984 UTM Zone 55S  
 Projection: Transverse Mercator Datum: WGS 1984  
 Data sources:  
 © State of Queensland (Department of Natural Resources and Mines) 2017  
 © State of Queensland (Department of Transport and Main Roads) 2017  
 Google Earth Image © 2017 DigitalGlobe Image © 2017 CNES / Airbus



**Wollombi Monitoring Areas**

Prepared by: R.P.  
 Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Figure 3b: Monitoring site locations stage 2

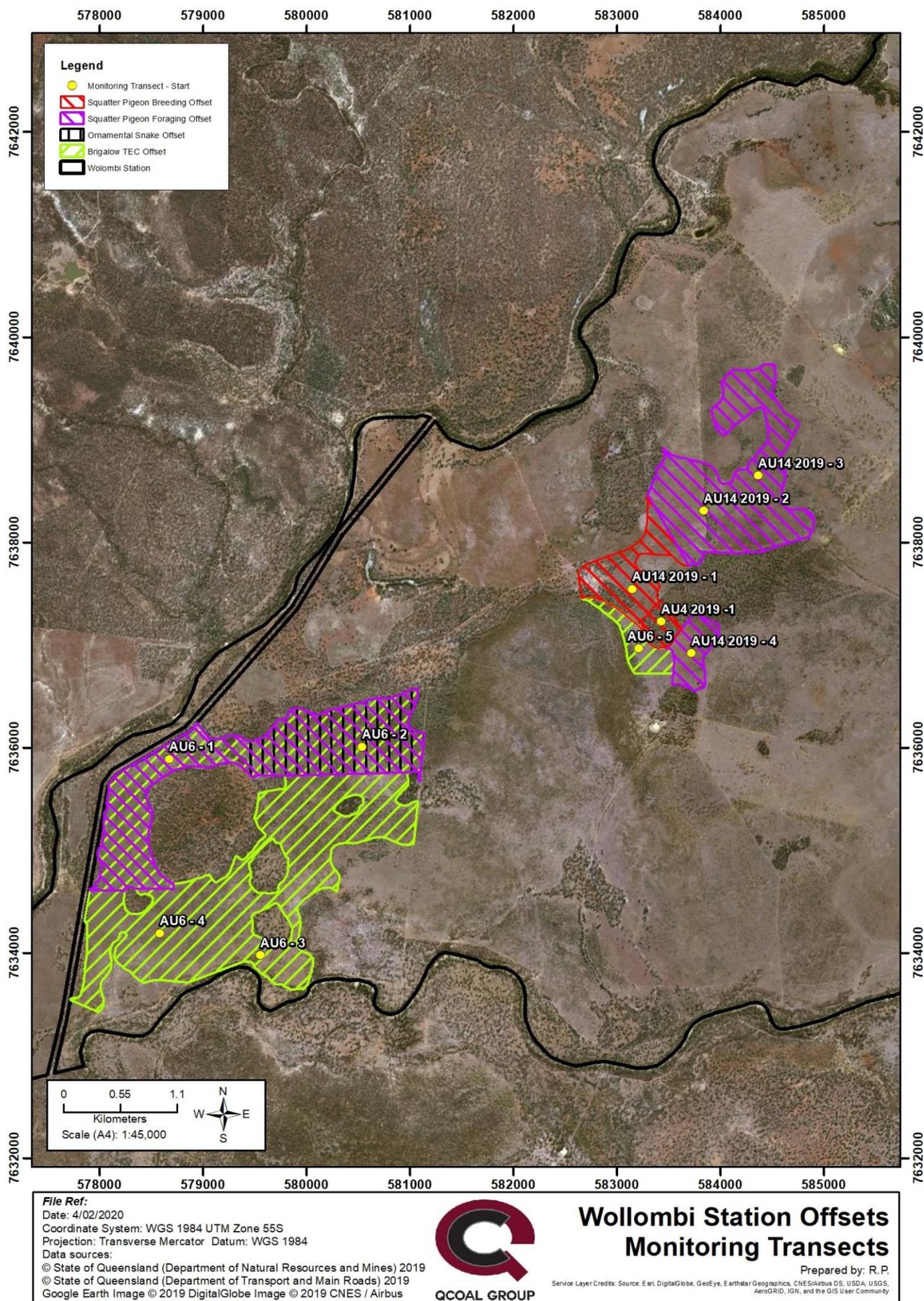
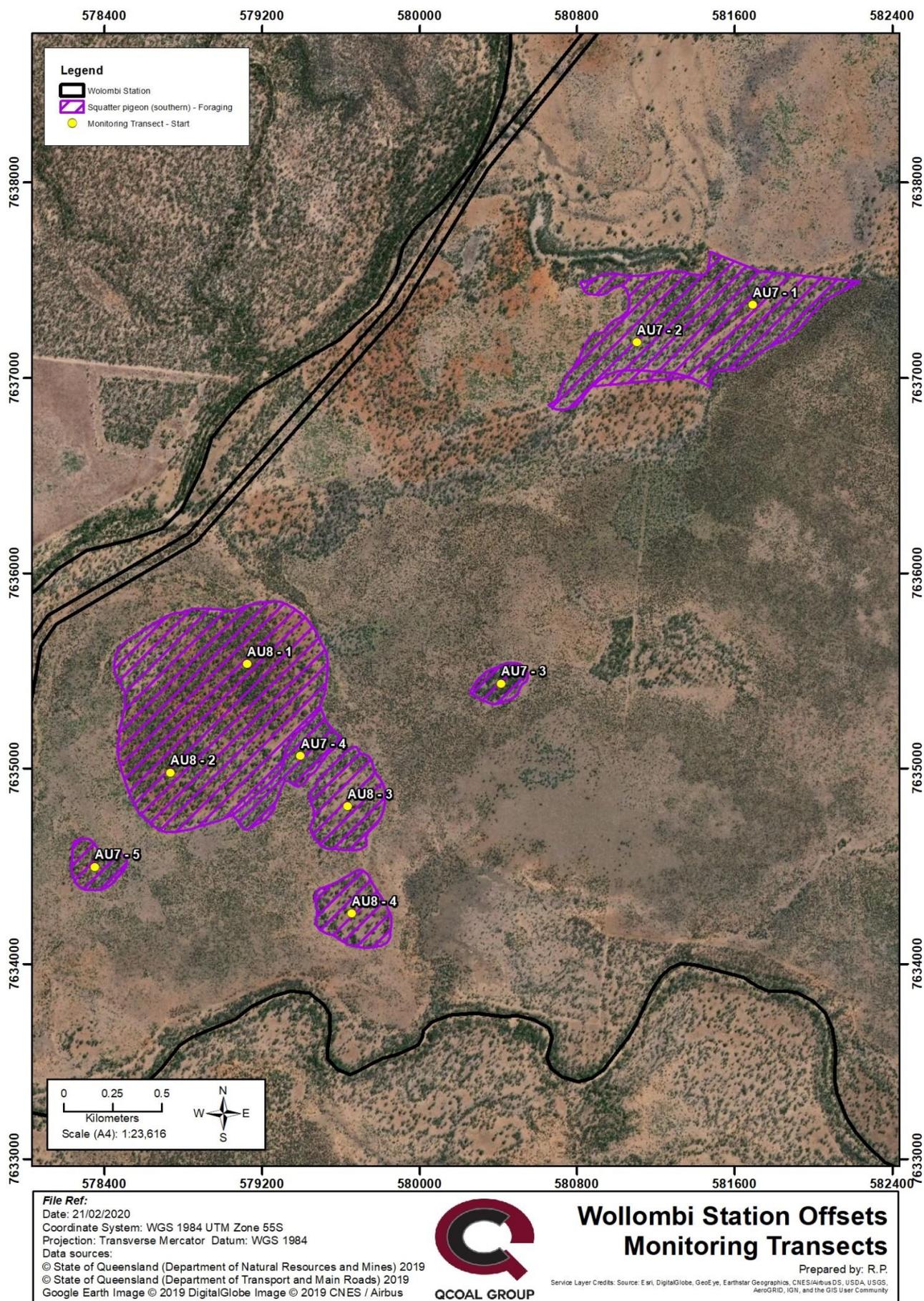


Figure 3c: Monitoring site locations stage 2a



## 4. Project details

The details of the project, approval, and details of the offsets are shown below in *Table 5*. The details of the EPBC approval conditions are shown below in *Table 5*.

*Table 5: Project details*

Item	Details
Project Name	Byerwen Coal Mine Project
Project Location	20 kilometres west of Glenden, Queensland
EPBC Approval number	2010/5778
Approved Actions	<p>Disturbance limits</p> <p>3) The approval holder must not clear more than:</p> <ul style="list-style-type: none"> <li>a) 650 hectares of primary habitat for the Squatter Pigeon (southern)</li> <li>b) 908 hectares of primary habitat for the Ornamental Snake</li> <li>c) 1115 hectares of primary habitat for the Black-throated Finch (southern)</li> <li>d) 358 hectares of Brigalow (<i>Acacia harpophylla</i> dominant and co-dominant)</li> <li>e) 179 hectares of Natural Grasslands of the Queensland Central Highlands and the northern Fitzroy Basin</li> <li>f) 109 hectares of Semi-evergreen vine thickets of the Brigalow Belt (North and South) and Nandewar Bioregions</li> </ul>
Approval Holder	Byerwen Coal Pty Limited
Approval Holder ACN	133 357 632
Offset Location - address	Wollombi Station, Suttor Road, Glenden Qld 4702
Lot/Plan	Lot 1 on SP278043; GHPL 30/4120 (State Lease)
Offset area (ha)	Stage 1 – 531.5ha Extended Waste Rock Dump – 536.1ha Stage 2 – 725.23ha Stage 2a – 197.4ha <b>Total – 1,990.23ha</b>
Landholder Name	Christopher Ian Wallin
Landholder Phone	07 30022952
Landholder Postal address	PO Box 10630, Brisbane QLD 4000

**Table 6: EPBC Approval conditions related to the offsets on Wollombi Station**

Condition number	Condition
5	The approval holder must submit a Biodiversity Offset Management Plan (BOMP) to the Department for the Ministers approval, outlining how offsets to address the residual impacts to Brigalow ( <i>Acacia harpophylla</i> dominant and co-dominant, Semi-evergreen Vine Thickets of the Brigalow Belt (North and South) and Nandewar Bioregions, Natural Grasslands of the Queensland Central Highlands and the northern Fitzroy Basin, the Ornamental Snake ( <i>Denisonia maculata</i> ) and the Squatter pigeon (southern) ( <i>Geophaps scripta scripta</i> ), will be managed. The approved BOMP must be implemented.
6	The BOMP must be submitted for approval within twelve months after the commencement of construction. Clearing of EPBC Act listed species and communities must not occur until the BOMP is approved by the Minister in writing.
7	
a)	maps of the offset area/s inclusive of the distribution and extent (in hectares) of the EPBC Act listed species and communities to be offset in electronic Geographic Information System format
b)	evidence that the offsets are consistent with the <i>Departments Environmental Offsets Policy</i> (October 2012)
c)	details of how the offset area/s have been or will be legally secured to provide long-term protection
d)	detailed on-ground surveys, complying with relevant survey guidelines, and description of the baseline condition, attributes and values of the offset area/s with respect to EPBC Act listed species and communities
e)	management measures (including timing, frequency and longevity) for each of the EPBC Act listed species and communities and other vegetation within the offset area/s with written evidence of input from a suitably qualified expert who has relevant expertise in the management of native vegetation of the Bowen Basin
f)	details of how the management measures align with the relevant Conservation Advice, Recovery Plans and Threat Abatement Plans for the EPBC Act listed species and communities to be offset
g)	discussion of connectivity of the offset area/s with other habitats and biodiversity corridors
h)	a description of the risks to the successful implementation of the BOMP, including mitigation measures and residual risk ratings
i)	<p>a monitoring program for the offset area/s which must:</p> <p>i) clearly set out performance indicators and milestones</p>

Condition number	Condition
	<ul style="list-style-type: none"> <li>ii) detail how the success of the management measures against the performance indicators and milestones will be measured, recorded and reported</li> <li>iii) include monitoring scope and parameters, timing, frequency, triggers and corrective actions</li> <li>iv) detail how adaptive management strategies will be incorporated</li> <li>v) outline how compliance will be reported</li> <li>vi) detail who will be undertaking monitoring, reporting, review, and implementation of the BOMP (if this person is not the approval holder).</li> </ul>

#### 4.1. Offset Site

Wollombi Station is 9,831 ha in area with the western boundary being formed by the Suttor River and the southern boundary being formed by Suttor Creek, both of which are stream order 5 watercourses.

The property lies within the northern Brigalow Belt Bioregion and the region could be considered semi-arid in climatic terms given that the majority of the rainfall falls within the summer period between November and February with evaporation rates exceeding precipitation in a majority of months.

The property is a large-scale grazing operation with the Byerwen Coal Project being located in the north-eastern third of the property. Cattle grazing and associated land management activities are the primary land uses on the Wollombi Station property.

## List of abbreviations

Abbreviations	Description
DoEE	Department of the Environment and Energy (Cth) (formerly DoE)
EPBC	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth)
ha	hectares
km	kilometres
MNES	Matters of national environmental significance
OAMP	Offset Area Management Plan
RE	Regional ecosystem
TEC	Threatened ecological community

# Appendix A: Survey photographs

See attached documents

# Appendix B: Landholder's records

July – September

Monitored by: Paul Mathews  
Date: 26/27 September 2019

Offset Area	Sample site location		Ground cover %	Average ground cover %	Average weed cover %	Comments
1	1	583787 7641981	20	47	1	No issues noted with fences or gates - all intact and closed. No cattle or feral animals observed. Dog footprints in sand at NW boundary gate. Fire break/track has been graded along fence line adjacent to Suttor river
	2	584082 7642209	70		1	
	3	584346 7642327	50		1	
2	1	584720 7642279	50	40	1	No issues observed with fences or gates - all intact and closed. No cattle or feral animals observed.
	2	584565 7642099	30		1	
	3	584130 7642053	40		1	
3	1	580587 7638695	60	53	1	No cattle or feral animals observed. Dead possum noted, caught on barbed wire fence. Track graded along fence line adjacent to Suttor river. Fence intact.
	2	580744 7639089	60		1	
	3	580505 7638484	40		1	
4	1	581314 7638932	60	53	1	Fence intact where observed. No feral animals or cattle observed.
	2	580451 7638116	50		1	
	3	580163 7637722	50		1	
5	1	581934 7638748	50	53	1	Fence along eastern boundary in poor condition in places. Five cattle observed in area 5 from laneway at location 582484, 7637713.
	2	581970 7638494	60		1	
	3	582064 7638120	50		1	
6	1	581423 7636219	10	10	1	Gate found open at 581365, 7637072 allowing access into area 6. No cattle or feral animals observed. Fences in good condition where observed.
	2	582525 7636425	10		1	
	3	583051 7636888	10		1	
7	1	580681 7636941	30	37	1	Gate found open at 580979, 7636964, allowing access to areas 3, 4, 5 and 7. Told that gate has been left open to allow cattle to access water to south of laneway, as cattle are accessing area from through compromised fencing north of area 8.
	2	580303 7636853	50		1	
	3	580062 7637201	30		1	
8	1	579710 7636542	70	55	1	Gate found open at 579984, 7636637 allowing access into area 8. No cattle or feral animals noted. However, area 8 north of fence appears grazed as evidenced by short grass and fresh dung.
	2	579417 7636447	25		1	
	3	579669 7636480	70		1	
9	1	580879 7633705	60	50	1	Single cow observed at 580989, 7634152, adjacent to area 9 boundary, but within boundary of area 11. No feral animals observed. Fence intact along northern boundary. Gates closed.
	2	580714 7633760	40		1	
	3	580472 7633798	50		1	
10	1	582410 7633524	60	67	1	Feral dog observed north of areas 10 and 11 at 582815, 7634214. Several prickly pears observed within area. No cattle. Fence condition OK where observed and gates closed.
	2	582472 7633446	80		1	
	3	582520 7633393	60		1	
11	1	584304 7633657	40	37	1	Fence intact where observed and gates closed. No feral animals or cattle noted.
	2	584146 7633659	60		1	
	3	582884 7633841	10		1	

Squatter pigeon sightings		
Location		No. of pigeons
582277	7637614	1
583779	7637884	3
581796	7638883	4
585581	7639582	4
580741	7636879	2

# October – December

Monitored by: Paul Mathews

Date: 19/20 December 2019

Offset Area	Sample site location		Ground cover %	Average ground cover %	Average weed cover %	Comments
1	1	583502 7641702	40	45	1	Gate open at 584164, 7640957 and numerous cattle in area - as per arrangement with agistee to reduce fuel loads. No issues noted with fences or gates - all intact where observed. No feral animals observed.
	2	583950 7642181	40		1	
	3	584963 7642471	55		1	
2	1	585002 7642307	50	53	1	Numerous cattle in area - as per arrangement with agistee to reduce fuel loads. No issues noted with fences or gates - all intact where observed. No feral animals observed.
	2	584686 7642272	60		1	
	3	584201 7642090	50		1	
3	1	580842 7639095	60	55	1	Numerous cattle in area - as per arrangement with agistee to reduce fuel loads. No issues noted with fences or gates - all intact where observed. No feral animals observed.
	2	580569 7638942	55		1	
	3	580506 7638526	50		1	
4	1	581364 7638912	55	53	1	Gate open at 581953, 7638870 and numerous cattle in area - as per arrangement with agistee to reduce fuel loads. No issues noted with fences or gates - all intact where observed. No feral animals observed.
	2	580402 7638103	55		1	
	3	580118 7637679	50		1	
5	1	582304 7637722	30	50	1	Numerous cattle in area - as per arrangement with agistee to reduce fuel loads. No issues noted with fences or gates - all intact where observed. No feral animals observed.
	2	582203 7633223	60		1	
	3	581941 7638721	60		1	
6	1	583217 7636690	20	22	1	No cattle seen in area. No feal animals noted. Fences and gates intact where observed.
	2	582843 7637209	20		1	
	3	582739 7636555	25		1	
7	1	580020 7637220	35	40	1	Gate open at 580992, 7636967 and some cattle in area - as per arrangement with agistee to reduce fuel loads. No issues noted with fences or gates - all intact where observed. No feral animals observed.
	2	580617 7636866	20		1	
	3	580331 7636830	65		1	
8	1	579811 7636537	65	55	1	Gate open at 579986, 7636624 and at 579442, 7636381 with some cattle observed in area - as per arrangement with agistee to reduce fuel loads. No issues noted with fences or gates - all intact where observed. No feral animals observed.
	2	579714 7636578	45		1	
	3	579594 7636666	55		1	
9	1	580549 7634429	25	48	1	No cattle seen in area. No feal animals noted. Fences and gates intact where observed.
	2	580313 7634139	60		1	
	3	580696 7633825	60		1	
10	1	582715 7633232	70	50	1	No cattle seen in area. No feal animals noted. Fences and gates intact where observed.
	2	582509 7633466	40		1	
	3	582669 7633713	40		1	
11	1	583237 7633633	60	62	1	No cattle seen in area. No feal animals noted. Fences and gates intact where observed.
	2	583654 7633593	70		1	
	3	583814 7633567	55		1	

**Squatter pigeon sightings**

Location	No. of pigeons
585600 7639397	4

# January – March

Monitored by: Paul Mathews  
Date: 25, 26 & 30 March 2020

Offset Area	Sample site location		Ground cover %	Average ground cover %	Average weed cover %	Comments
1	1	583585 7641645	55	55	1	No issues with gates and fences. Intact and closed where observed. No cattle or feral animals noted.
	2	584114 7642297	50		1	
	3	585030 7642462	60		1	
2	1	585019 7642350	55	45	1	No issues with gates and fences. Intact and closed where observed. No cattle or feral animals noted.
	2	584821 7641985	40		1	
	3	584708 7641893	40		1	
3	1	580998 7639051	60	55	1	No issues noted with fences or gates - all intact where observed. No cattle observed in area. Dingo seen near Suttor river.
	2	580585 7638960	55		1	
	3	580506 7638481	50		1	
4	1	581491 7638923	95	63	1	No issues with gates and fences. Intact and closed where observed. No cattle or feral animals noted.
	2	580377 7638060	55		1	
	3	580017 7637516	40		1	
5	1	581988 7638783	95	72	1	No issues with gates and fences. Intact and closed where observed. No cattle or feral animals noted.
	2	582126 7638309	60		1	
	3	582019 7637595	60		1	
6	1	583148 7636546	80	67	1	No issues with gates and fences. Intact and closed where observed. No cattle or feral animals noted. A lot of parthenium along the open edges of the brigalow and within the brigalow in the northern areas
	2	583223 7636794	70		1	
	3	583017 7637183	50		1	
7	1	580315 7636810	50	43	1	No issues with gates and fences. Intact and closed where observed. No cattle or feral animals noted.
	2	580656 7636912	50		1	
	3	580660 7636961	30		1	
8	1	579676 7636472	80	83	1	Approximately a dozen cattle in area to the north of fence in area 8. Pugging in roadway in same area. Gate open at 579986, 7636621. No issues noted with fences or gates - all intact where observed. No feral animals observed.
	2	579644 7636531	90		1	
	3	579650 7636585	80		1	
9	1	580900 7633965	55	48	1	No cattle seen in area, but gate open on eastern side. No feral animals noted. Fences intact where observed. Significant parthenium infestation in area to the north and north east of area.
	2	580720 7633800	40		1	
	3	580486 7633821	50		1	
10	1	582597 7633688	95	60	1	No issues with gates and fences. Intact and closed where observed. No cattle or feral animals noted. Significant parthenium noted along western side of area, near fence.
	2	582454 7633502	40		1	
	3	582634 7633268	45		1	
11	1	584162 7633703	40	60	1	No issues with gates and fences. Intact and closed where observed. No cattle or feral animals noted.
	2	583843 7633641	45		1	
	3	583237 7633660	95		1	

### Squatter pigeon sightings

Location	No. of pigeons
582153 7637601	1
581875 7637469	2
580838 7636903	4

# April – June

Monitored by: Paul Mathews & Kieron Smith  
Date: 23,24 & 25 June 2020

Offset Area	Sample site location	Ground cover %	Average ground cover %	Average weed cover %	Comments
1	1 583619 7642022	50	58	1	No issues with gates and fences. Intact and closed where observed. No cattle or feral animals noted.
	2 584034 7642209	60		1	
	3 584945 7642451	65		1	
2	1 585014 7642353	80	82	1	No issues with gates and fences. Intact and closed where observed. No cattle or feral animals noted.
	2 584715 7642284	95		1	
	3 584215 7642095	70		1	
3	1 580984 7639106	60	60	1	No issues noted with fences or gates - all intact where observed. Numerous cattle seen outside of area to the north and west, along the Suttor river. No feral animals observed.
	2 580589 7638965	65		1	
	3 580505 7638481	55		1	
4	1 581483 7638901	70	68	1	No issues with gates and fences. Intact and closed where observed. No cattle noted. Evidence of pig activity along the southern boundary area.
	2 580358 7638052	60		1	
	3 580020 7637521	75		1	
5	1 582003 7637608	90	90	1	No issues with gates and fences. Intact and closed where observed. No cattle noted. Evidence of pig activity along the southern boundary area.
	2 582161 7638324	90		1	
	3 581988 7638789	90		1	
6	1 583009 7637123	30	48	1	No issues noted with fences or gates - all intact where observed. No cattle or feral animals observed. Some parthenium in the northern parts. About half a dozen cattle near the dam to the south east of the area. Several pigs observed to the south of the area.
	2 583002 7637026	90		1	
	3 583251 7636544	25		1	
7	1 580315 7636811	50	50	1	No issues with gates and fences. Intact and closed where observed. No cattle or feral animals noted.
	2 580673 7636895	40		1	
	3 580666 7636956	60		1	
8	1 579679 7636473	60	80	1	No issues with gates and fences. Intact and closed where observed. No cattle or feral animals observed, but significant areas of pugging in the southern and central parts of the area. Parthenium along the sides of the track to the south.
	2 579607 7636516	90		1	
	3 579665 7636575	90		1	
9	1 580909 7633946	85	62	1	No issues with gates and fences. Intact and closed where observed. No cattle or feral animals noted.
	2 580722 7633795	55		1	
	3 580355 7633872	45		1	
10	1 582627 7633267	60	67	1	No issues with gates and fences. Intact and closed where observed. No cattle or feral animals noted.
	2 582427 7633490	80		1	
	3 582572 7633641	60		1	
11	1 584150 7633667	40	60	1	No issues with gates and fences. Intact and closed where observed. No cattle or feral animals noted.
	2 583847 7633619	60		1	
	3 583201 7633611	80		1	
12	1 583837 7638302	95	92	1	No issues with gates and fences. Intact and closed where observed. No cattle or feral animals observed, but evidence of pig activity noted and moderate parthenium in parts.
	2 583978 7639248	90		1	
	3 584649 7638094	90		1	
13	1 582900 7637603	65	72	1	No issues with gates and fences. Intact and closed where observed. No cattle or feral animals observed, but evidence of pig activity noted.
	2 583381 7638007	90		1	
	3 583279 7637490	60		1	
14	1 578863 7634737	30	43	1	No cattle or feral animals noted.
	2 578490 7635624	70		1	
	3 578750 7635789	30		1	
15	1 579772 7634133	90	63	1	No cattle or feral animals noted.
	2 579775 7634274	50		1	
	3 579559 7634284	50		1	
16	1 578354 7634485	70	63	1	No cattle or feral animals noted.
	2 578268 7634519	45		1	
	3 578401 7634516	75		1	
17	1 579938 7636309	90	57	1	No cattle or feral animals noted.
	2 578924 7636138	30		1	
	3 578167 7635713	50		1	
18	1 579918 7633784	95	77	1	No cattle or feral animals noted.
	2 579029 7633836	50		1	
	3 577897 7634404	85		1	

### Squatter pigeon sightings

Location	Number of birds
581730 7937369	2
578984 7636052	2
581773 7637389	8

## Rainfall Records – offset area

Property Name	Wollombi		Land Manager	Paul Matthews	
Paddock Name	Wollombi Offsets		Year	2019 - 2020	
Month	Total (mm)	Season Total	Comments/notes		
July	15.6	Winter	Data taken from Collinsville Station		
August	1	16.6			
September	0				
October	6.2	Spring			
November	1.8	8			
December	8.8				
January	134.5	Summer			
February	141.3	284.6			
March	65.2				
April	44.2	Autumn			
May	64.5	173.9	To 31 May 2020		
June					
Annual Total:		483.1	To 31 May 2020		