




EPBC 2013-6904 ANNUAL
COMPLIANCE SUMMARY REPORT
01 JULY 2021 - 30 JUNE 2022

TALISON LITHIUM AUSTRALIA PTY LTD

POINT OF CONTACT

Name: Craig Dawson
General Manager - Operations

 (08) 9782 5700

 craig.dawson@talisonlithium.com

LOCATION

GREENBUSHES LITHIUM OPERATION
1662 Maranup Ford Road Greenbushes WA 6254
PO Box 31 Greenbushes WA 6254



DECLARATION OF ACCURACY

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 to the best of my knowledge. 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:

A handwritten signature in blue ink, appearing to read 'Craig Dawson', with a horizontal line extending to the right.

Full Name: Craig Dawson

Position: General Manager – Operations

Organisation: Talison Lithium Australia Pty Ltd

Date: 15/11/2022



1. INTRODUCTION

This Annual Compliance Summary Report (**ACSR, Report**) has been prepared to comply with Condition 7 of the Talison Lithium Australia Pty Ltd (**Talison**) approval for “Expansion of mine waste rock dump, Talison Lithium Greenbushes Operations, Greenbushes, Western Australia (**WA**) (**EPBC 2013/6904**)” (**Expansion, Project**) issued under sections 130(1) and 133 of the EPBC Act.

This ACSR addresses the compliance status of the Expansion with the conditions referred to in EPBC 2013/6904 for works carried out during the period 01 July 2021 to 30 June 2022 (the **Reporting Period**).

Talison is compliant with all conditions referred to in EPBC 2013/6904.

1.1 Description of Activities

During the Reporting Period, Talison performed the key activities summarised in Table 1.

Table 1: Summary of key activities

Project Title	Greenbushes Lithium Mine Expansion, WA
Approval Number	EPBC 2013/6904
Approval Holder	Talison Lithium Australia Pty Ltd
Approval Holder Australian Company Number	139 401 308
Action	Clearance of vegetation to expand the Floyds waste rock dump (Floyds) at the Talison Greenbushes Lithium Operation, Greenbushes, WA (Mine, Site) [See EPBC Act referral 2013/6904 as varied 07 March 2017].
Project Location	The Mine is located immediately south of the town of Greenbushes, approximately 250 kilometres (km) southeast of Perth, WA (Figure 1). It is located predominately within State Forest 20 (SF20) with the surrounding region comprising the State Forest, agricultural properties, tree plantations, water storage and urban environments (e.g. Greenbushes townsite).
Reporting Period	01/07/2021 to 30/06/2022
Key Activities	A total of 0.89 hectares (ha) was cleared during the Reporting Period relevant to EPBC 2013/6904 (see

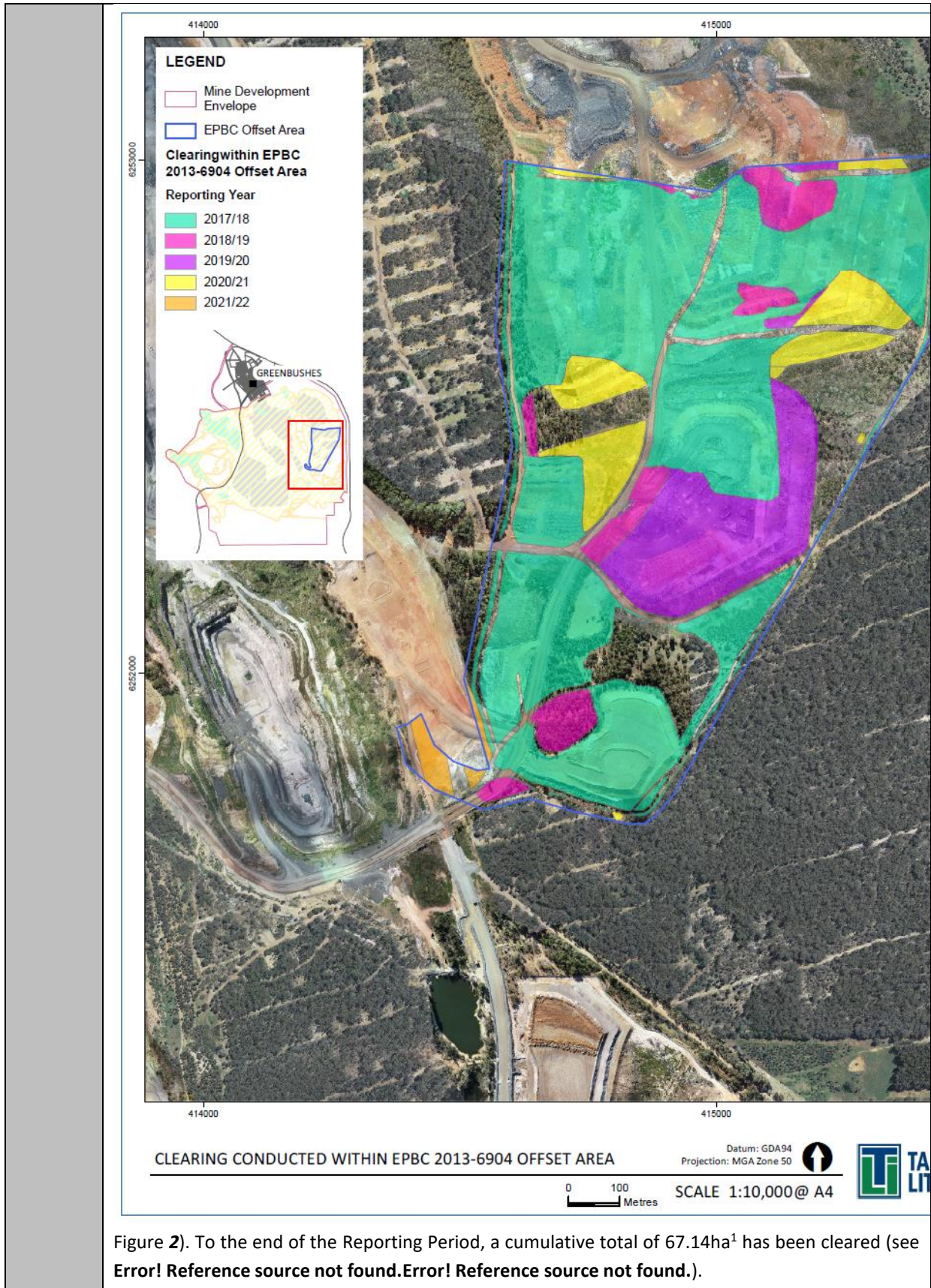


Figure 2). To the end of the Reporting Period, a cumulative total of 67.14ha¹ has been cleared (see Error! Reference source not found.Error! Reference source not found.).



¹ *An internal audit of clearing activities associated with EPBC 2013/6904 conducted during the Reporting Period identified some minor historical over reporting of clearing areas. Historical clearing figures have been amended to reflect the findings of the audit.*

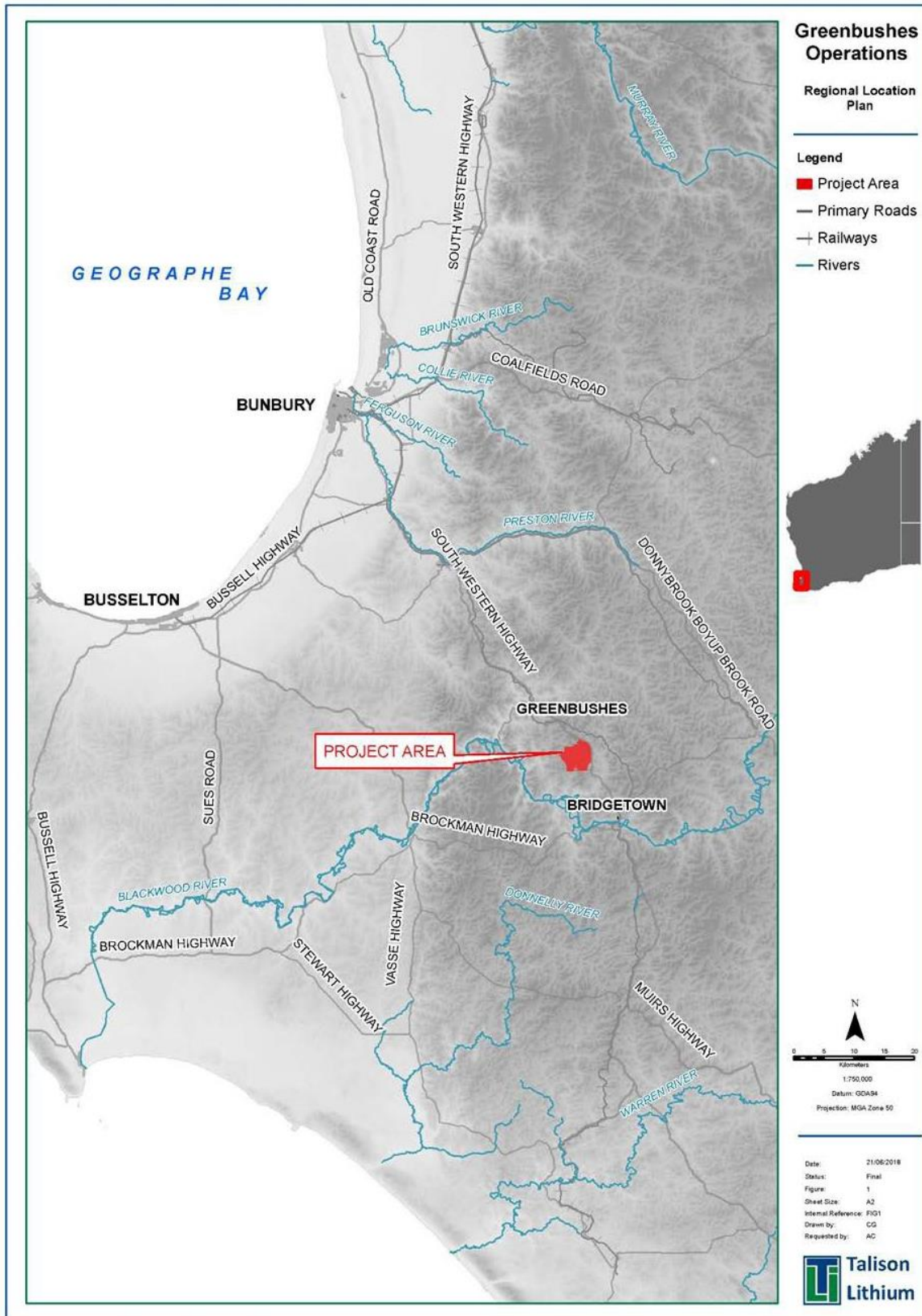


Figure 1: Location of the Mine

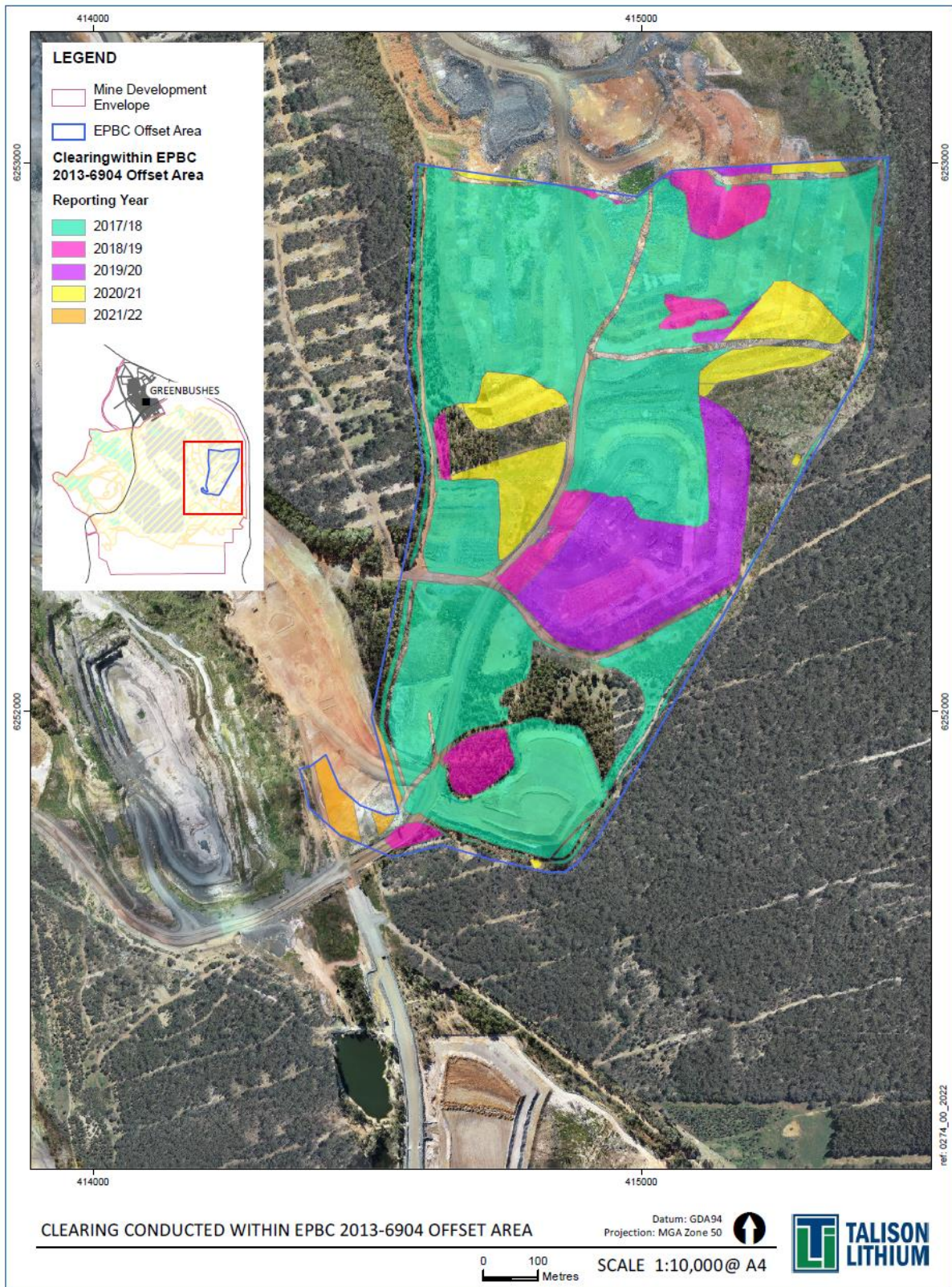


Figure 2: Clearing conducted during the Reporting Period Cumulative total of clearing conducted at the Mine under EPBC2013/6904



2. OFFSET MANAGEMENT PLAN IMPLEMENTATION

The implementation of the Offset Management Plan (**OMP**) (Ref 1) at the Tonebridge Grazing Pty Ltd (**TBG**) offset property is relevant to EPBC 2013/6904. The overarching objective of the OMP is to protect and improve habitat quality for Forest Red-tail Black Cockatoo (*Calyptorhynchus banksia naso*), Carnaby's Black Cockatoo (*C. latirostris*) and Baudin's Black Cockatoo (*C. baudinii*) (collectively referred to hereafter as **Black Cockatoos**) within the TBG offset area from an initial score of 7/10 to a score of 8/10 within 20 years. The Blackwood Basin Group Inc (**BBG**) implements the OMP at the TBG offset property on behalf of Talison. The results of the key OMP management measures and monitoring programs conducted during each year are summarised in an annual offset monitoring report. The offset monitoring report relevant to the Reporting Period (Ref 2) is provided in Attachment 1.

The offset monitoring report (Ref 2; Attachment 1) summarises the progress made towards the offset management objectives, as listed in Section 4 of the OMP, as follows:

1. *Permanent protection of the offset area from clearing and the impacts of grazing by livestock through the use of a conservation covenant registered on the title of the land:*
 - Objective achieved in the 2016-17 Reporting Period;
2. *Permanent exclusion of livestock from the offset area by fencing:*
 - Objective in progress. Fencing was installed to the required standard in the 2016-17 Reporting Period. Ongoing fencing inspections are taking place by TBG and BBG to ensure that unmanaged access to the offset area by livestock is prevented;
3. *Natural regeneration of native vegetation or successful infill planting to increase the number of trees that provide Black Cockatoo habitat:*
 - Objective in progress. The extent of natural regeneration is being monitored by the annual black cockatoo habitat monitoring program. Based on results from the 2019-2020 Reporting Period onwards an active revegetation campaign has been initiated, and the success of this campaign will be monitored on an ongoing basis. The active revegetation campaign commenced during the current Reporting Period in the autumn and winter of 2021 and will be ongoing in this and future reporting periods;
4. *The removal (if needed) of noxious weeds and their ongoing exclusion from the offset area:*
 - Objective in progress. Weed monitoring did not detect the presence of any noxious weeds. Ongoing access management and implementation of hygiene protocols will reduce the likelihood of noxious weeds being introduced to the offset area;
5. *Prevention of the introduction of dieback (Phytophthora cinnamoni) into the offset area and containment of the pathogen should introduction occur:*
 - Objective in progress. Dieback signage and boot cleaning stations were installed in the 2016-17 Reporting Period at all access points into the offset area to reduce the risk of dieback being introduced. Monitoring has not detected the presence of dieback and ongoing access management and implementation of hygiene protocols will reduce the likelihood of dieback being introduced to the offset area;



6. *Minimisation of the risk of wildfire and management of fuel loads to limit the impact should fire occur:*
 - Objective in progress. Fuel monitoring has confirmed that fuel loads continue to remain below the threshold requiring active fuel load management and fire breaks have been confirmed to be in place; and
7. *Increased utilisation of the area for foraging and breeding by Black Cockatoos:*
 - Objective in progress. Indirect observations of black cockatoos feeding in the offset area were made during the Reporting Period. Ongoing bi-annual monitoring of habitat utilisation by cockatoos will assist in determining if foraging and breeding by Black Cockatoos is increasing in the offset area over time.

The offset monitoring report (Ref 2; Attachment 1) confirmed that for the duration of the Reporting Period, the management and monitoring performed at the TBG offset property was conducted in accordance with the requirements of the OMP. Monitoring at the TBG offset property confirmed that area is free from noxious weeds and signs of dieback, and that fuel loads are below the threshold requiring active fuel reduction. The monitoring data collected during the Reporting Period demonstrated that the offset area contains habitat that is suitable for Black Cockatoos and that the density of habitat has naturally increased in some areas following the exclusion of livestock. An active revegetation campaign commenced during the Reporting Period in areas where natural revegetation has not sufficiently increased Black Cockatoo habitat density to meet OMP targets, and the program will continue in the next Reporting Period.



3. REPORTING METHODOLOGY

3.1 Auditing Methodology

An internal audit was conducted to support the development of this ACSR for actions conducted during the Reporting Period.

3.2 Designation of Record Findings

Talisson has adopted the 'Annual Compliance Report Guidelines' (Ref 3) designations (Table 2) for the reporting of compliance status in Table 3.

Table 2: Compliance Status Terms

Compliance Status Terms	Acronym	Definition
Compliant	C	'Compliance' is achieved when all the requirements of a condition have been met, including the implementation of management plans or other measures required by those conditions.
Non-Compliant	NC	A designation of 'non-compliance' should be given where the requirements of a condition or elements of a condition, including the implementation of management plans and other measures, have not been met.
Not Applicable	NA	A designation of 'not applicable' should be given where the requirements of a condition or elements of a condition fall outside of the scope of the current Reporting Period. For example, a condition which applies to an activity that has not yet commenced.

3.3 Public Availability of the Report

In accordance with Condition 7, this ACSR has been made publicly available to stakeholders, by publication on the Talisson website.



Table 3: EPBC 2013/6904 Compliance Table

Condition No.	Condition Description	Compliance Status	Evidence Comments
1	The person taking the action must not clear more than 75.7ha of Black Cockatoo habitat within the project area.	C	A total of 0.89ha was cleared during the Reporting Period – refer to



Condition No.	Condition Description	Compliance Status	Evidence Comments
Issue No:	1		
Issue Date:	11/2022		



Condition No.	Condition Description	Compliance Status	Evidence Comments
2	<p>Within seven (7) days prior to clearing of any area of Black Cockatoo habitat the person taking the action must investigate all potential nesting trees within the area to be cleared to determine if any Black Cockatoos are utilising these trees for nesting. The investigation must be undertaken by a suitably qualified person. If any Black Cockatoos are detected utilising any hollow in any tree, the person taking the action must:</p> <p>a) clearly identify and mark the tree; and</p> <p>b) only undertake clearing of any such tree when a suitably qualified person has verified that the hollows are no longer being used by Black Cockatoos.</p>	C	All potential nesting trees within the entire approved clearing area had been removed prior to the clearing activities conducted within the Reporting Period.
3	<p>To compensate for the loss of approximately 75.7ha of Black Cockatoo habitat the person taking the action must execute a secure and enduring conservation covenant over the offset area identified in Attachment 1.</p> <p>a) Within 12 months of the date of this approval, or within a timeframe otherwise agreed to by the Minister:</p> <p>i. the person taking the action must provide written evidence to the Department that a legally binding conservation covenant has been registered on the land title; and</p> <p>ii. the person taking the action must provide the Department with offset attributes, shapefiles and textual descriptions and maps to clearly define the location and boundaries of the offset area.</p>	C	<p>i. Conservation Covenant signed and approved on the 31 January 2017 by A. Watson – Commissioner of Soil and Land Conservation. The covenant is to retain and protect 121.7ha of native vegetation in perpetuity.</p> <p>ii. Location clearly defined and outlined within the OMP (Ref 1 - Conservation Covenant provided in Appendix 3 and offset area figure provided in Figure 1).</p>
4	<p>The person taking the action must prepare and submit an Offset Management Plan (OMP), for approval of the Minister to compensate for the loss of approximately 75.7ha of Black Cockatoo habitat. The person taking the action must not commence the action unless the Minister has approved the OMP. The purpose of the OMP is to protect and improve the quality of Black Cockatoo habitat within the offset area identified in Attachment 1.</p>	C	<p>The OMP was first approved by M. Collins (Assistant Secretary Compliance and Enforcement Branch) on 13 December 2016 (Version 1.1). The OMP was revised 07 March 2017 to reflect variation in condition 7 (Version 1.2). The OMP was again revised 20 November</p>



Condition No.	Condition Description	Compliance Status	Evidence Comments
			2017 to manage pasture grass fuel loads (Version 1.3).
4 (a)	<p>The OMP must include, but is not limited to:</p> <ul style="list-style-type: none"> i. management measures, including fencing and access controls, to prevent grazing, logging and other illegal land use practices within the offset area; ii. objectives, targets and completion criteria for the infill planting, including site preparation works, seedling planting program, success rates, ongoing management post establishment and details of replanting requirements, if success rates are not achieved; iii. management measures including inspection and cleaning regimes to prevent the introduction and spread of <i>Phytophthora cinnamomi</i> (dieback) to the offset area; iv. rehabilitation measures such as site clean-up and weed management, including information on the mapping, monitoring and removal of noxious weeds; v. details on proposed fire management measures including firebreak creation and management; vi. timeframes and implementation for the OMP; and vii. descriptions of the roles and responsibilities of personnel associated with implementation of OMP. 	C	Table 1 in the OMP (Ref 1) provides a summary of how the Plan requirements stated in Condition 4(a) are addressed in the OMP.
4b	The OMP must provide clear objectives and performance indicators for all management actions, mitigation measures and practices prescribed by the plan including details of the monitoring to be undertaken to demonstrate the effectiveness of the measures and details of the parameters to be monitored, methods, timing, frequency and location of monitoring.	C	Table 1 in the OMP (Ref 1) provides a summary of how the Plan requirements stated in Condition 4(b) are addressed in the OMP.
4c	The OMP must demonstrate-for all actions, mitigation measures and practices prescribed by the OMP-clear objectives and performance indicators as well as corrective actions for circumstances	C	Table 1 in the OMP (Ref 1) provides a summary of how the Plan requirements stated in



Condition No.	Condition Description	Compliance Status	Evidence Comments
	where an action, mitigation measure or practice fails to meet its prescribed objective or performance indicator and trigger action points at which these corrective actions should be implemented.		Condition 4(c) are addressed in the OMP.
5	Within 30 days after the commencement of the action, the person taking the action must advise the Department in writing of the actual date of commencement.	C	Email correspondence dated 22 December 2016 advising of commencement of clearing activities.
6	The person taking the action must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement the management plans 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.	C	Relevant records are maintained by Talison and are available to the Department upon request. No information requests were received during the Reporting Period.
7	Within three months following 1 September, each year for the life of this approval, the person taking the action must publish a report on their website addressing compliance with each of the conditions of this approval, including implementation of any management plans 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. Reports must remain on the website for the life of this approval. The person taking the action must continue to comply with this condition until such time as agreed to in writing by the Minister.	C	This report, prepared in accordance with this condition, covering the Reporting Period 01 July 2021 to 30 June 2022. This report is to be published on the Talison website before 01 December 2022. Evidence of implementation of the OMP (Ref 1) is provided in Appendix 1.
8	Upon the direction of the Minister, the person taking the action 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	C	No direction was given by the Minister to perform an independent audit during the Reporting Period.



Condition No.	Condition Description	Compliance Status	Evidence Comments
	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.		
9	<p>The person taking the action may choose to revise a management plan approved by the Minister under condition 4 without submitting it for approval under section 143A of the EPBC Act, if the taking of the action in accordance with the revised plan would not be likely to have a new or increased impact. If the person taking the action makes this choice they must:</p> <ol style="list-style-type: none"> notify the Department in writing that the approved plan has been revised and provide the Department with an electronic copy of the revised plan; implement the revised plan from the date that the plan is submitted to the Department; and for the life of this approval, maintain a record of the reasons the person taking the action considers that taking the action in accordance with the revised plan would not be likely to have a new or increased impact. 	C	The OMP was not revised during the Reporting Period.
10	The person taking the action may revoke their choice under condition 9 at any time by notice to the Department. If the person taking the action revokes the choice to implement a revised plan, without approval under section 143A of the Act, the plan approved by the Minister must be implemented.	C	The OMP was not revised during the Reporting Period.
11	<p>If the Minister gives a notice to the person taking the action that the Minister is satisfied that the taking of the action in accordance with the revised plan would be likely to have a new or increased impact, then:</p> <ol style="list-style-type: none"> Condition 9 does not apply, or ceases to apply, in relation to the revised plan; and the person taking the action must implement the plan approved by the Minister. 	C	The OMP was not revised during the Reporting Period.



Condition No.	Condition Description	Compliance Status	Evidence Comments
12	To avoid any doubt, this condition does not affect any operation of conditions 9 and 10 in the period before the day the notice is given.	C	The OMP was not revised during the Reporting Period.
13	Conditions 9, 10 and 11 are not intended to limit the operation of section 143A of the EPBC Act which allows the person taking the action to submit a revised plan to the Minister for approval.	C	The OMP was not revised during the Reporting Period.
14	Unless otherwise agreed to in writing by the Minister, the person taking the action must publish all management plans referred to in these conditions of approval on their website for the duration of this approval. Each management plan must be published on the website within 1 month of being approved by the Minister or being submitted under condition 9(a) and must remain on the website for the life of this approval.	C	The OMP has been published on the Talison website since 13 January 2017. The OMP (Ref 1) is currently available at: https://static1.squarespace.com/static/5c0754e24611a07f1ab91992/t/5c8874676e9a7f2095ac18e8/1552446625974/site-rehabilitation-and-environmental-monitoring-plan-v1-3-20171120---signed.pdf



4. REFERENCED DOCUMENTS

Table 4 lists documentation directly referenced in this document.

Table 4: Reference Table

Ref. No.	Description
1	Blackwood Basin Group (2017) Offset Management Plan (Site Rehabilitation and Environmental Monitoring Plan) H5115 Boyup Brook-Cranbrook Rd Tonebridge. Revision 1.3 20 November 2017. Boyup Brook: Blackwood Basin Group Inc.
2	Blackwood Basin Group (2022) 2022 Offset Management Annual Report - H5115 Boyup Brook-Cranbrook Rd Tonebridge - For the period covering 1 July 2021 to 30 June 2022 Revision 0, 06 November 2022. Boyup Brook: Blackwood Basin Group Inc.
3	Commonwealth of Australia (2014) Annual Compliance Report Guidelines, Commonwealth of Australia, 2014.

5. APPENDED DOCUMENTS

Table 5 lists documentation appended to this document.

Table 5: Appendix Table

Appendix No.	Description
A	2022 Offset Management Annual Report (Ref 2).



Appendix A - 2022 Offset Management Annual Report

2022 Offset Management Annual Report

H5115 Boyup Brook-Cranbrook Rd Tonebridge

For the period covering 1 July 2021 to 30 June 2022

Expansion of mine waste rock dump, Talison Lithium Greenbushes Operations, Greenbushes,
Western Australia (EPBC 2013/6904)

Proponent: Talison Lithium Australia Pty Ltd (ACN 139 401 308)

Proposed Action: Clearance of vegetation to expand the mine waste rock dump at the Talison Lithium
Greenbushes Operations, Greenbushes, Western Australia [See EPBC Act referral 2013/6904]

Revision: 0 - FINAL

Published: November 6, 2022

BOYUP BROOK OFFICE
P.O. Box 231, Boyup Brook WA 6244
ABN 35 783 580 963
ph | (08) 9765 1555

e | enquiries@blackwoodbasingroup.com.au



Blackwood Basin Group

Table of Contents

Table of Contents.....	ii
List of Figures	iii
List of Tables	iii
Executive Summary.....	4
1. Background	5
2. Progress to Date.....	5
2.1. Previous Monitoring Results.....	5
2.2. Management Measures Implemented	5
2.3. Progress Towards Management Objectives	8
3. Monitoring Methods.....	9
4. Monitoring Results and Discussion.....	9
4.1. Black Cockatoo Habitat	9
4.2. Fencing.....	15
4.3. Infill Planting	15
4.4. Weeds	16
4.5. Dieback.....	17
4.6. Fire Risk.....	18
4.7. Black Cockatoo Habitat Utilisation.....	18
6. Assessment of Management Plan Progress.....	19
7. Risk Assessment	19
8. Incidents.....	19
9. Recommendations	20
References	20
Appendices.....	21
Appendix 1: Cockatoo Habitat Density monitoring photo-point results (Oct 2021)	22
Appendix 2: Fencing monitoring photo-point results (Oct 2021).....	25
Appendix 3: Fuel load monitoring photo-point results (Dec 2020)	28
Appendix 4: Herbicide Application Photos (May 2021).....	31
Appendix 5: Post Herbicide Application Photos (August 2021).....	33

List of Figures

Figure 1. The Tonebridge Grazing Pty Ltd offset property	7
Figure 2. Black cockatoo habitat density quadrat locations	11
Figure 3. Density of cockatoo habitat tree species across all sites 2017 – 2021	12
Figure 4. Density of cockatoo habitat seedlings across all sites 2017 – 2021	12
Figure 5. Size distribution of cockatoo habitat trees 2017 - 2021: North-Western Area (top), North-Eastern Area (middle) and Southern Area (bottom)	14
Figure 6. Fence monitoring photo point monitoring locations.....	15
Figure 7. Noxious weed and dieback monitoring transect locations.....	17

List of Tables

Table 1: 2021 Seedling and Tree Density.....	10
Table 2: Fuel Load Monitoring Results.....	18

Executive Summary

Monitoring and management of the Tonebridge Grazing Pty Ltd (TBG) offset property has been conducted by the Blackwood Basin Group (BBG) on behalf of Talison Lithium Pty Ltd (Talison) for the duration of the reporting period 1 July 2021 to 30 June 2022. The monitoring and management have been conducted in accordance with the requirements of *the Offset Management Plan (Site Rehabilitation and Environmental Management Plan)* (OMP) (Blackwood Basin Group, 2017a).

Monitoring has confirmed that the offset area is free from noxious weeds and signs of dieback, and that fuel loads are below the threshold requiring active fuel reduction.

Assessment of black cockatoo habitat density in 2021 found that the average tree density across the offset property was slightly lower (460 ± 108 plants/ha) compared to 2020 (462 ± 110 plants/ha). The average seedling density in 2021 also decreased from 2020 (158 ± 72 seedlings/ha compared to 166 ± 105 seedlings/ha).

The monitoring data collected during the period continues to demonstrate that, while the area contains habitat that is suitable for black cockatoos, natural seed germination of cockatoo habitat species has been insufficient to meet the long-term objective as stated in the OMP without an active revegetation campaign taking place in the North-Eastern and North-Western areas.

As a result, an active revegetation campaign was initiated in 2020, and continued within this reporting period, with applications of a broad-spectrum herbicide carried out in the North-Eastern and North-Western areas in May and September 2021 and in May and June 2022. Herbicide was applied by personnel on foot using hand sprayers attached by long hoses to light vehicles with spray tanks and by all terrain vehicles with booms. In addition, ground ripping will be carried out in July 2022 in order to create seed beds prior to planting taking place in August 2022.

1. Background

The BBG performs monitoring at the TBG offset property (Figure 1) on behalf of Talison in accordance with the requirements of OMP.

This report details the monitoring that was conducted during the reporting period 1 July 2021 to 30 June 2022. Subsequent monitoring reports will cover the reporting period 1 July to 30 June each year. This report is required to be published on the Talison website within three months following 1 September each year as required by Condition 7 EPBC 2013/6904.

2. Progress to Date

2.1. Previous Monitoring Results

Previous monitoring results have been reported as follows:

- 2016-17 reporting period (for the period 4 December 2016 to 31 July 2017):
 - o *2017 Offset Management Annual Report H5115 Boyup Brook – Cranbrook Road Tonebridge* (Blackwood Basin Group, 2017b)
- 2017-18 reporting period (for the period covering 1 August 2017 to 30 June 2018):
 - o *2018 Offset Management Annual Report H5115 Boyup Brook-Cranbrook Rd Tonebridge* (Blackwood Basin Group, 2018)
- 2018-19 reporting period (for the period covering 1 July 2018 to 30 June 2019):
 - o *2019 Offset Management Annual Report H5115 Boyup Brook-Cranbrook Rd Tonebridge* (Blackwood Basin Group, 2019)
- 2019-20 reporting period (for the period covering 1 July 2019 to 30 June 2020):
 - o *2020 Offset Management Annual Report H5115 Boyup Brook-Cranbrook Rd Tonebridge* (Blackwood Basin Group, 2020)
- 2020-21 reporting period (for the period covering 1 July 2020 to 30 June 2021):
 - o *2021 Offset Management Annual Report H5115 Boyup Brook-Cranbrook Rd Tonebridge* (Blackwood Basin Group, 2021)

2.2. Management Measures Implemented

During the reporting period, the following management measures were implemented:

1. The perpetual conservation covenant is registered for the parcel of land containing the offset area and the covenant is being implemented.
2. The offset area has been fenced to prevent unmanaged livestock access and the fencing is being maintained by TBG.
3. Natural revegetation of the Southern offset area will continue to be monitored for effectiveness by the BBG; and in addition, the first 4 rounds of herbicide application have been carried out within the North-Eastern and North-Western areas.
4. Rabbit control was carried out within the North-Eastern and North-Western areas in February 2022. Oats inoculated with the “K5” Calicivirus were placed at 4 locations.
5. Noxious weed mapping of the area has been completed for the period.
6. Public access, weed and dieback hygiene protocols continue to be implemented at access points to the offset area.

7. Fire risk has been mitigated during the period by maintaining firebreaks and managing fuel loads.

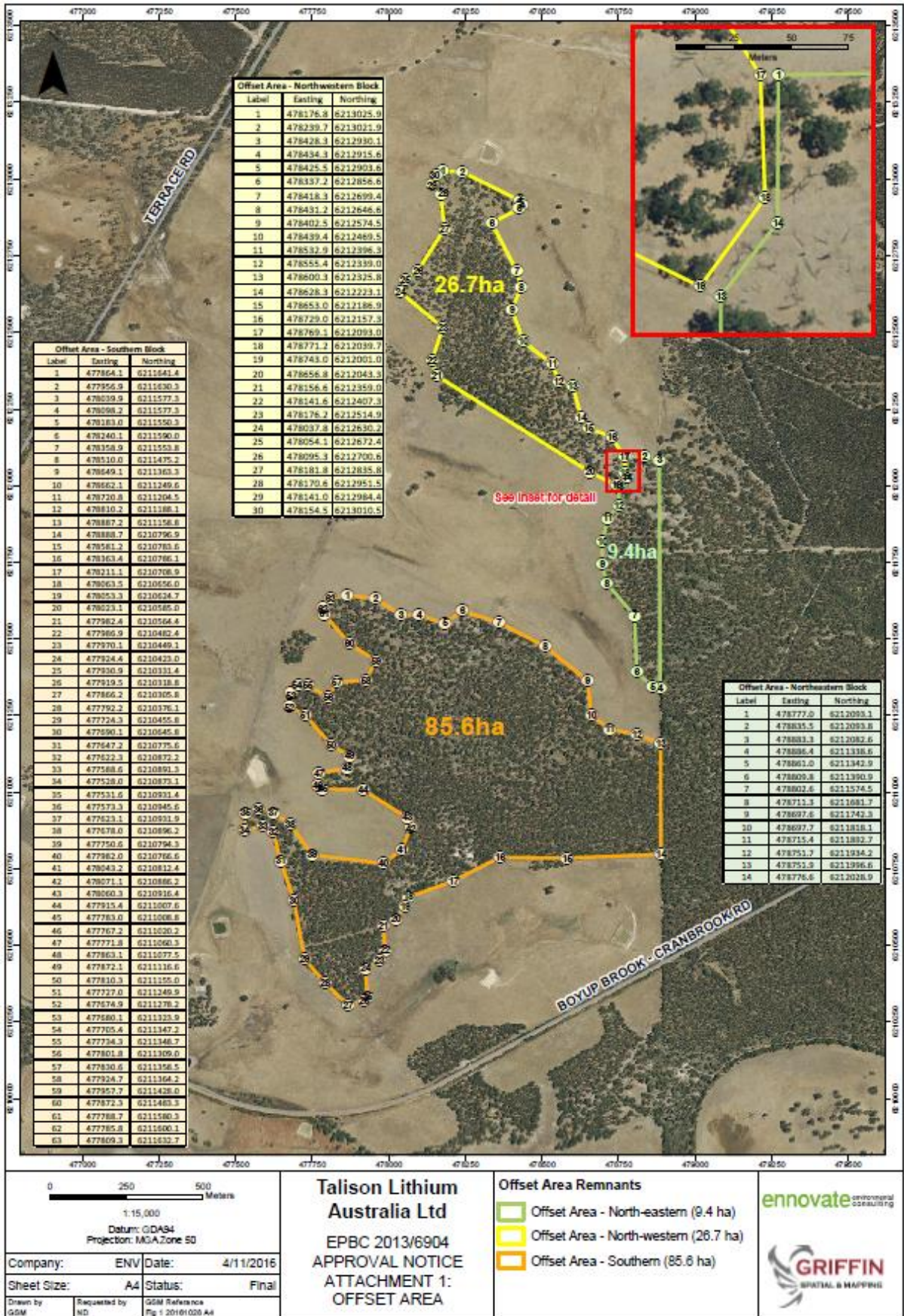


Figure 1. The Tonebridge Grazing Pty Ltd offset property

2.3. Progress Towards Management Objectives

Progress towards the offset management objectives, as listed in section 4 of the OMP, are summarised below:

1. *Permanent protection of the offset area from clearing and the impacts of grazing by livestock through the use of a conservation covenant registered on the title of the land.*
Objective achieved in the 2016-17 reporting period (Blackwood Basin Group, 2017b).
2. *Permanent exclusion of livestock from the offset area by fencing.*
Objective in progress. Fencing was installed to the required standard in the 2016-17 reporting period (Blackwood Basin Group, 2017b). Ongoing fencing inspections are taking place by TBG and BBG to ensure that unmanaged access to the offset area by livestock is prevented.
3. *Natural regeneration of native vegetation or successful infill planting to increase the number of trees that provide black cockatoo habitat.*
Objective in progress. The extent of natural regeneration is being monitored by the annual black cockatoo habitat monitoring program. Based on results from the 2019-2020 reporting period onwards an active revegetation campaign has been initiated, and the success of this campaign will be monitored on an ongoing basis. The active revegetation campaign commenced in the autumn and winter of 2021 and will be ongoing in this and future reporting periods.
4. *The removal (if needed) of noxious weeds and their ongoing exclusion from the offset area.*
Objective in progress. Weed monitoring did not detect the presence of any noxious weeds. Ongoing access management and implementation of hygiene protocols will reduce the likelihood of noxious weeds being introduced to the offset area.
5. *Prevention of the introduction of dieback (*Phytophthora cinnamoni*) into the offset area and containment of the pathogen should introduction occur.*
Objective in progress. Dieback signage and boot cleaning stations were installed in the 2016-17 reporting period (Blackwood Basin Group, 2017b) at all access points into the offset area to reduce the risk of dieback being introduced. Monitoring has not detected the presence of dieback and ongoing access management and implementation of hygiene protocols will reduce the likelihood of dieback being introduced to the offset area.
6. *Minimisation of the risk of wildfire and management of fuel loads to limit the impact should fire occur.*
Objective in progress. Fuel monitoring has confirmed that fuel loads continue to remain below the threshold requiring active fuel load management and fire breaks have been confirmed to be in place.
7. *Increased utilisation of the area for foraging and breeding by black cockatoos.*
 8. Objective in progress. Indirect observations of black cockatoos feeding in the offset area were made during the reporting period. Ongoing bi-annual monitoring of habitat utilisation by cockatoos will assist in determining if foraging and breeding by black cockatoos is increasing in the offset area over time.

3. Monitoring Methods

The monitoring and data analysis methods used are consistent with the methods described in the OMP (section 8). The OMP should be referred to for further details on the methods used.

4. Monitoring Results and Discussion

4.1. Black Cockatoo Habitat

Black cockatoo habitat was monitored at 16 quadrats across the North-Eastern, North-Western and Southern offset areas, as well as the Tone-Perup Nature Reserve (quadrat locations shown in Figure 2) in October 2021. The number and size (diameter at breast height (DBH)) of cockatoo habitat trees was measured, and the number of emerging cockatoo habitat species seedlings was also counted. Photo monitoring results are shown in Appendix 1.

Jarrah (*Eucalyptus marginarta*) was the dominant habitat species present in all offset areas, with some marri (*Corymbia callophylla*) also present. A slight reduction in the number of habitat trees between September 2020 and October 2021 was noted for all offset monitoring areas except the North-Eastern block. The number of habitat trees in the North-Eastern block increased slightly, likely due to younger trees reaching breast height, and the increasing growth of forked trees, resulting in the measurement at breast height of both forks. The number of trees recorded in the Tone-Perup nature reserve decreased between September 2019 and October 2021, potentially due to burn offs undertaken in 2021.

Seedling density decreased in the Southern block, but increased in both the North-Eastern and North-Western blocks. Additionally an increase was noted in the Tone-Perup nature reserve, again, potentially due to burn offs in 2021. (see Figure 4).

The size distributions of jarrah and marri trees measured at all monitoring sites are shown in Figure 5.

As shown by Table 1, seedling density within the Southern area is currently above the target OMP threshold of 1,000 stems/Ha (\pm SE) and continued monitoring only is recommended at this time. In contrast, it is apparent that natural regeneration within the North-Eastern and North-Western areas of the offset property has not been sufficient to meet the target OMP density and an active revegetation campaign is required in these areas.

Table 1: 2021 Seedling and Tree Density

Block	Type	Total (p/Ha)	SE	Combined Total (p/Ha)
North Western	Seedlings	62.5	41.5	275.0
	Trees	212.5	12.5	
North Eastern	Seedlings	25.0	14.4	393.8
	Trees	368.8	106.3	
Southern	Seedlings	387.5	169.1	1187.5
	Trees	800.0	236.1	
Tone Perup NR	Seedlings	2043.8	959.5	2487.6
	Trees	443.8	102.8	

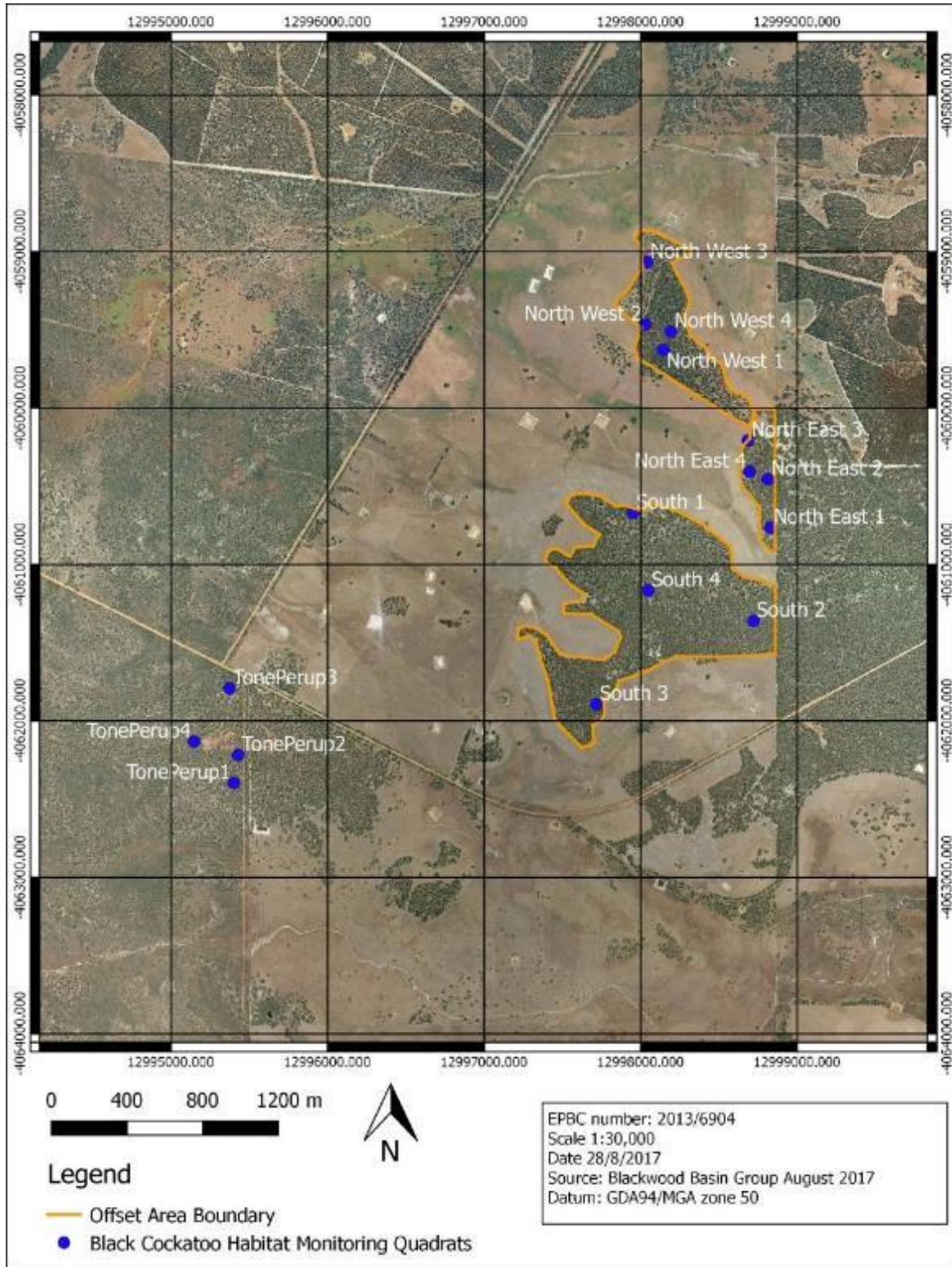


Figure 2. Black cockatoo habitat density quadrat locations

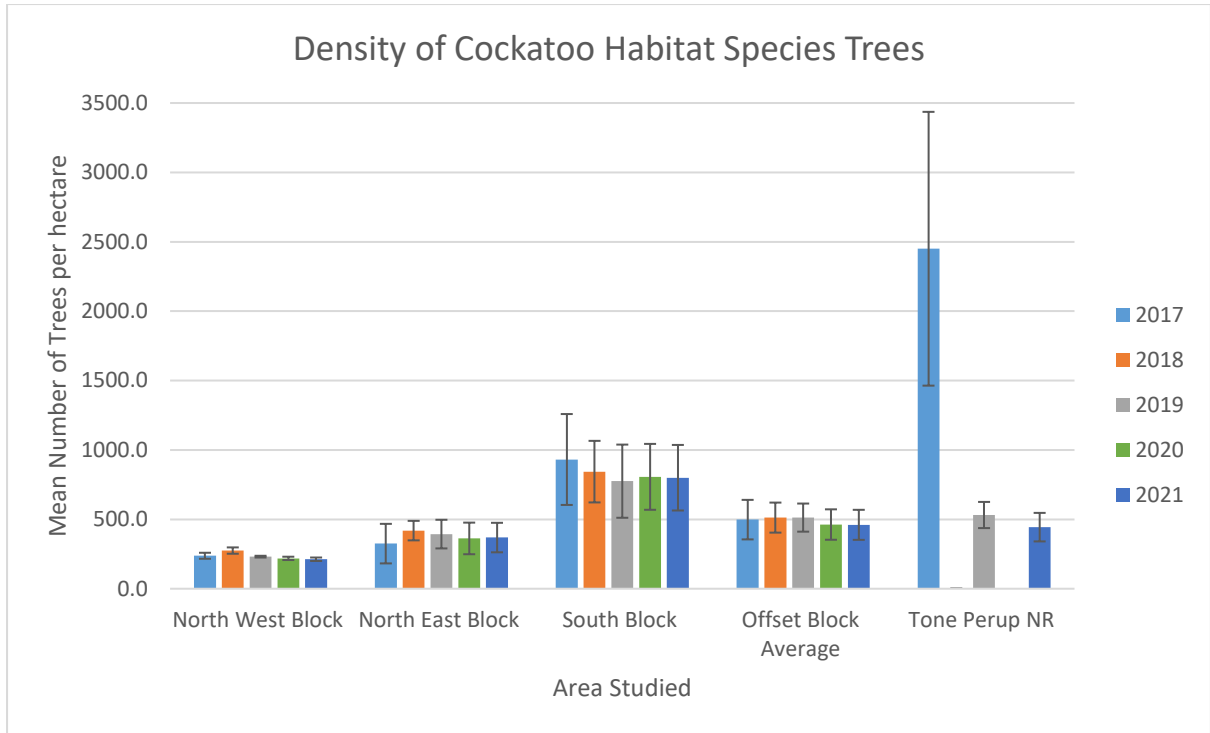


Figure 3. Density of cockatoo habitat tree species across all sites 2017 – 2021

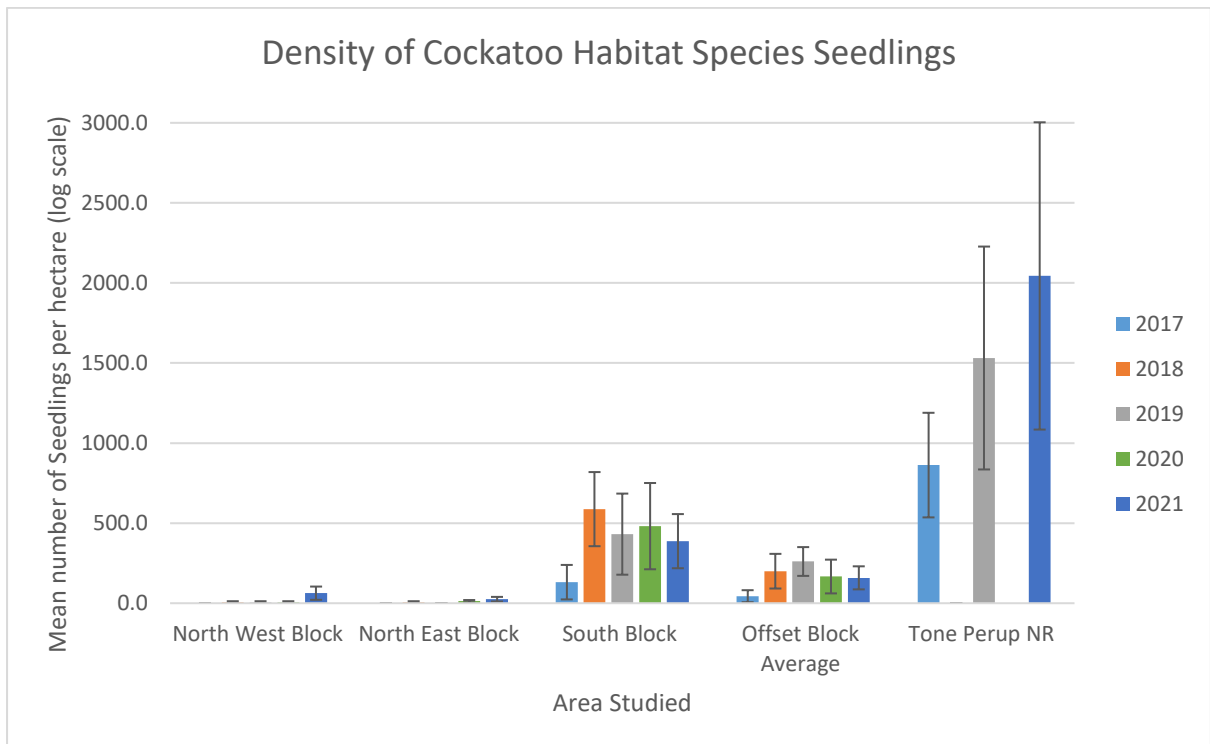
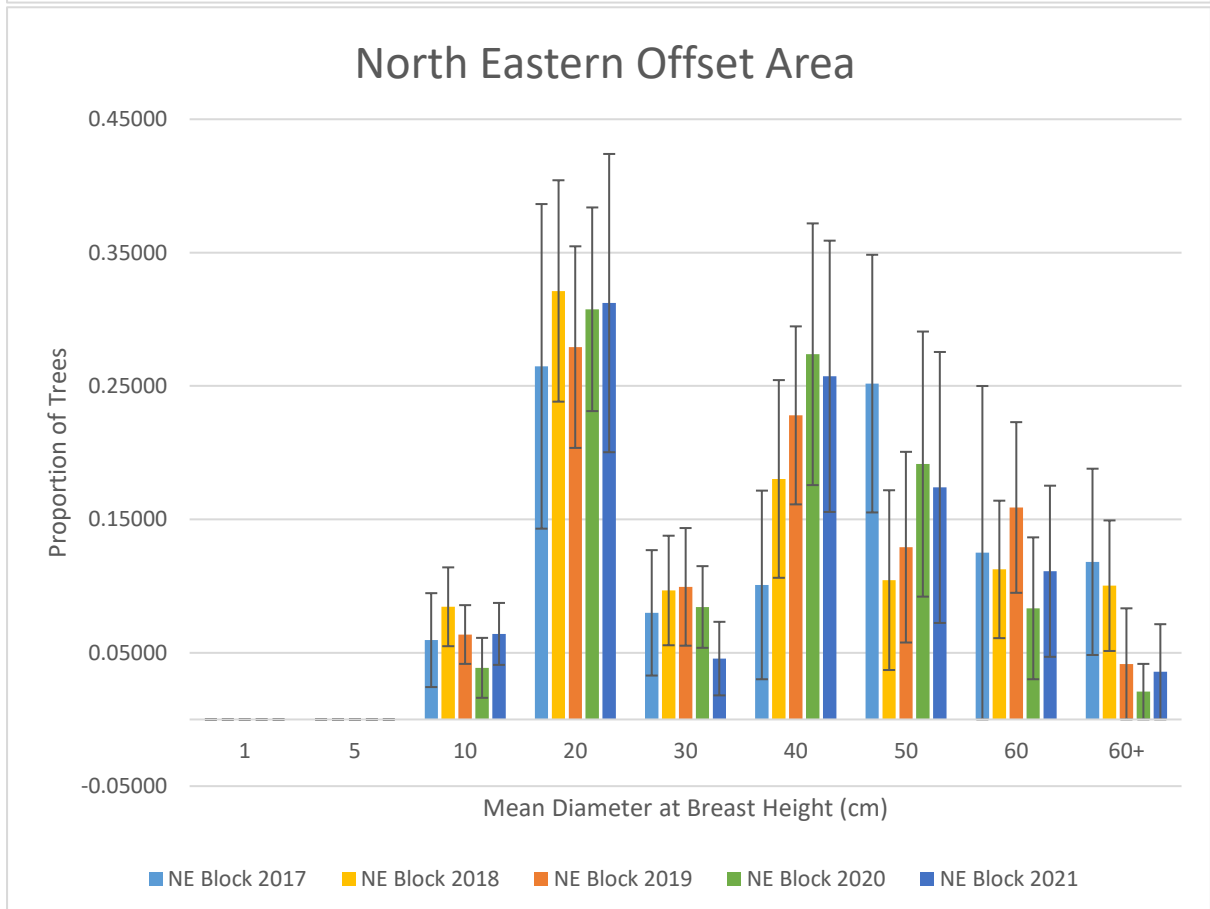
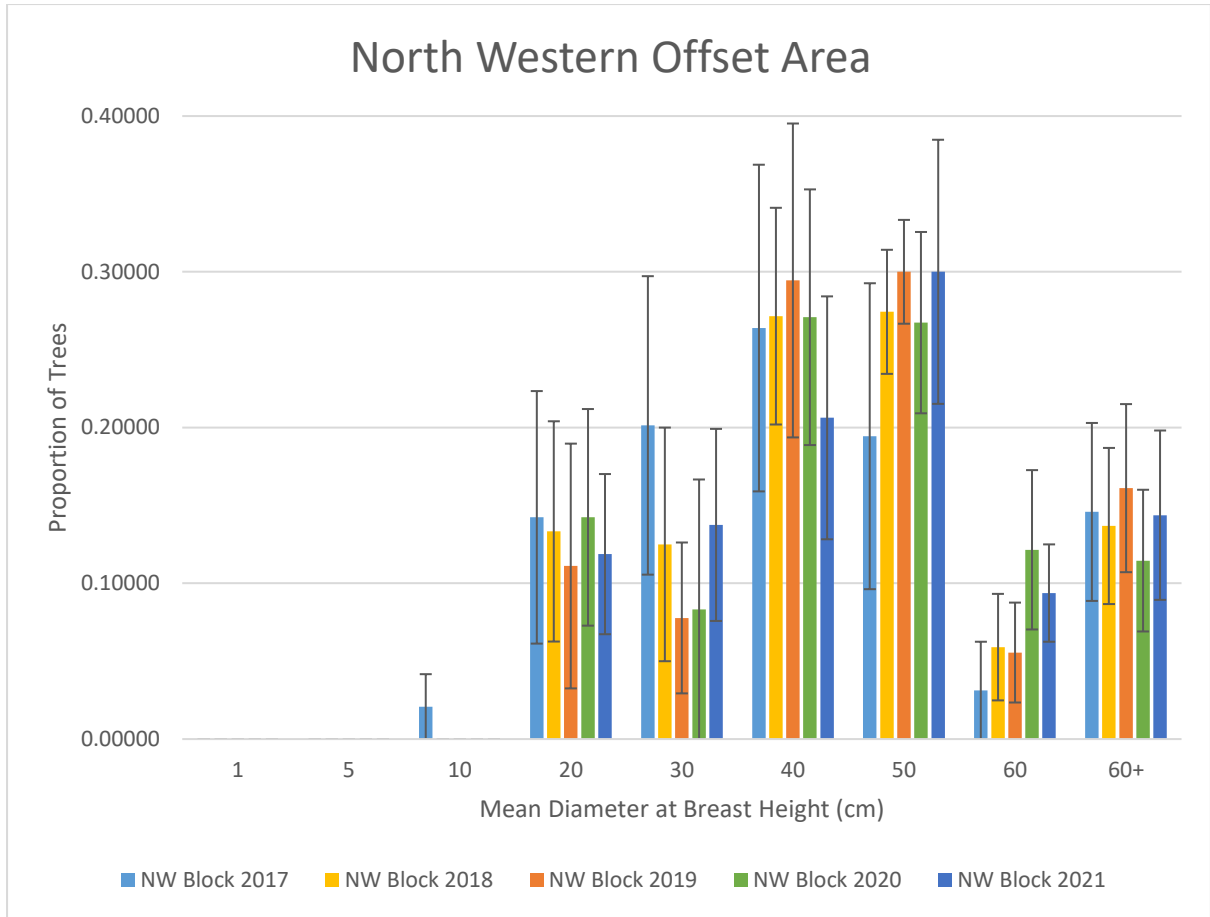


Figure 4. Density of cockatoo habitat seedlings across all sites 2017 – 2021



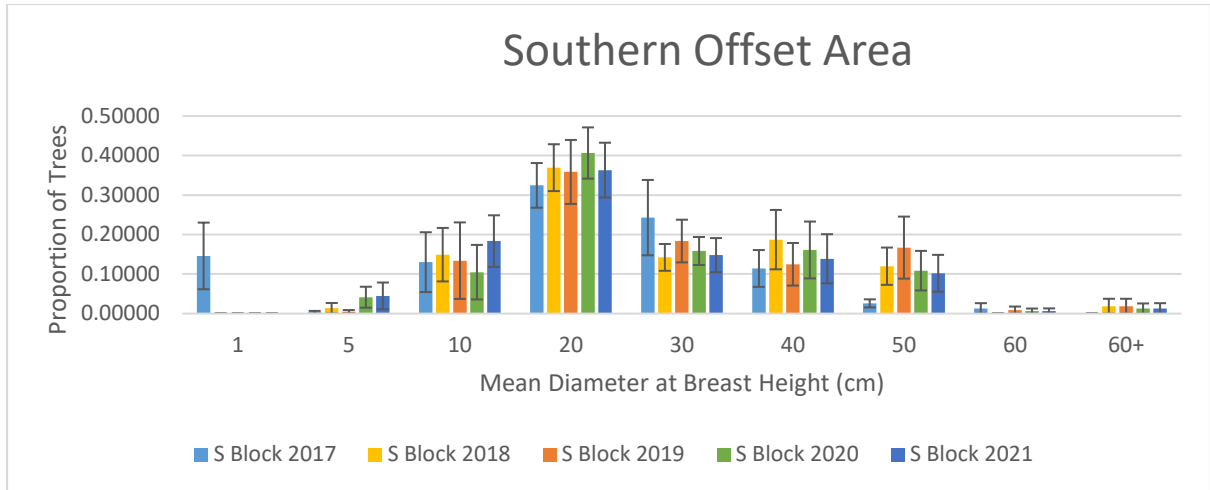


Figure 5. Size distribution of cockatoo habitat trees 2017 - 2021: North-Western Area (top), North-Eastern Area (middle) and Southern Area (bottom)

4.2. Fencing

The BBG performed fence monitoring at 13 photo-point monitoring locations (Figure 6) in October 2021. Photo monitoring results are shown in Appendix 2.

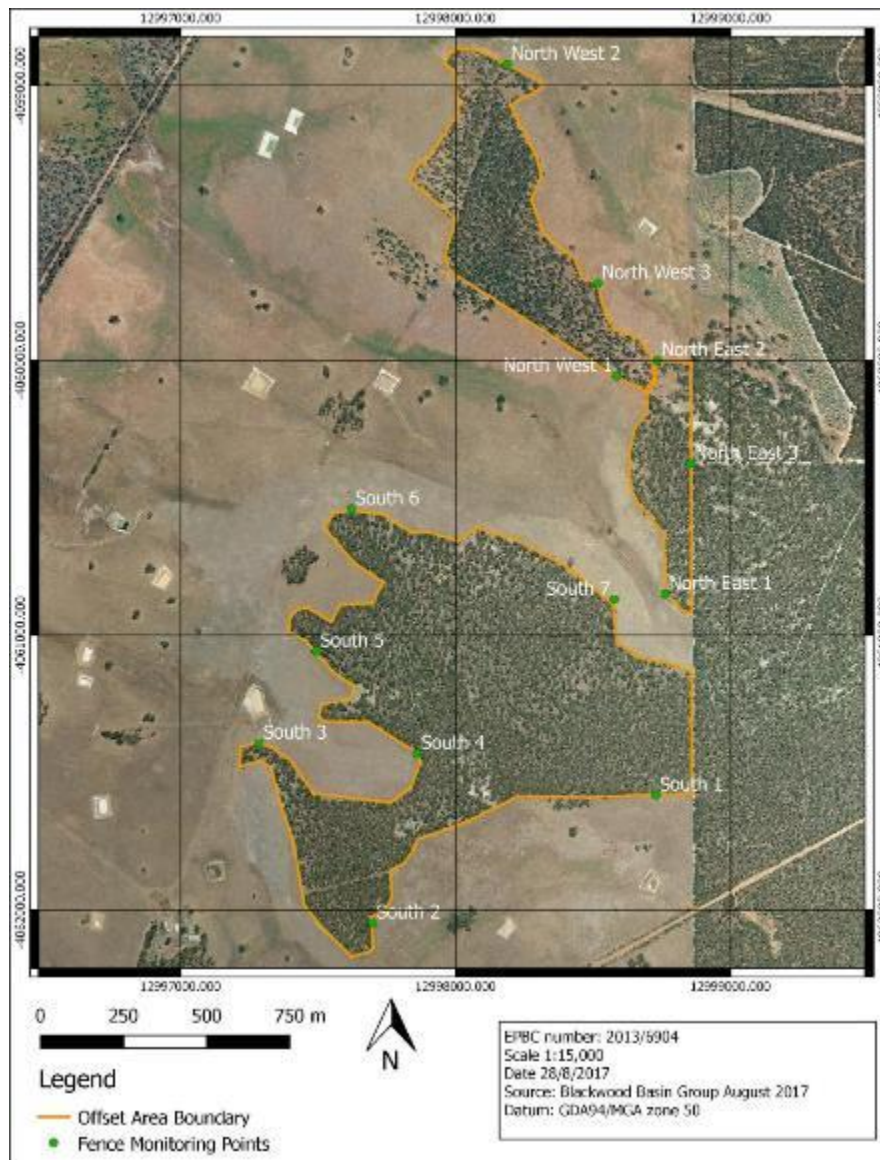


Figure 6. Fence monitoring photo point monitoring locations

No damage to the fencing was noted at any of the 13 fence monitoring locations. TBG continue to perform routine fence inspections approximately twice per week to check for damage or unplanned access by livestock.

4.3. Infill Planting

No infill planting has occurred to date and subsequently no monitoring of infill planting has occurred during the reporting period. Infill planting is scheduled to begin in August 2022, consisting of mass seedling installation and native seed broadcasting within the north eastern and north western blocks.

4.4. Weeds

Weed monitoring was conducted along 12 line transects (Figure 7) in October 2021. The most dominant non-noxious weed species recorded during the survey included pasture grasses (various species), cape weed (*Arctotheca calendula*), clover species and onion weed (*Asphodelus fistulosus*). Weed cover has been consistently higher in the North Eastern and North Western areas and tended to increase with proximity to fence lines in past years, however 4 applications of herbicide in these areas has decreased weed cover considerably. Monitoring within quadrats also noted that herbicide application had been exceedingly effective, particularly on pasture grasses.

Weed monitoring did not record the presence of any noxious weed species within the offset area.

To reduce the weed burden in the North Eastern and North Western areas 4 applications of Glyphosate Bioactive at a rate of 1.3L per 100L of water were applied by personnel on foot using hand sprays attached by long hoses to light vehicles with tanks. The applications of herbicide in 2021 and 2022 were the first steps in the active revegetation campaign, and will be followed by deep ground ripping in July 2022 prior to planting activity and seed broadcasting, scheduled to begin in August 2022.

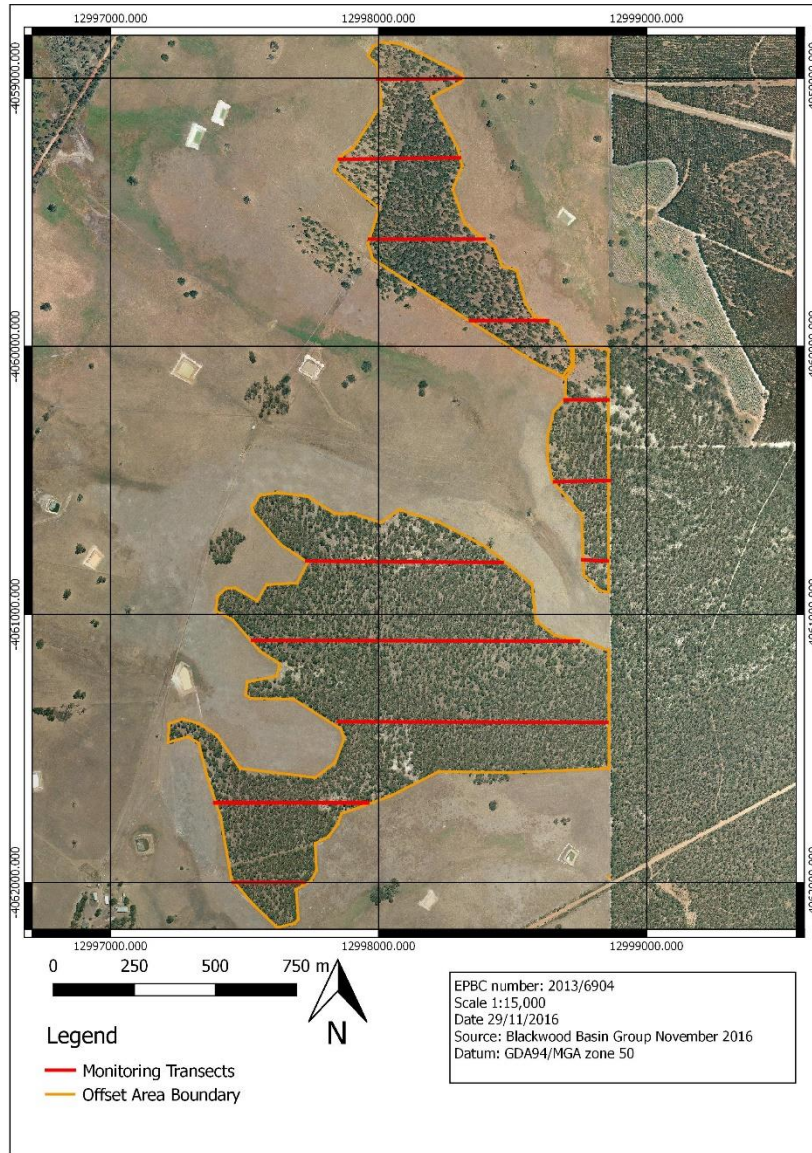


Figure 7. Noxious weed and dieback monitoring transect locations

4.5. Dieback

Dieback (*Phytophthora cinnamoni*) monitoring was conducted along 12 line transects (Figure 7) in October 2021.

No evidence of dieback was found within the offset area. Due to the absence of any evidence of dieback, no further investigations or management measures were implemented nor are recommended.

Dieback management kits, consisting of 70% methylated spirits solutions in a pump spray bottle, and wire brushes, are present at entry points, and dieback management protocols, consisting of clean on entry requirements are enforced to ensure monitoring and revegetation activities do not result in potential disease introduction.

4.6. Fire Risk

An inspection of the fire break on the eastern boundary of the North-Eastern and Southern areas was undertaken in December 2021. This inspection confirmed the required 3m mineral earth firebreak was in place prior to the 30 November deadline required by the local government.

Fuel load was monitored in all three offset areas in December 2021. A statistical summary of the monitoring result is shown in Table 2; photographs taken at each monitoring location are shown in Appendix 3.

Table 2: Fuel Load Monitoring Results

Monitoring area	Average Fuel Load (ton/ha)					
	2017 (prior to crash graze)	2018 (after crash graze ¹)	May-19 (after crash graze ²)	Dec-19 (after crash graze ²)	Dec-20	Dec-21
North-Eastern Area	3.6±1.13	2.3±0.24	2.8±0.08	2.7±0.37	2.4±0.51	2.5±0.52
North-Western Area	4.6±0.98	2.6±0.36	3.7±0.64	2.9±0.25	3.6±0.50	2.4±0.51
Southern Area	1.8±0.19	--	1.9±0.2	2.3±0.17	2.2±0.23	2.2±0.23

Note 1: The 2018 crash graze occurred in the North-Eastern and North-Western areas.

Note 2: The May 2019 crash graze occurred in the North-Western area only.

For all monitoring locations in all areas, fuel loads were measured well below the OMP threshold of 8 ton/Ha, so a fuel reduction burn is not recommended to reduce fire risk at this time. Higher fuel loads recorded in the northern areas compared to the southern area are mainly attributable to a cover of pasture grasses.

In June 2019 (after fuel load monitoring was conducted) the BBG recommended TBG conduct small and cool 'mosaic' burns on the northern boundary of the North-Western area where there is no understorey and almost complete cover of pasture grasses. This burn was conducted as a small-scale experiment to determine if burning can successfully stimulate greater germination of the seed bank. An additional monitoring quadrat ('NW Burn') was established in the September monitoring period within this burnt area and was included in the December fuel load monitoring results until it was discontinued in 2021. NW Burn was discontinued as a result of 100% effective weed control as a result of herbicide applications in 2021.

4.7. Black Cockatoo Habitat Utilisation

The utilisation of the offset area by black cockatoos is monitored bi-annually, with monitoring conducted by the BBG in October 2021.

The offset areas were assessed for evidence of feeding, nesting and roosting. Feeding and roosting in the offset area was monitored using direct visual observations and indirectly by identifying chew-marks on Marri nuts/capsules found on the ground. Photographs of feeding evidence and potential nesting trees observed during the survey are shown in Appendix 4.

Observations were also made by TBG during the reporting period on the general presence and activity of black cockatoos in the offset area.

Direct visual observations were made by walking the monitoring transects, listening for audible signs of cockatoos and scanning the area with binoculars. Forest red-tail cockatoos were directly observed in the Southern and North-Western Areas. Distant, audible signs of cockatoo presence were also noted, but not with certainty to confirm species or location, or to determine if the birds were feeding or roosting.

Indirect feedings observations were made by comparing Marri capsules found on the ground within 2 m either side of the monitoring transect with the identification sheet shown in Appendix 1. Feeding signs on Marri capsules were classified by age (recent/green or old/brown) and suspected feeding species (Carnaby's, Baudin's, Forest Red-Tail or Red-Capped parrot). If the suspected species feeding on the capsule could not be identified as a single species, multiple species were listed against a single feeding observation. 20 separate cockatoo feeding observations were found within the Southern area, 5 in the North-Eastern area and 7 in the North-Western area (see Table 3).

5. *Table 3: Statistical Summary of Feeding Signs on Marri Seeds/Capsules*

Species Suspected of Feeding on Marri Capsule	Number of Feeding Signs Identified	Percentage (%)
Forest Red-Tail Black Cockatoo	32	84.2
Red Capped Parrot	6	15.7

6. Assessment of Management Plan Progress

For the duration of the reporting period, the management and monitoring performed at the TBG offset property has been conducted in accordance with the requirements of the OMP. Monitoring has confirmed that the area is free from noxious weeds and signs of dieback, and that fuel loads are below the threshold requiring active fuel reduction. The monitoring data collected during the period demonstrates that the offset area contains habitat that is suitable for black cockatoos. The density of cockatoo habitat has naturally increased within the Southern area following the exclusion of livestock. An active revegetation campaign has begun in the North-Western and North-Eastern areas to increase the habitat density to meet the OMP target and will continue through the next reporting period.

7. Risk Assessment

No changes have occurred to the risk assessment contained in the OMP.

8. Incidents

No incidents have occurred that effect the implementation of, or likelihood of the OMP being successful.

9. Recommendations

The recommendations made in this report are summarised below:









1. Continue to monitor all areas of the offset property as required by the OMP.
2. Continue to implement dieback and weed hygiene procedures as described in the OMP.
3. To meet the target OMP threshold of 1,000 stems/Ha across the offset property, continue to implement a staged, 3-year active revegetation program for the North-Eastern and North-Western areas. This program consists of:
 - 2021-2022 reporting period (previous and current period).
 - blanket herbicide applications in Autumn and Spring 2021 and Autumn and Winter 2022 (complete).
 - 2022-2023 reporting period.
 - surface ripping to promote seed germination in July 2022.
 - seed broadcasting and seedling planting in August 2022.
 - 2023-2024 reporting period
 - infill seedling planting in Spring 2023 (as recommended by monitoring results from 2022-2023).







References








- Blackwood Basin Group, 2017a. *Offset Management Plan (Site Rehabilitation and Environmental Monitoring Plan) H5115 Boyup Brook-Cranbrook Rd Tonebridge*. Revision 1.3 20 November 2017. Boyup Brook: Blackwood Basin Group Inc.
- Blackwood Basin Group, 2017b. *2017 Offset Management Annual Report H5115 Boyup Brook – Cranbrook Road Tonebridge*. 29 August 2017. Boyup Brook: Blackwood Basin Group Inc.
- Blackwood Basin Group, 2018. *2018 Offset Management Annual Report H5115 Boyup Brook-Cranbrook Rd Tonebridge*. Boyup Brook: Blackwood Basin Group Inc.
- Blackwood Basin Group, 2019. *2019 Offset Management Annual Report H5115 Boyup Brook-Cranbrook Rd Tonebridge*. Boyup Brook: Blackwood Basin Group Inc.
- Blackwood Basin Group, 2020. *2020 Offset Management Annual Report H5115 Boyup Brook-Cranbrook Rd Tonebridge*. Boyup Brook: Blackwood Basin Group Inc.
- Blackwood Basin Group, 2021. *2021 Offset Management Annual Report H5115 Boyup Brook-Cranbrook Rd Tonebridge*. Boyup Brook: Blackwood Basin Group Inc.

Appendices

Appendix 1: Cockatoo Habitat Density monitoring photo-point results (Oct 2021)

South 1 Quadrat	
North East facing 	South West Facing 
South 2 Quadrat	
North East facing 	South West Facing 
South 3 Quadrat	
North East facing 	South West Facing 
South 4 Quadrat	
North East facing 	South West Facing 

North West 1 Quadrat	
<p>North West facing</p> 	<p>South East Facing</p> 
North West 2 Quadrat	
<p>North East facing</p> 	<p>South East Facing</p> 
North West 3 Quadrat	
<p>North East facing</p> 	<p>South East Facing</p> 
<p>North East facing Photo missing</p>	<p>South East Facing Photo missing</p>

North East 1 Quadrat	
<p>North East facing</p> 	<p>South West Facing</p> 
North East 2 Quadrat	
<p>South West Facing</p> 	
North East 3 Quadrat	
<p>North East facing</p> 	<p>South West Facing</p> 
North East 4 Quadrat	
<p>North East facing</p> 	<p>South West Facing</p> 

Appendix 2: Fencing monitoring photo-point results (Oct 2021)

North West Block - NW1



North West Block - NW2



North West Block - NW3



North East Block - NE1



North East Block - NE2



North East Block - NE3



South Block - S1



South Block - S2



South Block - S3



South Block - S4



South Block - S5





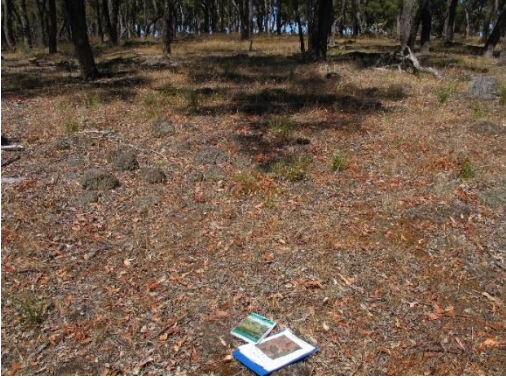



South Block - S6



South Block - S7



Appendix 3: Fuel load monitoring photo-point results (Dec 2020)

<p style="text-align: center;">North West Block – 1</p> 	<p style="text-align: center;">North West Block – 2</p> 
<p style="text-align: center;">North West Block – 3</p> 	<p style="text-align: center;">North West Block – 4</p> 
<p style="text-align: center;">North East Block – 1</p> 	<p style="text-align: center;">North East Block – 2</p> 

North East Block – 3



South Block – 1



South Block – 2



South Block – 3



South Block – 4



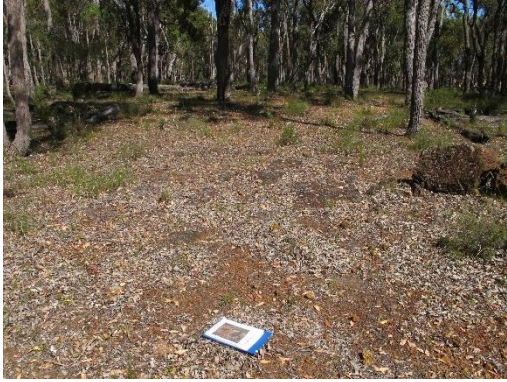
South Block – 5



South Block – 6



South Block – 7



South Block - 8



South Block – 9



South Block – 10



Appendix 4: Herbicide Application Photos (May 2021)



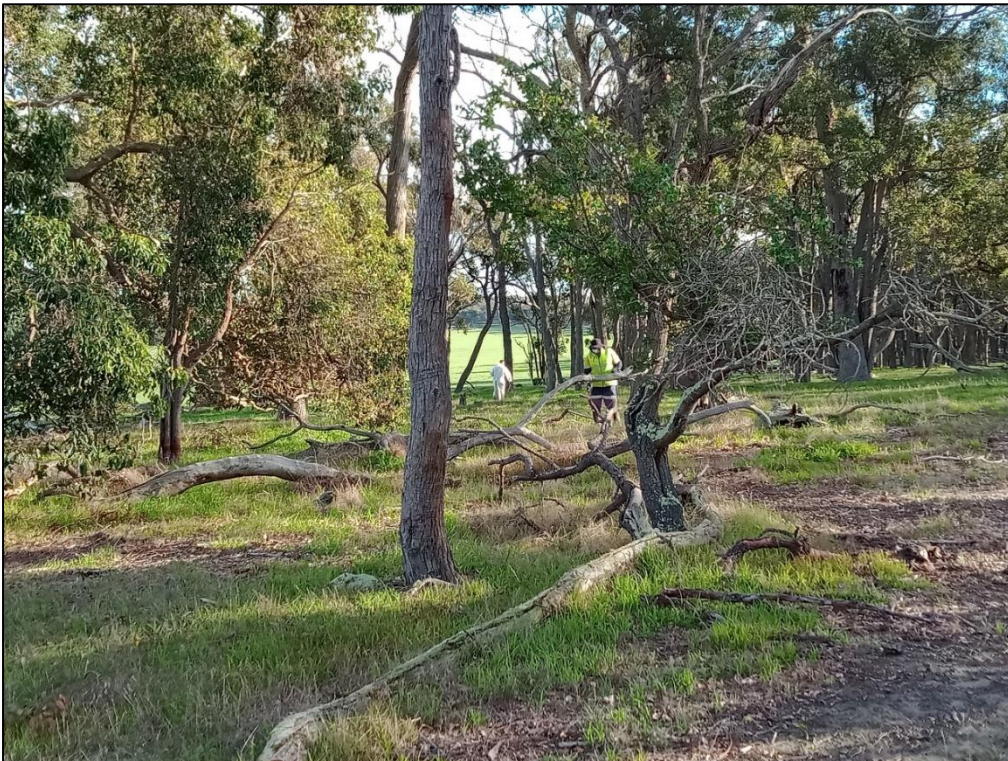
North Eastern Block – looking North



North Eastern Block – looking West



North Eastern Block – looking West



North Eastern Block – looking North West

Appendix 5: Post Herbicide Application Photos (August 2021)



North Western Block looking south



Northern block – southern end looking north